

# Section 3.15

## Water Quality, Sediments, and Oceanography

### SECTION SUMMARY

This section identifies the existing water quality, sediment conditions, and oceanographic conditions in the area of the proposed Project and alternatives and addresses potential impacts that could result from implementing the proposed Project or an alternative. The primary features of the proposed Project and alternatives that could affect these resources include the following: dredging of approximately 21,000 cubic yards at Berths 214–216 and 6,000 cubic yards at Berths 217–220; installation of sheet piles and king piles; backlands improvements; and operation of the terminal until 2026.

Section 3.15, Water Quality, Sediments, and Oceanography, provides the following:

- a description of the existing water and sediment quality in the Los Angeles-Long Beach Harbor (LA/LB Harbor);
- a description of the existing oceanographic parameters in the LA/LB Harbor;
- a description of applicable local, state, and federal regulations and policies regarding water quality and sediment quality;
- a discussion on the methodology used to determine whether the proposed Project or alternatives would adversely affect water quality, sediment quality, or circulation in the proposed project area;
- an impact analysis of both the proposed Project and alternatives; and
- a description of any mitigation measures proposed to reduce any potential impacts, as applicable.

#### Key Points of Section 3.15:

The proposed Project would improve an existing container terminal, and its operations would be consistent with other uses and container terminals in the proposed project area. The alternatives evaluated included the No Project Alternative, the No Federal Action Alternative, and a Reduced Project Alternative. Construction activities with the potential to impact water quality include dredging and installation of sheet piles and king piles. Potential impacts on water quality from construction include runoff and accidental spills. Potential water quality impacts from operational activities include runoff, vessel spills, illegal discharges, and contaminant escape (leaching). The analysis determined potential impacts were less than significant, and no mitigation was required.

## 3.15.1 Introduction

This section addresses the potential impacts on water quality, sediments, and circulation that would result from implementing the proposed Project or any alternatives. This section also addresses surface water hydrology and potential for flooding impacts. Potential impacts on groundwater are discussed in Section 3.8, Groundwater and Soils.

## 3.15.2 Environmental Setting

### 3.15.2.1 Regional Setting

The proposed Project is located in the Dominguez Watershed, which drains approximately 132 square miles (342 square kilometers). The Dominguez Watershed drains to the Los Angeles/Long Beach Harbor (LA/LB Harbor) which, for water quality regulatory purposes, is considered the receiving water area for the watershed. Los Angeles Harbor (the Harbor) has been physically modified through previous dredging and filling projects, as well as construction of breakwaters, fills, and other structures.

The proposed project site is located on Terminal Island, within an industrial area near the East Basin and Turning Basin in the Harbor. Areas of Los Angeles Harbor have been designated as either Inner or Outer Harbor Habitat, based on biological surveys of LA/LB Harbor, with Outer Harbor areas representing more valuable, biologically productive habitat. Inner Harbor habitat occurs mostly north of the Vincent Thomas Bridge, but is also found in Fish Harbor, at Cabrillo Marina, in the East Channel, and in a few relatively small blind slip areas off the Main Channel (refer to Figures 2-1 and 2-2). In the proposed project area, waters off Berths 214–221 at the YTI Terminal are considered Inner Harbor habitat, while the waters off Berths 222–224 are considered Outer Harbor habitat (LAHD 2004). Both the Los Angeles Harbor and the Long Beach Harbor function oceanographically as one unit due to a connection via Cerritos Channel and because they share Outer Harbor waters. In addition, there is an opening in the Pier 400 causeway designed to enhance tidal circulation.

The LA/LB Harbor oceanographic unit has two major hydrologic divisions: marine and freshwater. The marine hydrologic division is primarily influenced by the Southern California coastal marine environment known as the Southern California Bight. The main freshwater influx into the Harbor is through Dominguez Channel. Another freshwater contributor to the Harbor is the discharge of effluent from the Terminal Island Water Reclamation Plant (TIWRP) into the Outer Harbor. Sheet runoff, storm drain discharges from several large City and County drains, and spillover from the Lake Machado weir also add freshwater to the Harbor during and after storm events.

The waters of LA/LB Harbor are governed by the Los Angeles Regional Water Quality Control Board (RWQCB) Basin Plan and applicable statewide plans, which serve as the state Water Quality Management Plan. The existing beneficial uses of the waters of Inner Los Angeles Harbor, as identified in the *Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan), include: industrial service supply, navigation, noncontact water recreation, commercial and sportfishing, marine habitat, and preservation of rare and endangered species (Los Angeles RWQCB 1994). Section 303(d) of the Clean Water Act (CWA) requires states (as well as territories and authorized tribes) to develop lists of “impaired waters,” or those that fail to meet applicable water quality standards. The CWA also

1 requires the establishment of total maximum daily loads (TMDLs) for impaired water  
2 bodies. TMDLs and allocations for these types of pollutants are normally set in terms of  
3 long-term mass loading levels, and the state and U.S. Environmental Protection Agency  
4 (EPA) work with stakeholders to weigh many factors in setting waste load and load  
5 allocations. A TMDL is defined as “the sum of the individual waste load allocations for  
6 point sources and load allocations for nonpoint sources and natural background”(40 CFR  
7 Section 130.2) such that the capacity of the water body to assimilate pollutant loadings is  
8 not exceeded. Upon establishment of TMDLs, the state is required to incorporate the  
9 TMDLs along with appropriate implementation measures into the state Water Quality  
10 Management Plan (40 CFR Sections 130.6(c)(1), 130.7). TMDLs are divided among  
11 existing (and potentially future) loading sources through an allocation process.

12 Water quality data for the Dominguez Channel and LA/LB Harbor have been evaluated  
13 by the Los Angeles RWQCB and EPA as part of the assessment of impaired water bodies  
14 of the nation under CWA Section 303(d). Consequently, the 2010 Section 303(d) List  
15 identified numerous toxicants as pollutants or stressors to the Harbor’s waters. California  
16 listing policy allows for the inclusion of pollutants not yet identified by listing designated  
17 use impairments such as sediment toxicity, beach closures, and benthic community  
18 effects. The Los Angeles/Long Beach Inner Harbor waters (which includes the waters in  
19 the proposed project area) were listed for: beach closures, sediment toxicity, and benthic  
20 community effects; the pesticide DDT and polychlorinated biphenyls (PCBs) in fish  
21 tissue; the polynuclear aromatic hydrocarbons (PAHs) benzo(a)pyrene and chrysene in  
22 sediments; and the metals copper and zinc in sediments (SWRCB 2010).

23 The Los Angeles RWQCB previously amended the Basin Plan (Resolution No.  
24 2004-011) to incorporate a TMDL for bacteria at Los Angeles Harbor, including Inner  
25 Cabrillo Beach and the Main Ship Channel (effective 2005). The Basin Plan was also  
26 amended (Resolution No. R11-008) to incorporate the TMDL for toxic pollutants in  
27 Dominguez Channel and the LA/LB Harbor; this TMDL became effective on March 23,  
28 2012.

29 The water and sediment quality parameters that could be affected directly by the  
30 proposed Project and alternatives include dissolved oxygen (DO), hydrogen ion  
31 concentration (or acidity/alkalinity [pH]), turbidity/transparency, and contaminants.  
32 Water and sediment quality parameters that could be indirectly affected by the proposed  
33 Project and alternatives include nutrients and contaminants. Dredging releases and  
34 distributes nutrients and contaminants in the sediments during dredging operations, and  
35 removes nutrients and contaminants from the system when sediments are dredged. Other  
36 parameters commonly used to describe marine water quality include salinity and  
37 temperature. While the proposed Project and alternatives would not directly affect  
38 salinity and temperature, they are addressed because stormwater runoff from the  
39 proposed project site could affect these conditions in the receiving waters surrounding  
40 Berths 212–224.

### 41 **3.15.2.2 Water Quality**

42 Water quality conditions in the LA/LB Harbor and proposed project area have been  
43 summarized from the Water Resources Action Plan (WRAP) (POLA and POLB 2009),  
44 results of monthly water quality sampling conducted by the Los Angeles Harbor  
45 Department in 2012 (LAHD 2013), the 2008 San Pedro Bay biological baseline study  
46 (SAIC 2010), and other sources as cited below. Use of data from 2012 (and earlier for

1 some parameters) to approximate conditions for the CEQA baseline is appropriate  
2 because the CEQA baseline period is January through December 2012. For some  
3 parameters, data are only collected periodically, so earlier data (e.g., from 2000 and  
4 2008) are provided for context. Data from these studies have also been included because  
5 the reports provided analysis of spatial patterns in the Harbor. LAHD conducted monthly  
6 water quality sampling at several stations in the Harbor from January through December  
7 2012, including in the proposed project area. These included three stations (LA 30, LA  
8 41, and LA 47) in the channel adjacent to the YTI Terminal (Figure 3.15-1).

9 No natural freshwater surface features occur at the proposed project site or the remainder  
10 of Terminal Island. Surface fresh water generated at or near the proposed project site is  
11 from stormwater runoff, which occurs episodically following rain events. Runoff from  
12 the YTI Terminal is collected by a stormwater system (consisting of catch basins and  
13 drain pipes) that drains into Harbor waters. The quality of the runoff water may reflect  
14 loadings from oils, grease, hydrocarbons, dissolved metals, and particulate matter  
15 associated with the operation of vessel loading/unloading facilities, container storage and  
16 cargo handling areas, and runoff from streets immediately adjacent, which accumulate on  
17 the land surfaces during periods of dry weather.

18 Marine water quality in the LA/LB Harbor is primarily affected by climate, circulation  
19 (including tidal currents), and biological activity. Parameters such as salinity, pH,  
20 temperature, and transparency/turbidity are influenced primarily by large-scale  
21 oceanographic and climatic conditions, while DO and nutrients are related to both local  
22 processes and regional conditions. Results from the 2008 biological baseline study  
23 indicated that water quality characteristics within the LA/LB Harbor did not exhibit large  
24 spatial trends, and the variability of water quality parameters appeared to be related to  
25 water temperature rather than habitat types (SAIC 2010).

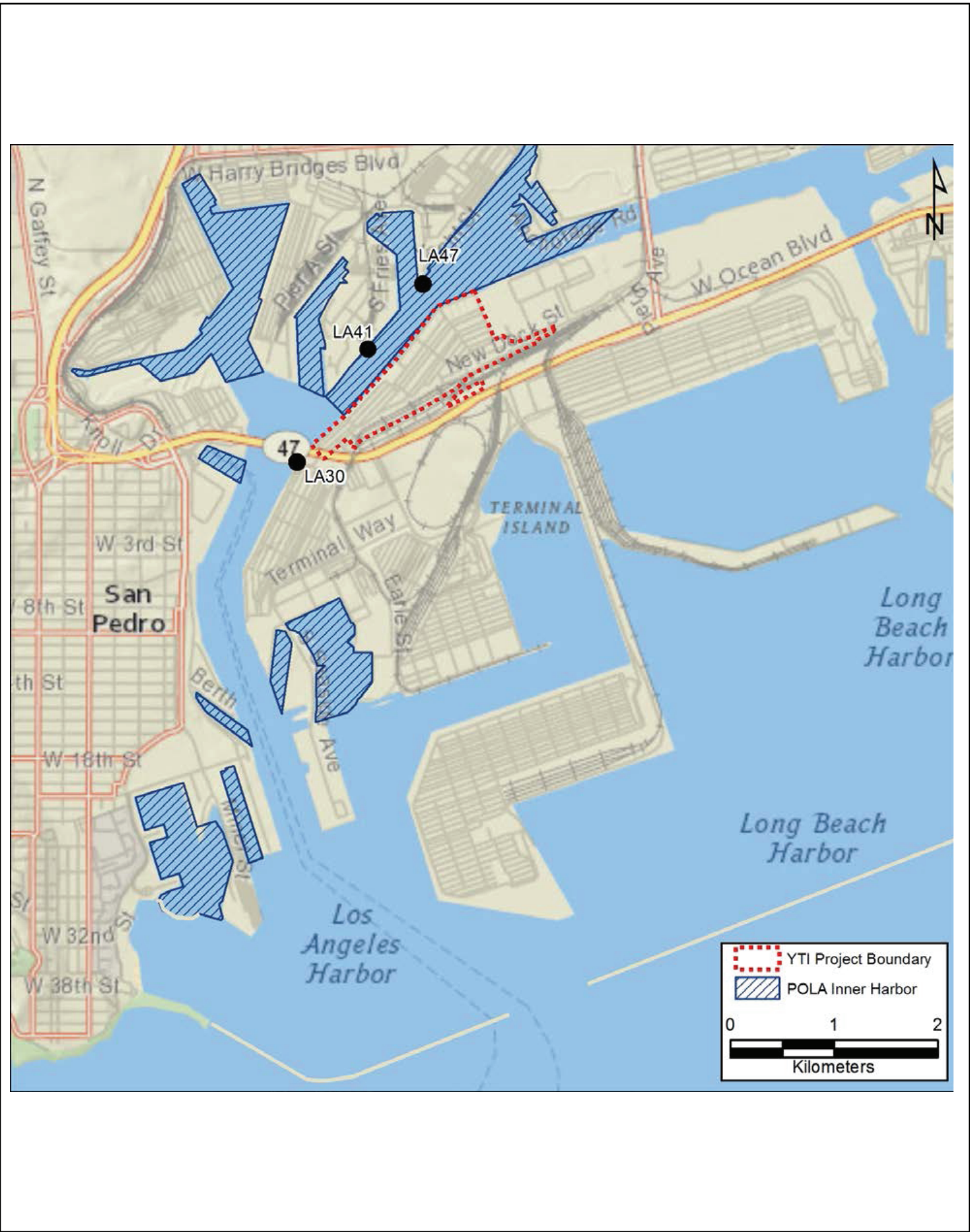
## 26 **Dissolved Oxygen**

27 Dissolved oxygen (DO) is a measure of the amount of oxygen dissolved in water that is  
28 available to support the marine ecosystem, and is used as a principal indicator of marine  
29 water quality. Concentrations vary in response to a variety of processes and conditions,  
30 such as:

- 31       ▪ respiration of aquatic plants and other organisms;
- 32       ▪ oxygen demand from waste discharges;
- 33       ▪ surface water mixing through wave action;
- 34       ▪ diffusion rates at the water surface;
- 35       ▪ water depth; and
- 36       ▪ disturbance of anaerobic bottom sediments (those with little or no oxygen).

37 The Basin Plan (Los Angeles RWQCB 1994) specifies that the mean annual DO  
38 concentration of inland surface waters, including bays and estuaries, in the coastal  
39 watersheds of Los Angeles and Ventura Counties, shall be 7 milligrams per liter (mg/L,  
40 equivalent to parts per million [ppm]) or greater with no event less than 5 mg/L (except  
41 when natural conditions cause lesser concentrations), and the mean annual DO  
42 concentration in the Outer Harbor area shall be 6 mg/L or higher. Current DO  
43 concentrations throughout the LA/LB Harbor generally exceed the 5-mg/L standard, with

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Source: SAIC, 2010



**Figure 3.15-1**  
**Location of Inner Harbor Habitat Areas in Los Angeles Harbor and**  
**Sampling Stations LA30, LA41, and LA47**  
**Berths 212-224 (YTI) Container Terminal Improvements Project**



1 average values in the 6 to 8 mg/L range, values just under 7 mg/L typical at Inner Harbor  
2 stations, and just over 7 mg/L at Outer Harbor stations (POLA and POLB 2009).

3 During monthly sampling events in 2012 at three stations off the YTI Terminal, DO  
4 concentrations ranged from 3.8 to 8.5 mg/L, with mean values at each station between 5.7  
5 and 5.9 mg/L (Figure 3.15-2; LAHD 2013). Most of the lowest oxygen levels (less than  
6 5 mg/L) were recorded in fall and winter (from August to December). The lowest value  
7 (3.8 mg/L) was recorded at a depth of one meter in October 2012 across the channel from  
8 Berth 213.

## 9 pH

10 Acidity or alkalinity in liquid is expressed as hydrogen ion concentration, or pH. In the  
11 ocean, pH typically remains fairly constant due to the buffering capacity of seawater  
12 (Sverdrup et al. 1942). It is affected by plant and animal metabolism, by mixing with  
13 water with different pH values from external sources and, on a small scale, by  
14 disturbances in the water column that cause redistribution of waters with varying pH  
15 levels or the resuspension of bottom sediments. In the ocean, pH levels typically range  
16 from 8.0 to 8.3.

17 The pH and buffering capacity at the proposed project site are similar to that of the ocean  
18 because the LA/LB Harbor is directly connected to and exchanges seawater with the  
19 Pacific Ocean. However, in general, lower pH values are usually recorded in Inner  
20 Harbor areas than in Outer Harbor areas (Lyons and Birocik 2007). The Los Angeles  
21 RWQCB has established an acceptable range of 6.5 to 8.5 with a change in tolerance  
22 level of no more than 0.2 due to discharges (e.g., proposed project impacts) in bays or  
23 estuaries (Los Angeles RWQCB 1994). During approximately monthly sampling  
24 between January and December 2012 at three stations off the YTI Terminal, mean station  
25 pH ranged narrowly from 8.17 to 8.21, with a maximum range between 7.38 and 8.91  
26 units (LAHD 2013).

## 27 Transparency

28 Transparency is a measure of water clarity or the ability of light to pass through water.  
29 Transparency can be determined by evaluating turbidity and/or transmissivity, and can be  
30 measured in several ways.

- 31 ▪ Secchi disk: a visual assessment whereby a person determines the depth in the  
32 water column that a black and white (secchi) disk can be seen from the surface;
- 33 ▪ Transmissometer: an electronic instrument that measures light attenuation by  
34 water as a percent of light transmission;
- 35 ▪ Turbidimeter (or nephelometer): an instrument that measures turbidity, or the  
36 muddiness or cloudiness of water expressed as a standard unit of measure  
37 (nephelometric turbidity units [NTUs]), which quantifies the diffraction of light  
38 by particles suspended in the water; and
- 39 ▪ Total suspended solids (TSS): The measurement of the amount (mass) of  
40 suspended material, including sediments and organic solids, such as algae and  
41 detritus in water, and is measured in mg/L.

42 The Los Angeles Region Basin Plan prohibits turbidity (solids) from adversely affecting  
43 beneficial uses or causing nuisances, and sets allowable increases in turbidity based on

1 ambient conditions (Los Angeles RWQCB 1994). For instance, when natural turbidity is  
2 between 0 and 50 NTUs, increases cannot exceed 20%, and when turbidity is greater than  
3 50 NTUs, increases cannot exceed 10%. The Basin Plan also allows for exceptions  
4 during issuance of Waste Discharge Requirements (WDRs).

5 Increased turbidity usually results in decreased transparency. Turbidity generally  
6 increases because of one or a combination of the following conditions: fine sediment  
7 from terrestrial runoff or resuspension of fine bottom sediments by currents or  
8 disturbance; algal blooms; and dredging activities. Propeller wash from ships moving in  
9 and out of the Harbor is also a source of mixing in the water column that may temporarily  
10 disturb bottom sediments and affect transparency, especially in narrower channels in the  
11 Inner Harbor.

12 Historically, water clarity in the Harbor has varied tremendously, with secchi disk  
13 readings ranging from 0 to 40 feet (0 to 12 meters). However, water clarity has been  
14 fairly consistent for the last 40 years, with a slight increase from 1968 to 2006 (USACE  
15 and LAHD 2007, Berths 136–147 [TraPac] Container Terminal Project DEIS/DEIR).  
16 During approximately monthly sampling between January and December 2012 at three  
17 stations off the YTI Terminal, mean station light transmission ranged from 65.2% to  
18 71.1%, with a maximum range between 25.1% and 82.8% (LAHD 2013). Light  
19 transmission varied little, with mean values among four depth strata ranging between  
20 63.5% and 69.9% (Figure 3.15-2). Turbidity was also measured between January and  
21 December 2012. Mean turbidity at the three stations ranged between 1.3 and 1.8 NTUs,  
22 with a range throughout the water column between 0.3 and 8.7 NTUs. Highest values  
23 were recorded near the surface in April and August.

24 Total suspended solids—a measure of filterable solids in water—was measured monthly  
25 at two of the three stations off the YTI Terminal (Stations LA 30 and LA 47) in 2012;  
26 results ranged from 1.0 to 7.1 ppm (LAHD 2013). A Harbor-wide monitoring study of  
27 contaminant levels in Harbor waters was performed in May 2012. Grab samples were  
28 collected at the surface and at mid-depth at each station. At the three stations nearest to  
29 the YTI Terminal (Stations LA 30, LA 41, and LA 47), TSS concentrations ranged from  
30 2.2 to 13.3 mg/L (AMEC 2012).

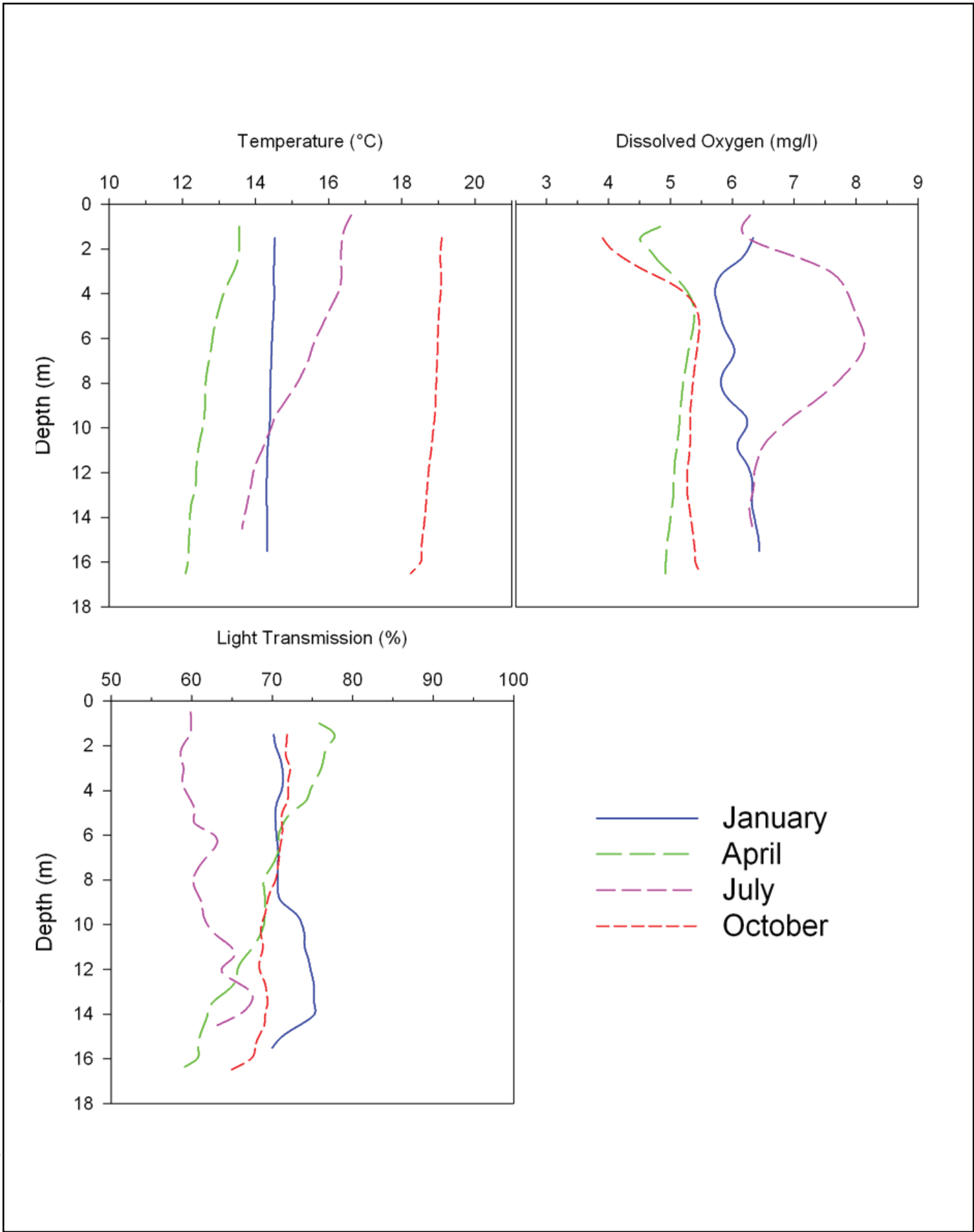
### 31 **Chemical and Biological Contaminants**

32 Contaminants in Harbor waters can originate from a number of sources in and outside the  
33 Harbor. Potential sources of trace metals and organics include: municipal and industrial  
34 wastewater discharges, stormwater runoff from drainage channels (e.g., Dominguez  
35 Channel) and storm drains, local surface and storm drain runoff from within the Port area,  
36 municipal wastewater treatment effluents (i.e., TIWRP), dry weather flows, leaching  
37 from antifouling paints (applied to ship hulls to prevent growth of attached organisms,  
38 such as barnacles and mussels), petroleum or waste spills, atmospheric deposition, and  
39 resuspension of bottom sediments containing legacy (i.e., historically deposited)  
40 contaminants such as DDT and PCBs. In general, operational controls required of  
41 dischargers, and both non-structural and structural controls of stormwater runoff and  
42 discharge sources have reduced the input of contaminants into the Harbor over time.

43 Most of the dissolved or particulate organic contaminants that enter the Harbor have a  
44 low solubility in water and adsorb onto (adhere to the surface of) particulate matter that  
45 eventually settles to the bottom and accumulates in bottom sediments. Routine



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Source: LAHD, 2013



**Figure 3.15-2**  
Temperature, Dissolved Oxygen, and Light Transmission off the YTI Terminal (Station LA 30) in January, April, July, and October 2012 Berths 212-224 (YTI) Container Terminal Improvements Project



1 maintenance dredging, capital improvement dredging, and channel deepening projects in  
2 the Harbor, including the Deep Draft Navigation Improvement Program and the Port of  
3 Los Angeles Channel Deepening Project, resulted in a net removal of contaminated  
4 sediments from the Harbor (USACE and LAHD 1992; POLA and POLB 2009). In  
5 addition, some contaminated sediment areas have been covered by less contaminated  
6 sediments as part of construction of landfills or shallow water habitat (e.g., Cabrillo  
7 Shallow Water Habitat), thereby isolating contaminated sediments from exchange with  
8 the overlying water.

9 A study of ambient water contaminant levels in LA/LB Harbor waters was performed  
10 beginning in 2005. With the exception of copper in 5 of 253 samples from throughout  
11 the LA/LB Harbor, concentrations of dissolved metals did not exceed regulatory criteria  
12 for continuous or maximum exposure (POLA and POLB 2009). Copper was detected  
13 above California Toxics Rule (CTR) criteria in water samples from two locations in the  
14 Harbor—two in the Cabrillo Marina complex (including one sample that exceeded the  
15 higher maximum exposure criteria) and one in Fish Harbor. Concentrations of dissolved  
16 or particulate organic chemicals (including chlorinated pesticides, PCBs, PAHs, phenols,  
17 and phthalates) were consistently very low or not detected in the water column (POLA  
18 and POLB 2009). During the study of contaminants in waters throughout the LA/LB  
19 Harbor, the antifouling biocide tributyltin (TBT) was detected in 9 of 205 samples  
20 collected in the Harbor, with concentrations of TBT in seven of those samples that  
21 exceeded the published National Ambient Water Quality Criteria chronic exposure limit  
22 (7.4 mg/L; no California-specific criteria, including California Toxics Rule, exist for  
23 TBT). Those seven locations, primarily within the Inner Harbor, were in areas typified  
24 by limited water circulation. Concentrations of other organic chemicals were low when  
25 detected, and concentrations of these contaminants were not a concern in the waters of  
26 the LA/LB Harbor (POLA and POLB 2009). A recent Harbor-wide ambient water  
27 monitoring study of contaminant levels was performed in May 2012. At the three  
28 stations nearest to the YTI Terminal (Stations LA 30, LA 41, and LA 47), concentrations  
29 of dissolved metals did not exceed regulatory criteria for continuous or maximum  
30 exposure (AMEC 2012). Concentrations of organic chemicals (including chlorinated  
31 pesticides, PCBs, PAHs, phenols, pyrethroids, polybrominated diphenyl ethers  
32 [PBDEs], butyltins and phthalates) were consistently very low, and usually below  
33 detection limits.

34 Water quality regulations have established a set of indicator bacteria designed to be  
35 protective of human health; these include total and fecal coliform bacteria, and  
36 enterococcus. Assembly Bill 411 (AB 411) established minimum protective  
37 bacteriological standards for waters adjacent to public beaches and water-contact  
38 recreational areas. The Basin Plan also includes bacteria standards for water contact  
39 recreation with geometric mean limits for each indicator bacterium. In tests conducted  
40 during seven Harbor-wide sampling events (three wet and four dry season events)  
41 between 2006 and 2008, and during a special study in the East Basin/Consolidated Slip  
42 area in 2009, the vast majority of samples had nondetectable levels of indicator bacteria.  
43 However, bacterial concentrations in excess of AB 411 and Basin Plan criteria were  
44 recorded following storm events. With the exception of the Cabrillo Beach area adjacent  
45 to the federal breakwater in the Outer Harbor, Inner Harbor areas are more susceptible to  
46 elevated bacteria levels than the Outer Harbor, indicating that Dominguez Channel and  
47 other Inner Harbor storm drains are the likely primary source of high bacteria levels  
48 (POLA and POLB 2009). During sampling in May 2012, bacterial concentrations at  
49 three stations off the YTI Terminal were all well below AB 411 standards (AMEC 2012).

## 1                    **Atmospheric Deposition**

2                    Direct atmospheric deposition refers to air pollutants that settle directly on water bodies,  
3                    whereas indirect atmospheric deposition occurs on upland areas where the pollutants  
4                    collect and are later conveyed to water bodies during storm events.

### 5                    ***Atmospheric Deposition of Organic Pollutants***

6                    The atmospheric deposition of pollutants—such as particulates, metals, phthalates, and  
7                    PAHs—has been linked to pollutant loads in Chesapeake Bay and the Great Lakes (The  
8                    Delta Institute 2000; Batiuk 2011). In response to such research, California air and water  
9                    regulators have also begun to examine the role of atmospheric deposition in California  
10                    waters (both fresh and marine). Still, only limited studies have been undertaken to  
11                    measure the role of atmospheric deposition in pollutant transport or its contribution to  
12                    pollutant loading in the LA/LB Harbor (POLA and POLB 2009). Deposition  
13                    mechanisms are not understood for all potential pollutants, and the assessment of actual  
14                    concentrations of such pollutants is not complete. The California Air Resources Board  
15                    (CARB) and State Water Resources Control Board (SWRCB) are in the process of  
16                    examining the need to regulate atmospheric deposition to protect both fresh and saltwater  
17                    bodies from pollution.

### 18                    ***Atmospheric Deposition of Metals***

19                    Indirect dry deposition of metals on land within a watershed can influence stormwater  
20                    quality in urban areas and can subsequently affect the water quality in downstream water  
21                    bodies. Sabin et al. (2005) determined trace metal loads from indirect dry deposition to  
22                    land (not directly to the water surface) of the Los Angeles River, Dominguez Channel,  
23                    and Ballona Creek watersheds were far larger than the estimated trace metal loads found  
24                    in stormwater emanating from the same watersheds, which agreed with results from  
25                    previous studies. Heavy metals from road dust, tire wear, and construction dust adsorb  
26                    on particulates that are greater than 10 microns in diameter that settle in the watershed,  
27                    and then are washed into bodies of water in storm runoff (Bishop 2006; Stolzenbach  
28                    2006; Sabin et al. 2007). Direct atmospheric deposition of vanadium and nickel as a  
29                    result of marine vessels burning crude oil has been linked to concentrations observed in  
30                    air and rainwater (Poor 2002). In contrast to indirect aerial deposition, direct aerial  
31                    deposition of metals onto the water surface is a minor source of pollutants in the water  
32                    (Sabin et al. 2005).

### 33                    **Aqueous Sources of Contaminants**

34                    Potential contaminants in the Harbor might be derived from sources such as permitted  
35                    discharges, nonpoint source runoff, illicit dumping of wastes, and leaching of  
36                    contaminants from sediments into the overlying waters. Data from the Los Angeles  
37                    RWQCB indicate that permitted discharges to the Dominguez Channel and Los Angeles  
38                    Harbor include: major NPDES discharge sources (industrial sources with a yearly  
39                    average flow of 0.1 million gallons per day or more); a publicly owned treatment works  
40                    (i.e., TIWRP); refineries; minor discharges (discharges other than major discharges);  
41                    general discharges (covered by general industrial or construction permits); discharges  
42                    covered under individual industrial stormwater permits; and discharges from municipal  
43                    storm drains covered under the Los Angeles County municipal separate storm sewers  
44                    system (MS4) permit. As described above, a number of segments of the bodies of water  
45                    in the Dominguez Watershed and the LA/LB Harbor are listed under Section 303(d) of  
46                    the CWA as impaired, including Inner Cabrillo Beach, Cabrillo Marina, Dominquez

1 Channel (estuary to Vermont), Fish Harbor, Consolidated Slip, and Inner and Outer  
2 Harbor waters.

### 3 **Runoff**

4 Runoff from the proposed project area is collected in catch basins located throughout the  
5 YTI Terminal, and is conveyed toward five separate discharge points along the wharf that  
6 discharge to the East Basin, East Basin Channel, and Cerritos Channel. All drains are  
7 equipped with smart drains to help filter runoff prior to discharge into the harbor waters.  
8 Results from stormwater runoff samples indicate the tenant has complied with the  
9 General Industrial Activities Stormwater Permit during the last two years (YTI 2012,  
10 2013). Three stormwater samples were analyzed at the YTI Terminal during three storm  
11 events in 2011 and 2012:

- 12 ▪ pH ranged from 6.5 to 7.2,
- 13 ▪ Specific conductance ranged between 560 and 2900  $\mu\text{mho/cm}$ ,
- 14 ▪ TSS ranged between 21 and 60 mg/L,
- 15 ▪ Oil & grease ranged from <2 to 3.8 mg/L, and
- 16 ▪ Total organic carbon ranged from 12 to 39 mg/L.

17 All pH, TSS, and oil & grease values were below benchmark values (regulatory criteria  
18 based on potential effects to aquatic life); there are no benchmark values for specific  
19 conductance and total organic carbon.

### 20 **Leachate from Vessel Hulls**

21 Antifouling coatings used on vessel hulls are another source of metals, especially copper  
22 and zinc, to waters of the LA/LB Harbor. Some antifouling paints are designed to slowly  
23 release biocides that prevent settling and growth of fouling organisms on ship hulls,  
24 which otherwise would reduce vessel speeds and increase fuel consumption. Antifouling  
25 paints containing TBT were first manufactured and used in the U.S. in the late 1960s and  
26 were found to prevent fouling on ships for approximately 5 years (International Maritime  
27 Organization 2002). Consequently, TBT has been entering the marine system for more  
28 than 40 years through the leaching of TBT from paint and because of paint removal and  
29 ship repair activities. Tributyltin is also introduced to the aquatic environment through  
30 atmospheric deposition, but actual deposition rates have not been quantified (Mearns et  
31 al. 1991). As discussed above, TBT was detected in 9 of 205 ambient samples collected  
32 in LA/LB Harbor beginning in 2005, with concentrations of TBT in seven of those  
33 samples exceeding the National Ambient Water Quality Criteria chronic exposure limit  
34 of 7.4 mg/L (no California-specific standard, including California Toxics Rule, exists for  
35 TBT).

36 In addition to TBT, there are a variety of other compounds found in antifouling coatings  
37 on vessels that may enter and dock at terminals. The paint coatings used are dependent  
38 on the type of material comprising the hull. TBT or biocide-free silicone-based coatings  
39 are used on aluminum hulls, while copper-based coatings are typically applied to steel,  
40 fiberglass, glass-reinforced plastic composites, and wood hulls. Copper-based coatings  
41 also contain small amounts of zinc, also used as a biocide in antifouling paints, and, as  
42 such, both metals will leach from copper coatings of vessels docking at the terminal  
43 facility. Water sampling near the YTI Terminal conducted in May 2012 as part of the  
44 Port's Enhanced Water Quality Monitoring measured copper concentrations  $\leq 1.5$

1 micrograms per liter ( $\mu\text{g/L}$ ), which is below the chronic toxicity standard of  $3.1 \mu\text{g/L}$ . As  
2 noted above, with the exception of copper in five samples from throughout the LA/LB  
3 Harbor, concentrations of dissolved metals did not exceed regulatory limits (POLA and  
4 POLB 2009).

## 5 **Nutrients**

6 Nutrients are necessary for primary production of organic matter by phytoplankton.  
7 Spatial and temporal variations in phosphates and nitrates change from day to day and are  
8 influenced by the local environment. Sources of nutrients to LA/LB Harbor waters  
9 include wastewater discharges, such as the TIWRP, industrial discharges, and stormwater  
10 runoff, as well as naturally occurring seasonal upwelling events. While dredging can  
11 physically remove nutrient-laden sediments, some of those nutrients can be released into  
12 the water column during dredging as well (Jones and Lee 1981). During a Harbor-wide  
13 water quality survey in May 2012, ammonia ranged from  $<0.02$  to  $0.22$  ppm, nitrate  
14 concentrations ranged from  $<0.01$  to  $0.12$  ppm, nitrite concentrations were below  
15 detection limits ( $<0.01$  ppm), and phosphorus ranged from  $0.049$  to  $0.394$  ppm (AMEC  
16 2012).

## 17 **Temperature**

18 Water temperatures in the LA/LB Harbor show seasonal and spatial variation that reflects  
19 the influence of the ocean, local climate, physical configuration of the harbors, and  
20 circulation patterns. General seasonal trends in water temperature consist of uniform,  
21 cooler temperatures throughout the water column in the winter and spring, and of  
22 stratified, warmer upper water temperatures with cooler waters at the bottom in the  
23 summer and fall. The stratified summer and fall conditions may be attributed to warmer  
24 ocean currents, local warming of surface waters through insolation, and reduced runoff  
25 into nearshore waters.

26 During monthly sampling between January and December 2012 at three stations off the  
27 YTI Terminal, mean station temperatures ranged from  $16.1^{\circ}\text{C}$  to  $16.3^{\circ}\text{C}$  ( $61^{\circ}\text{F}$ ), with a  
28 range throughout the water column from  $12.0^{\circ}\text{C}$  to  $20.2^{\circ}\text{C}$  ( $54^{\circ}\text{F}$  to  $68^{\circ}\text{F}$ ) (LAHD 2013).  
29 Lowest temperatures were recorded near the bottom in April 2012, while warmest  
30 temperatures were recorded near the surface in June 2012. At Station LA 30 there was  
31 little stratification during three of four seasons depicted in Figure 3.15-2. Temperatures  
32 in the inner portions of the LA/LB Harbor occasionally are slightly warmer due to limited  
33 mixing with colder, offshore water masses (MEC and Associates 2002; SAIC 2010).

## 34 **Salinity**

35 Salinity measures the amount of dissolved salts in a water body. Salinities in the LA/LB  
36 Harbor usually range from  $30.0$  to  $34.2$  parts per thousand (ppt), but salinities ranging  
37 from less than  $10$  ppt to greater than  $39$  ppt have been reported (USACE and LAHD  
38 1984). Typical salinity for Southern California coastal waters is around  $33$  ppt. Higher  
39 salinity values in the LA/LB Harbor are generally associated with evaporation in warm  
40 months in the farther recesses of the harbors (areas with a reduced rate of exchange with  
41 offshore waters), while lower values are generally found near the surface as a result of  
42 freshwater input, including rainfall, stormwater and urban runoff, and waste discharges.  
43 Fresh water mixes with the seawater due to wind, vessel traffic, tidal currents, and  
44 diffusion, resulting in increasing salinity with distance from the source of the freshwater  
45 plume (AMEC 2007). During monthly sampling between January and December 2012 at

1 three stations off the YTI Terminal, salinity values ranged between 32.4 and 33.9  
2 practical salinity units (psu), which is essentially equivalent to ppt in Southern California  
3 (LAHD 2013).

### 4 **3.15.2.3 Marine Sediments**

5 Sediment quality in the Harbor has been investigated during numerous focused studies  
6 and monitoring efforts since the 1960s (POLA and POLB 2009). Studies have been  
7 conducted for the characterization of dredge material, during regional monitoring  
8 programs, and to locate contamination hotspots. Recent studies included: randomized  
9 sampling studies conducted in 1998, 2003, 2005, and 2006; hotspot characterizations  
10 reported in 2005, 2006, and 2007; and a data gap study reported in 2008 (POLA and  
11 POLB 2009). Data from these studies were summarized in the WRAP and are used to  
12 characterize current conditions in the Harbor. Sediment quality in the LA/LB Harbor  
13 varies widely, and there are localized areas of sediment contamination “hotspots,” which  
14 have driven the 303(d) listings and creation of TMDLs for the harbors (POLB and POLA  
15 2009). Much of the sediment contamination in the LA/LB Harbor is “legacy  
16 contamination” from historic Port activities and watershed inputs (POLA and POLB  
17 2009). Potential sources of sediment contamination include municipal storm drains, the  
18 Dominguez Channel, industrial outfalls, stormwater runoff from Port facilities,  
19 commercial vessels (oceangoing vessels and harbor craft), recreational vessels, aerial  
20 deposition, and the redistribution into the LA/LB Harbor, by ocean currents, of sediments  
21 from outside the harbors (POLA and POLB 2009).

22 Marine biological communities in parts of the Inner Harbor appear to be impacted by  
23 water or sediment chemical concentrations. Results from regional sampling efforts in  
24 2003 and 2008 indicated areas of LA/LB Harbor vary from no sediment toxicity to high  
25 toxicity (Bay et al. 2005; Bay et al. 2010). Although the proposed project area is listed as  
26 impaired pursuant to Section 303(d) of the CWA, the area is not considered a hotspot.  
27 Data from the proposed project vicinity suggests that sediments within the proposed  
28 project area are estimated to be “unimpacted” or “likely unimpacted” as determined by  
29 the integration of chemical, biological, and toxicological data conducted under the  
30 Sediment Quality Objectives evaluation process and based on data from Bay et al. (2005,  
31 2010) and the 2008 biological baseline studies (SAIC 2010).

32 A sediment characterization study was performed at Berths 212–224 in 2013 to determine  
33 the suitability of sediments from the proposed dredge footprint for unconfined aquatic  
34 disposal (AMEC 2013; Appendix F, Sediment Characterization Report). Sediments were  
35 collected and tested using standard EPA/USACE protocols according to an approved  
36 Sampling and Analysis Plan (SAP). Eight core samples were collected within the  
37 proposed dredge footprint and combined into two samples (Composite Areas A and B)  
38 (Figure 3.15-3). Area A was at Berths 214–216, and Area B was at Berths 217–220.  
39 Testing indicated that sediment contaminant levels from the dredge footprint were  
40 relatively low, with only a few minor exceedances of “Effects Range-Low” (ERL) levels,  
41 concentrations above which effects to biota could occasionally occur (Table 3.15-1). No  
42 concentrations exceeded “Effects Range-Median” (ERM) levels that represent a probable  
43 effects range within which effects to biota could frequently occur. In addition to  
44 chemical analysis, toxicity testing on sediments from the two composites showed no  
45 statistically or ecologically significant effects, while tissue bioaccumulation results were  
46 well below U.S. Food and Drug Administration (FDA) action levels and the levels of

1 concern reported in the Environmental Residue Effects Database (ERED) (Appendix F,  
2 Sediment Characterization Report).

3 The majority of sediments within the Berths 212–224 footprint complied with the  
4 chemistry, toxicity, and bioaccumulation suitability requirements for ocean disposal  
5 (Title 40 CFR Parts 220–228; Appendix F). Concentrations of most metals and PCBs,  
6 when detected, were higher in Composite Area A than in Area B. After review of the  
7 results, sediments from the bottom portion of Composite Area A were tested for sediment  
8 metals, PAHs, chlorinated pesticides, pyrethroids, and PCBs. Results from this second  
9 phase of testing indicated generally lower levels of sediment contaminants, suggesting  
10 the higher levels were associated with unconsolidated surface (top-layer) sediments of  
11 Composite Area A (AMEC 2014). Therefore, the majority of dredged material (21,800  
12 cubic yards) would be suitable for placement at the LA-2 Ocean Dredged Material  
13 Disposal Site (ODMDS), and approximately two feet of surface sediments from  
14 Composite Area A (5,200 cubic yards) would be placed within the Berth 243–245  
15 Confined Disposal Facility (CDF) or another approved upland location.

**Table 3.15-1: Sediment Chemistry Results**

Sediment Parameter	Type	Units	ERL	ERM	Area A	Area A (bottom only)	Area B
Gravel	Physical Characteristic	%	-	-	ND	NT	ND
Sand	Physical Characteristic	%	-	-	2.91	NT	19.52
Silt	Physical Characteristic	%	-	-	74.20	NT	60.82
Clay	Physical Characteristic	%	-	-	22.89	NT	19.66
Median Grain Size	Physical Characteristic	mm	-	-	0.019	NT	0.033
Total Solids	General Chemistry	%	-	-	72.9	73.5	66.4
Total Organic Carbon	General Chemistry	%	-	-	0.71	NT	0.87
Total Ammonia	General Chemistry	mg/kg	-	-	7.7	NT	2.1
Total Sulfides	General Chemistry	mg/kg	-	-	41	NT	3.1
Soluble Sulfides	General Chemistry	mg/kg	-	-	ND (<0.10)	NT	ND (<0.10)
Arsenic	Metal	mg/kg	<b>8.2</b>	<b>70</b>	<b>8.77</b>	6.35	<b>8.44</b>
Cadmium	Metal	mg/kg	<b>1.2</b>	<b>9.6</b>	0.471	0.383	0.423
Chromium	Metal	mg/kg	<b>81</b>	<b>370</b>	35.2	33.7	32.9
Copper	Metal	mg/kg	<b>34</b>	<b>270</b>	<b>60.1</b>	<b>48.8</b>	<b>54.5</b>
Lead	Metal	mg/kg	<b>46.7</b>	<b>218</b>	27.7	11.1	25.7
Mercury	Metal	mg/kg	<b>0.15</b>	<b>0.71</b>	<b>0.217</b>	0.110	<b>0.171</b>
Nickel	Metal	mg/kg	<b>20.9</b>	<b>51.6</b>	<b>27.3</b>	<b>28.5</b>	<b>22.4</b>
Selenium	Metal	mg/kg	-	-	0.237	0.339	0.415
Silver	Metal	mg/kg	<b>1.0</b>	<b>3.7</b>	0.183	0.112	0.219
Zinc	Metal	mg/kg	<b>150</b>	<b>410</b>	112	85.8	112
C6–C44 TPH	TPH	mg/kg	-	-	ND (<7)	NT	24
TRPH	TRPH	mg/kg	-	-	65	NT	38





Path: R:\2013\Aquatics\POLA\MXD\Berths 214 220 YTI\Working SamplingLocations 214 220 YTI.mxd, jessie.lee 9/30/2013

**Figure 3.15-3**  
**Core Sampling Locations**  
**Berths 212-224 [YTI] Container Terminal Improvements Project**





**Table 3.15-1: Sediment Chemistry Results**

Sediment Parameter	Type	Units	ERL	ERM	Area A	Area A (bottom only)	Area B
Total Detectable PAHs	PAH	µg/kg	<b>4022</b>	<b><u>44,792</u></b>	749	452	657
Total Detectable DDTs	Chlorinated Pesticides	µg/kg	<b>1.58</b>	<b><u>46.1</u></b>	<b>3.1</b>	ND (<1.4)	<b>15.1</b>
Total Detectable PCBs	PCB Congeners	µg/kg	<b>22.7</b>	<b><u>180</u></b>	<b>38.4</b>	ND	0.86
Total Pyrethroids	Pyrethroids	µg/kg	-	-	4.5	0.27*	2.2
Total Phenols	Phenols	µg/kg	-	-	ND (<14)	NT	ND (<15)
Total Phthalates	Phthalates	µg/kg	-	-	232	NT	322
Total Organotins	Organotins	µg/kg	-	-	19.7	NT	25

Source: AMEC 2013

Notes:

**Boldface** - Value exceeds ERL guidelines

**Boldface and Underlined** – Value exceeds ERM guidelines

% - percent

mm - millimeter

mg/kg - milligrams per kilogram

µg/kg - micrograms per kilogram

\* Value ≥MDL but <RL

< - less than

ND - not detected

NT – not tested

TPH - total petroleum hydrocarbons

TRPH - total recoverable petroleum hydrocarbons

PAH - polycyclic aromatic hydrocarbons

DDT - dichlorodiphenyltrichloroethane

PCB - polychlorinated biphenyl congeners

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## Oceanography

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The LA/LB Harbor is a southern extension of the relatively flat coastal plain, bounded on the west by the Palos Verdes Hills. The Palos Verdes Hills offers protection to the bay from prevailing westerly winds and ocean currents. The LA/LB Harbor was originally an estuary that received fresh water from the Los Angeles and San Gabriel rivers. During the past 80 to 100 years, development of the LA/LB Harbor, through dredging, filling, and channelization, has completely altered the local estuarine physiography.

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## Tides

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Tides are sea level variations that result from astronomical and meteorological forces.

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Tidal variations along the coast of Southern California are influenced primarily by the passage of two harmonic tide waves, one with a period of 12.5 hours and the other with a period of 25 hours. This combination of two harmonic tide waves usually produces two high and two low tides each day. The twice daily (semidiurnal) tide of 12.5 hours predominates over the daily (diurnal) tide of 25 hours in the Harbor, generating a diurnal inequality, or mixed semidiurnal tides. This causes a difference in height between successive high and low waters (“water” is commonly used in this context instead of “tide”). The result is two high waters and two low waters each day, consisting of a higher-high water (HHW), a lower-high water (LHW), a higher-low water (HLW), and a lower-low water (LLW).

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The mean tidal range for the Outer Harbor, calculated by averaging the difference between all high and low waters, is 3.81 feet (1.16 meters), and the mean diurnal range, calculated by averaging the difference between all the HHW and LLW, is approximately 5.5 feet (1.68 meters) (NOAA 2013). Mean lower-low water (MLLW) is the mean of all

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1 LLWs, equal to 2.8 feet (0.85 meter) below mean sea level (MSL), and 0.7 feet (0.23  
2 meter) below North American Vertical Datum of 1988 in the Port. MLLW is the datum  
3 from which Southern California tides are usually measured. The extreme tidal range  
4 (between maximum high and maximum low waters) is about 10.5 feet (3.20 meters). The  
5 highest and lowest tides reported are 7.96 feet (2.43 meters) above MLLW and -2.56 feet  
6 (-0.78 meter) below MLLW, respectively (USACE and LAHD 1992). Since 2003, the  
7 highest tide measured at the Los Angeles Harbor tide station (NOAA No. 9410660) is  
8 +7.92 feet (+2.41 meters) MLLW (measured in January 2005), and the lowest was -2.34  
9 feet (-0.71 meter) MLLW, measured in January 2009 (NOAA 2013).

## 10 **Waves**

11 Waves along the Southern California coast can be divided into three primary categories  
12 according to origin: southern hemisphere swell, northern hemisphere swell, and swells  
13 generated by local winds (USACE 1986). The LA/LB Harbor is directly exposed to  
14 ocean swells entering from two main exposure windows to the south and southeast,  
15 regardless of swell origin. The more severe waves from extratropical storms (Hawaiian  
16 storms) enter from a southerly direction. The Channel Islands, including Santa Catalina  
17 Island, provide some sheltering from these larger waves, depending on the direction of  
18 approach. Waves and seas entering the LA/LB Harbor are greatly diminished by the time  
19 they reach the Inner Harbor. Most swells from the southern hemisphere, which  
20 characteristically have low heights and long periods, arrive at Los Angeles from May  
21 through October. Typical swells rarely exceed 4 feet (1.2 meters) in height in deep water.  
22 However, with periods as long as 18 to 21 seconds, they can break at over twice their  
23 deep-water wave height. Northern hemisphere swells occur primarily from November  
24 through April. Significant, deepwater wave heights have ranged up to 20 feet (6.1  
25 meters) but are typically less than 12 feet (3.7 meters), with wave periods generally  
26 between 12 and 18 seconds.

27 Local wind-generated swells are predominantly from the west and southwest. However,  
28 they can occur from all offshore directions throughout the year, as can waves generated  
29 by diurnal sea breezes. Local swells are usually less than 6 feet (1.8 meters) in height,  
30 with wave periods of less than 10 seconds.

31 From January 2003 through June 2013, mean wave height at the Coastal Data  
32 Information Program's (CDIP's) Buoy 92, located 5.5 nautical miles (10.2 kilometers)  
33 south of Point Fermin, was 3.3 feet (1.0 meter) (CDIP 2013). The highest significant  
34 wave heights, measured as the mean height of the largest one-third of the waves in a  
35 specified sampling period, during that same time period ranged between 13.8 feet (4.2  
36 meters) and 15.9 feet (4.8 meters), all recorded in the months of December and January.

## 37 **Circulation**

38 To better understand circulation patterns and watershed inputs into LA/LB Harbor,  
39 LAHD and the Port of Long Beach undertook a program to develop a hydrodynamic and  
40 water quality model for the harbors to improve their predictions of the effectiveness of  
41 current and future control measures (the WRAP Model) (POLA and POLB 2009).

42 Circulation patterns in LA/LB Harbor are established and maintained by tidal currents.  
43 Flood tides in the LA/LB Harbor flow into the Harbor and up the channels (generally  
44 northward), while ebb tides flow down the channels and out of the Harbor (generally  
45 southward) (POLA and POLB 2009). The LA/LB Harbor is protected from incoming

1 waves by the Federal Breakwall, which consists of three breakwaters: the San Pedro,  
2 Middle, and Long Beach Breakwaters. In addition to protecting the ports from waves,  
3 the breakwaters reduce the exchange of the water between the LA/LB Harbor and the rest  
4 of San Pedro Bay, hence creating unique tidal circulation patterns. Modeled current  
5 direction and velocity throughout the LA/LB Harbor during both ebb and flood tides are  
6 summarized in Figure 3.15-3.

## 7 **Flooding**

8 There are three primary flood hazards in the proposed project area: the tidal influence of  
9 the Pacific Ocean, flood flows in the Dominguez Channel, and shallow urban runoff and  
10 localized ponding. Tsunami and seiche are other potential sources of flooding and are  
11 caused by geologic occurrences. Tsunamis, seiches, and the potential for future sea level  
12 rise to affect the proposed project site are addressed in Section 3.5, Geology.

13 The YTI Terminal is primarily located in flood zones X, with portions of the site in the  
14 AE zone. The current Federal Emergency Management Agency (FEMA) Flood  
15 Insurance Rate Maps (FIRMs) identify flooding potential in Zone AE or Zone X. It is  
16 important to note that the two flood zones identified at the proposed project site do not  
17 represent a uniform water surface at a single point in time.

18 The proposed project site is located primarily in Zone X, which consists of areas of 0.2%  
19 annual chance of flood (500-year flood); areas of 1% annual chance flood (100-year  
20 flood) with average depths of less than 1 foot or with drainage areas less than 1 square  
21 mile; and areas protected by levees from 1% annual chance flood. Zone X occurs on site  
22 primarily because precipitation has the potential to create shallow flooding in these  
23 adjacent land and wharf areas until the shallow flooding is collected by storm drainage  
24 systems or until it spills over the edge of the wharf to open water. A portion of the site  
25 along the wharf and in the northwest portion of the site is within Zone AE (Base Flood  
26 Elevation determined EL 9), which is identified as a Special Flood Hazard Area (SFHA)  
27 subject to inundation by the 1% annual chance flood, also known as the base flood, which  
28 has a 1% chance of being equaled or exceeded in any given year (FEMA 2008). The  
29 tidal influence of the Pacific Ocean is the basis for Zone AE (EL 9, NAVD88), which  
30 would be generally limited to the open water areas of the LA/LB Harbor because the  
31 adjacent land and wharf elevations are several feet higher than elevation 9. This zone and  
32 predicted flood elevation extend upstream to the mouth of the Dominguez Channel,  
33 indicating that the tidal influence and channel flood flows are consistent in the proposed  
34 project area.

35 Waters of the Harbor near land, plus some of the landfill margins in other areas of the  
36 Harbor, are mapped within the 100-year flood zone. Adjacent areas on the landfills are  
37 generally within the 500-year flood zone.

## 38 **3.15.3 Applicable Regulations**

### 39 **3.15.3.1 Clean Water Act of 1972**

40 The CWA provides for the restoration and maintenance of the physical, chemical, and  
41 biological integrity of the nation's waters. Discharges of wastes to waters of the United  
42 States (e.g., surface waters) must be authorized through National Pollutant Discharge  
43 Elimination System (NPDES) permits (under Section 402 of the CWA). In California,

1 the SWRCB and the nine RWQCBs have authority delegated by EPA to issue NPDES  
2 permits. California permits are also issued as WDRs as required under California law by  
3 the Porter-Cologne Water Quality Control Act (see below). Section 301(a) of the CWA  
4 prohibits discharges without a permit and is the basis of the NPDES permit program.  
5 Discharges from vessels were previously exempted from the CWA, but in December  
6 2008 EPA issued the first General Permit (described below) (EPA 2008).

7 Section 303 of the CWA requires states to develop water quality standards for all waters  
8 and submit to EPA for approval all new or revised standards established for inland  
9 surface waters, estuaries, and ocean waters. Under Section 303(d), the state is required to  
10 list water segments that do not meet water quality standards and to develop action plans,  
11 called TMDLs, to improve water quality. The SWRCB and the RWQCBs implement  
12 sections of the CWA through the Ocean Plan, the Enclosed Bays and Estuaries Plan, the  
13 nine Water Quality Control Plans (one for each region), and permits for waste discharges.

14 Coordination with the agencies on dredging, permits, and dredged material disposal  
15 would be handled through the Los Angeles Regional Contaminated Sediments Task  
16 Force (CSTF), in accordance with the CSTF Long Term Management Strategy (Anchor  
17 et al. 2005). The RWQCB can issue CWA Section 401 Water Quality Certifications to  
18 certify that actions occurring in waters of the United States would not have adverse water  
19 quality impacts. Permits for the discharge of dredged or fill material in jurisdictional  
20 waters of the United States are issued by USACE under CWA Section 404. Permits  
21 typically include the following conditions to minimize water quality effects:

- 22       ▪ USACE review and approval of sediment quality analysis prior to dredging and  
23       dredged material disposal;
- 24       ▪ detailed pre- and post-construction monitoring plan that includes disposal site  
25       monitoring;
- 26       ▪ return flow that is free of solid dredged material; and
- 27       ▪ compensation for loss of waters of the United States.

28 Disposal of dredged material from the proposed Project (or an alternative) could occur at  
29 the approved CDF at Berths 243–245 under an existing Section 404 permit, or at the LA-  
30 2 Ocean Dredged Material Disposal Site. The Berths 243–245 CDF was previously  
31 authorized under CWA Section 404 by USACE for the Port of Los Angeles Channel  
32 Deepening Project (USACE Permit No. SPL-2008-00662-AOA). Effects from sediment  
33 disposal at LA-2 were evaluated under Section 404 of the CWA and Section 102 of the  
34 Marine Protection, Research and Sanctuaries Act during the site designation process  
35 (EPA 1988), and subsequently evaluated in consideration of higher maximum annual  
36 disposal volume (EPA and USACE 2005).

### 37 **3.15.3.2 Rivers and Harbors Appropriations Act of 1899**

38 The Rivers and Harbors Appropriations Act of 1899 authorizes USACE to exercise  
39 control over all construction projects in navigable waters of the United States. The intent  
40 of the Rivers and Harbors Appropriations Act was originally to protect navigation and  
41 navigable capacity for the purpose of maritime commerce. These objectives were later  
42 expanded to include environmental protection. Sections 9 and 10 of the act (33 U.S.C.  
43 Section 401 et seq.) regulate work and structures in navigable waters of the United States,  
44 including dredging, filling, and bridges. Section 9 relates to bridges and causeways and

1 is administered by U.S. Coast Guard (USCG). Under Section 10, USACE evaluates  
2 impacts on navigation and navigable capacity related to work and structures in navigable  
3 waters of the United States. Work includes activities such as dredging, and structures  
4 may include piers, wharves, overwater cranes, weirs, jetties, outfalls, aids to navigation,  
5 docks, and other structures.

### 6 **3.15.3.3 Marine Protection, Research, and Sanctuaries Act of 1972**

7 Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA)  
8 (33 U.S.C. Section 1401 *et seq.*) regulates the transportation for the purpose of ocean  
9 disposal of dredged material, prohibits ocean disposal of certain wastes without a permit,  
10 and prohibits the disposal of certain materials entirely. Prohibited materials include those  
11 that contain radiological, chemical, or biological warfare agents; high-level radiological  
12 wastes; and industrial waste. The MPRSA includes all U.S. ocean waters in and beyond  
13 the territorial sea (within 12 nautical miles of the nearest shoreline). Section 102 of the  
14 MPRSA authorizes EPA to promulgate environmental criteria for evaluation of all  
15 disposal permit actions, to retain review authority over the USACE-issued MPRSA  
16 Section 103 permits, and to designate ocean disposal sites for dredged material disposal.  
17 Disposal of dredged material at the EPA-approved LA-2 ODMDS would be conducted  
18 only if the dredged material met the permitted volume and sediment quality requirements  
19 for this site, if the disposal was separately approved by EPA, and if beneficial reuse was  
20 unavailable or impractical. Effects to water quality and sediment from disposal of  
21 dredged material at LA-2 were determined to be insignificant during an evaluation of  
22 increased disposal capacity (EPA and USACE 2005).

### 23 **3.15.3.4 Vessel General Permit**

24 EPA regulates the discharges incidental to the normal operation of commercial vessels  
25 greater than 79 feet in length, and operating as a means of transportation, through the  
26 Vessel General Permit (VGP). The VGP was first issued in 2008, and was re-issued in  
27 March 2013; it becomes effective on December 19, 2013. It applies to discharges in  
28 waters of the U.S.

29 The permit specifies the types of discharges that are allowed (and not allowed), who must  
30 obtain coverage under the permit, effluent limitations, corrective actions required to  
31 remedy deficiencies and violations, and the monitoring, record keeping, and reporting  
32 requirements. The VGP covers multiple discharges and waste streams from vessels.  
33 Some of the discharges that are eligible for coverage under the permit include: deck  
34 washdown and runoff, bilgewater (which accumulates in the vessel hull), ballast water,  
35 anti-fouling hull coatings and leachate, chain locker effluent, and graywater (from  
36 showers, baths, sinks, and laundry facilities). Ballast water is discussed in greater detail  
37 in Section 3.3, Biological Resources.

### 38 **3.15.3.5 Coastal Nonpoint Source Pollution Control Program**

39 This is a joint program between EPA and National Oceanic and Atmospheric  
40 Administration (NOAA). Established during reauthorization of the Coastal Zone  
41 Management Act of 1972, the program provides a more comprehensive solution to the  
42 problem of polluted runoff in coastal areas. The program sets economically achievable  
43 measures to prevent and mitigate runoff pollution problems stemming from agriculture,  
44 forestry, urban developments, marinas, hydromodification (e.g., stream channelization),  
45 and the loss of wetland and riparian areas.

### 3.15.3.6 Porter-Cologne Water Quality Control Act of 1972

The Porter-Cologne Water Quality Control Act (or Porter-Cologne Act—California Water Code Section 13000 *et seq.*), which is the principal law governing receiving water quality regulation in California, establishes a comprehensive program to protect water quality and the beneficial uses of state waters. Unlike the CWA, the Porter-Cologne Act covers both surface water and groundwater.<sup>1</sup> Since 1973, the SWRCB and the nine RWQCBs were established by this act and have been delegated the responsibility for implementing its provisions and administering permitted waste discharge into the coastal marine waters of California.

The Porter-Cologne Act also implements many provisions of the CWA, such as the NPDES permitting program. Under the Porter Cologne Act “any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state” must file a report of the discharge with the appropriate RWQCB. The RWQCB may then prescribe WDRs that add conditions related to control of the discharge. The Porter-Cologne Act defines “waste” broadly, and the term has been applied to a diverse array of materials, including non-point source pollution. When regulating discharges that are covered under the CWA, the SWRCB and RWQCBs issue WDRs and NPDES permits as a single permitting vehicle. In April 1991, the SWRCB and other state environmental agencies were incorporated into the California Environmental Protection Agency (Cal/EPA). Section 401 of the CWA gives the SWRCB the authority to review any proposed federally permitted or federally licensed activity that may impact water quality and to certify, condition, or deny the activity if it does not comply with state water quality standards. If the SWRCB imposes a condition on its certification, those conditions (including WDRs) must be included in the federal permit or license.

Standard WDRs include conditions and requirements addressing potential impacts on the existing surface water and groundwater and sediment quality. These conditions are addressed by complying with the requirements of the applicable permit and implementing management programs. The assessment of impacts for dredging and filling is based on these regulatory controls for dredging and filling activities that contain conditions including standard WDRs. More recently, installation of pilings and other associated wharf work that does not require a Section 404 permit from USACE, has required a Section 401 water quality certification from the RWQCB to certify these installations would not violate state water quality standards.

### 3.15.3.7 Bays and Estuaries Plan

Under the California Bay Protection and Toxic Cleanup Act, the SWRCB is required to develop sediment quality objectives for toxic pollutants to protect the condition of enclosed bays and estuaries. The SWRCB issued Part 1 (Sediment Quality) of the *Water Quality Control Plan for Enclosed Bays and Estuaries* in August 2009. Part 1 of this document represents the first phase of the SWRCB’s development of Sediment Quality Objective (SQOs). This first phase (direct effects) is focused on the protection of benthic communities in enclosed bays and estuaries as based on chemical and biological measures to determine if the sediment-dependent biota are protected or degraded from exposure to toxic substances in the sediment (SWRCB 2009). Part 2 (indirect effects) of

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<sup>1</sup> Groundwater is discussed in Section 3.8, Groundwater and Soils.



1 this plan is currently under development and includes a tool for assessing whether  
2 sediment contamination at a site results in an unacceptable health risk to humans because  
3 of the consumption of contaminated fish and shellfish. This program is applicable to all  
4 enclosed bays and estuaries in the state, including the Harbor.

### 5 **3.15.3.8 Water Quality Control Plan, Los Angeles Region** 6 **(Basin Plan)**

7 The Basin Plan (*Water Quality Control Plan: Los Angeles Region Basin Plan for the*  
8 *Coastal Watersheds of Los Angeles and Ventura Counties* [Los Angeles RWQCB 1994])  
9 is designed to preserve and enhance water quality and to protect beneficial uses of  
10 regional waters (inland surface waters, groundwater, and coastal waters such as bays and  
11 estuaries). The Basin Plan designates beneficial uses of surface water and groundwater,  
12 such as contact recreation or municipal drinking water supply. The Basin Plan also  
13 establishes water quality objectives, which are defined as “the allowable limits or levels  
14 of water quality constituents or characteristics that are established for the reasonable  
15 protection of beneficial uses of water or the prevention of nuisance in a specific area.”

16 The Basin Plan specifies water quality objectives for a number of  
17 constituents/characteristics that could be affected by the proposed Project or alternatives.  
18 These include: bioaccumulation, biostimulatory substances (those that promote excessive  
19 aquatic growth, such as algal blooms), chemical constituents, DO, oil and grease,  
20 pesticides, pH, PCBs, suspended solids, toxicity, and turbidity. With the exceptions of  
21 DO and pH, water quality objectives for most of these constituents are expressed as  
22 descriptive rather than numerical limits.

23 The Basin Plan also specifies water quality objectives for other constituents, including  
24 ammonia, bacteria, total chlorine residual, and radioactive substances. These are not  
25 evaluated in this Draft EIS/EIR because the proposed Project and alternatives do not  
26 include any discharges or activities that would affect the water quality objectives for  
27 these parameters.

### 28 **3.15.3.9 State Water Resources Control Board Stormwater Permits**

29 The SWRCB has issued and periodically renews a statewide General Permit for Storm  
30 Water Discharges Associated with Construction and Land Disturbance Activities  
31 (GCASP) and a statewide General Industrial Activities Stormwater Permit (GIASP) for  
32 projects that do not require an individual permit for these activities. The GCASP was  
33 adopted in 2009 and further revised in 2012 (Order No. 2012-0006-DWQ). All  
34 construction activities that disturb one acre or more must prepare and implement a  
35 construction Stormwater Pollution Prevention Plan (SWPPP) that specifies Best  
36 Management Practices (BMPs) to prevent pollutants from contacting stormwater. Best  
37 Management Practices are effective, practical, structural, or nonstructural methods used  
38 to prevent or reduce the movement of sediments, nutrients, and pollutants from land to  
39 surface waters. The intent of the SWPPP and BMPs is to keep all products of erosion  
40 from moving off site into receiving waters, eliminate or reduce non-stormwater  
41 discharges to storm sewer systems and other waters of the United States, and perform  
42 sampling and analysis to determine the effectiveness of BMPs in reducing or preventing  
43 pollutants (even if not visually detectable) in stormwater discharges from causing or  
44 contributing to violations of water quality objectives.

1 The GIASP (Order No. 97-03-DWQ) requires dischargers to develop and implement a  
2 SWPPP to reduce or prevent industrial pollutants in stormwater discharges, eliminate  
3 unauthorized non-storm discharges, and conduct visual and analytical stormwater  
4 discharge monitoring to verify the effectiveness of the SWPPP and submit an annual  
5 report. The GIASP was last issued in 1997. Efforts to update and renew this permit were  
6 initiated in 2011 and are ongoing.

### 7 **3.15.3.10 Los Angeles Municipal Separate Storm Sewer System** 8 **(MS4) NPDES Permit**

9 The agencies that discharge stormwater and non-stormwater (urban runoff) to MS4s in  
10 Los Angeles County are required to obtain and comply with an NPDES permit/WDRs to  
11 meet the NPDES requirements. In Los Angeles County, all of the MS4 agencies except  
12 for City of Long Beach are permitted under a single permit issued to Los Angeles County  
13 and 84 incorporated cities. The permit is the *Waste Discharge Requirements for*  
14 *Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal*  
15 *Watersheds of Los Angeles County, Except Those Discharges Originating from the City*  
16 *of Long Beach MS4* (Order No. R4-2012-0175, NPDES Permit No. CAS004001). The  
17 City of Los Angeles, Department of Public Works, Bureau of Sanitation, Watershed  
18 Protection Division (WPD) implements the MS4 inspection program of  
19 industrial/commercial “critical sources” located within the City of Los Angeles. The Port  
20 of Los Angeles does not assume any liability for General Permit compliance at facilities  
21 within the Port boundary. The current permit was issued on November 8, 2012, and  
22 became effective on December 28, 2012. It was originally issued in 2001 and was  
23 amended in 2006 to incorporate provisions of the Santa Monica Bay Beaches Dry  
24 Weather TMDL. This amendment was voided in 2011 by order of a writ of mandate;  
25 however, this amendment was included in the 2012 permit. The permit was also revised  
26 in 2007 to incorporate provisions of the Marina del Rey Harbor Mother’s Beach and  
27 Back Basins Bacterial TMDL and again in 2009 to be consistent with the Los Angeles  
28 River Watershed Trash TMDL.

29 The permit identifies the implementation of Watershed Management Programs as a  
30 framework for permittees to implement the requirements of the permit in an integrated  
31 and collaborative fashion to address water quality priorities on a watershed scale,  
32 including complying with TMDL provisions and by customizing certain control  
33 measures. The ultimate goal of the Watershed Management Programs is to ensure that  
34 discharges from the Los Angeles County MS4 (1) achieve applicable Water Quality  
35 Based Effluent Limitations that implement TMDLs, (2) do not cause or contribute to  
36 exceedances of receiving water limitations, and (3) for non-storm water discharges from  
37 the MS4, are not a source of pollutants to receiving waters.

### 38 **Development and Construction Program**

39 For construction activities that would result in the disturbance of one acre or more,  
40 permittees must develop, implement, and enforce a program to reduce pollutant runoff in  
41 stormwater. This includes (1) a program to prevent illicit stormwater discharges, (2)  
42 structural and non-structural BMPs to reduce pollutants in runoff from construction sites,  
43 and (3) preventing discharges from causing or contributing to violations of water quality  
44 standards. Permittees are required to review construction site plans to determine  
45 potential water quality impacts and ensure proposed controls are adequate. These include  
46 preparation and submission of an Erosion and Sediment Control Plan (ESCP) with

1 elements of a SWPPP prior to issuance of building or grading plans. The 2012 MS4  
2 permit requires that these two plans must now be developed by Qualified SWPPP  
3 Developers (QSDs) to ensure high quality. Permittees are required to develop a list of  
4 BMPs for a range of construction activities.

### 5 **Industrial / Commercial Business Program**

6 Industrial/commercial facilities include any facility involved and/or used in the  
7 production, manufacture, storage, transportation, distribution, exchange or sale of goods  
8 and/or commodities, and any facility involved and/or used in providing professional and  
9 non-professional services. For industrial facilities, the Industrial/Commercial Business  
10 Program identifies inspection timelines, which vary based on exposure to stormwater.  
11 Inspections include determinations of compliance with minimum BMPs and local  
12 stormwater ordinances.

### 13 **TMDL Provisions**

14 The MS4 permit requirements are consistent with the assumptions and requirements of  
15 the available WLAs assigned to MS4 discharges in 33 TMDLs, including the TMDLs in  
16 the Dominguez Channel and Los Angeles/Long Beach Harbors Watershed Management  
17 Area. The permit also includes the TMDL compliance schedules.

### 18 **3.15.3.11 Standard Urban Stormwater Mitigation Plans**

19 The Los Angeles County MS4 permit incorporates the requirements of the Standard  
20 Urban Stormwater Mitigation Plans (SUSMP) for Los Angeles County and Cities of Los  
21 Angeles County. The SUSMPs are plans that designate BMPs that must be used in  
22 specified categories of development projects. The County submitted SUSMPs, but the  
23 Regional Water Board approved the SUSMPs only after making revisions. The Los  
24 Angeles RWQCB Executive Officer issued the revised SUSMPs on March 8, 2000. On  
25 February 25, 2000, the SWRCB received a petition for review of the actions and failures  
26 to act regarding the SUSMPs. On October 5, 2000, the SWRCB held a final hearing in  
27 Sacramento. At this hearing the SWRCB approved the SUSMPs with some revisions.

28 Of particular relevance for the proposed Project are the SUSMP requirements of the  
29 existing MS4 permit that apply to new and redevelopment projects. The NPDES permit  
30 required that by August 1, 2002, each Permittee amend its own codes and ordinances to  
31 legally require that the SUSMP requirements listed in the permit be enforced. The  
32 SUSMP requirements state that if a new development or redevelopment project is over a  
33 certain minimum size, then BMPs must be installed on site to mitigate the negative  
34 impacts that the project could have on water quality. The BMPs installed on site must be  
35 able to infiltrate, capture and reuse, or treat all of the runoff from the design storm.

36 In the City of Los Angeles, the following new development or redevelopment categories  
37 require that SUSMP requirements be met (County of Los Angeles 2002). For those  
38 categories that may be applicable at the Port, a summary of the requirements that must be  
39 included is listed below.

- 40       ▪ Single-Family Hillside Residential Developments with grading on slopes of 25%  
41       or greater of 1 acre or more.
- 42       ▪ Housing Developments of ten or more dwelling units (including single-family  
43       tract developments).

- 1                   ▪ Industrial/Commercial Developments of 1 acre or more of impervious area.
- 2                   ▪ Automotive Service Facilities of 5,000 square feet or more of surface area.
- 3                   ▪ Retail Gasoline Outlets of 5,000 square feet or more of impervious surface area
- 4                   with a projected Average Daily Traffic (ADT) of 100 or more vehicles.
- 5                   ▪ Restaurants of 5,000 square feet or more of surface area.
- 6                   ▪ Parking Lots of 5,000 square feet or larger, or with 25 or more parking spaces.
- 7                   ▪ Projects located in, adjacent to, or discharging directly to a designated
- 8                   Environmentally Sensitive Area, which creates 2,500 square feet or more of
- 9                   impervious area.

10                   A redevelopment project is defined as a “land-disturbing activity that results in the  
 11                   creation, addition, or replacement of 5,000 square feet or more of impervious surface area  
 12                   on an already developed site within the categories listed above. Existing single-family  
 13                   non-hillside structures are exempt from the redevelopment requirements. If a  
 14                   redevelopment results in an alteration to more than 50% of impervious surfaces of an  
 15                   existing development, then the entire project must be mitigated. If a redevelopment  
 16                   results in an alteration to less than 50% of the impervious surface of an existing  
 17                   development, and the existing development was not subject to storm water quality control  
 18                   requirements, then only the alteration must be mitigated.”

19                   New guidelines approved by the City of Los Angeles on July 9, 2008 require developers  
 20                   to give top priority to BMPs that infiltrate stormwater and lowest priority to  
 21                   mechanical/hydrodynamic units. The order in which BMPs should be prioritized per  
 22                   SUSMP is therefore:

- 23                   1) infiltration systems;
- 24                   2) biofiltration/retention systems;
- 25                   3) stormwater capture and re-use;
- 26                   4) mechanical/hydrodynamic units; or
- 27                   5) combination of any of the above.

28                   **Low Impact Development (LID)**

29                   In 2011, the Los Angeles Municipal Code was amended (Ordinance No. 181899) to  
 30                   expand the applicability of existing SUSMP requirements by imposing rainwater Low  
 31                   Impact Development (LID) strategies on projects that require building permits. The LID  
 32                   recognizes that urbanization has led to increased impervious surface areas, resulting in  
 33                   increased runoff and less percolation to groundwater aquifers, and causing the  
 34                   transportation of pollutants to downstream areas.

35                   The LID is intended to manage the quantity and quality of stormwater runoff by setting  
 36                   standards and practices to maintain or restore the hydrologic character of a development  
 37                   site, reduce off-site runoff, improve water quality, and provide groundwater recharge.  
 38                   The LID ordinance expands the SUSMP requirements by increasing the number of new  
 39                   and re-development conditions under which stormwater mitigation measures must be  
 40                   implemented. As with SUSMP requirements, the LID requirements would need to be

1 met for a building permit to be issued. For new non-residential development or for re-  
2 development projects that result in an alteration of at least 50% or more of the impervious  
3 surfaces of an existing developed site, the entire site would need to comply with the  
4 standards and requirements of the ordinance and of the LID section of the Development  
5 BMP Handbook.

6 The ordinance provides that where LID requirements cannot be met, SUSMP  
7 requirements at a minimum would instead need to be met on site. For the remaining  
8 runoff that cannot be managed onsite (the difference between the amount of runoff that is  
9 managed by SUSMP requirements and the amount that was required to have been  
10 managed to meet LID requirements), either the runoff would need to be managed  
11 somewhere else in the same subwatershed, or a fee would need to be paid to the City of  
12 Los Angeles Stormwater Pollution Abatement Fund, whereby the City would allocate  
13 that fee toward stormwater mitigation projects within that subwatershed.

### 14 **3.15.3.12 California Toxics Rule**

15 This rule establishes numeric criteria for priority toxic pollutants in inland waters, as well  
16 as enclosed bays and estuaries, to protect ambient aquatic life (23 priority toxics) and  
17 human health (57 priority toxics). The numeric criteria are the same as those  
18 recommended by EPA in its CWA Section 304(a) guidance. The CTR also includes  
19 provisions for compliance schedules to be issued for new or revised NPDES permit limits  
20 when certain conditions are met.

### 21 **3.15.3.13 Oil Spill Prevention and Response**

22 The California Office of Spill Prevention and Response (OSPR) is a multi-agency effort  
23 that involves the USCG, the California State Lands Commission, and the California  
24 Department of Fish and Wildlife's Marine Safety Branch (the Marine Safety Branch is  
25 the lead agency). The OSPR requires all marine facilities and tank vessels carrying  
26 petroleum products as cargo, and all non-tank vessels over 300 gross tons, to have a  
27 California-approved oil spill contingency plan. Among OSPR's many responsibilities  
28 are: conducting spill drills for contingency plan holders and response organizations,  
29 licensing spill cleanup agents in California, and assisting local governments in preparing  
30 local OSCPs. The OSPR is also assisting in funding and implementing the Vessel Traffic  
31 System (VTS) for the LA/LB Harbor.

### 32 **3.15.3.14 Water Resources Action Plan**

33 The WRAP was prepared by the Ports of Los Angeles and Long Beach, in coordination  
34 with their cities, EPA, and the Los Angeles RWQCB (POLA and POLB 2009). The  
35 WRAP's purpose is to provide a programmatic framework to identify mechanisms for the  
36 Ports to achieve the goals and targets that will be established in the relevant TMDLs and  
37 to comply with the GCASP, GIASP, and municipal permits issued to the ports and their  
38 respective cities and tenants through the NPDES program. The WRAP identifies  
39 multiple current and potential control measures to minimize effects to water and sediment  
40 quality. These include Land Use Control Measures, On-Water Source Control Measures,  
41 Sediment Control Measures, and Watershed Control Measures. The WRAP is considered  
42 a living document, and the ports will modify it as circumstances warrant. At present, the  
43 LAHD is preparing several documents in support of the WRAP objectives, including a  
44 Vessel Guidance Manual, a Design Guidance Manual (to address SUSMP, LID and other  
45 BMPs), and a Sediment Management Strategy document.

### 3.15.3.15 Port Tariff No. 4

A Port Tariff is the published set of rates, charges, rules and regulations for those doing business with a port. A tariff is generally applicable to all port users, although individual tenant operating leases may set additional and/or different requirements. Port Tariffs govern a variety of activities in the two San Pedro Bay Ports, including vessel operating procedures, fees, wharf and dock usage, and the use of hazardous or polluting substances on or near the water. Each port publishes its own version of the tariff, but the two versions address largely the same issues.

Port of Los Angeles Tariff No. 4 describes the rates, charges, rules, and regulations of the Port of Los Angeles. The tariff applies to all persons making use of the navigable waters of the Harbor. Tariff No. 4 includes information about pilotage, dockage, wharfage, passengers, free time, wharf demurrage, wharf storage, space assignments, cranes, and other operational rules and regulations. Certain provisions of Tariff No. 4 are intended to ensure safe and lawful operations of vessels while in the Port and thereby function to minimize the risk of accidents that could cause impairment of water quality. Section 18 includes prohibitions related to waste oil, dumping of materials (including refuse, rubbish, and waste materials), oil discharges, regulation of ballast water discharges, and related activities that could potentially affect water quality.

## 3.15.4 Impacts and Mitigation Measures

### 3.15.4.1 Methodology

Potential impacts of the proposed Project and alternatives to water quality and sediment conditions were assessed through a combination of literature data (including applicable water quality criteria), results from past dredge and fill projects in the Port, results from previous testing of Harbor sediments, results from current testing of sediment chemistry and water quality, and scientific expertise of the preparers. For oceanographic resources and flooding, potential impacts were assessed using results from previous modeling studies for the Harbor and preparer expertise. Impacts are considered significant if any of the significance criteria listed below in Section 3.15.4.2 occur in association with construction or operation of the proposed Project or an alternative.

The assessment of impacts is based on the assumption that the proposed Project or alternative (as applicable) would adhere to the following:

- Coverage under the GCASP for the onshore portions of the proposed Project will be obtained by LAHD as the “Legally Responsible Person” that will delegate applicable responsibilities to the tenant. The associated SWPPP will contain the following measures:
  - Equipment will be inspected regularly (daily) during construction, and any leaks found will be repaired immediately.
  - Refueling of vehicles and equipment will occur in a designated, contained area.
  - Drip pans will be used under stationary equipment (e.g., diesel fuel generators), during refueling, and when equipment is maintained.

- 1                   ▪ Drip pans that are in use will be covered during rainfall to prevent washout  
2                   of pollutants.
- 3                   ▪ Appropriate containment structures will be constructed and maintained to  
4                   prevent off-site transport of pollutants from spills and construction debris.
- 5                   ▪ Monitoring will occur to verify that the BMPs are implemented and kept in  
6                   good working order.
- 7                   ▪ Other relevant standard operating procedures and BMPs for Port construction  
8                   projects will be followed. This includes adherence to a SWPPP during operation  
9                   of the proposed Project or alternatives as part of the GIASP.
- 10                  ▪ The LAHD will incorporate SUSMP/LID measures into the proposed project  
11                  design for review and approval by the City of Los Angeles Department of  
12                  Building and Safety.
- 13                  ▪ All onshore contaminated upland soils will be characterized and remediated in  
14                  accordance with LAHD, Los Angeles RWQCB, Department of Toxic Substances  
15                  Control, and Los Angeles County Fire Department protocol and cleanup  
16                  standards.
- 17                  ▪ The tenant will obtain and implement the appropriate stormwater discharge  
18                  permits for operations.
- 19                  ▪ Sediments from the proposed dredging area have been evaluated using standard  
20                  EPA/USACE protocols to determine the suitability of the material for  
21                  unconfined, aquatic disposal. Unsuitable dredged material will be disposed of at  
22                  the Port's approved confined disposal facility at Berths 243–245. Suitable  
23                  material may be disposed of at the LA-2 disposal site or at Berths 243–245.
- 24                  ▪ A Section 10 permit will be required from USACE for dredging, crane  
25                  installation, and pile installation activities in waters of the United States. A  
26                  previously approved Section 404 permit for the Port of Los Angeles Channel  
27                  Deepening Project (Corps Permit No. SPL-2008-00662-AOA) allows for in-  
28                  harbor disposal of dredged material at the Berths 243–245 CDF. An MPRSA  
29                  Section 103 permit will be required for ocean transport and disposal of qualifying  
30                  material at a designated ocean disposal site (LA-2).
- 31                  ▪ A CWA Section 401 Water Quality Certification from the Los Angeles RWQCB  
32                  would be required for activities related to construction dredging and any in-water  
33                  disposal activities that contain conditions including standard WDRs.
- 34                  ▪ A Debris Management Plan and OSCP will be prepared and implemented prior to  
35                  the start of demolition, dredging, and construction activities associated with the  
36                  proposed Project. The OSCP will specifically identify in-water containment and  
37                  spill management in the event of an accidental spill. The plan will require that  
38                  emergency cleanup equipment is available on site to respond to such accidental  
39                  spills. All pollutants will be managed in accordance with all applicable laws and  
40                  regulations.
- 41                  ▪ During dredging, LAHD will implement an integrated multi-parameter water  
42                  quality monitoring program in conjunction with both USACE and Los Angeles  
43                  RWQCB permit requirements. The objective of the monitoring program will be  
44                  adaptive management of the dredging operation, whereby potential exceedances  
45                  of water quality objectives can be measured and dredging operations  
46                  subsequently modified. If turbidity levels exceed the threshold established in the

1 WDRs issued by the Los Angeles RWQCB, water chemistry analysis will be  
2 conducted and LAHD will immediately meet with the construction manager to  
3 discuss modifications of dredging operations to reduce turbidity to acceptable  
4 levels. This could include alteration of dredging methods, and/or implementation  
5 of additional BMPs such as a silt curtain.

6 Although BMPs, SWPPP, NPDES permit compliance, and OSCP are requirements that  
7 must be implemented and that would prevent significant water quality impacts,  
8 compliance with these requirements will be included as conditions of approval to  
9 facilitate their tracking and implementation.

## 10 **CEQA Baseline**

11 Section 15125 of the CEQA Guidelines requires EIRs to include a description of the  
12 physical environmental conditions in the vicinity of a project that exist at the time of the  
13 NOP. These environmental conditions normally would constitute the baseline physical  
14 conditions by which the CEQA lead agency determines if an impact is significant. The  
15 NOP for the proposed Project was published in April 2013. For purposes of this Draft  
16 EIS/EIR, the CEQA baseline takes into account the throughput for the 12-month calendar  
17 year preceding NOP publication (January through December 2012) in order to provide a  
18 representative characterization of activity levels throughout the complete calendar year  
19 preceding release of the NOP. In 2012, the YTI Terminal encompassed approximately  
20 185 acres under its long-term lease, supported 14 cranes (10 operating), and handled  
21 approximately 996,109 TEUs and 162 vessel calls. The CEQA baseline conditions are  
22 also described in Section 2.7.1 and summarized in Table 2-1.

23 The CEQA baseline represents the setting at a fixed point in time. The CEQA baseline  
24 differs from the No Project Alternative (Alternative 1) in that the No Project Alternative  
25 addresses what is likely to happen at the proposed project site over time, starting from the  
26 existing conditions. Therefore, the No Project Alternative allows for growth at the  
27 proposed project site that could be expected to occur without additional approvals,  
28 whereas the CEQA baseline does not.

## 29 **NEPA Baseline**

30 For purposes of this Draft EIS/EIR, the evaluation of significance under NEPA is defined  
31 by comparing the proposed Project or other alternative to the NEPA baseline. The NEPA  
32 baseline conditions are described in Section 2.7.2 and summarized in Table 2-1. The  
33 NEPA baseline condition for determining significance of impacts includes the full range  
34 of construction and operational activities the applicant could implement and is likely to  
35 implement absent a federal action, in this case the issuance of a USACE permit.

36 Unlike the CEQA baseline, which is defined by conditions at a point in time, the NEPA  
37 baseline is not bound by statute to a “flat” or “no-growth” scenario. Instead, the NEPA  
38 baseline is dynamic and includes increases in operations for each study year (2015, 2016,  
39 2017, 2020, and 2026), which are projected to occur absent a federal permit. Federal  
40 permit decisions focus on direct impacts of the proposed Project to the aquatic  
41 environment, as well as indirect and cumulative impacts in the uplands determined to be  
42 within the scope of federal control and responsibility. Significance of the proposed  
43 Project or the alternatives under NEPA is defined by comparing the proposed Project or  
44 the alternatives to the NEPA baseline.



1 The NEPA baseline, for purposes of this Draft EIS/EIR, is the same as the No Federal  
2 Action Alternative. Under the No Federal Action Alternative (Alternative 2), no  
3 dredging, dredged material disposal, in-water pile installation, or crane  
4 installation/extension would occur. Expansion of the TICTF and extension of the crane  
5 rail would also not occur. The No Federal Action Alternative includes only backlands  
6 improvements consisting of slurry sealing, deep cold planning, asphalt concrete overlay,  
7 restriping, and removal, relocation, or modification of any underground conduits and  
8 pipes necessary to complete repairs. These activities do not change the physical or  
9 operational capacity of the existing terminal.

10 The NEPA baseline assumes that by 2026 the terminal would handle up to approximately  
11 1,692,000 TEUs annually, accommodate 206 annual ship calls at two berths, and be  
12 occupied by 14 cranes (10 operating).

### 13 3.15.4.2 Thresholds of Significance

14 The following criteria are based on the *L.A. CEQA Thresholds Guide* (City of  
15 Los Angeles 2006) and are the basis for determining the significance of impacts  
16 associated with water quality, sediment quality, hydrology, and oceanography resulting  
17 from proposed project/alternative development.

18 The effects of a project or alternative on water and sediment quality, hydrology, and  
19 oceanography are considered to be significant if the proposed Project or an alternative  
20 would result in any of the following:

21 **WQ-1:** Discharges that create pollution, contamination, or a nuisance as defined in  
22 Section 13050 of the California Water Code (CWC) or that cause regulatory  
23 standards to be violated, as defined in the applicable NPDES stormwater  
24 permits or Water Quality Control Plan for the receiving water body.

25 **WQ-2:** Flooding during the projected 50-year developed storm event, and/or additional  
26 flooding that could alter the expected flood limits identified in the current  
27 FEMA Flood Insurance Rate Maps that cover the proposed project site, which  
28 would have the potential to harm people or damage property or sensitive  
29 biological resources.

30 **WQ-3:** Permanent, adverse changes to the movement of surface water sufficient to  
31 produce a substantial change in the current or direction of water flow.

32 **WQ-4:** Acceleration of natural processes of wind and water erosion and sedimentation,  
33 resulting in sediment runoff or deposition that would not be contained or  
34 controlled on site.

### 35 3.15.4.3 Impact Determination

#### 36 Proposed Project

37 Proposed project construction would include dredging and disposing of dredged material,  
38 installing piles, adding and replacing wharf cranes, extending the 100-foot gauge crane  
39 rail, improving/repairing backlands, and expanding the TICTF on-dock rail.

40 Approximately 21,000 cubic yards of sediment would be dredged off Berths 214–216,  
41 and sheet piles and king piles would be installed over 1,400 linear feet along the berth.

1 Approximately 6,000 cubic yards would be dredged off Berths 217–220, and sheet piles  
2 would be installed over 1,200 linear feet along the berth.

3 Sediments from the proposed dredging area were tested using standard EPA/USACE  
4 protocols (according to an approved SAP) prior to dredging to determine the suitability of  
5 the material for unconfined, aquatic disposal or other disposal alternatives. The majority  
6 of sediments within the Berths 212–224 footprint complied with the chemistry, toxicity,  
7 and bioaccumulation suitability requirements for ocean disposal (Title 40 CFR Parts 220–  
8 228; Appendix F). Concentrations of most metals and PCBs, when detected, were higher  
9 in Composite Area A than in Area B. After review of the results, sediments from the  
10 bottom portion of Composite Area A were tested for sediment metals, PAHs, chlorinated  
11 pesticides, pyrethroids, and PCBs. Results from this second phase of testing indicated  
12 generally lower levels of sediment contaminants, suggesting the higher levels were  
13 associated with unconsolidated surface (top-layer) sediments of Composite Area A  
14 (AMEC 2014). Therefore, the majority of dredged material (21,800 cubic yards) would  
15 be suitable for placement at the LA-2 ODMDs, and approximately two feet of surface  
16 sediments from Composite Area A (5,200 cubic yards) would be placed within the Berths  
17 243–245 CDF or another approved upland location.

18 Effects from sediment disposal at LA-2 were evaluated during the site designation  
19 process (EPA 1988) and subsequently evaluated in consideration of higher maximum  
20 annual disposal volume (EPA and USACE 2005). Potential water/sediment quality  
21 impacts due to construction and fill of the Berths 243–245 CDF were evaluated in the  
22 Final Supplemental EIS/EIR (SEIS/EIR) for the Port of Los Angeles Channel Deepening  
23 Project (USACE and LAHD 2009), and it was previously authorized under CWA Section  
24 404 by USACE for the Port of Los Angeles Channel Deepening Project (USACE Permit  
25 No. SPL-2008-00662-AOA). The Channel Deepening SEIS/EIR included mitigation for  
26 habitat loss at the Berths 243–245 CDF. Effects from backlands runoff and from  
27 potential spills were also analyzed.

28 Following completion of construction activities, operation of the terminal would result in  
29 increased vessel traffic and container cargo throughput. For purposes of impact analyses,  
30 it is assumed that increased vessel calls and container throughput would increase truck  
31 traffic at the terminal, and result in a corresponding increase in the amount of pollutants  
32 in runoff from terminal surfaces, and increased potential for accidental spills of pollutants  
33 into Harbor waters. All of these could affect waters of the YTI Terminal.

34 **Impact WQ-1: The proposed Project would not create pollution,**  
35 **contamination, or a nuisance as defined in Section 13050 of the CWC**  
36 **or cause regulatory standards to be violated in Harbor waters.**

### 37 **Construction**

38 As shown in Table 2-4 (see Chapter 2, Project Description), in-water and over-water  
39 construction activities would extend over approximately 12–13 months. Phase I of  
40 construction would take approximately four months for installation of sheet piles at  
41 Berths 217–220 and approximately one month for dredging and disposal. Phase II of  
42 construction involves approximately six months for installation of king piles and sheet  
43 piles at Berths 214–216 and approximately two months for dredging and disposal.

1 Impacts on water quality could occur from dredging, installation of sheet piles and king  
2 piles, backland improvements, and potential construction-related spills. Impacts on water  
3 quality could result from the suspension of sediments and/or the introduction of  
4 contaminants to the water column. Suspension is the dislodgement and dispersal of  
5 sediment into the water column (where finer sediments are subject to transport and  
6 dispersion by currents). Sediment suspension can also result in the short-term release of  
7 contaminants in the water column through release of pore water (water between  
8 individual sediment particles) and by desorption, or separation, from suspended particles.  
9 The potential water quality effects from construction for each of the major proposed  
10 project components are described separately below.

11 They types of water quality impacts from proposed project construction could include:

- 12       ▪ Increased turbidity (reduced water clarity and light transmittance),
- 13       ▪ Increased sediment suspension (or suspended solids),
- 14       ▪ Increased dissolved or particulate contaminants (that were previously bound to  
15 dredged sediments or in pore water),
- 16       ▪ Reduced dissolved oxygen (from suspension of sediments with low oxygen),
- 17       ▪ Reduced pH, and
- 18       ▪ Plankton blooms (from suspension of nutrient-laden sediments)

19 There are no projected effects to salinity or temperature from construction and operation  
20 of the proposed Project. The biological effects on marine biota from potential water  
21 quality impacts are discussed in Section 3.3, Biological Resources.

### 22 *Effects of Dredging and Pile Installation*

23 Dredging would resuspend some bottom sediments and create localized and temporary  
24 turbidity plumes over a relatively small area. Dredging would disturb bottom sediments,  
25 and suspend sediments over a relatively small area. The extent of disturbance would  
26 depend on the method of dredging. Suspension of sediments during clamshell dredging  
27 occurs during bucket impact, penetration, and removal of the bucket from the sediment,  
28 as well as during bucket retrieval through the water column. During cutterhead dredging,  
29 suspended sediments are limited to the immediate vicinity of the dredge.

30 For continuous dredging operations, elevated turbidity would occur in the immediate  
31 vicinity of the dredge for periods of days to several weeks. The majority of suspended  
32 sediments settle within one hour of dredging (Palermo et al. 2008). Transport of  
33 suspended particles by tidal currents would result in some redistribution of sediment  
34 contaminants. The amount of contaminants redistributed in this manner would be small,  
35 and the distribution would be localized in the channel adjacent to the work area.  
36 Monitoring efforts associated with previous dredging projects in the Harbor have shown  
37 that resuspension followed by settling of sediments is low (generally 2% or less) (Anchor  
38 Environmental 2002).

39 Dredging sediments adjacent to the YTI Terminal would likely generate a relatively small  
40 turbidity plume. While sediments at Berths 212–224 are fine-grained (Appendix F),  
41 receiving water monitoring studies at other dredge sites in the Harbor and other water  
42 bodies have documented a relatively small, turbid dredge plume that dissipates rapidly  
43 with distance from dredging operations (MBC 2001a–b, 2002; USACE and LAHD 2008;

1 POLA 2009a–i, 2010a–d; Parish and Wiener 1987; Jones & Stokes 2007a–b). Water  
2 quality was measured during dredging at Berths 212–215 in 2001 (MBC 2001a). During  
3 dredging, light transmittance was reduced by about 15% in the bottom half of the water  
4 column 300 feet downcurrent from the dredge (MBC 2001a).

5 Sheet piles and king piles would be lowered through the water column, and then driven  
6 into the seafloor by both vibratory and impact driving methods. Some sediment would be  
7 suspended during this process, but over a much smaller area than during dredging, and  
8 any turbidity would be limited to waters near the seafloor.

9 Within areas of sediment resuspension, DO and pH could be slightly reduced.  
10 Reductions in DO concentrations, however, would be brief and are not expected to persist  
11 or cause detrimental effects to biological resources. During dredging at Berths 212–215  
12 in 2001, there was little difference in DO and pH between Station C (300 feet  
13 downcurrent of dredging) and Station D (the control station, located at Berth 195 in East  
14 Basin) (MBC 2001a). Contaminants, including metals and organics, could be released  
15 into the water column during the dredging and pile installation. However, any increase in  
16 contaminant levels in the water is expected to be localized and of short duration. The  
17 magnitude of contaminant releases would be related to the sediment particle sizes,  
18 sediment organic content, and contaminant concentrations associated with the disturbed  
19 sediments. Sediment grain size affects the binding capacity of sediments for  
20 contaminants. The sediment testing performed in the proposed dredge footprint detected  
21 some minor elevated metal, PCBs, and dichlorodiphenyltrichloroethane (DDT), but  
22 overall the sediments are suitable for open water disposal. Therefore, contaminant  
23 concentrations associated with any potentially disturbed or resuspended sediments during  
24 dredging are not expected to result in any long-term effects in the waters near the YTI  
25 Terminal.

26 Nutrients could be released into the water column during the dredging and pile  
27 installation. Release of nutrients may promote nuisance growths of phytoplankton if  
28 operations occur during warm water conditions. Phytoplankton blooms have occurred  
29 during previous dredging projects, including the Deep Draft Navigation Improvement  
30 Project (USACE and LAHD 1992). However, there is no evidence that the plankton  
31 blooms observed were not a natural occurrence or that they were exacerbated by dredging  
32 activities. The Basin Plan (Los Angeles RWQCB 1994) limits on biostimulatory  
33 substances are defined as “concentrations that promote aquatic growth to the extent that  
34 such growth causes nuisance or adversely affects beneficial uses.” Given the limited  
35 spatial and temporal extent of proposed project activities with the potential for releasing  
36 nutrients from bottom sediments, effects on beneficial uses of Harbor waters are not  
37 anticipated to occur in response to the proposed Project.

### 38 *Effects of Backlands Improvements*

39 Ground disturbances and construction activities related to backlands improvements could  
40 result in temporary impacts on surface water quality if uncontrolled runoff of exposed  
41 soils, asphalt leachate, concrete washwater, and other construction materials enter Harbor  
42 waters. No upland surface bodies of water currently exist within the proposed project  
43 boundaries. Thus, proposed Project-related impacts on surface water quality would be  
44 limited to potential non-stormwater discharges or discharges of stormwater runoff to  
45 Harbor waters that receive runoff from the proposed project site. Runoff from the upland  
46 portions of the proposed project site would flow into the Harbor, along with runoff from  
47 other adjacent areas of the Harbor’s subwatershed. Runoff at the proposed project site is

1 collected by the on-site storm drain system and is managed in compliance with applicable  
2 permits and ordinances (including SUSMP requirements) prior to discharge to the Harbor  
3 (to the East Basin Channel). In addition to soils, runoff from a construction site could  
4 contain a variety of contaminants, including metals and PAHs, associated with  
5 construction materials, and spills of oil or other petroleum products. Impacts on surface  
6 water quality from accidental spills are addressed below.

7 Backlands improvement would not directly introduce sediments to the waters off the YTI  
8 Terminal; however, stormwater runoff could carry sediments to the Harbor waters  
9 without intervention. Accidental spills could also introduce contaminants to Harbor  
10 waters.

### 11 *Accidental Spills*

12 Accidents resulting in spills of fuel, lubricants, or hydraulic fluid from equipment used  
13 during dredging, pile installation, backlands improvement, and/or disposal of dredged  
14 material, could occur during proposed project construction. Based on the history for this  
15 type of work in the Harbor, accidental leaks and spills of large volumes of hazardous  
16 materials or wastes containing contaminants during onshore construction activities have a  
17 very low probability of occurring because large volumes of these materials typically are  
18 not used or stored at construction sites (see Section 3.9, Hazards and Hazardous  
19 Materials).

20 Other potential operational sources of pollutants that could affect water quality in the  
21 waters off the YTI Terminal include accidental spills on land that enter storm drains, as  
22 well as accidental spills from vessels. If spilled material in upland areas were not  
23 captured prior to reaching the storm drain system, such materials could reach the East  
24 Basin Channel off the YTI Terminal. Spills or illegal discharges from vessels could also  
25 occur in the same waters, or during their transit to and from the YTI Terminal from the  
26 Harbor entrance at Angels Gate. Impacts on water and sediment quality would depend  
27 on (1) the characteristics of the material spilled, such as volatility, solubility in water, and  
28 sedimentation rate, and (2) the speed and effectiveness of the spill response and cleanup  
29 efforts. Potential releases of pollutants from a large spill on land to Harbor waters and  
30 sediments would be minimized through existing regulatory and on-site controls and are  
31 unlikely to occur during the life of the proposed Project.

### 32 *Operation*

33 Impacts on water quality during operations could occur from runoff, atmospheric (aerial)  
34 deposition of contaminants, discharges of contaminants from vessels, and accidental  
35 spills.

### 36 *Runoff*

37 Operation of the proposed project facilities would not involve any direct point source  
38 discharges of wastes or wastewaters to the Harbor. The operation of marine terminals  
39 and backland container facilities on land adds particulates and other pollutants to the site.  
40 Operations of non-electric equipment and vehicles for the proposed Project would  
41 generate air emissions containing particulate pollutants. A portion of these particulates  
42 would be deposited on the site and subject to subsequent transport by storm runoff. At  
43 the YTI Terminal, stormwater is collected in catch basins and conveyed to storm drains  
44 along the East Basin Channel. The storm drains are fitted with "Smart Drains," which  
45 reduce the amount of sediment (and bound contaminants) in the runoff. Transport of

1 contaminants, such as metals, by runoff from the proposed project site would contribute  
2 incrementally to changes in receiving water quality.

### 3 *Deposition of Contaminants*

4 Direct atmospheric deposition refers to air pollutants that settle directly on water bodies,  
5 whereas indirect atmospheric deposition occurs on upland areas where the pollutants  
6 collect and are later conveyed to water bodies by runoff. Atmospheric deposition related  
7 to Port operations emissions may provide an increased impact on the local watersheds.  
8 These impacts are primarily related to resuspended dust from vehicular traffic and coarse-  
9 sized, mechanically derived particles, such as zinc from tire wear and copper from brake  
10 pad wear. Fine particulates from vehicle exhaust may also contribute to the local  
11 watersheds, but to a lesser degree.

12 Particulates from area-wide and regional transportation sources likely dominate the  
13 metal-containing particulate matter that enters the storm drain systems because traffic  
14 volumes from freeways, commercial roads, and surface streets far outweigh the  
15 transportation volumes from the Port operations alone. These particles accumulate  
16 during dry weather conditions and are later washed off during storm events. For  
17 suspended zinc and copper pollutants from the proposed project site (tire and brake wear  
18 from equipment and trucks), direct impacts would not be expected to significantly affect  
19 water quality due to the likely limited and dispersed nature of direct deposition on Harbor  
20 waters, and because direct aerial disposition would not allow for a significant buildup of  
21 these pollutants before entering Harbor waters.

### 22 *Vessel Discharges and Contaminants*

23 The amount of vessel traffic at the proposed project site would increase by up to 44  
24 annual ship calls (by 2026) as compared to the CEQA baseline, as a result of the  
25 proposed Project. There would not be any increase in ship calls compared to the NEPA  
26 baseline. Discharges of polluted water (such as bilge water or gray water) or ballast  
27 water directly to the Harbor are prohibited under the Port tariff and other regulations;  
28 however, discharges to the Harbor of clean ballast waters are not.

29 Studies by the U.S. Navy have demonstrated that the leaching of metals from vessel hull  
30 coatings contributed to overall concentrations of water column metals in harbors such as  
31 Mayport, Florida; Pearl Harbor, Hawaii; and San Diego, California; however, estimated  
32 concentrations of metals resulting from hull vessel leachates were in most cases below  
33 federal and state water quality criteria (EPA 1999). One constituent of hull coating  
34 known to cause toxic effects is TBT, which has been banned from use. Other  
35 constituents, such as copper, still pose a threat. However, concentrations of metals, such  
36 as those used in antifouling applications (copper and zinc), have been measured near or  
37 below detection limits in waters off the proposed project site.

### 38 **CEQA Impact Determination**

39 Dredging and pile installation during the construction phases of the proposed Project  
40 would not entail any direct or intentional discharges of wastes to waters off the YTI  
41 Terminal. However, in-water dredging and pile installation would disturb and resuspend  
42 bottom sediments, which would result in temporary and localized changes to water  
43 quality. Dredging off Berths 214–220 may reduce DO concentrations in the immediate  
44 vicinity of the dredge, but this decrease would generally not extend beyond the dredge  
45 area or persist following the completion of the dredging operation. Changes in pH,

1 nutrients, and contaminant levels could also occur as a result of construction activities for  
2 the proposed Project. The extent of sediment dispersal would depend on the dredge  
3 method, the specific sediment characteristics, and the current speed and direction during  
4 dredging. Results from previous dredge receiving water monitoring studies in the Harbor  
5 indicate that turbidity and TSS concentrations would rapidly drop to levels approaching  
6 background concentrations within a few hundred meters of the dredge once dredging  
7 ceases.

8 Dredging for the proposed Project would require a Section 10 permit from USACE and a  
9 CWA Section 401 Water Quality Certification from the Los Angeles RWQCB. The  
10 Water Quality Certification would include monitoring requirements necessary to assure  
11 compliance with applicable effluent limitations, or any other CWA limitation, or with any  
12 State laws or regulations. Monitoring requirements typically include measurements of  
13 DO, light transmittance (turbidity), pH, and TSS at varying distances from the dredging  
14 operations. If turbidity levels exceed the threshold established in the WDRs issued by the  
15 Los Angeles RWQCB, water chemistry analysis would be conducted and the LAHD  
16 would immediately meet with the construction manager to discuss modifications of  
17 dredging operations to keep turbidity to acceptable levels. Analyses of contaminant  
18 concentrations (such as metals, DDT, PCBs, and PAHs) in waters during the dredging  
19 operations may also be required in the WDRs if turbidity levels are elevated above  
20 certain established thresholds. Monitoring data would be used by the Port dredger to  
21 demonstrate that water quality limits specified in the permit are not exceeded. This  
22 would include alteration of dredging methods, and/or implementation of additional BMPs  
23 to limit the size and extent of the dredge plume.

24 Sediments would be disposed of at the LA-2 ODMDS, placed at the Berths 243–245  
25 CDF, or disposed of at another approved upland location. Sediments from the proposed  
26 dredging area were tested using standard EPA/USACE protocols (according to an  
27 approved SAP) prior to dredging to determine the suitability of the material for  
28 unconfined, aquatic disposal or other disposal alternatives. The majority of sediments  
29 within the Berths 212–224 footprint complied with the chemistry, toxicity, and  
30 bioaccumulation suitability requirements for ocean disposal (Title 40 CFR Parts 220–  
31 228; Appendix F). The majority of dredged material (21,800 cubic yards) would be  
32 suitable for placement at the LA-2 ODMDS, and approximately two feet of surface  
33 sediments from Composite Area A (5,200 cubic yards) would be placed within the Berths  
34 243–245 CDF or another approved upland location. Potential aquatic impacts from  
35 disposal of dredged sediments would depend on the disposal method and location, but  
36 they could include increased turbidity, reduced DO concentrations, and introduction of  
37 contaminants. Potential impacts from dredged material disposal on water/sediment  
38 quality at the Berths 243–245 CDF were evaluated as part of the Port’s Channel  
39 Deepening Project and were determined not to be significant.

40 Runoff from the proposed project site would be controlled under a construction SWPPP  
41 prepared in accordance with GCASP requirements and implemented prior to start of any  
42 construction activities. This construction SWPPP would specify BMPs to prevent and/or  
43 control releases of soils and contaminants and avoid adverse impacts on receiving water  
44 quality. One or more types of runoff control structures would be placed and maintained  
45 around the construction area to minimize loss of site soils to the storm drain system. As  
46 another standard measure, concrete truck wash water and runoff of any water that has  
47 come in contact with wet cement would be contained on site so that it does not runoff  
48 into the Harbor. These measures, combined with the low potential for erosion (see

1 Impact WQ-4, below), would minimize any soil and contaminant loading to the Harbor  
2 resulting from construction activities. The SWPPP would be prepared by LAHD (or  
3 consultant) with LAHD designated as the “Legally Responsible Person.”

4 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel  
5 spills during fueling, typically involve small volumes that can be effectively contained in  
6 the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and  
7 Control Procedures [CA012]). Construction and industrial SWPPPs and standard Port  
8 BMPs (e.g., use of drip pans, contained refueling areas, regular inspections of equipment  
9 and vehicles, and immediate repairs of leaks) would reduce potentials for materials from  
10 onshore construction activities to be transported off site and enter storm drains.

11 Accidental or incidental spills or leaks that occur on land are expected to be contained  
12 and cleaned up before any impacts on surface water quality can occur. Accidental spills  
13 from dredges or barges could directly affect water quality in the waters off the YTI  
14 Terminal; however, the probability of an accidental spill from a construction vessel to the  
15 Harbor is low. In addition, if an accidental spill does occur, the planning effort to contain  
16 and neutralize the spill and the spill response by the dredging contractors (deployment of  
17 floating booms to contain and absorb the spill and use pumps to assist the cleanup) would  
18 likely prevent the accidental spill from causing a nuisance or from adversely affecting  
19 beneficial uses of the Harbor.

20 The Basin Plan (Los Angeles RWQCB 1994) water quality objective for oil and grease  
21 states, “[w]aters shall not contain oils, greases, waxes or other materials in concentrations  
22 that result in a visible film or coating on the surface of the water or on objects in the  
23 water, that cause nuisance, or that otherwise adversely affect beneficial uses.” Spill  
24 prevention and cleanup procedures for the proposed Project would be addressed in a plan  
25 that would be prepared in accordance with LAHD guidelines and implemented by the  
26 construction contractor prior to the notice to proceed with construction operations. The  
27 plan would define actions to minimize potentials for spills and provide efficient responses  
28 to spill events to minimize the magnitude of the spill and extent of impacts.

29 Even though the footprint of the terminal would not increase, the amount of truck traffic  
30 and yard equipment operations at the proposed project site would increase to handle up to  
31 1,913,000 TEUs annually (from 996,109 TEUs annually under the CEQA baseline). Rail  
32 traffic would also increase at the existing on-dock railyard. This would increase the  
33 amount of particulates and chemical pollutants from normal wear of tires/train wheels  
34 and other moving parts, as well as from leaks of lubricants and hydraulic fluids that can  
35 fall on backland surfaces and subsequently be transported by stormwater runoff into the  
36 Harbor.

37 As noted above, runoff would be managed (consistent with applicable permit and  
38 ordinance requirements) prior to discharge into Harbor waters. Site operations would be  
39 conducted in accordance with an industrial SWPPP to minimize the generation of  
40 particulate pollutants. In addition, monitoring would be conducted under the SWPPP to  
41 observe the quality of the stormwater runoff discharged to the Harbor. This would allow  
42 the tenant and LAHD to ensure that the quality of any runoff would comply with the  
43 permit conditions and verify that any BMPs are performing as anticipated.

44 The design and operation of the proposed Project would comply with both the SUSMP  
45 requirements and the City of Los Angeles LID ordinance requirements. Applicable



BMPs would be incorporated into the proposed project plan that must be approved by the Bureau of Sanitation WPD prior to issuance of building and grading permits. The SUSMP requires minimization of the pollutants of concern by incorporating “a BMP or combination of BMPs best suited to maximize the reduction of pollutant loadings in that runoff to the maximum extent possible.” The BMPs would include, as applicable, site design BMPs, source control BMPs, and treatment control BMPs. To the maximum extent feasible, treatment control BMPs would be selected from LID BMPs.

Given the limited footprint of the proposed Project, there may be very limited opportunity to incorporate significant site design BMPs, but these will be incorporated where possible. All applicable source control BMPs would be incorporated in the proposed project design. A list of structural control BMPs that are in use at the YTI Terminal are shown in Table 3.15-2. Feasible treatment control BMPs would be selected from for the list of treatment control categories in the guidance manual. For the backland portion of the proposed Project, BMPs would need to be designed to retain and/or treat the water quality design volume for the entire area subject to grading and resurfacing.

**Table 3.15-2: Structural Control BMPs for Container Terminal Facility Activities**

Facility Activity	Structural Control BMPs							
	Preventative Covering (Roof Structure/Tarp)	Preventative Covering (Building)	Secondary Containment	Flow Diversion	Vapor/Dust Control	Oil/Water Separation	On-Site Stormwater Treatment	Discharge to Sanitary Sewer
Cargo unloading, container storage area	X	X	X	X				
Container/equipment wash area	X	X	X	X		X		X
Fuel dispensing area	X	X	X	X				
Maintenance and repair, power shop, warehouse, crane maintenance, gear room, and various supply storage areas	X	X	X	X				

Source: Hunter Environmental 2008.

These BMPs must meet the specified design standards in the guidance manual to mitigate (infiltrate or treat) stormwater runoff. For the structural or treatment control BMPs included in the proposed project plan, the tenant would be required to provide verification of maintenance provisions. The controls and BMPs for runoff and storm drain discharges described above are designed to reduce impacts on water quality and would be fully implemented for the proposed Project. Tenants would be required to obtain and meet all conditions of applicable stormwater discharge permits as well as meet all Port pollution control requirements.

An LA/LB Harbor-wide water quality study in 2005 found only five instances where metal concentrations exceeded CTR criteria for chronic exposure of marine life (POLA

1 and POLB 2009). All five instances were for dissolved copper: two samples were in  
2 Cabrillo Marina, one in Fish Harbor, and two in Long Beach Inner Harbor.  
3 Concentrations of organic chemicals (such as pesticides, PCBs, and PAHs) were very  
4 low; the exception was TBT (discussed in Section 3.15.2.2). Ambient monitoring and  
5 stormwater monitoring in Long Beach Harbor in 2010–2011 showed that pollutants, such  
6 as metals and semivolatile organic compounds, were present in harbor waters during both  
7 dry-weather surveys and storm surveys (MBC 2011). However, in one sample during the  
8 2010 dry-weather survey, zinc exceeded the standard for marine waters; all other metals  
9 were well below regulatory standards. Mixing with the harbor receiving waters dilutes  
10 the pollutants so that the receiving water standards are usually not exceeded. It is  
11 reasonable to expect that these findings would also apply to stormwater runoff from the  
12 proposed project site, and concentrations of pollutants runoff would not cause violations  
13 of receiving water quality objectives, given compliance with SWPPP and SUSMP/LID  
14 requirements. Concentrations of monitored constituents in stormwater runoff at the YTI  
15 Terminal have been below applicable benchmark values.

16 Upland operations associated with the proposed Project would not result in direct  
17 discharges of wastes to Harbor waters. However, stormwater runoff from the proposed  
18 project site could contain particulate debris from operation of the proposed project  
19 facilities, including aerially deposited pollutants. Discharges of stormwater would  
20 comply with the NPDES discharge permit limits and SWPPP requirements, and they  
21 would be subject to treatment via SUSMP/LID measures prior to discharge to Harbor  
22 waters. Therefore, water quality impacts from site runoff would not be significant.

23 As discussed above, ambient monitoring and stormwater monitoring in Long Beach  
24 Harbor in 2010-2011 (MBC 2011) showed that pollutants, such as metals and  
25 semivolatile organic compounds, are detectable in runoff, but receiving water standards  
26 are usually not exceeded. It is reasonable to expect that these findings would also apply  
27 to stormwater runoff from the proposed project site, and runoff would not cause  
28 violations of receiving water quality objectives, given compliance with SWPPP and  
29 SUSMP/LID requirements.

30 In 2012, the Ports of Los Angeles and Long Beach published “Vessel Discharge Rules  
31 and Regulations,” which summarizes the rules and regulations of ballast water discharge  
32 and other discharges (POLB and POLA 2012). This document, which is updated as the  
33 applicable regulations change, has been distributed to all terminal operators/shipping  
34 lines to make them aware of the regulations. With international, federal, and state  
35 regulations in place, the increased vessel traffic and terminal operations associated with  
36 the proposed Project are not anticipated to result in increased water discharge impacts  
37 from vessels.

38 The number or severity of illegal discharges, and corresponding changes to water and  
39 sediment quality, from increased vessel traffic cannot be accurately quantified because  
40 the rate and chemical composition of illegal discharges from commercial vessels is  
41 unknown. However, there is no evidence that illegal discharges from ships presently  
42 utilizing the Harbor are causing widespread problems in the Harbor. Over several  
43 decades, there has been a vast improvement in Harbor water quality despite an overall  
44 increase in ship traffic. In addition, the Port Police are authorized to cite any vessel that  
45 is in violation of Port tariffs, including illegal discharges. Illegal discharges resulting  
46 from operation of the proposed Project are not likely to occur.

1 By the 1980s, numerous studies had documented toxic effects of TBT at extremely low  
2 concentrations (parts per trillion) to non-target species (Huggett et al. 1992). Because of  
3 these studies, regulatory actions were adopted in France (1982) and the United Kingdom  
4 (1985), and in 1988 the U.S. Congress passed the Organotin Antifouling Paint Control  
5 Act. On an international level, the IMO passed the International Convention on the  
6 Control of Harmful Antifouling Systems on Ships. This prohibits or restricts the use of  
7 antifouling systems on ships that are parties to the convention, those that are more than  
8 400 gross tonnage that are engaged in international voyages, or those greater than 24  
9 meters in length. This convention was ratified in 2007, and became binding on those  
10 governments who ratified it on September 17, 2008. This convention was signed by the  
11 U.S. on December 12, 2002 (NOAA 2011), and the lines calling at the YTI Terminal  
12 have indicated they are compliant. Therefore, TBT is not expected to leech from vessel  
13 hulls at the proposed project site.

14 Even though the proposed Project would result in increased vessel traffic, and potentially  
15 an incremental increase in hull leaching (of non-TBT substances), concentrations of  
16 metals in waters near the proposed project site have been well below regulatory criteria  
17 (POLA and POLB 2009; AMEC 2012). Therefore, water quality impacts related to  
18 leaching of contaminants from hull coatings would not be significant.

19 As discussed in Section 3.9, Hazards and Hazardous Materials, the probability of a spill  
20 at a container terminal has been estimated at  $1.14 \times 10^{-6}$  per TEU (35 spills over 4 years  
21 [2009 to 2012] divided by 30,599,122 TEUs, which is the total throughput of the  
22 container terminals at the Port of Los Angeles over the same 4-year period [2009 to  
23 2012]). This means that for every 874,000 TEUs, a spill is probable. Based on the  
24 projected increase in TEUs, the frequency of potential proposed Project-related spills  
25 would increase to 2.2 spills per year from 1.1 spills under the baseline, which equates to  
26 an increase in the number of annual spills by 1.1 under the proposed Project. This spill  
27 frequency would be classified as “frequent” (greater than once per year). Based on  
28 history, a slight possibility exists for injury and/or property damage to occur during one  
29 of these frequent accidents; therefore, the potential consequence of such accidents is  
30 classified as “slight,” resulting in a Risk Code of 4, which is “acceptable.” Compliance  
31 with applicable federal, state, and local laws and regulations governing the transport of  
32 hazardous materials and emergency response to hazardous material spills, as described  
33 above, would minimize the potential for adverse public health impacts. Therefore, under  
34 CEQA, proposed project operations would not substantially increase the probable  
35 frequency and severity of consequences to people or property as a result of a potential  
36 accidental release (including spill from vessels) or explosion of a hazardous substance.  
37 Impacts would be less than significant under CEQA.

38 For the proposed Project, the terminal operator would prepare an SPCC Plan and an  
39 OSCP, which would be reviewed and approved by OSPR, in consultation with other  
40 responsible agencies. The SPCC Plan would detail and implement spill prevention and  
41 control measures to prevent oil spills from reaching navigable waters. The OSCP would  
42 identify and plan as necessary for contingency measures that would minimize damage to  
43 water quality and provide for restoration to pre-spill conditions.

44 Accidental spills of petroleum hydrocarbons, hazardous materials, and other pollutants  
45 from proposed Project-related upland operations are expected to be limited to small  
46 volume releases because large quantities of those substances are unlikely to be used,  
47 transported, or stored on the site.

1 In summary, based on the analysis above, proposed Project-related construction  
2 activities, including dredging, pile installation, and backlands improvements, and  
3 operations at the improved terminal, including increased container throughput and  
4 increased truck traffic, are not expected to create pollution, contamination, or a nuisance,  
5 or result in violations of water quality standards or permit conditions. Therefore,  
6 significant water quality impacts under CEQA are not expected to occur from  
7 construction, terminal operations, or accidental spills that could occur from  
8 implementation of the proposed Project. Impacts would be less than significant.

### 9 ***Mitigation Measures***

10 No mitigation is required.

### 11 ***Residual Impacts***

12 Impacts would be less than significant.

### 13 **NEPA Impact Determination**

14 Dredging and pile installation during the construction phases of the proposed Project  
15 would not entail any direct or intentional discharges of wastes to waters off the YTI  
16 Terminal. However, in-water dredging and pile installation would disturb and resuspend  
17 bottom sediments, which would result in temporary and localized changes to water  
18 quality. Dredging off Berths 214–220 may reduce DO concentrations in the immediate  
19 vicinity of the dredge, but this decrease would generally not extend beyond the dredge  
20 area or persist following the completion of the dredging operation. Changes in pH,  
21 nutrients, and contaminant levels could also occur as a result of construction activities for  
22 the proposed Project. The extent of sediment dispersal would depend on the dredge  
23 method, the specific sediment characteristics, and the current speed and direction during  
24 dredging. Results from previous dredge receiving water monitoring studies in the Harbor  
25 indicate that turbidity and TSS concentrations would rapidly drop to levels approaching  
26 background concentrations within a few hundred meters of the dredge once dredging  
27 ceases.

28 Dredging for the proposed Project would require a Section 10 permit from USACE and a  
29 CWA Section 401 Water Quality Certification from the Los Angeles RWQCB. The  
30 Water Quality Certification would be required to include monitoring requirements  
31 necessary to assure compliance with applicable effluent limitations, or any other Clean  
32 Water Act limitation, or with any State laws or regulations. Monitoring requirements  
33 typically include measurements of DO, light transmittance (turbidity), pH, and TSS at  
34 varying distances from the dredging operations. If turbidity levels exceed the threshold  
35 established in the WDRs issued by the Los Angeles RWQCB, water chemistry analysis  
36 would be conducted and the LAHD would immediately meet with the construction  
37 manager to discuss modifications of dredging operations to keep turbidity to acceptable  
38 levels. Analyses of contaminant concentrations (such as metals, DDT, PCBs, and PAHs)  
39 in waters during the dredging operations may also be required in the WDRs if turbidity  
40 levels are elevated above certain established thresholds. Monitoring data would be used  
41 to demonstrate that water quality limits specified in the permit are not exceeded. This  
42 would include alteration of dredging methods, and/or implementation of additional BMPs  
43 to limit the size and extent of the dredge plume.

44 Sediments would be disposed of at the LA-2 ODMDS, the Berths 243–245 CDF, or  
45 another approved upland location. Sediments from the proposed dredging area were

1 tested using standard EPA/USACE protocols (according to an approved SAP) prior to  
2 dredging to determine the suitability of the material for unconfined, aquatic disposal or  
3 other disposal alternatives. The majority of sediments within the Berths 212–224  
4 footprint complied with the chemistry, toxicity, and bioaccumulation suitability  
5 requirements for ocean disposal (Title 40 CFR Parts 220–228; Appendix F). The  
6 majority of dredged material (21,800 cubic yards) would be suitable for placement at the  
7 LA-2 ODMDS, and approximately two feet of surface sediments from Composite Area A  
8 (5,200 cubic yards) would be placed within the Berths 243–245 CDF or another approved  
9 upland location. Potential aquatic impacts from disposal of dredged sediments would  
10 depend on the disposal method and location, but they could include increased turbidity,  
11 reduced DO concentrations, and introduction of contaminants. Potential impacts from  
12 dredged material disposal on water/sediment quality at the Berths 243–245 CDF were  
13 evaluated as part of the Port’s Channel Deepening Project and were determined not to be  
14 significant.

15 Runoff from the proposed project site would be controlled under a construction SWPPP  
16 prepared in accordance with GCASP requirements and implemented prior to start of any  
17 construction activities. This construction SWPPP would specify BMPs to prevent and/or  
18 control releases of soils and contaminants and avoid adverse impacts on receiving water  
19 quality. One or more types of runoff control structures would be placed and maintained  
20 around the construction area to minimize loss of site soils to the storm drain system. As  
21 another standard measure, concrete truck wash water and runoff of any water that has  
22 come in contact with wet cement would be contained on site so that it does not runoff  
23 into the Harbor. These measures, combined with the low potential for erosion (see  
24 Impact WQ-4, below), would minimize any soil and contaminant loading to the Harbor  
25 resulting from construction activities. The SWPPP would be prepared by LAHD (or  
26 consultant) with LAHD designated as the “Legally Responsible Person.”

27 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel  
28 spills during fueling, typically involve small volumes that can be effectively contained in  
29 the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and  
30 Control Procedures [CA012]). Construction and industrial SWPPPs and standard Port  
31 BMPs (e.g., use of drip pans, contained refueling areas, regular inspections of equipment  
32 and vehicles, and immediate repairs of leaks) would reduce potentials for materials from  
33 onshore construction activities to be transported off site and enter storm drains.

34 Accidental or incidental spills or leaks that occur on land are expected to be contained  
35 and cleaned up before any impacts on surface water quality can occur. Accidental spills  
36 from dredges or barges could directly affect water quality in the waters off the YTI  
37 Terminal; however, the probability of an accidental spill from a construction vessel to the  
38 Harbor is low. In addition, if an accidental spill does occur, the planning effort to contain  
39 and neutralize the spill and the spill response by the dredging contractors (deployment of  
40 floating booms to contain and absorb the spill and use pumps to assist the cleanup) would  
41 likely prevent the accidental spill from causing a nuisance or from adversely affecting  
42 beneficial uses of the Harbor.

43 The Basin Plan (Los Angeles RWQCB 1994) water quality objective for oil and grease  
44 states, “[w]aters shall not contain oils, greases, waxes or other materials in concentrations  
45 that result in a visible film or coating on the surface of the water or on objects in the  
46 water, that cause nuisance, or that otherwise adversely affect beneficial uses.” Spill  
47 prevention and cleanup procedures for the proposed Project would be addressed in a plan

1 that would be prepared in accordance with LAHD guidelines and implemented by the  
2 construction contractor prior to the notice to proceed with construction operations. The  
3 plan would define actions to minimize potentials for spills and provide efficient responses  
4 to spill events to minimize the magnitude of the spill and extent of impacts.

5 Even though the footprint of the terminal would not increase, the amount of truck traffic  
6 and yard equipment operations at the proposed project site would increase to handle up to  
7 1,913,000 TEUs annually (from about 1,692,000 TEUs annually under the NEPA  
8 baseline [2026]). Rail traffic would also increase at the existing on-dock railyard. This  
9 would increase the amount of particulates and chemical pollutants from normal wear of  
10 tires/train wheels and other moving parts, as well as from leaks of lubricants and  
11 hydraulic fluids that can fall on backland surfaces and subsequently be transported by  
12 stormwater runoff into the Harbor.

13 As noted above, runoff would be managed (consistent with applicable permit and  
14 ordinance requirements) prior to discharge into Harbor waters. Site operations would be  
15 conducted in accordance with an industrial SWPPP to minimize the generation of  
16 particulate pollutants. In addition, monitoring would be conducted under the SWPPP to  
17 observe the quality of the stormwater runoff discharged to the Harbor. This would allow  
18 the tenant and LAHD to ensure that the quality of any runoff would comply with the  
19 permit conditions and verify that any BMPs are performing as anticipated.

20 The design and operation of the proposed Project would comply with both the SUSMP  
21 requirements and the City of Los Angeles LID ordinance requirements. Applicable  
22 BMPs would be incorporated into the proposed project plan that must be approved by the  
23 Bureau of Sanitation WPD prior to issuance of building and grading permits. The  
24 SUSMP requires minimization of the pollutants of concern by incorporating “a BMP or  
25 combination of BMPs best suited to maximize the reduction of pollutant loadings in that  
26 runoff to the maximum extent possible.” The BMPs would include, as applicable, site  
27 design BMPs, source control BMPs, and treatment control BMPs. To the maximum  
28 extent feasible, treatment control BMPs would be selected from LID BMPs.

29 Given the limited footprint of the proposed Project, there may be very limited opportunity  
30 to incorporate significant site design BMPs, but these will be incorporated where  
31 possible. All applicable source control BMPs would be incorporated in the proposed  
32 project design. A list of structural control BMPs that are in use at the YTI Terminal are  
33 shown in Table 3.15-2. Feasible treatment control BMPs would be selected from for the  
34 list of treatment control categories in the guidance manual. For the backland portion of  
35 the proposed Project, BMPs would need to be designed to retain and/or treat the water  
36 quality design volume for the entire area subject to grading and resurfacing.

37 These BMPs must meet the specified design standards in the guidance manual to mitigate  
38 (infiltrate or treat) stormwater runoff. For the structural or treatment control BMPs  
39 included in the proposed project plan, the tenant would be required to provide verification  
40 of maintenance provisions. The controls and BMPs for runoff and storm drain discharges  
41 described above are designed to reduce impacts on water quality and would be fully  
42 implemented for the proposed Project. Tenants would be required to obtain and meet all  
43 conditions of applicable stormwater discharge permits as well as meet all Port pollution  
44 control requirements.

1 An LA/LB Harbor-wide water quality study in 2005 found only five instances where  
2 metal concentrations exceeded CTR criteria for chronic exposure of marine life (POLA  
3 and POLB 2009). All five instances were for dissolved copper: two samples were in  
4 Cabrillo Marina, one in Fish Harbor, and two in Long Beach Inner Harbor.  
5 Concentrations of organic chemicals (such as pesticides, PCBs, and PAHs) were very  
6 low; the exception was TBT (discussed in Section 3.15.2.2). Ambient monitoring and  
7 stormwater monitoring in Long Beach Harbor in 2010–2011 showed that pollutants, such  
8 as metals and semivolatile organic compounds, were present in harbor waters during both  
9 dry-weather surveys and storm surveys (MBC 2011). However, in one sample during the  
10 2010 dry-weather survey, zinc exceeded the standard for marine waters; all other metals  
11 were well below regulatory standards. Mixing with the harbor receiving waters dilutes  
12 the pollutants so that the receiving water standards are usually not exceeded. It is  
13 reasonable to expect that these findings would also apply to stormwater runoff from the  
14 proposed project site, and concentrations of pollutants runoff would not cause violations  
15 of receiving water quality objectives, given compliance with SWPPP and SUSMP/LID  
16 requirements. Concentrations of monitored constituents in stormwater runoff at the YTI  
17 Terminal have been below applicable benchmark values.

18 Upland operations associated with the proposed Project would not result in direct  
19 discharges of wastes to Harbor waters. However, stormwater runoff from the proposed  
20 project site could contain particulate debris from operation of the proposed project  
21 facilities, including aerially deposited pollutants. Discharges of stormwater would  
22 comply with the NPDES discharge permit limits and SWPPP requirements, and they  
23 would be subject to treatment via SUSMP/LID measures prior to discharge to Harbor  
24 waters. Therefore, water quality impacts from site runoff would not be significant.

25 As discussed above, ambient monitoring and stormwater monitoring in Long Beach  
26 Harbor in 2010–2011 (MBC 2011) showed that pollutants, such as metals and  
27 semivolatile organic compounds, but receiving water standards are usually not exceeded.  
28 It is reasonable to expect that these findings would also apply to stormwater runoff from  
29 the proposed project site, and runoff would not cause violations of receiving water quality  
30 objectives, given compliance with SWPPP and SUSMP/LID requirements.

31 In 2012, the Ports of Los Angeles and Long Beach published “Vessel Discharge Rules  
32 and Regulations,” which summarizes the rules and regulations of vessel discharges,  
33 including ballast water and other discharges (POLB and POLA 2012). This document,  
34 which is updated as the applicable regulations change, has been distributed to all terminal  
35 operators/shipping lines to make them aware of the regulations. Vessel traffic would not  
36 increase compared to the NEPA baseline. Therefore, the proposed Project is not  
37 anticipated to result in increased discharge impacts from vessels, or hull leeching of  
38 antifouling materials. Water quality impacts related to these activities would not be  
39 significant.

40 As discussed in Section 3.9, Hazards and Hazardous Materials, the probability of a spill  
41 at a container terminal has been estimated at  $1.14 \times 10^{-6}$  per TEU (35 spills over 4 years  
42 [2009 to 2012] divided by 30,599,122 TEUs, which is the total throughput of the  
43 container terminals at the Port of Los Angeles over the same 4-year period [2009 to  
44 2012]). This means that for every 874,000 TEUs, a spill is probable. Based on the  
45 projected increase in TEUs, the frequency of potential proposed Project-related spills  
46 would increase to 2.2 spills per year from 1.9 spills under the baseline, which equates to  
47 an increase in the number of annual spills by 0.3 under the proposed Project. This

1 increase in spill frequency would be classified as “periodic” (between once per year and  
2 once in ten years). Based on history, a slight possibility exists for injury and or property  
3 damage to occur during one of these frequent accidents; therefore, the potential  
4 consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4,  
5 which is “acceptable.” Compliance with applicable federal, state, and local laws and  
6 regulations governing the transport of hazardous materials and emergency response to  
7 hazardous material spills, as described above, would minimize the potentials for adverse  
8 public health impacts. Therefore, under NEPA, proposed project operations would not  
9 substantially increase the probable frequency and severity of consequences to people or  
10 property as a result of a potential accidental release (including spill from vessels) or  
11 explosion of a hazardous substance. Impacts would be less than significant under NEPA.

12 Accidental spills of petroleum hydrocarbons, hazardous materials, and other pollutants  
13 from proposed project-related upland operations are expected to be limited to small  
14 volume releases because large quantities of those substances are unlikely to be used,  
15 transported, or stored on the site.

16 In summary, based on the analysis above, proposed Project-related construction  
17 activities, including dredging, pile installation, and backlands improvements, and  
18 operations at the improved terminal, including increased container throughput and  
19 increased truck traffic, are not expected to create pollution, contamination, or a nuisance,  
20 or result in violations of water quality standards or permit conditions. Therefore,  
21 significant water quality impacts under NEPA are not expected to occur from  
22 construction, terminal operations, or accidental spills that could occur from  
23 implementation of the proposed Project. Impacts would be less than significant.

#### 24 ***Mitigation Measures***

25 No mitigation is required.

#### 26 ***Residual Impacts***

27 Impacts would be less than significant.

### 28 **Impact WQ-2: The proposed Project would not result in increased** 29 **flooding that would have the potential to harm people or damage** 30 **property or sensitive biological resources.**

#### 31 ***Construction***

32 The proposed project dredging is not expected to increase the flood potential in the  
33 channel, and the Zone AE mapping would remain consistent with current mapping after  
34 implementation of the proposed Project.

35 Most of the terminal is designated by FEMA as Flood Zone X (defined as areas of 0.2%  
36 annual chance flood; areas of 1% annual chance flood with average depths of less than 1  
37 foot or with drainage areas less than 1 square mile; and areas protected by levees from  
38 1% annual chance flood).

39 Construction activities would not increase the potential for flooding on site because site  
40 elevations would remain generally the same as the baseline conditions, even though  
41 grading and backland construction would occur. These minor grade changes would not  
42 significantly alter flood depths or flow paths. During construction, BMPs would be



1 applied to control site runoff from the 50-year design storm as described by the current  
2 County of Los Angeles Hydrology Manual and treat runoff meeting the criteria defined in  
3 the current Los Angeles County Manual for the SUSMP.

#### 4 ***Operation***

5 Although most of the proposed project site is located in Flood Zone X, proposed project  
6 operations would not increase the potential for flooding. Runoff from the proposed  
7 project area is collected in catch basins located throughout the YTI Terminal, and is  
8 conveyed toward five separate discharge points along the wharf that discharge to the East  
9 Basin, East Basin Channel, and Cerritos Channel. All drains are equipped with smart  
10 drains to help filter runoff prior to discharge into the harbor waters. On-site storm drains  
11 and storm drainage conveyance and treatment are currently adequate to treat and convey  
12 runoff from the proposed project site, and total impervious area and existing overland  
13 drainage paths would not change.

14 Because the proposed project site is relatively flat, is located along the water's edge  
15 (which would allow excess runoff to flow off site), and has an existing adequate drainage  
16 system, flood water on the proposed project site from a large storm event is not expected  
17 to be deep enough to cause employees to be harmed or to cause substantial damage to  
18 property within stored containers on site. Additionally, as discussed in Section 3.3,  
19 Biological Resources, no sensitive biological resources are located on the proposed  
20 project site.

#### 21 **CEQA Impact Determination**

22 Because proposed dredging would not alter the current flood mapping in the channel and  
23 because construction of the proposed Project would not increase the potential for flooding  
24 at the site, the proposed Project would not substantially increase the potential for people  
25 or property to be adversely affected by flooding. The proposed Project would not  
26 increase the amount of property, people, or sensitive biological resources exposed to  
27 potential flooding. Site topography and the stormwater management system at the  
28 terminal would control flood conditions to minimize harm to people and property, and no  
29 sensitive biological resources are located on the proposed project site. Therefore,  
30 construction and operation of the proposed Project would not result in significant impacts  
31 from flooding under CEQA.

#### 32 ***Mitigation Measures***

33 No mitigation is required.

#### 34 ***Residual Impacts***

35 Impacts would be less than significant.

#### 36 **NEPA Impact Determination**

37 Because proposed dredging would not alter the current flood mapping in the channel and  
38 because construction of the proposed Project would not increase the potential for flooding  
39 at the site, the proposed Project would not substantially increase the potential for people  
40 or property to be adversely affected by flooding. The proposed project elements subject  
41 to NEPA would not be exposed to any new flooding impacts. Wharf heights would  
42 remain the same and dredging the berths would not affect water heights in backland area.  
43 Total impervious area and existing overland drainage paths are not expected to change.

1 Because the proposed project site is relatively flat, is located along the water's edge  
2 (which would allow excess runoff to flow off site), and contains existing adequate storm  
3 drainage facilities on site, flood water on the proposed project site from a large storm  
4 event is not expected to be deep enough to cause employees to be harmed, cause  
5 substantial damage to property within stored containers on site, or cause any adverse  
6 effects to sensitive biological resources. Therefore, construction and operation of the  
7 proposed Project would not result in significant impacts from flooding under NEPA.

#### 8 ***Mitigation Measures***

9 No mitigation is required.

#### 10 ***Residual Impacts***

11 Impacts would be less than significant.

### 12 **Impact WQ-3: The proposed Project would not result in a permanent** 13 **adverse change in movement of surface water in the Harbor.**

#### 14 ***Construction***

15 This impact threshold addresses changes to the water body that would inhibit circulation  
16 or water mass exchanges with adjacent water bodies, thereby promoting stagnation and  
17 adverse effects to water quality. The proposed Project does not include the discharge of  
18 fill, but includes the disposal of dredged material. Potential impacts due to construction  
19 and fill of the Berths 243–245 CDF and disposal at the LA-2 ODMDS (potential dredged  
20 material disposal locations) were previously evaluated. Dredging off Berths 214–216  
21 will increase the depth from -45 feet to -53 feet MLLW; off Berths 217–220 the depth  
22 will increase from -45 feet to -47 feet MLLW. Approximately 2,600 linear feet of king  
23 piles and sheet piles will be installed along the wharf. None of these in-water  
24 construction elements would result in impediments to water movement.

#### 25 ***Operation***

26 The proposed Project would not result in any cut or fill along the water's edge that could  
27 contribute to changes in the movement of surface water during Terminal operations.  
28 Once construction is completed, proposed project operations would not cause a  
29 permanent adverse change to the movement of surface water because the proposed  
30 Project would not install barriers to prevent or impede water movement around the YTI  
31 Terminal.

#### 32 **CEQA Impact Determination**

33 The proposed Project would not result in a permanent adverse change in surface water  
34 movement because the proposed Project would not install barriers to alter water  
35 movement into and out of the waters off the YTI Terminal. Even though the terminal  
36 would operate at a higher capacity (a 27% increase in ship calls), this would not result in  
37 a permanent adverse change to the movement of surface waters. Therefore, impacts on  
38 the surface water flow within the Harbor would be less than significant under CEQA.

#### 39 ***Mitigation Measures***

40 No mitigation is required.

1                    ***Residual Impacts***

2                    Impacts would be less than significant.

3                    **NEPA Impact Determination**

4                    Although the proposed Project would include upland and in-water construction, the  
5                    proposed Project would not result in a permanent adverse change in surface water  
6                    movement because these activities would not install barriers to prevent or impede water  
7                    movement around the YTI Terminal. The number of ship calls from 2015–2026 would  
8                    be the same as those from the NEPA baseline (206 ship calls per year). Therefore,  
9                    operation of the proposed Project would not result in a permanent adverse change to the  
10                    movement of surface waters, and impacts on surface water flow within the Harbor would  
11                    be less than significant under NEPA.

12                    ***Mitigation Measures***

13                    No mitigation is required.

14                    ***Residual Impacts***

15                    Impacts would be less than significant.

16                    **Impact WQ-4: The proposed Project would not accelerate natural  
17                    processes of wind and water erosion and sedimentation, resulting in  
18                    sediment runoff or deposition that would not be contained or  
19                    controlled on site.**

20                    ***Construction***

21                    The proposed project site is an operational container terminal that is paved. Proposed  
22                    improvements to the site include: grading, re-paving, lighting, drainage, utility  
23                    relocation/modifications, striping, relocation of an existing fence, and third party utility  
24                    modifications, relocations, or removals, as needed. The potential for erosion of soils  
25                    from the proposed project site is low due to the flat terrain, infrequent rainfall events, and  
26                    moderate wind velocities. In addition, re-paving activities would result in temporary soil  
27                    exposure for a short period of time so as to minimize impacts to terminal operations  
28                    during construction activities. Therefore, the natural processes that could accelerate  
29                    erosion during construction activities can be controlled effectively by the use of  
30                    temporary berms, barriers, and grading.

31                    As discussed above under Impact WQ-1, a SWPPP would be prepared that would specify  
32                    (1) logistics and schedule for construction activities that would minimize the potential for  
33                    erosion and (2) standard practices that include monitoring and maintenance of control  
34                    measures. This would include measures to minimize wind or water erosion from the site  
35                    during construction and minimize any potential for eroded sediment to be transported to  
36                    the Harbor receiving waters. Standard practices would follow guidance developed by  
37                    LAHD for soil management (e.g., temporary sediment basin [ESC 56], solid waste  
38                    management [CA 020], and contaminated soil management [CA 022]) to minimize  
39                    potentials for soil erosion and off-site transport. Additionally, runoff of soils from the  
40                    proposed project site would be controlled by use of BMPs, as required by the  
41                    construction SWPPP for the proposed Project. Thus, construction activities would not be

1 expected to accelerate erosion or increase sediment loads to the Harbor in the form of  
2 soils carried by stormwater runoff.

### 3 ***Operation***

4 Site activities associated with the improved YTI Terminal on the 185-acre proposed  
5 project site would not exceed the operational footprint that exists under the CEQA and  
6 NEPA baselines and would not result in an increased potential for sediment erosion or  
7 deposition. As described above under Impact WQ-1, BMPs would be implemented and  
8 site runoff would be managed in accordance with permits and ordinances, which would  
9 prevent or minimize the impacts from sediment in runoff to the East Basin Channel from  
10 the proposed project site.

### 11 **CEQA Impact Determination**

12 The proposed Project would not accelerate natural processes of wind and water erosion or  
13 soil deposition in the Harbor because all applicable BMPs, SUSMP/LID control  
14 measures, and other standard soil management procedures would be implemented to  
15 minimize erosion from the construction site and retain and remove pollutants and solids  
16 from site runoff during operations. The proposed Project would operate on the same  
17 footprint as the CEQA baseline, and all backlands are already paved. Therefore, there  
18 would be little potential for erosion, and impacts would be less than significant under  
19 CEQA.

### 20 ***Mitigation Measures***

21 No mitigation is required.

### 22 ***Residual Impacts***

23 Impacts would be less than significant.

### 24 **NEPA Impact Determination**

25 The proposed Project would not accelerate natural processes of wind and water erosion  
26 and soil deposition in the Harbor because all applicable BMPs, SUSMP/LID control  
27 measures, and other standard soil management procedures would be implemented to  
28 minimize erosion from the construction site and retain and remove pollutants and solids  
29 from site runoff during operations. The proposed Project would operate on the same  
30 footprint as the NEPA baseline, and all backlands are already paved. Therefore, there  
31 would be little potential for erosion, and impacts would be less than significant under  
32 NEPA.

### 33 ***Mitigation Measures***

34 No mitigation is required.

### 35 ***Residual Impacts***

36 Impacts would be less than significant.

### 37 **Alternative 1 – No Project**

38 Under Alternative 1, no further Port action or federal action would occur. LAHD would  
39 not implement any terminal improvements. No new cranes would be added and no

1 dredging would occur, no backland improvements would occur, and no 100-foot gauge  
2 crane rail or repairs to the TICTF on-dock rail would occur.

3 Under the No Project Alternative, the existing YTI Terminal would continue to operate as  
4 an approximately 185-acre container terminal. Based on the throughput projections,  
5 terminal operations are expected to grow over time to the existing capacity of the  
6 terminal as throughput demands increase. Under Alternative 1, the number of ship calls  
7 would increase from 162 in 2012 to 206 by 2015. While this alternative would have the  
8 same number of vessel calls between 2015 and 2026 as the proposed Project, the size of  
9 the vessels would be smaller.

10 The No Project Alternative would not preclude future improvements to the proposed  
11 project site. However, any future changes in use or new improvements with the potential  
12 to significantly impact the environment would need to be analyzed in a separate  
13 environmental document.

14 **Impact WQ-1: Alternative 1 would not create pollution,**  
15 **contamination, or a nuisance as defined in Section 13050 of the CWC**  
16 **or cause regulatory standards to be violated in Harbor waters.**

17 ***Construction***

18 Alternative 1 would not involve any construction activities. Therefore, there would be no  
19 pollution, contamination, nuisance, or violation of regulatory standards due to  
20 construction.

21 ***Operation***

22 Impacts on water quality during operations could occur from runoff, atmospheric (aerial)  
23 deposition of contaminants, discharges of contaminants from vessels, and accidental  
24 spills.

25 ***Runoff***

26 Operation of the YTI Terminal under Alternative 1 would not involve any direct point  
27 source discharges of wastes or wastewaters to the Harbor. The operation of marine  
28 terminals and backland container facilities on land adds particulates and other pollutants  
29 to the site. Operations of non-electric equipment and vehicles for Alternative 1 would  
30 generate air emissions containing particulate pollutants. A portion of these particulates  
31 would be deposited on the site and subject to subsequent transport by storm runoff. At  
32 the YTI Terminal, stormwater is collected in catch basins and conveyed to storm drains  
33 along the East Basin Channel. The storm drains are fitted with “Smart Drains,” which  
34 reduce the amount of sediment (and bound contaminants) in the runoff. Transport of  
35 contaminants, such as metals, by runoff from the site of Alternative 1 would contribute  
36 incrementally to changes in receiving water quality.

37 ***Deposition of Contaminants***

38 Direct atmospheric deposition refers to air pollutants that settle directly on water bodies,  
39 whereas indirect atmospheric deposition occurs on upland areas where the pollutants  
40 collect and are later conveyed to water bodies by runoff. Atmospheric deposition related  
41 to Port operations emissions may provide an increased impact on the local watersheds.  
42 These impacts are primarily related to resuspended dust from vehicular traffic and coarse-

1 sized, mechanically derived particles, such as zinc from tire wear and copper from brake  
2 pad wear. Fine particulates from vehicle exhaust may also contribute to the local  
3 watersheds, but to a lesser degree.

4 Particulates from area-wide and regional transportation sources likely dominate the  
5 metal-containing particulate matter that enters the storm drain systems because traffic  
6 volumes from freeways, commercial roads, and surface streets far outweigh the  
7 transportation volumes from the Port operations alone. These particles accumulate  
8 during dry weather conditions and are later washed off during storm events. For  
9 suspended zinc and copper pollutants from the site of Alternative 1 (e.g., tire and brake  
10 wear from equipment and trucks), direct impacts would not be expected to significantly  
11 affect water quality due to the likely limited and dispersed nature of direct deposition on  
12 Harbor waters, and because direct aerial disposition would not allow for a significant  
13 buildup of these pollutants before entering Harbor waters.

#### 14 *Vessel Discharges and Contaminants*

15 The amount of vessel traffic at the site of Alternative 1 would increase by up to 44 annual  
16 ship calls (by 2026) as compared to the CEQA baseline. There would be no increase in  
17 ship calls compared to the NEPA baseline. Discharges of polluted water (such as bilge  
18 water or gray water) or ballast water directly to the Harbor are prohibited under the Port  
19 tariff and other regulations; however, discharges to the Harbor of clean ballast waters are  
20 not.

21 Studies by the U.S. Navy have demonstrated that the leaching of metals from vessel hull  
22 coatings contributed to overall concentrations of water column metals in harbors such as  
23 Mayport, Florida; Pearl Harbor, Hawaii; and San Diego, California; however, estimated  
24 concentrations of metals resulting from hull vessel leachates were in most cases below  
25 federal and state water quality criteria (EPA 1999). One constituent of hull coating  
26 known to cause toxic effects is TBT, which has been banned from use. Other  
27 constituents, such as copper, still pose a threat. However, concentrations of metals, such  
28 as those used in antifouling applications (copper and zinc), have been measured near or  
29 below detection limits in waters off the proposed project site.

#### 30 *Spills*

31 Other potential operational sources of pollutants that could affect water quality in the  
32 waters off the YTI Terminal include accidental spills on land that enter storm drains, as  
33 well as accidental spills from vessels. If spilled material in upland areas were not  
34 captured prior to reaching the storm drain system, such materials could reach the East  
35 Basin Channel off the YTI Terminal. Spills or illegal discharges from vessels could also  
36 occur in the same waters, or during their transit to and from the YTI Terminal from the  
37 Harbor entrance at Angels Gate. Impacts on water and sediment quality would depend  
38 on (1) the characteristics of the material spilled, such as volatility, solubility in water, and  
39 sedimentation rate, and (2) the speed and effectiveness of the spill response and cleanup  
40 efforts. Potential releases of pollutants from a large spill to Harbor waters and sediments  
41 would be minimized through existing regulatory and on-site controls and are unlikely to  
42 occur during the life of Alternative 1.

## CEQA Impact Determination

Because there would be no new construction at the proposed site as part of Alternative 1, there would be no pollution, contamination, nuisance, or violation of regulatory standards due to proposed project construction. No impacts would occur.

Even though the footprint of the terminal would not increase, the amount of truck traffic and yard equipment operations at the site of Alternative 1 would increase to handle up to 1,692,000 TEUs annually (from 996,109 TEUs annually under the CEQA baseline). Rail traffic would also increase at the existing on-dock railyard. This would increase the amount of particulates and chemical pollutants from normal wear of tires/train wheels and other moving parts, as well as from leaks of lubricants and hydraulic fluids that can fall on backland surfaces and subsequently be transported by stormwater runoff into the Harbor.

As noted in Impact WQ-1 for the proposed Project, runoff would be managed (consistent with applicable permit and ordinance requirements) prior to discharge into Harbor waters. Site operations would be conducted in accordance with an industrial SWPPP to minimize the generation of particulate pollutants. In addition, monitoring would be conducted under the SWPPP to observe the quality of the stormwater runoff discharged to the Harbor. This would allow the tenant and LAHD to ensure that the quality of any runoff would comply with the permit conditions and verify that any BMPs are performing as anticipated.

The design and operation of Alternative 1 would comply with both the SUSMP requirements and the City of Los Angeles LID ordinance requirements. Applicable BMPs would be incorporated into the proposed project plan that must be approved by the Bureau of Sanitation WPD prior to issuance of building and grading permits. The SUSMP requires minimization of the pollutants of concern by incorporating “a BMP or combination of BMPs best suited to maximize the reduction of pollutant loadings in that runoff to the maximum extent possible.” The BMPs would include, as applicable, site design BMPs, source control BMPs, and treatment control BMPs. To the maximum extent feasible, treatment control BMPs would be selected from LID BMPs.

Given the limited footprint of Alternative 1, there may be very limited opportunity to incorporate significant site design BMPs, but these will be incorporated where possible. All applicable source control BMPs would be incorporated in the proposed project design. A list of structural control BMPs that are in use at the YTI Terminal are shown in Table 3.15-2. Feasible treatment control BMPs would be selected from for the list of treatment control categories in the guidance manual. For the backland portion of Alternative 1, BMPs would need to be designed to retain and/or treat the water quality design volume for the entire area subject to grading and resurfacing.

These BMPs must meet the specified design standards in the guidance manual to mitigate (infiltrate or treat) stormwater runoff. For the structural or treatment control BMPs included in the proposed project plan for Alternative 1, the tenant would be required to provide verification of maintenance provisions. The controls and BMPs for runoff and storm drain discharges described above are designed to reduce impacts on water quality and would be fully implemented for Alternative 1. Tenants would be required to obtain and meet all conditions of applicable stormwater discharge permits as well as meet all Port pollution control requirements.

1 An LA/LB Harbor-wide water quality study in 2005 found only five instances where  
2 metal concentrations exceeded CTR criteria for chronic exposure of marine life (POLA  
3 and POLB 2009). All five instances were for dissolved copper: two samples were in  
4 Cabrillo Marina, one in Fish Harbor, and two in Long Beach Inner Harbor.  
5 Concentrations of organic chemicals (such as pesticides, PCBs, and PAHs) were very  
6 low; the exception was TBT (discussed in Section 3.15.2.2). Ambient monitoring and  
7 stormwater monitoring in Long Beach Harbor in 2010–2011 showed that pollutants, such  
8 as metals and semivolatile organic compounds, were present in harbor waters during both  
9 dry-weather surveys and storm surveys (MBC 2011). However, in one sample during the  
10 2010 dry-weather survey, zinc exceeded the standard for marine waters; all other metals  
11 were well below regulatory standards. Mixing with the harbor receiving waters dilutes  
12 the pollutants so that the receiving water standards are usually not exceeded. It is  
13 reasonable to expect that these findings would also apply to stormwater runoff from the  
14 site of Alternative 1, and concentrations of pollutants in runoff would not cause violations  
15 of receiving water quality objectives, given compliance with SWPPP and SUSMP/LID  
16 requirements. Concentrations of monitored constituents in stormwater runoff at the YTI  
17 Terminal have been below applicable benchmark values.

18 Upland operations associated with Alternative 1 would not result in direct discharges of  
19 wastes to Harbor waters. However, stormwater runoff from the proposed project site  
20 could contain particulate debris from operation of the facilities, including aurally  
21 deposited pollutants. Discharges of stormwater would comply with the NPDES  
22 discharge permit limits and SWPPP requirements, and they would be subject to treatment  
23 via SUSMP/LID measures prior to discharge to Harbor waters. Therefore, water quality  
24 impacts from site runoff would not be significant.

25 As discussed above, ambient monitoring and stormwater monitoring in Long Beach  
26 Harbor in 2010–2011 (MBC 2011) showed that pollutants, such as metals and  
27 semivolatile organic compounds, are detectable in runoff, but receiving water standards  
28 are usually not exceeded. It is reasonable to expect that these findings would also apply  
29 to stormwater runoff from the site of Alternative 1, and runoff would not cause violations  
30 of receiving water quality objectives, given compliance with SWPPP and SUSMP/LID  
31 requirements.

32 In 2012, the Ports of Los Angeles and Long Beach published “Vessel Discharge Rules  
33 and Regulations,” which summarizes the rules and regulations of ballast water discharge  
34 and other discharges (POLB and POLA 2012). This document, which is updated as the  
35 applicable regulations change, has been distributed to all terminal operators/shipping  
36 lines to make them aware of the regulations. With international, federal, and state  
37 regulations in place, the increased vessel traffic and terminal operations associated with  
38 Alternative 1 are not anticipated to result in increased discharge impacts from vessels.

39 The number or severity of illegal discharges, and corresponding changes to water and  
40 sediment quality, from increased vessel traffic cannot be accurately quantified because  
41 the rate and chemical composition of illegal discharges from commercial vessels is  
42 unknown. However, there is no evidence that illegal discharges from ships presently  
43 utilizing Los Angeles Harbor are causing widespread problems in the Harbor. Over  
44 several decades, there has been a vast improvement in Harbor water quality despite an  
45 overall increase in ship traffic. In addition, the Port Police are authorized to cite any  
46 vessel that is in violation of Port tariffs, including illegal discharges. Illegal discharges  
47 resulting from operation of Alternative 1 are not likely to occur.



1 By the 1980s, numerous studies had documented toxic effects of TBT at extremely low  
2 concentrations (parts per trillion) to non-target species (Huggett et al. 1992). Because of  
3 these studies, regulatory actions were adopted in France (1982) and the United Kingdom  
4 (1985), and in 1988 the U.S. Congress passed the Organotin Antifouling Paint Control  
5 Act. On an international level, the IMO passed the International Convention on the  
6 Control of Harmful Antifouling Systems on Ships. This prohibits or restricts the use of  
7 antifouling systems on ships that are parties to the convention, those that are more than  
8 400 gross tonnage that are engaged in international voyages, or those greater than 24  
9 meters in length. This convention was ratified in 2007, and became binding on those  
10 governments who ratified it on September 17, 2008. This convention was signed by the  
11 U.S. on December 12, 2002 (NOAA 2011), and the lines calling at the YTI Terminal  
12 have indicated they are compliant. Therefore, TBT is not expected to leech from vessel  
13 hulls at the site of Alternative 1.

14 Even though Alternative 1 would result in increased vessel traffic, and potentially an  
15 incremental increase in hull leaching (of non-TBT substances), concentrations of metals  
16 in waters near the proposed project site have been well below regulatory criteria (POLA  
17 and POLB 2009; AMEC 2012). Therefore, water quality impacts related to leaching of  
18 contaminants from hull coatings would not be significant.

19 Based on the projected increase in TEUs occupying the terminal site, the frequency of  
20 potential Alternative 1-related spills would increase to 1.9 spills per year from 1.1 spills  
21 under the baseline, which equates to an increase in the number of annual spills by 0.8  
22 under Alternative 1. This spill frequency would be classified as “periodic” (between  
23 once per year and once in ten years). Based on history, a slight possibility exists for  
24 injury and or property damage to occur during one of these frequent accidents; therefore  
25 the consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4,  
26 which is “acceptable.” Compliance with applicable federal, state, and local laws and  
27 regulations governing the transport of hazardous materials and emergency response to  
28 hazardous material spills, as described above, would minimize the potential for adverse  
29 public health impacts. Therefore, under CEQA, Alternative 1 operations would not  
30 substantially increase the probable frequency and severity of consequences to people or  
31 property as a result of an accidental release or explosion of a hazardous substance.  
32 Impacts under CEQA would be less than significant.

33 Accidental spills of petroleum hydrocarbons, hazardous materials, and other pollutants  
34 from proposed project-related upland operations are expected to be limited to small  
35 volume releases because large quantities of those substances are unlikely to be used,  
36 transported, or stored on the site.

37 In summary, based on the analysis above, no impacts would occur for construction of  
38 Alternative 1, and operations at the terminal from Alternative 1, including increased  
39 container throughput and increased truck traffic, are not expected to create pollution,  
40 contamination, or a nuisance, or result in violations of water quality standards or permit  
41 conditions. Therefore, significant water quality impacts under CEQA are not expected to  
42 occur from construction, terminal operations, or accidental spills that could occur from  
43 implementation of Alternative 1. Impacts would be less than significant.

#### 44 ***Mitigation Measures***

45 No mitigation is required.

1                    ***Residual Impacts***

2                    Impacts would be less than significant.

3                    **NEPA Impact Determination**

4                    Analysis of the No Project Alternative is required by CEQA. Therefore, the analysis of  
5                    this alternative is not required under NEPA. NEPA requires the analysis of a No Federal  
6                    Action Alternative (Alternative 2 in this document).

7                    ***Mitigation Measures***

8                    Mitigation measures are not applicable.

9                    ***Residual Impacts***

10                  An impact determination is not applicable.

11                  **Impact WQ-2: Alternative 1 would not result in increased flooding  
12                  that would have the potential to harm people or damage property or  
13                  sensitive biological resources.**

14                  Alternative 1 includes no dredging or construction or other alterations to the proposed  
15                  project site. Runoff from the proposed project area is collected in catch basins located  
16                  throughout the YTI Terminal, and is conveyed toward five separate discharge points  
17                  along the wharf that discharge to the East Basin, East Basin Channel, and Cerritos  
18                  Channel. All drains are equipped with smart drains to help filter runoff prior to discharge  
19                  into the harbor waters. On-site storm drains and storm drainage conveyance and  
20                  treatment are currently adequate to treat and convey runoff from the proposed project  
21                  site, and total impervious area and existing overland drainage paths would not change.

22                  Because the proposed project site is relatively flat, is located along the water's edge  
23                  (which would allow excess runoff to flow off site), and has an existing adequate drainage  
24                  system, flood water on the proposed project site from a large storm event is not expected  
25                  to be deep enough to cause employees to be harmed or to cause substantial damage to  
26                  property within stored containers on site. Additionally, as discussed in Section 3.3,  
27                  Biological Resources, no sensitive biological resources are located on the proposed  
28                  project site.

29                  **CEQA Impact Determination**

30                  Because there would be no construction at the proposed project site as part of Alternative  
31                  1, construction-related flooding impacts would not occur. Alternative 1 would not  
32                  increase the amount of property, people, or sensitive biological resources exposed to  
33                  potential flooding. Site topography and the stormwater management system at the  
34                  terminal would control flood conditions to minimize harm to people and property, and no  
35                  sensitive biological resources are located on the proposed project site. Therefore,  
36                  Alternative 1 would result in a less than significant impact from flooding under CEQA.

37                  ***Mitigation Measures***

38                  No mitigation is required.

1                    ***Residual Impacts***

2                    Impacts would be less than significant.

3                    **NEPA Impact Determination**

4                    Analysis of the No Project Alternative is required by CEQA. Therefore, the analysis of  
5                    this alternative is not required under NEPA. NEPA requires the analysis of a No Federal  
6                    Action Alternative (Alternative 2 in this document).

7                    ***Mitigation Measures***

8                    Mitigation measures are not applicable.

9                    ***Residual Impacts***

10                  An impact determination is not applicable.

11                  **Impact WQ-3: Alternative 1 would not result in a permanent adverse  
12                  change in movement of surface water in the Harbor.**

13                  Alternative 1 would not involve in-water construction at the proposed project site.  
14                  Alternative 1 would not result in any cut or fill along the water's edge that could  
15                  contribute to changes in the movement of surface water during terminal operations. Once  
16                  construction is completed, operation of Alternative 1 would not cause a permanent  
17                  adverse change to the movement of surface water because Alternative 1 would not install  
18                  barriers to prevent or impede water movement around the YTI Terminal.

19                  **CEQA Impact Determination**

20                  Alternative 1 would not install barriers to prevent or impede water movement around the  
21                  YTI Terminal. Even though the terminal would operate at a higher capacity (a 27%  
22                  increase in ship calls), this would not result in a permanent adverse change to the  
23                  movement of surface waters. Therefore, impacts on surface water flow would be less  
24                  than significant under CEQA.

25                  ***Mitigation Measures***

26                  No mitigation is required.

27                  ***Residual Impacts***

28                  Impacts would be less than significant.

29                  **NEPA Impact Determination**

30                  Analysis of the No Project Alternative is required by CEQA. Therefore, the analysis of  
31                  this alternative is not required under NEPA. NEPA requires the analysis of a No Federal  
32                  Action Alternative (Alternative 2 in this document).

33                  ***Mitigation Measures***

34                  Mitigation measures are not applicable.

1                    ***Residual Impacts***

2                    An impact determination is not applicable.

3                    **Impact WQ-4: Alternative 1 would not accelerate natural processes**  
4                    **of wind and water erosion and sedimentation, resulting in sediment**  
5                    **runoff or deposition that would not be contained or controlled on**  
6                    **site.**

7                    Alternative 1 would not involve any in-water or backland construction. Site activities  
8                    associated with Alternative 1 on the 185-acre proposed project site would not exceed the  
9                    operational footprint that exists under the CEQA and NEPA baselines and would not  
10                  result in an increased potential for sediment erosion or deposition. As described above  
11                  under Impact WQ-1, BMPs would be implemented and site runoff would be managed in  
12                  accordance with permits and ordinances, which would prevent or minimize the impacts  
13                  from sediment in runoff to the East Basin Channel from site of Alternative 1.

14                  **CEQA Impact Determination**

15                  Because there would be no construction or backland development at the proposed site as  
16                  part of Alternative 1, there would be no construction-related acceleration of erosion or  
17                  sedimentation. Operations associated with Alternative 1 would not accelerate erosion  
18                  and soil deposition in the Harbor due in part to implementation of BMPs and  
19                  SUSMP/LID control measures that retain and remove pollutants and solids from site  
20                  runoff. Alternative 1 would operate on the same footprint as the CEQA baseline, and all  
21                  backlands are already paved. Therefore, there would be little potential for erosion.  
22                  Impacts on water quality would be less than significant under CEQA.

23                  ***Mitigation Measures***

24                  No mitigation is required.

25                  ***Residual Impacts***

26                  Impacts would be less than significant.

27                  **NEPA Impact Determination**

28                  Analysis of the No Project Alternative is required by CEQA. Therefore, the analysis of  
29                  this alternative is not required under NEPA. NEPA requires the analysis of a No Federal  
30                  Action Alternative (Alternative 2 in this document).

31                  ***Mitigation Measures***

32                  Mitigation measures are not applicable.

33                  ***Residual Impacts***

34                  An impact determination is not applicable.

35                  **Alternative 2 – No Federal Action**

36                  Alternative 2 is a NEPA-required no-action alternative for purposes of this Draft  
37                  EIS/EIR. This alternative includes the activities that would occur absent a USACE  
38                  permit and could include improvements that require a local permit. Absent a USACE

1 permit, no dredging, dredged material disposal, in-water pile installation, or crane  
2 installation/extension would occur. Expansion of the TICTF and extension of the crane  
3 rail also would not occur. The No Federal Action alternative includes only backlands  
4 improvements consisting of slurry sealing; deep cold planing; asphalt concrete overlay;  
5 restriping; and removal, relocation, or modification of any underground conduits and  
6 pipes necessary to complete repairs. These activities would not change the capacity of  
7 the existing terminal.

8 The site would continue to operate as an approximately 185-acre container terminal  
9 where cargo containers are loaded to/from vessels, temporarily stored on backlands, and  
10 transferred to/from trucks or on-dock rail. Based on the throughput projections, the YTI  
11 Terminal is expected to reach its operating capacity of approximately 1,692,000 TEUs  
12 with 206 ship calls by 2026.

13 **Impact WQ-1: Alternative 2 would not create pollution,**  
14 **contamination, or a nuisance as defined in Section 13050 of the CWC**  
15 **or cause regulatory standards to be violated in Harbor waters.**

16 ***Construction***

17 Alternative 2 would not involve dredging and pile installation, or disposal of dredged  
18 material; therefore, impacts associated with dredging, disposal, and pile installation as  
19 described under the proposed Project would not occur under this alternative.

20 ***Effects of Backlands Improvements***

21 Ground disturbances and construction activities related to backlands improvements could  
22 result in temporary impacts on surface water quality if uncontrolled runoff of exposed  
23 soils, asphalt leachate, concrete washwater, and other construction materials enter Harbor  
24 waters. No upland surface bodies of water currently exist within the proposed project  
25 boundaries. Thus, construction-related impacts on surface water quality would be limited  
26 to potential non-stormwater discharges or discharges of stormwater runoff to Harbor  
27 waters that receive runoff from the site of Alternative 2. Runoff from the upland portions  
28 of the proposed project site would flow into the Harbor, along with runoff from other  
29 adjacent areas of the Harbor's subwatershed. Runoff at the proposed project site is  
30 collected by the on-site storm drain system and is managed in compliance with applicable  
31 permits and ordinances (including SUSMP requirements) prior to discharge to the Harbor  
32 (to the East Basin Channel). In addition to soils, runoff from a construction site could  
33 contain a variety of contaminants, including metals and PAHs, associated with  
34 construction materials, and spills of oil or other petroleum products. Impacts on surface  
35 water quality from accidental spills are addressed below.

36 ***Accidental Spills***

37 Accidents resulting in spills of fuel, lubricants, or hydraulic fluid from equipment used  
38 during backlands improvement could occur during construction of Alternative 2. Based  
39 on the history for this type of work in the Harbor, accidental leaks and spills of large  
40 volumes of hazardous materials or wastes containing contaminants during onshore  
41 construction activities have a very low probability of occurring because large volumes of  
42 these materials typically are not used or stored at construction sites (see Section 3.9,  
43 Hazards and Hazardous Materials).

**1                    Operation**

2                    Operation of Alternative 2 would be similar to existing conditions, with the exception of  
3                    organic growth in container throughput and vessel calls at the terminal. The YTI  
4                    Terminal would handle up to 1,692,000 TEUs with 206 vessel calls annually by 2026  
5                    (increase of 695,891 TEUs and 44 vessel calls over the existing conditions). There would  
6                    be no increase in ship calls compared to the NEPA baseline. Like the proposed Project,  
7                    this alternative would not involve any direct point source discharges of wastes or  
8                    wastewaters to the Harbor. The increase in terminal operations from increased vessel,  
9                    truck, rail, and backland equipment could incrementally increase polluted runoff in  
10                    receiving waters.

**11                   Runoff**

12                   Operation of the YTI Terminal under Alternative 2 would not involve any direct point  
13                   source discharges of wastes or wastewaters to the Harbor. The operation of marine  
14                   terminals and backland container facilities on land adds particulates and other pollutants  
15                   to the site. Operations of non-electric equipment and vehicles for Alternative 2 would  
16                   generate air emissions containing particulate pollutants. A portion of these particulates  
17                   would be deposited on the site and subject to subsequent transport by storm runoff. At  
18                   the YTI Terminal, stormwater is collected in catch basins and conveyed to storm drains  
19                   along the East Basin Channel. The storm drains are fitted with “Smart Drains,” which  
20                   reduce the amount of sediment (and bound contaminants) in the runoff. Transport of  
21                   contaminants, such as metals, by runoff from the proposed project site would contribute  
22                   incrementally to changes in receiving water quality.

**23                   Deposition of Contaminants**

24                   Direct atmospheric deposition refers to air pollutants that settle directly on water bodies,  
25                   whereas indirect atmospheric deposition occurs on upland areas where the pollutants  
26                   collect and are later conveyed to water bodies by runoff. Atmospheric deposition related  
27                   to Port operations emissions may provide an increased impact on the local watersheds.  
28                   These impacts are primarily related to resuspended dust from vehicular traffic and coarse-  
29                   sized, mechanically derived particles, such as zinc from tire wear and copper from brake  
30                   pad wear. Fine particulates from vehicle exhaust may also contribute to the local  
31                   watersheds, but to a lesser degree.

32                   Particulates from area-wide and regional transportation sources likely dominate the  
33                   metal-containing particulate matter that enters the storm drain systems because traffic  
34                   volumes from freeways, commercial roads, and surface streets far outweigh the  
35                   transportation volumes from the Port operations alone. These particles accumulate  
36                   during dry weather conditions and are later washed off during storm events. For  
37                   suspended zinc and copper pollutants from the site of Alternative 2 (e.g., tire and brake  
38                   wear from equipment and trucks), direct impacts would not be expected to significantly  
39                   affect water quality due to the likely limited and dispersed nature of direct deposition on  
40                   Harbor waters, and because direct aerial disposition would not allow for a significant  
41                   buildup of these pollutants before entering Harbor waters.

**42                   Vessel Discharges and Contaminants**

43                   The amount of vessel traffic at the proposed project site would increase by up to 44  
44                   annual ship calls (by 2026) as compared to the CEQA baseline, as a result of Alternative  
45                   2. There would not be any increase in ship calls compared to the NEPA baseline.

1 Discharges of polluted water (such as bilge water or gray water) or ballast water directly  
2 to the Harbor are prohibited under the Port tariff and other regulations; however,  
3 discharges to the Harbor of clean ballast waters are not.

4 Studies by the U.S. Navy have demonstrated that the leaching of metals from vessel hull  
5 coatings contributed to overall concentrations of water column metals in harbors such as  
6 Mayport, Florida; Pearl Harbor, Hawaii; and San Diego, California; however, estimated  
7 concentrations of metals resulting from hull vessel leachates were in most cases below  
8 federal and state water quality criteria (EPA 1999). One constituent of hull coating  
9 known to cause toxic effects is TBT, which has been banned from use. Other  
10 constituents, such as copper, still pose a threat. However, concentrations of metals, such  
11 as those used in antifouling applications (copper and zinc), have been measured near or  
12 below detection limits in waters off the proposed project site.

### 13 *Spills*

14 Other potential operational sources of pollutants that could affect water quality in the  
15 waters off the YTI Terminal include accidental spills on land that enter storm drains, as  
16 well as accidental spills from vessels. If spilled material in upland areas were not  
17 captured prior to reaching the storm drain system, such materials could reach the East  
18 Basin Channel off the YTI Terminal. Spills or illegal discharges from vessels could also  
19 occur in the same waters, or during their transit to and from the YTI Terminal from the  
20 Harbor entrance at Angels Gate. Impacts on water and sediment quality would depend  
21 on (1) the characteristics of the material spilled, such as volatility, solubility in water, and  
22 sedimentation rate, and (2) the speed and effectiveness of the spill response and cleanup  
23 efforts. Potential releases of pollutants from a large spill to Harbor waters and sediments  
24 would be minimized through existing regulatory and on-site controls and are unlikely to  
25 occur during the life of Alternative 2.

### 26 **CEQA Impact Determination**

27 Runoff from the site of Alternative 2 would be controlled under a construction SWPPP  
28 prepared in accordance with GCASP requirements and implemented prior to start of any  
29 construction activities. This construction SWPPP would specify BMPs to prevent and/or  
30 control releases of soils and contaminants and avoid adverse impacts on receiving water  
31 quality. One or more types of runoff control structures would be placed and maintained  
32 around the construction area to minimize loss of site soils to the storm drain system. As  
33 another standard measure, concrete truck wash water and runoff of any water that has  
34 come in contact with wet cement would be contained on site so that it does not runoff  
35 into the Harbor. These measures, combined with the low potential for erosion (see  
36 Impact WQ-4, below), would minimize any soil and contaminant loading to the Harbor  
37 resulting from construction activities. The SWPPP would be prepared by LAHD (or  
38 consultant) with LAHD designated as the “Legally Responsible Person.”

39 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel  
40 spills during fueling, typically involve small volumes that can be effectively contained in  
41 the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and  
42 Control Procedures [CA012]). Construction and industrial SWPPPs and standard Port  
43 BMPs (e.g., use of drip pans, contained refueling areas, regular inspections of equipment  
44 and vehicles, and immediate repairs of leaks) would reduce potentials for materials from  
45 onshore construction activities to be transported off site and enter storm drains.

1 The Basin Plan (Los Angeles RWQCB 1994) water quality objective for oil and grease  
2 states, “[w]aters shall not contain oils, greases, waxes or other materials in concentrations  
3 that result in a visible film or coating on the surface of the water or on objects in the  
4 water, that cause nuisance, or that otherwise adversely affect beneficial uses.” Spill  
5 prevention and cleanup procedures for Alternative 2 would be addressed in a plan that  
6 would be prepared in accordance with LAHD guidelines and implemented by the  
7 construction contractor prior to the notice to proceed with construction operations. The  
8 plan would define actions to minimize potentials for spills and provide efficient responses  
9 to spill events to minimize the magnitude of the spill and extent of impacts.

10 Even though the footprint of the terminal would not increase, the amount of truck traffic  
11 and yard equipment operations at the site of Alternative 2 would increase to handle up to  
12 1,692,000 TEUs annually (from about 996,109 TEUs annually under the CEQA  
13 baseline). Rail traffic would also increase at the existing on-dock railyard. This would  
14 increase the amount of particulates and chemical pollutants from normal wear of  
15 tires/train wheels and other moving parts, as well as from leaks of lubricants and  
16 hydraulic fluids that can fall on backland surfaces and subsequently be transported by  
17 stormwater runoff into the Harbor.

18 As noted in Impact WQ-1, runoff would be managed (consistent with applicable permit  
19 and ordinance requirements) prior to discharge into Harbor waters. Site operations would  
20 be conducted in accordance with an industrial SWPPP to minimize the generation of  
21 particulate pollutants. In addition, monitoring would be conducted under the SWPPP to  
22 observe the quality of the stormwater runoff discharged to the Harbor. This would allow  
23 the tenant and LAHD to ensure that the quality of any runoff would comply with the  
24 permit conditions and verify that any BMPs are performing as anticipated.

25 The design and operation of Alternative 2 would comply with both the SUSMP  
26 requirements and the City of Los Angeles LID ordinance requirements. Applicable  
27 BMPs would be incorporated into the proposed project plan that must be approved by the  
28 Bureau of Sanitation WPD prior to issuance of building and grading permits. The  
29 SUSMP requires minimization of the pollutants of concern by incorporating “a BMP or  
30 combination of BMPs best suited to maximize the reduction of pollutant loadings in that  
31 runoff to the maximum extent possible.” The BMPs would include, as applicable, site  
32 design BMPs, source control BMPs, and treatment control BMPs. To the maximum  
33 extent feasible, treatment control BMPs would be selected from LID BMPs.

34 Given the limited footprint of Alternative 2, there may be very limited opportunity to  
35 incorporate significant site design BMPs, but these will be incorporated where possible.  
36 All applicable source control BMPs would be incorporated in the proposed project  
37 design. A list of structural control BMPs that are in use at the YTI Terminal are shown in  
38 Table 3.15-2. Feasible treatment control BMPs would be selected from for the list of  
39 treatment control categories in the guidance manual. For the backland portion of  
40 Alternative 2, BMPs would need to be designed to retain and/or treat the water quality  
41 design volume for the entire area subject to grading and resurfacing.

42 These BMPs must meet the specified design standards in the guidance manual to mitigate  
43 (infiltrate or treat) stormwater runoff. For the structural or treatment control BMPs  
44 included in the proposed project plan for Alternative 2, the tenant would be required to  
45 provide verification of maintenance provisions. The controls and BMPs for runoff and  
46 storm drain discharges described above are designed to reduce impacts on water quality



1 and would be fully implemented for Alternative 2. Tenants would be required to obtain  
2 and meet all conditions of applicable stormwater discharge permits as well as meet all  
3 Port pollution control requirements.

4 An LA/LB Harbor-wide water quality study in 2005 found only five instances where  
5 metal concentrations exceeded CTR criteria for chronic exposure of marine life (POLA  
6 and POLB 2009). All five instances were for dissolved copper: two samples were in  
7 Cabrillo Marina, one in Fish Harbor, and two in Long Beach Inner Harbor.  
8 Concentrations of organic chemicals (such as pesticides, PCBs, and PAHs) were very  
9 low; the exception was TBT (discussed in Section 3.15.2.2). Ambient monitoring and  
10 stormwater monitoring in Long Beach Harbor in 2010-2011 showed that pollutants, such  
11 as metals and semivolatile organic compounds, were present in harbor waters during both  
12 dry-weather surveys and storm surveys (MBC 2011). However, in one sample during the  
13 2010 dry-weather survey, zinc exceeded the standard for marine waters; all other metals  
14 were well below regulatory standards. Mixing with the harbor receiving waters dilutes  
15 the pollutants so that the receiving water standards are usually not exceeded. It is  
16 reasonable to expect that these findings would also apply to stormwater runoff from the  
17 site of Alternative 2, and concentrations of pollutants in runoff would not cause violations  
18 of receiving water quality objectives, given compliance with SWPPP and SUSMP/LID  
19 requirements. Concentrations of monitored constituents in stormwater runoff at the YTI  
20 Terminal have been below applicable benchmark values.

21 Upland operations associated with Alternative 2 would not result in direct discharges of  
22 wastes to Harbor waters. However, stormwater runoff from the proposed project site  
23 could contain particulate debris from operation of the facilities, including aurally  
24 deposited pollutants. Discharges of stormwater would comply with the NPDES  
25 discharge permit limits and SWPPP requirements, and they would be subject to treatment  
26 via SUSMP/LID measures prior to discharge to Harbor waters. Therefore, water quality  
27 impacts from site runoff would not be significant.

28 As discussed above, ambient monitoring and stormwater monitoring in Long Beach  
29 Harbor in 2010-2011 (MBC 2011) showed that pollutants, such as metals and  
30 semivolatile organic compounds, are detectable in runoff, but receiving water standards  
31 are usually not exceeded. It is reasonable to expect that these findings would also apply  
32 to stormwater runoff from the site of Alternative 2, and runoff would not cause violations  
33 of receiving water quality objectives, given compliance with SWPPP and SUSMP/LID  
34 requirements.

35 In 2012, the Ports of Los Angeles and Long Beach published “Vessel Discharge Rules  
36 and Regulations,” which summarizes the rules and regulations of ballast water discharge  
37 and other discharges (POLB and POLA 2012). This document, which is updated as the  
38 applicable regulations change, has been distributed to all terminal operators/shipping  
39 lines to make them aware of the regulations. With international, federal, and state  
40 regulations in place, the increased vessel traffic and terminal operations associated with  
41 Alternative 2 are not anticipated to result in increased discharge impacts from vessels.

42 The number or severity of illegal discharges, and corresponding changes to water and  
43 sediment quality, from increased vessel traffic cannot be accurately quantified because  
44 the rate and chemical composition of illegal discharges from commercial vessels is  
45 unknown. However, there is no evidence that illegal discharges from ships presently  
46 utilizing the Harbor are causing widespread problems in the Harbor. Over several

1 decades, there has been a vast improvement in Harbor water quality despite an overall  
2 increase in ship traffic. In addition, the Port Police are authorized to cite any vessel that  
3 is in violation of Port tariffs, including illegal discharges. Illegal discharges resulting  
4 from operation of Alternative 2 are not likely to occur.

5 By the 1980s, numerous studies had documented toxic effects of TBT at extremely low  
6 concentrations (parts per trillion) to non-target species (Huggett et al. 1992). Because of  
7 these studies, regulatory actions were adopted in France (1982) and the United Kingdom  
8 (1985), and in 1988 the U.S. Congress passed the Organotin Antifouling Paint Control  
9 Act. On an international level, the IMO passed the International Convention on the  
10 Control of Harmful Antifouling Systems on Ships. This prohibits or restricts the use of  
11 antifouling systems on ships that are parties to the convention, those that are more than  
12 400 gross tonnage that are engaged in international voyages, or those greater than 24  
13 meters in length. This convention was ratified in 2007, and became binding on those  
14 governments who ratified it on September 17, 2008. This convention was signed by the  
15 U.S. on December 12, 2002 (NOAA 2011), and the lines calling at the YTI Terminal  
16 have indicated they are compliant. Therefore, TBT is not expected to leech from vessel  
17 hulls at the site of Alternative 2.

18 Even though Alternative 2 would result in increased vessel traffic, and potentially an  
19 incremental increase in hull leaching (of non-TBT substances), concentrations of metals  
20 in waters near the proposed project site have been well below regulatory criteria (POLA  
21 and POLB 2009; AMEC 2012). Therefore, water quality impacts related to leaching of  
22 contaminants from hull coatings would not be significant.

23 Based on the projected increase in TEUs occupying the terminal site, the frequency of  
24 potential Alternative 2-related spills would increase to 1.9 spills per year from 1.1 spills  
25 under the baseline, which equates to an increase in the number of annual spills by 0.8  
26 under Alternative 2. This spill frequency would be classified as “periodic” (between one  
27 per year and once in ten years). Based on history, a slight possibility exists for injury and  
28 or property damage to occur during one of these frequent accidents; therefore, the  
29 consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4,  
30 which is “acceptable.” Compliance with applicable federal, state, and local laws and  
31 regulations governing the transport of hazardous materials and emergency response to  
32 hazardous material spills, as described above, would minimize the potential for adverse  
33 public health impacts. Therefore, under CEQA, Alternative 2 operations would not  
34 substantially increase the probable frequency and severity of consequences to people or  
35 property as a result of an accidental release or explosion of a hazardous substance.  
36 Impacts under CEQA would be less than significant.

37 Accidental spills of petroleum hydrocarbons, hazardous materials, and other pollutants  
38 from Alternative 2-related upland operations are expected to be limited to small volume  
39 releases because large quantities of those substances are unlikely to be used, transported,  
40 or stored on the site.

41 In summary, construction and operations under Alternative 2, including increased  
42 container throughput and increased truck traffic, are not expected to create pollution,  
43 contamination, or a nuisance, or result in violations of water quality standards or permit  
44 conditions. Significant water quality impacts under CEQA are not expected to occur as a  
45 result of construction, terminal operations, or accidental spills that could occur from  
46 implementation of Alternative 2. Impacts would be less than significant.

1                    **Mitigation Measures**

2                    No mitigation is required.

3                    **Residual Impacts**

4                    Impacts would be less than significant.

5                    **NEPA Impact Determination**

6                    Alternative 2 would include only backlands improvements consisting of slurry sealing;  
7                    deep cold planing; asphalt concrete overlay; restriping; and removal, relocation, or  
8                    modification of any underground conduits and pipes necessary to complete repairs. No  
9                    construction of in-water or over-water features would occur under Alternative 2. The No  
10                    Federal Action Alternative would involve the same construction activities as would occur  
11                    under the NEPA baseline. Therefore, there would be no incremental difference between  
12                    Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no  
13                    impact under NEPA.

14                    **Mitigation Measures**

15                    No mitigation is required.

16                    **Residual Impacts**

17                    No impacts would occur.

18                    **Impact WQ-2: Alternative 2 would not result in increased flooding,**  
19                    **which would have the potential to harm people or damage property**  
20                    **or sensitive biological resources.**

21                    Construction activities would not increase the potential for flooding on site because site  
22                    elevations would remain generally the same as the baseline conditions, even though  
23                    grading and backland construction would occur. These minor grade changes would not  
24                    significantly alter flood depths or flow paths. During construction, BMPs would be  
25                    applied to control site runoff from the 50-year design storm as described by the current  
26                    County of Los Angeles Hydrology Manual and treat runoff meeting the criteria defined in  
27                    the current Los Angeles County Manual for the SUSMP.

28                    Although most of the Alternative 2 site is located in Flood Zone X, Alternative 2  
29                    operations would not increase the potential for flooding. Runoff from the site area is  
30                    collected in catch basins located throughout the YTI Terminal, and is conveyed toward  
31                    five separate discharge points along the wharf that discharge to the East Basin, East Basin  
32                    Channel, and Cerritos Channel. All drains are equipped with smart drains to help filter  
33                    runoff prior to discharge into the harbor waters. On-site storm drains and storm drainage  
34                    conveyance and treatment are currently adequate to treat and convey runoff from the  
35                    Alternative 2 site and impervious area, and overland drainage paths would not change.

36                    Because the site is relatively flat, is located along the water's edge (which would allow  
37                    excess runoff to flow off site), and has an existing adequate drainage system, flood water  
38                    on the site from a large storm event is not expected to be deep enough to cause  
39                    employees to be harmed or to cause substantial damage to property within stored  
40                    containers on site. Additionally, as discussed in Section 3.3, Biological Resources, no  
41                    sensitive biological resources are located on the proposed project site.

**CEQA Impact Determination**

Because construction of Alternative 2 would not increase the potential for flooding at the site, construction of Alternative 2 would not substantially increase the potential for people or property to be adversely affected by flooding. Alternative 2 would not increase the amount of property, people, or sensitive biological resources exposed to flooding, as compared to the CEQA baseline. Site topography and the stormwater management system at the terminal would control flood conditions to minimize harm to people and property, and no sensitive biological resources are located on the proposed project site. Therefore, Alternative 2 would not result in significant impacts from flooding under CEQA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Alternative 2 would include only backlands improvements consisting of slurry sealing; deep cold planing; asphalt concrete overlay; restriping; and removal, relocation, or modification of any underground conduits and pipes necessary to complete repairs. No construction of in-water or over-water features would occur under Alternative 2. The No Federal Action Alternative would involve the same construction activities as would occur under the NEPA baseline. Therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

No impacts would occur.

**Impact WQ-3: Alternative 2 would not result in a permanent adverse change in movement of surface water in the Harbor.**

Alternative 2 would not involve any in-water construction, dredge, or fill activities that could result in a permanent adverse change in movement of surface water in the Harbor. Alternative 2 would not result in any cut or fill along the water's edge that could contribute to changes in the movement of surface water during terminal operations. Once construction is completed, operation of Alternative 2 would not cause a permanent adverse change to the movement of surface water because Alternative 2 would not install barriers to prevent or impede water movement around the YTI Terminal.

**CEQA Impact Determination**

Because there would be no in-water construction at the proposed site as part of Alternative 2, there would be no change in movement of surface water in the Harbor. Alternative 2 would not install barriers to prevent or impede water movement around the

1 YTI Terminal. Even though the terminal would operate at a higher capacity (a 27%  
2 increase in ship calls), this would not result in a permanent adverse change to the  
3 movement of surface waters. Therefore, impacts on surface water flow would be less  
4 than significant under CEQA.

5 ***Mitigation Measures***

6 No mitigation is required.

7 ***Residual Impacts***

8 Impacts would be less than significant.

9 **NEPA Impact Determination**

10 Alternative 2 would include only backlands improvements consisting of slurry sealing;  
11 deep cold planing; asphalt concrete overlay; restriping; and removal, relocation, or  
12 modification of any underground conduits and pipes necessary to complete repairs. No  
13 construction of in-water or over-water features would occur under Alternative 2. The No  
14 Federal Action Alternative would involve the same construction activities as would occur  
15 under the NEPA baseline. Therefore, there would be no incremental difference between  
16 Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no  
17 impact under NEPA.

18 ***Mitigation Measures***

19 No mitigation is required.

20 ***Residual Impacts***

21 No impacts would occur.

22 **Impact WQ-4: Alternative 2 would not accelerate natural processes**  
23 **of wind and water erosion and sedimentation, resulting in sediment**  
24 **runoff or deposition that would not be contained or controlled on**  
25 **site.**

26 The site of Alternative 2 is an operational container terminal that is paved. Proposed  
27 improvements to the site include: grading, re-paving, lighting, drainage, utility  
28 relocation/modifications, striping, relocation of an existing fence, and third party utility  
29 modifications, relocations, or removals, as needed. The potential for erosion of soils  
30 from the site of Alternative 2 is low due to the flat terrain, infrequent rainfall events, and  
31 moderate wind velocities. In addition, re-paving activities would result in temporary soil  
32 exposure for a short period of time so as to minimize impacts to terminal operations  
33 during construction activities. Therefore, the natural processes that could accelerate  
34 erosion during construction activities can be controlled effectively by the use of  
35 temporary berms, barriers, and grading. As discussed above under Impact WQ-1, a  
36 SWPPP would be prepared that would specify (1) logistics and schedule for construction  
37 activities that would minimize the potential for erosion and (2) standard practices that  
38 include monitoring and maintenance of control measures. This would include measures  
39 to minimize wind or water erosion from the site during construction and minimize any  
40 potential for eroded sediment to be transported to the Harbor receiving waters. Standard  
41 practices would follow guidance developed by LAHD for soil management (e.g.,

1 temporary sediment basin [ESC 56], solid waste management [CA 020], and  
2 contaminated soil management [CA 022]) to minimize potentials for soil erosion and off-  
3 site transport that would be followed during construction operations for Alternative 2.  
4 Additionally, runoff of soils from the proposed project site would be controlled by use of  
5 BMPs, as required by the construction SWPPP for Alternative 2. Thus, construction  
6 activities would not be expected to accelerate erosion or increase sediment loads to the  
7 Harbor in the form of soils carried by stormwater runoff.

8 Site activities associated with Alternative 2 on the 185-acre proposed project site would  
9 not exceed the operational footprint that exists under the CEQA and NEPA baselines and  
10 would not result in an increased potential for sediment erosion or deposition. As  
11 described above under Impact WQ-1, BMPs would be implemented and site runoff  
12 would be managed in accordance with permits and ordinances, which would prevent or  
13 minimize the impacts from sediment in runoff to the East Basin Channel from the site of  
14 Alternative 2 during operations.

### 15 **CEQA Impact Determination**

16 Construction activities for Alternative 2 would not accelerate natural processes of wind  
17 and water erosion because all applicable BMPs and other standard soil management  
18 procedures would be implemented to minimize erosion from the construction site.

19 Operations associated with Alternative 2 would not accelerate erosion and soil deposition  
20 in the Harbor due in part to implementation of BMPs and SUSMP control measures that  
21 retain and remove pollutants and solids from site runoff. Alternative 2 would operate on  
22 the same footprint as the CEQA baseline, and all backlands are already paved.  
23 Therefore, there would be little potential for erosion. Impacts on water quality would be  
24 less than significant under CEQA.

### 25 ***Mitigation Measures***

26 No mitigation is required.

### 27 ***Residual Impacts***

28 Impacts would be less than significant.

### 29 **NEPA Impact Determination**

30 Alternative 2 would include only backlands improvements consisting of slurry sealing;  
31 deep cold planing; asphalt concrete overlay; restriping; and removal, relocation, or  
32 modification of any underground conduits and pipes necessary to complete repairs. No  
33 construction of in-water or over-water features would occur under Alternative 2. The No  
34 Federal Action Alternative would involve the same construction activities as would occur  
35 under the NEPA baseline. Therefore, there would be no incremental difference between  
36 Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no  
37 impact under NEPA.

### 38 ***Mitigation Measures***

39 No mitigation is required.

1                    **Residual Impacts**

2                    No impacts would occur.

3                    **Alternative 3 – Reduced Project: Improve Berths 217–220 Only**

4                    This alternative differs from the proposed Project in that it does not involve dredging and  
5                    pile driving at Berths 214–216. The following components of the proposed Project are  
6                    unchanged under the Reduced Project Alternative:

- 7                    ▪    modifying up to six existing cranes;
- 8                    ▪    replacing up to four existing non-operating cranes;
- 9                    ▪    dredging 6,000 cubic yards of material from a depth of -45 to -47 feet MLLW  
10                    (with an additional 2 feet of overdredge depth, for a total depth of -49 feet  
11                    MLLW), and installing 1,200 linear feet of sheet piles and king piles to support  
12                    and stabilize the existing wharf structure at Berths 217–220;
- 13                    ▪    disposing of dredged material at LA-2, the Berths 243–245 CDF, or an approved  
14                    upland disposal site;
- 15                    ▪    extending the existing 100-foot gauge landside crane rail through Berths 217–  
16                    220;
- 17                    ▪    performing ground repairs and maintenance activities in the backlands area; and
- 18                    ▪    expanding the TICTF on-dock rail by adding a single rail loading track.

19                    Under this alternative, there would be three operating berths after construction, similar to  
20                    the proposed Project, but Berths 214–216 would remain at their existing depth. This  
21                    alternative would require less dredging (by approximately 21,000 cy) and pile driving  
22                    and a shorter construction period than the proposed Project. Based on the throughput  
23                    projections, this alternative is expected to operate at its capacity of approximately  
24                    1,913,000 TEUs by 2026, similar to the proposed Project. However, while the terminal  
25                    could handle similar levels of cargo, the reduced project alternative would not achieve the  
26                    same level of efficient operations as achieved by the proposed Project. This alternative  
27                    would not accommodate the largest vessels (13,000 TEUs). The depth achieved at Berths  
28                    217–220 would only be capable of handling vessels up to 11,000 TEUs, requiring  
29                    additional vessels to call on the terminal to meet future growth projections up to the  
30                    capacity of the terminal. Therefore, under this alternative, 232 vessels would call on the  
31                    terminal in 2020 and 2026, compared to 206 vessels for the proposed Project.  
32                    Additionally, because of the higher number of annual vessel calls, this alternative would  
33                    result in a maximum of five peak day ship calls (over a 24-hour period) compared to four  
34                    for the proposed Project.

35                    **Impact WQ-1: Alternative 3 would not create pollution,**  
36                    **contamination, or a nuisance as defined in Section 13050 of the CWC**  
37                    **or cause regulatory standards to be violated in Harbor waters.**

38                    **Construction**

39                    Impacts on water quality could occur from dredging, installation of sheet piles and king  
40                    piles, backland improvements, and potential construction-related spills. Impacts to water  
41                    quality could result from the suspension of sediments and/or the introduction of  
42                    contaminants to the water column.

1 Dredging would disturb bottom sediments, and suspend sediments over a relatively small  
2 area. The extent of disturbance would depend on the method of dredging. Suspension of  
3 sediments during clamshell dredging occurs during bucket impact, penetration, and  
4 removal of the bucket from the sediment, as well as during bucket retrieval through the  
5 water column. During cutterhead dredging, suspended sediments are limited to the  
6 immediate vicinity of the dredge.

7 Sheet piles and king piles would be lowered through the water column, and then driven  
8 into the seafloor by both vibratory and impact driving methods. Some sediment would be  
9 suspended during this process, but over a much smaller area, and any turbidity would be  
10 limited to waters near the seafloor. Backlands improvement would not directly introduce  
11 sediments to the waters off the YTI Terminal; however, stormwater runoff could carry  
12 sediments to the Harbor waters without intervention. Accidental spills could also  
13 introduce contaminants to Harbor waters.

14 They types of water quality impacts from construction of Alternative 3 could include:

- 15       ▪ Increased turbidity (reduced water clarity and light transmittance),
- 16       ▪ Increased sediment suspension (or suspended solids),
- 17       ▪ Increased dissolved or particulate contaminants (that were previously bound to  
18 dredged sediments or in pore water),
- 19       ▪ Reduced dissolved oxygen (from suspension of sediments with low oxygen),
- 20       ▪ Reduced pH, and
- 21       ▪ Plankton blooms (from suspension of nutrient-laden sediments)

22 There are no projected effects to salinity or temperature from construction and operation  
23 of Alternative 3. The biological effects on marine biota from potential water quality  
24 impacts are discussed in Chapter 3.3.

#### 25 *Construction type and duration*

26 As shown in Table 2-4 (see Chapter 2, Project Description), in water and over-water  
27 construction activities would extend over approximately 12–13 months. Construction  
28 would involve approximately four months for installation of sheet piles at Berths 217–  
29 220 and approximately one month for dredging and disposal.

#### 30 *Effects of Dredging and Pile Installation*

31 Dredging would resuspend some bottom sediments and create localized and temporary  
32 turbidity plumes. For continuous dredging operations, elevated turbidity would occur in  
33 the immediate vicinity of the dredge for periods of days to several weeks. The majority  
34 of suspended sediments settle within one hour of dredging (Palermo et al. 2008).  
35 Transport of suspended particles by tidal currents would result in some redistribution of  
36 sediment contaminants. The amount of contaminants redistributed in this manner would  
37 be small, and the distribution would be localized in the channel adjacent to the work area.  
38 Monitoring efforts associated with previous dredging projects in Los Angeles Harbor  
39 have shown that resuspension followed by settling of sediments is low (generally 2% or  
40 less) (Anchor Environmental 2002).



1 Dredging sediments adjacent to the YTI Terminal would likely generate a relatively small  
2 turbidity plume because the material is mostly coarse-grained and would settle fairly  
3 rapidly. Receiving water monitoring studies in the Harbor and other water bodies have  
4 documented a relatively small, turbid dredge plume that dissipates rapidly with distance  
5 from dredging operations (MBC 2001a–b, 2002; USACE and LAHD 2008; POLA  
6 2009a–i, 2010a–d; Parish and Wiener 1987; Jones & Stokes 2007a–b). Water quality  
7 was measured during dredging at Berths 212–215 in 2001 (MBC 2001a). During  
8 dredging, light transmittance was reduced by about 15% in the bottom half of the water  
9 column 300 feet downcurrent from the dredge (MBC 2001a).

10 Within areas of sediment resuspension, DO and pH could be slightly reduced.  
11 Reductions in DO concentrations, however, would be brief and are not expected to persist  
12 or cause detrimental effects to biological resources. During dredging at Berths 212–215  
13 in 2001, there was little difference in DO and pH between Station C (300 feet  
14 downcurrent of dredging) and Station D (the control station, located at Berth 195 in East  
15 Basin) (MBC 2001a). Contaminants, including metals and organics, could be released  
16 into the water column during the dredging and pile installation. However, any increase in  
17 contaminant levels in the water is expected to be localized and of short duration. The  
18 magnitude of contaminant releases would be related to the sediment particle sizes,  
19 sediment organic content, and contaminant concentrations associated with the disturbed  
20 sediments. The sediment testing performed in the proposed dredge footprint detected  
21 some minor elevated metal, PCB, and DDT concentrations, but overall the sediments are  
22 recommended to be suitable for open water disposal. Therefore, contaminant  
23 concentrations associated with any potentially disturbed or resuspended sediments during  
24 dredging are not expected to result in any long-term effects in the waters near the YTI  
25 Terminal.

26 Nutrients could be released into the water column during the dredging and pile  
27 installation. Release of nutrients may promote nuisance growths of phytoplankton if  
28 operations occur during warm water conditions. Phytoplankton blooms have occurred  
29 during previous dredging projects, including the Deep Draft Navigation Improvement  
30 Project (USACE and LAHD 1992). However, there is no evidence that the plankton  
31 blooms observed were not a natural occurrence or that they were exacerbated by dredging  
32 activities. The Basin Plan (Los Angeles RWQCB 1994) limits on biostimulatory  
33 substances are defined as “concentrations that promote aquatic growth to the extent that  
34 such growth causes nuisance or adversely affects beneficial uses.” Given the limited  
35 spatial and temporal extent of proposed construction activities with the potential for  
36 releasing nutrients from bottom sediments, effects on beneficial uses of Harbor waters are  
37 not anticipated to result from Alternative 3.

### 38 *Effects of Backlands Improvements*

39 Ground disturbances and construction activities related to backlands improvements could  
40 result in temporary impacts on surface water quality if uncontrolled runoff of exposed  
41 soils, asphalt leachate, concrete washwater, and other construction materials enter Harbor  
42 waters. No upland surface bodies of water currently exist within the boundaries of  
43 Alternative 3. Thus, construction-related impacts on surface water quality would be  
44 limited to potential non-stormwater discharges or discharges of stormwater runoff to  
45 Harbor waters that receive runoff from the proposed project site. Runoff from the upland  
46 portions of the YTI Terminal would flow into the Harbor, along with runoff from other  
47 adjacent areas of the Harbor’s subwatershed. Runoff at the proposed project site is

1 collected by the on-site storm drain system and is managed in compliance with applicable  
2 permits and ordinances (including SUSMP requirements) prior to discharge to the Harbor  
3 (to the East Basin Channel). In addition to soils, runoff from a construction site could  
4 contain a variety of contaminants, including metals and PAHs, associated with  
5 construction materials, and spills of oil or other petroleum products. Impacts on surface  
6 water quality from accidental spills are addressed below.

### 7 *Accidental Spills*

8 Accidents resulting in spills of fuel, lubricants, or hydraulic fluid from equipment used  
9 during dredging, pile installation, backlands improvement, and/or disposal of dredged  
10 material, could occur during construction of Alternative 3. Based on the history for this  
11 type of work in the Harbor, accidental leaks and spills of large volumes of hazardous  
12 materials or wastes containing contaminants during onshore construction activities have a  
13 very low probability of occurring because large volumes of these materials typically are  
14 not used or stored at construction sites (see Section 3.9, Hazards and Hazardous  
15 Materials).

### 16 *Operation*

17 Operation of Alternative 3 would result in similar water quality impacts as described  
18 under the proposed Project. Under this alternative, the capacity of YTI Terminal would  
19 increase to 1,913,000 TEUs annually by 2026 (compared to 996,109 TEUs under the  
20 CEQA baseline, and 1,692,000 [2026] under the NEPA baseline). However, this  
21 alternative would result in 232 vessel calls (an increase of 70 vessel calls above the  
22 CEQA baseline, and 26 ship calls above the NEPA baseline) and an increase in the peak  
23 day vessel calls at the terminal. This alternative would handle vessels up to 11,000 TEUs  
24 at Berths 217–220 but would not handle the largest (13,000 TEUs) vessels.

25 Impacts on water quality during operations could occur from runoff, atmospheric (aerial)  
26 deposition of contaminants, discharges of ballast water and other contaminants from  
27 vessels, and accidental spills.

### 28 *Runoff*

29 Operation of the facilities would not involve any direct point source discharges of wastes  
30 or wastewaters to the Harbor. The operation of marine terminals and backland container  
31 facilities on land, adds particulates and other pollutants to the site. Operations of non-  
32 electric equipment and vehicles for Alternative 3 would generate air emissions containing  
33 particulate pollutants. A portion of these particulates would be deposited on the site and  
34 subject to subsequent transport by storm runoff. At the YTI Terminal, stormwater is  
35 collected in catch basins and conveyed to storm drains along the East Basin Channel.  
36 The storm drains are fitted with “Smart Drains,” which reduce the amount of sediment  
37 (and bound contaminants) in the runoff. Transport of contaminants, such as metals, by  
38 runoff from the proposed project site would contribute incrementally to changes in  
39 receiving water quality.

### 40 *Deposition of Contaminants*

41 Direct atmospheric deposition refers to air pollutants that settle directly on water bodies,  
42 whereas indirect atmospheric deposition occurs on upland areas where the pollutants  
43 collect and are later conveyed to water bodies by runoff. Atmospheric deposition related  
44 to Port operations emissions may provide an increased impact on the local watersheds.

1 These impacts are primarily related to resuspended dust from vehicular traffic and coarse-  
2 sized, mechanically derived particles, such as zinc from tire wear and copper from brake  
3 pad wear. Fine particulates from vehicle exhaust may also contribute to the local  
4 watersheds, but to a lesser degree.

5 Particulates from area-wide and regional transportation sources likely dominate the  
6 metal-containing particulate matter that enters the storm drain systems because traffic  
7 volumes from freeways, commercial roads, and surface streets far outweigh the  
8 transportation volumes from the Port operations alone. These particles accumulate  
9 during dry weather conditions and are later washed off during storm events. For  
10 suspended zinc and copper pollutants from site of Alternative 3 (tire and brake wear from  
11 equipment and trucks), direct impacts would not be expected to significantly affect water  
12 quality due to the likely limited and dispersed nature of direct deposition on Harbor  
13 waters, and because direct aerial disposition would not allow for a significant buildup of  
14 these pollutants before entering Harbor waters.

### 15 *Vessel Discharges and Contaminants*

16 The amount of vessel traffic at the site of Alternative 3 would increase by up to 70 annual  
17 ship calls (by 2026) as compared to the CEQA baseline, and by up to 26 annual ship calls  
18 compared with the NEPA baseline. Discharges of polluted water (such as bilge water or  
19 gray water) or ballast water directly to the Harbor are prohibited under the Port tariff and  
20 other regulations; however, discharges to the Harbor of clean ballast waters are not.

21 Studies by the U.S. Navy have demonstrated that the leaching of metals from vessel hull  
22 coatings contributed to overall concentrations of water column metals in harbors such as  
23 Mayport, Florida; Pearl Harbor, Hawaii; and San Diego, California; however, estimated  
24 concentrations of metals resulting from hull vessel leachates were in most cases below  
25 federal and state water quality criteria (EPA 1999). One constituent of hull coating  
26 known to cause toxic effects is TBT, which has been banned from use. Other  
27 constituents, such as copper, still pose a threat. However, concentrations of metals, such  
28 as those used in antifouling applications (copper and zinc), have been measured near or  
29 below detection limits in waters off the site of Alternative 3.

### 30 *Spills*

31 Other potential operational sources of pollutants that could affect water quality in the  
32 waters off the YTI Terminal include accidental spills on land that enter storm drains, as  
33 well as accidental spills from vessels. If spilled material in upland areas were not  
34 captured prior to reaching the storm drain system, such materials could reach the East  
35 Basin Channel off the YTI Terminal. Spills or illegal discharges from vessels could also  
36 occur in the same waters, or during their transit to and from the YTI Terminal from the  
37 Harbor entrance at Angels Gate. Impacts on water and sediment quality would depend  
38 on (1) the characteristics of the material spilled, such as volatility, solubility in water, and  
39 sedimentation rate, and (2) the speed and effectiveness of the spill response and cleanup  
40 efforts. Potential releases of pollutants from a large spill to Harbor waters and sediments  
41 would be minimized through existing regulatory and on-site controls and are unlikely to  
42 occur during the life of Alternative 3.

### 43 **CEQA Impact Determination**

44 Dredging and pile installation during the construction phase of Alternative 3 would not  
45 entail any direct or intentional discharges of wastes to waters off the YTI Terminal.

1 However, in-water dredging and pile installation would disturb and resuspend bottom  
2 sediments, which would result in temporary and localized changes to some water quality  
3 indicators. Dredging off Berths 217–220 may reduce DO concentrations in the  
4 immediate vicinity of the dredge, but this decrease would generally not extend beyond  
5 the dredge area or persist following the completion of the dredging operation. Changes  
6 in pH, nutrients, and contaminant levels could also occur as a result of construction  
7 activities for Alternative 3. The extent of sediment dispersal would depend on the dredge  
8 method, the specific sediment characteristics, and the current speed and direction during  
9 dredging. Results from previous dredge receiving water monitoring studies in the Harbor  
10 indicate that turbidity and TSS concentrations would rapidly drop to levels approaching  
11 background concentrations within a few hundred meters of the dredge once dredging  
12 ceases.

13 Dredging for Alternative 3 would require a Section 10 permit from USACE and a CWA  
14 Section 401 Water Quality Certification from the Los Angeles RWQCB. The Water  
15 Quality Certification would be required to include monitoring requirements necessary to  
16 assure compliance with applicable effluent limitations, or any other CWA limitation, or  
17 with any State laws or regulations. Monitoring requirements typically include  
18 measurements of DO, light transmittance (turbidity), pH, and suspended solids at varying  
19 distances from the dredging operations. If turbidity levels exceed the threshold  
20 established in the WDRs issued by the Los Angeles RWQCB, water chemistry analysis  
21 would be conducted and the LAHD would immediately meet with the construction  
22 manager to discuss modifications of dredging operations to keep turbidity to acceptable  
23 levels. Analyses of contaminant concentrations (such as metals, DDT, PCBs, and PAHs)  
24 in waters during the dredging operations may also be required in the WDRs if turbidity  
25 levels are elevated above certain established thresholds. Monitoring data would be used  
26 by the Port dredger to demonstrate that water quality limits specified in the permit are not  
27 exceeded. This would include alteration of dredging methods, and/or implementation of  
28 additional BMPs to limit the size and extent of the dredge plume.

29 Sediments would be disposed of at the LA-2 ODMDS, placed at the Berths 243–245  
30 CDF, or disposed of at another approved upland location. Sediments from the proposed  
31 dredging area were tested using standard EPA/USACE protocols (according to an  
32 approved SAP) prior to dredging to determine the suitability of the material for  
33 unconfined, aquatic disposal or other disposal alternatives. The sediments within the  
34 Berths 217–220 footprint complied with the chemistry, toxicity, and bioaccumulation  
35 suitability requirements for ocean disposal (Title 40 CFR Parts 220–228; Appendix F),  
36 and would be suitable for placement at the LA-2 ODMDS. Potential aquatic impacts  
37 from disposal of dredged sediments would depend on the disposal method and location,  
38 but they could include increased turbidity, reduced DO concentrations, and introduction  
39 of contaminants. Potential impacts from dredged material disposal on water/sediment  
40 quality at the Berths 243–245 CDF were evaluated as part of the Port's Channel  
41 Deepening Project and were determined not to be significant.

42 Runoff from the proposed project site would be controlled under a construction SWPPP  
43 prepared in accordance with GCASP requirements and implemented prior to the start of  
44 any construction activities. This construction SWPPP would specify BMPs to prevent  
45 and/or control releases of soils and contaminants and avoid adverse impacts on receiving  
46 water quality. One or more types of runoff control structures would be placed and  
47 maintained around the construction area to minimize loss of site soils to the storm drain  
48 system. As another standard measure, concrete truck wash water and runoff of any water

1 that has come in contact with wet cement would be contained on site so that it does not  
2 runoff into the Harbor. These measures, combined with the low potential for erosion (see  
3 Impact WQ-4, below), would minimize any soil and contaminant loading to the Harbor  
4 resulting from construction activities. The SWPPP would be prepared by LAHD (or  
5 consultant) with LAHD designated as the “Legally Responsible Person.”

6 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel  
7 spills during fueling, typically involve small volumes that can be effectively contained in  
8 the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and  
9 Control Procedures [CA012]). Construction and industrial SWPPPs and standard Port  
10 BMPs (e.g., use of drip pans, contained refueling areas, regular inspections of equipment  
11 and vehicles, and immediate repairs of leaks) would reduce potentials for materials from  
12 onshore construction activities to be transported off site and enter storm drains.

13 Accidental or incidental spills or leaks that occur on land are expected to be contained  
14 and cleaned up before any impacts on surface water quality can occur. Accidental spills  
15 from dredges or barges could directly affect water quality in the waters off the YTI  
16 Terminal; however, the probability of an accidental spill from a construction vessel to the  
17 Harbor is low. In addition, if an accidental spill does occur, the planning effort to contain  
18 and neutralize the spill and the spill response by the dredging contractors (deployment of  
19 floating booms to contain and absorb the spill and use pumps to assist the cleanup) would  
20 likely prevent the accidental spill from causing a nuisance or from adversely affecting  
21 beneficial uses of the Harbor.

22 The Basin Plan (Los Angeles RWQCB 1994) water quality objective for oil and grease  
23 states, “[w]aters shall not contain oils, greases, waxes or other materials in concentrations  
24 that result in a visible film or coating on the surface of the water or on objects in the  
25 water, that cause nuisance, or that otherwise adversely affect beneficial uses.” Spill  
26 prevention and cleanup procedures for Alternative 3 would be addressed in a plan that  
27 would be prepared in accordance with LAHD guidelines and implemented by the  
28 construction contractor prior to the notice to proceed with construction operations. The  
29 plan would define actions to minimize potentials for spills and provide efficient responses  
30 to spill events to minimize the magnitude of the spill and extent of impacts.

31 Even though the footprint of the terminal would not increase, the amount of truck traffic  
32 and yard equipment operations at the site of Alternative 3 would increase to handle up to  
33 1,913,000 TEUs annually (from 996,109 TEUs annually under the CEQA baseline). Rail  
34 traffic would also increase at the existing on-dock railyard. This would increase the  
35 amount of particulates and chemical pollutants from normal wear of tires/train wheels  
36 and other moving parts, as well as from leaks of lubricants and hydraulic fluids that can  
37 fall on backland surfaces and subsequently be transported by stormwater runoff into the  
38 Harbor.

39 As noted in Impact WQ-1, runoff would be managed (consistent with applicable permit  
40 and ordinance requirements) prior to discharge into Harbor waters. Site operations would  
41 be conducted in accordance with an industrial SWPPP to minimize the generation of  
42 particulate pollutants. In addition, monitoring would be conducted under the SWPPP to  
43 observe the quality of the stormwater runoff discharged to the Harbor. This would allow  
44 the tenant and LAHD to ensure that the quality of any runoff would comply with the  
45 permit conditions and verify that any BMPs are performing as anticipated.

1 The design and operation of Alternative 3 would comply with both the SUSMP  
2 requirements and the City of Los Angeles LID ordinance requirements. Applicable  
3 BMPs would be incorporated into the proposed project plan that must be approved by the  
4 Bureau of Sanitation WPD, prior to issuance of building and grading permits. The  
5 SUSMP requires minimization of the pollutants of concern by incorporating “a BMP or  
6 combination of BMPs best suited to maximize the reduction of pollutant loadings in that  
7 runoff to the maximum extent possible.” The BMPs would include, as applicable, site  
8 design BMPs, source control BMPs, and treatment control BMPs. To the maximum  
9 extent feasible, treatment control BMPs would be selected from LID BMPs.

10 Given the limited footprint of Alternative 3, there may be very limited opportunity to  
11 incorporate significant site design BMPs, but these will be incorporated where possible.  
12 All applicable source control BMPs would be incorporated in the proposed project  
13 design. A list of structural control BMPs that are in use at the YTI Terminal are shown in  
14 Table 3.15-2. Feasible treatment control BMPs would be selected from for the list of  
15 treatment control categories in the guidance manual. For the backland portion of  
16 Alternative 3, BMPs would need to be designed to retain and/or treat the water quality  
17 design volume for the entire area subject to grading and resurfacing.

18 These BMPs must meet the specified design standards in the guidance manual to mitigate  
19 (infiltrate or treat) stormwater runoff. For the structural or treatment control BMPs  
20 included in the proposed project plan, the tenant would be required to provide verification  
21 of maintenance provisions. The controls and BMPs for runoff and storm drain discharges  
22 described above are designed to reduce impacts on water quality and would be fully  
23 implemented for Alternative 3. Tenants would be required to obtain and meet all  
24 conditions of applicable stormwater discharge permits as well as meet all Port pollution  
25 control requirement

26 An LA/LB Harbor-wide water quality study in 2005 found only five instances where  
27 metal concentrations exceeded CTR criteria for chronic exposure of marine life (POLA  
28 and POLB 2009). All five instances were for dissolved copper: two samples were in  
29 Cabrillo Marina, one in Fish Harbor, and two in Long Beach Inner Harbor.  
30 Concentrations of organic chemicals (such as pesticides, PCBs, and PAHs) were very  
31 low; the exception was TBT (discussed in Section 3.15.2.2). Ambient monitoring and  
32 stormwater monitoring in Long Beach Harbor in 2010–2011 showed that pollutants, such  
33 as metals and semivolatile organic compounds, were present in harbor waters during both  
34 dry-weather surveys and storm surveys (MBC 2011). However, in one sample during the  
35 2010 dry-weather survey, zinc exceeded the standard for marine waters; all other metals  
36 were well below regulatory standards. Mixing with the harbor receiving waters dilutes  
37 the pollutants so that the receiving water standards are usually not exceeded. It is  
38 reasonable to expect that these findings would also apply to stormwater runoff from the  
39 site of Alternative 3, and concentrations of pollutants runoff would not cause violations  
40 of receiving water quality objectives, given compliance with SWPPP and SUSMP/LID  
41 requirements. Concentrations of monitored constituents in stormwater runoff at the YTI  
42 Terminal have been below applicable benchmark values.

43 Upland operations associated with Alternative 3 would not result in direct discharges of  
44 wastes to Harbor waters. However, stormwater runoff from the site of Alternative 3  
45 could contain particulate debris from operation of the proposed project facilities,  
46 including aerielly deposited pollutants. Discharges of stormwater would comply with the  
47 NPDES discharge permit limits and SWPPP requirements, and they would be subject to

1 treatment via SUSMP/LID measures prior to discharge to Harbor waters. Therefore,  
2 water quality impacts from site runoff would not be significant.

3 As discussed above, ambient monitoring and stormwater monitoring in Long Beach  
4 Harbor in 2010–2011 (MBC 2011) showed that pollutants, such as metals and  
5 semivolatile organic compounds, are detectable in runoff, but receiving water standards  
6 are usually not exceeded. It is reasonable to expect that these findings would also apply  
7 to stormwater runoff from the site of Alternative 3, and runoff would not cause violations  
8 of receiving water quality objectives, given compliance with SWPPP and SUSMP/LID  
9 requirements.

10 In 2012, the Ports of Los Angeles and Long Beach published “Vessel Discharge Rules  
11 and Regulations,” which summarizes the rules and regulations of ballast water discharge  
12 and other discharges (POLB and POLA 2012). This document, which is updated as the  
13 applicable regulations change, has been distributed to all terminal operators/shipping  
14 lines to make them aware of the regulations. With international, federal, and state  
15 regulations in place, the increased vessel traffic and terminal operations associated with  
16 Alternative 3 are not anticipated to result in increased discharge impacts from vessels.

17 The number or severity of illegal discharges, and corresponding changes to water and  
18 sediment quality, from increased vessel traffic cannot be accurately quantified because  
19 the rate and chemical composition of illegal discharges from commercial vessels is  
20 unknown. However, there is no evidence that illegal discharges from ships presently  
21 utilizing the Harbor are causing widespread problems in the Harbor. Over several  
22 decades, there has been a vast improvement in Harbor water quality despite an overall  
23 increase in ship traffic. In addition, the Port Police are authorized to cite any vessel that  
24 is in violation of Port tariffs, including illegal discharges. Illegal discharges resulting  
25 from operation of Alternative 3 are not likely to occur.

26 By the 1980s, numerous studies had documented toxic effects of TBT at extremely low  
27 concentrations (parts per trillion) to non-target species (Huggett et al. 1992). Because of  
28 these studies, regulatory actions were adopted in France (1982) and the United Kingdom  
29 (1985), and in 1988 the U.S. Congress passed the Organotin Antifouling Paint Control  
30 Act. On an international level, the IMO passed the International Convention on the  
31 Control of Harmful Antifouling Systems on Ships. This prohibits or restricts the use of  
32 antifouling systems on ships that are parties to the convention, those that are more than  
33 400 gross tonnage that are engaged in international voyages, or those greater than 24  
34 meters in length. This convention was ratified in 2007, and became binding on those  
35 governments who ratified it on September 17, 2008. This convention was signed by the  
36 U.S. on December 12, 2002 (NOAA 2011), and the lines calling at the YTI Terminal  
37 have indicated they are compliant. Therefore, TBT is not expected to leech from vessel  
38 hulls at the site of Alternative 3.

39 Even though Alternative 3 would result in increased vessel traffic, and an incremental  
40 increase in potential hull leaching (of non-TBT substances), concentrations of metals in  
41 waters near the site of Alternative 3 have been well below regulatory criteria (POLA and  
42 POLB 2009; AMEC 2012). Therefore, water quality impacts related to leaching of  
43 contaminants from hull coatings would not be significant.

44 Based on the projected increase in TEUs, the frequency of potential spills related to  
45 Alternative 3 would increase to 2.2 spills per year from 1.1 spills under the baseline,

1 which equates to an increase in the number of annual spills by 1.1 under Alternative 3.  
2 This is the same as under the proposed Project because the maximum throughput at full  
3 build-out for the proposed Project and Alternative 3 would be the same, at 1,913,000  
4 TEUs. This increase in spill frequency would be classified as “frequent” (greater than  
5 once per year). As stated earlier, under Alternative 3, 232 vessels would call on the  
6 terminal in 2020 and 2026, compared to 206 vessels for the proposed Project, for the YTI  
7 Terminal to reach its operating capacity of 1,913,000 TEUs.

8 Based on history, a slight possibility exists for injury and or property damage to occur  
9 during one of these frequent accidents; therefore, the consequence of such accidents is  
10 classified as “slight,” resulting in a Risk Code of 4, which is “acceptable.” Compliance  
11 with applicable federal, state, and local laws and regulations governing the transport of  
12 hazardous materials and emergency response to hazardous material spills, as described  
13 above, would minimize the potentials for adverse public health impacts. Therefore,  
14 under CEQA, Alternative 3 operations would not substantially increase the probable  
15 frequency and severity of consequences to people or property as a result of an accidental  
16 release or explosion of a hazardous substance. Impacts under CEQA would be less than  
17 significant.

18 Accidental spills of petroleum hydrocarbons, hazardous materials, and other pollutants  
19 from Alternative 3-related upland operations are expected to be limited to small volume  
20 releases because large quantities of those substances are unlikely to be used, transported,  
21 or stored on the site.

22 In summary, based on the analysis above, Alternative 3 construction activities, including  
23 dredging, pile installation, and backlands improvements, and operations at the improved  
24 terminal, including increased container throughput and increased truck traffic, are not  
25 expected to create pollution, contamination, or a nuisance, or result in violations of water  
26 quality standards or permit conditions. Therefore, significant water quality impacts under  
27 CEQA are not expected to occur from construction, terminal operations, or accidental  
28 spills that could occur from implementation of Alternative 3. Impacts would be less than  
29 significant.

### 30 ***Mitigation Measures***

31 No mitigation is required.

### 32 ***Residual Impacts***

33 Impacts would be less than significant.

### 34 **NEPA Impact Determination**

35 Dredging and pile installation during the construction of Alternative 3 would not entail  
36 any direct or intentional discharges of wastes to waters off the YTI Terminal. However,  
37 in-water dredging and pile installation would disturb and resuspend bottom sediments,  
38 which would result in temporary and localized changes to some water quality indicators.  
39 Dredging off Berths 217–220 may reduce DO concentrations in the immediate vicinity of  
40 the dredge, but this decrease would generally not extend beyond the dredge area or  
41 persist following the completion of the dredging operation. Changes in pH, nutrients, and  
42 contaminant levels could also occur as a result of construction activities for Alternative 3.  
43 The extent of sediment dispersal would depend on the dredge method, the specific  
44 sediment characteristics, and the current speed and direction during dredging. Results



1 from previous dredge receiving water monitoring studies in the Harbor indicate that  
2 turbidity and TSS concentrations would rapidly drop to levels approaching background  
3 concentrations within a few hundred meters of the dredge once dredging ceases.

4 Dredging for Alternative 3 would require a Section 10 permit from USACE and a CWA  
5 Section 401 Water Quality Certification from the Los Angeles RWQCB. The Water  
6 Quality Certification would be required to include monitoring requirements necessary to  
7 assure compliance with applicable effluent limitations, or any other CWA limitation, or  
8 with any state laws or regulations. Monitoring requirements typically include  
9 measurements of DO, light transmittance (turbidity), pH, and suspended solids at varying  
10 distances from the dredging operations. If turbidity levels exceed the threshold  
11 established in the WDRs issued by the Los Angeles RWQCB, water chemistry analysis  
12 would be conducted and the LAHD would immediately meet with the construction  
13 manager to discuss modifications of dredging operations to keep turbidity to acceptable  
14 levels. Analyses of contaminant concentrations (such as metals, DDT, PCBs, and PAHs)  
15 in waters during the dredging operations may also be required in the WDRs if turbidity  
16 levels are elevated above certain established thresholds. Monitoring data would be used  
17 by the Port dredger to demonstrate that water quality limits specified in the permit are not  
18 exceeded. This would include alteration of dredging methods, and/or implementation of  
19 additional BMPs to limit the size and extent of the dredge plume.

20 Sediments would be disposed of at the LA-2 ODMDS, placed at the Berths 243–245  
21 CDF, or disposed of at another approved upland location. Sediments from the proposed  
22 dredging area were tested using standard EPA/USACE protocols (according to an  
23 approved SAP) prior to dredging to determine the suitability of the material for  
24 unconfined, aquatic disposal or other disposal alternatives. The sediments within the  
25 Berths 217–220 footprint complied with the chemistry, toxicity, and bioaccumulation  
26 suitability requirements for ocean disposal (Title 40 CFR Parts 220–228; Appendix F),  
27 and would be suitable for placement at the LA-2 ODMDS. Potential aquatic impacts  
28 from disposal of dredged sediments would depend on the disposal method and location,  
29 but they could include increased turbidity, reduced DO concentrations, and introduction  
30 of contaminants. Potential impacts from dredged material disposal on water/sediment  
31 quality at the Berths 243–245 CDF were evaluated as part of the Port’s Channel  
32 Deepening Project and were determined not to be significant.

33 Runoff from the proposed project site would be controlled under a construction SWPPP  
34 prepared in accordance with GCASP requirements and implemented prior to the start of  
35 any construction activities. This construction SWPPP would specify BMPs to prevent  
36 and/or control releases of soils and contaminants and avoid adverse impacts on receiving  
37 water quality. One or more types of runoff control structures would be placed and  
38 maintained around the construction area to minimize loss of site soils to the storm drain  
39 system. As another standard measure, concrete truck wash water and runoff of any water  
40 that has come in contact with wet cement would be contained on site so that it does not  
41 runoff into the Harbor. These measures, combined with the low potential for erosion (see  
42 Impact WQ-4, below), would minimize any soil and contaminant loading to the Harbor  
43 resulting from construction activities. The SWPPP would be prepared by LAHD (or  
44 consultant) with LAHD designated as the “Legally Responsible Person.”

45 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel  
46 spills during fueling, typically involve small volumes that can be effectively contained in  
47 the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and

1 Control Procedures [CA012]). Construction and industrial SWPPPs and standard Port  
2 BMPs (e.g., use of drip pans, contained refueling areas, regular inspections of equipment  
3 and vehicles, and immediate repairs of leaks) would reduce potentials for materials from  
4 onshore construction activities to be transported off site and enter storm drains.

5 Accidental or incidental spills or leaks that occur on land are expected to be contained  
6 and cleaned up before any impacts on surface water quality can occur. Accidental spills  
7 from dredges or barges could directly affect water quality in the waters off the YTI  
8 Terminal; however, the probability of an accidental spill from a construction vessel to the  
9 Harbor is low. In addition, if an accidental spill does occur, the planning effort to contain  
10 and neutralize the spill and the spill response by the dredging contractors (deployment of  
11 floating booms to contain and absorb the spill and use pumps to assist the cleanup) would  
12 likely prevent the accidental spill from causing a nuisance or from adversely affecting  
13 beneficial uses of the Harbor.

14 The Basin Plan (Los Angeles RWQCB 1994) water quality objective for oil and grease  
15 states, “[w]aters shall not contain oils, greases, waxes or other materials in concentrations  
16 that result in a visible film or coating on the surface of the water or on objects in the  
17 water, that cause nuisance, or that otherwise adversely affect beneficial uses.” Spill  
18 prevention and cleanup procedures for Alternative 3 would be addressed in a plan that  
19 would be prepared in accordance with LAHD guidelines and implemented by the  
20 construction contractor prior to the notice to proceed with construction operations. The  
21 plan would define actions to minimize potentials for spills and provide efficient responses  
22 to spill events to minimize the magnitude of the spill and extent of impacts.

23 Even though the footprint of the terminal would not increase, the amount of truck traffic  
24 and yard equipment operations at the site of Alternative 3 would increase to handle up to  
25 1,913,000 TEUs annually (from about 1,692,000 TEUs annually under the NEPA  
26 baseline [2026]). Rail traffic would also increase at the existing on-dock railyard. This  
27 would increase the amount of particulates and chemical pollutants from normal wear of  
28 tires/train wheels and other moving parts, as well as from leaks of lubricants and  
29 hydraulic fluids that can fall on backland surfaces and subsequently be transported by  
30 stormwater runoff into the Harbor.

31 As noted in Impact WQ-1, runoff would be managed (consistent with applicable permit  
32 and ordinance requirements) prior to discharge into Harbor waters. Site operations would  
33 be conducted in accordance with an industrial SWPPP to minimize the generation of  
34 particulate pollutants. In addition, monitoring would be conducted under the SWPPP to  
35 observe the quality of the stormwater runoff discharged to the Harbor. This would allow  
36 the tenant and LAHD to ensure that the quality of any runoff would comply with the  
37 permit conditions and verify that any BMPs are performing as anticipated.

38 The design and operation of Alternative 3 would comply with both the SUSMP  
39 requirements and the City of Los Angeles LID ordinance requirements. Applicable  
40 BMPs would be incorporated into the proposed project plan that must be approved by the  
41 Bureau of Sanitation WPD, prior to issuance of building and grading permits. The  
42 SUSMP requires minimization of the pollutants of concern by incorporating “a BMP or  
43 combination of BMPs best suited to maximize the reduction of pollutant loadings in that  
44 runoff to the maximum extent possible.” The BMPs would include, as applicable, site  
45 design BMPs, source control BMPs, and treatment control BMPs. To the maximum  
46 extent feasible, treatment control BMPs would be selected from LID BMPs.

1 Given the limited footprint of Alternative 3, there may be very limited opportunity to  
2 incorporate significant site design BMPs, but these will be incorporated where possible.  
3 All applicable source control BMPs would be incorporated in the proposed project  
4 design. A list of structural control BMPs that are in use at the YTI Terminal are shown in  
5 Table 3.15-2. Feasible treatment control BMPs would be selected from for the list of  
6 treatment control categories in the guidance manual. For the backland portion of  
7 Alternative 3, BMPs would need to be designed to retain and/or treat the water quality  
8 design volume for the entire area subject to grading and resurfacing.

9 These BMPs must meet the specified design standards in the guidance manual to mitigate  
10 (infiltrate or treat) stormwater runoff. For the structural or treatment control BMPs  
11 included in the proposed project plan, the tenant would be required to provide verification  
12 of maintenance provisions. The controls and BMPs for runoff and storm drain discharges  
13 described above are designed to reduce impacts on water quality and would be fully  
14 implemented for Alternative 3. Tenants would be required to obtain and meet all  
15 conditions of applicable stormwater discharge permits as well as meet all Port pollution  
16 control requirements.

17 An LA/LB Harbor-wide water quality study in 2005 found only five instances where  
18 metal concentrations exceeded CTR criteria for chronic exposure of marine life (POLA  
19 and POLB 2009). All five instances were for dissolved copper: two samples were in  
20 Cabrillo Marina, one in Fish Harbor, and two in Long Beach Inner Harbor.  
21 Concentrations of organic chemicals (such as pesticides, PCBs, and PAHs) were very  
22 low; the exception was TBT (discussed in Section 3.15.2.2). Ambient monitoring and  
23 stormwater monitoring in Long Beach Harbor in 2010–2011 showed that pollutants, such  
24 as metals and semivolatile organic compounds, were present in harbor waters during both  
25 dry-weather surveys and storm surveys (MBC 2011). However, in one sample during the  
26 2010 dry-weather survey, zinc exceeded the standard for marine waters; all other metals  
27 were well below regulatory standards. Mixing with the harbor receiving waters dilutes  
28 the pollutants so that the receiving water standards are usually not exceeded. It is  
29 reasonable to expect that these findings would also apply to stormwater runoff from the  
30 site of Alternative 3, and concentrations of pollutants runoff would not cause violations  
31 of receiving water quality objectives, given compliance with SWPPP and SUSMP/LID  
32 requirements. Concentrations of monitored constituents in stormwater runoff at the YTI  
33 Terminal have been below applicable benchmark values.

34 Upland operations associated with Alternative 3 would not result in direct discharges of  
35 wastes to Harbor waters. However, stormwater runoff from the site of Alternative 3  
36 could contain particulate debris from operation of the proposed project facilities,  
37 including aerially deposited pollutants. Discharges of stormwater would comply with the  
38 NPDES discharge permit limits and SWPPP requirements, and they would be subject to  
39 treatment via SUSMP/LID measures prior to discharge to Harbor waters. Therefore,  
40 water quality impacts from site runoff would not be significant.

41 As discussed above, ambient monitoring and stormwater monitoring in Long Beach  
42 Harbor in 2010–2011 (MBC 2011) showed that pollutants, such as metals and  
43 semivolatile organic compounds, are usually detectable, but receiving water standards are  
44 usually not exceeded. It is reasonable to expect that these findings would also apply to  
45 stormwater runoff from the site of Alternative 3, and runoff would not cause violations of  
46 receiving water quality objectives, given compliance with SWPPP and SUSMP/LID  
47 requirements.

1 In 2012, the Ports of Los Angeles and Long Beach published “Vessel Discharge Rules  
2 and Regulations,” which summarizes the rules and regulations of ballast water discharge  
3 and other discharges (POLB and POLA 2012). This document, which is updated as the  
4 applicable regulations change, has been distributed to all terminal operators/shipping  
5 lines to make them aware of the regulations. With international, federal, and state  
6 regulations in place, the increased vessel traffic and terminal operations associated with  
7 Alternative 3 is not anticipated to result in increased discharge impacts from vessels.

8 The number or severity of illegal discharges, and corresponding changes to water and  
9 sediment quality, from increased vessel traffic cannot be accurately quantified because  
10 the rate and chemical composition of illegal discharges from commercial vessels is  
11 unknown. However, there is no evidence that illegal discharges from ships presently  
12 utilizing the Harbor are causing widespread problems in the Harbor. Over several  
13 decades, there has been a vast improvement in Harbor water quality despite an overall  
14 increase in ship traffic. In addition, the Port Police are authorized to cite any vessel that  
15 is in violation of Port tariffs, including illegal discharges. Illegal discharges resulting  
16 from operation of Alternative 3 are not likely to occur.

17 By the 1980s, numerous studies had documented toxic effects of TBT at extremely low  
18 concentrations (parts per trillion) to non-target species (Huggett et al. 1992). Because of  
19 these studies, regulatory actions were adopted in France (1982) and the United Kingdom  
20 (1985), and in 1988 the U.S. Congress passed the Organotin Antifouling Paint Control  
21 Act. On an international level, the IMO passed the International Convention on the  
22 Control of Harmful Antifouling Systems on Ships. This prohibits or restricts the use of  
23 antifouling systems on ships that are parties to the convention, those that are more than  
24 400 gross tonnage that are engaged in international voyages, or those greater than 24  
25 meters in length. This convention was ratified in 2007, and became binding on those  
26 governments who ratified it on September 17, 2008. This convention was signed by the  
27 U.S. on December 12, 2002 (NOAA 2011), and the lines calling at the YTI Terminal  
28 have indicated they are compliant. Therefore, TBT is not expected to leech from vessel  
29 hulls at the site of Alternative 3.

30 Even though Alternative 3 would result in increased vessel traffic, and an incremental  
31 increase in potential hull leaching (of non-TBT substances), concentrations of metals in  
32 waters near the site of Alternative 3 have been well below regulatory criteria (POLA and  
33 POLB 2009; AMEC 2012). Therefore, water quality impacts related to leaching of  
34 contaminants from hull coatings would not be significant.

35 Based on the projected increase in TEUs, the frequency of potential spills related to  
36 Alternative 3 would increase to 2.2 spills per year from 1.9 spills under the NEPA  
37 baseline, which equates to an increase in the number of annual spills by 0.3 under  
38 Alternative 3. This increase in spill frequency would be classified as “periodic” (between  
39 one per year and once in ten years). Based on history, a slight possibility exists for injury  
40 and or property damage to occur during one of these frequent accidents; therefore, the  
41 potential consequence of such accidents is classified as “slight,” resulting in a Risk Code  
42 of 4, which is “acceptable.” Compliance with applicable federal, state, and local laws  
43 and regulations governing the transport of hazardous materials and emergency response  
44 to hazardous material spills, as described above, would minimize the potential for adverse  
45 public health impacts. Therefore, under NEPA, Alternative 3 operations would not  
46 substantially increase the probable frequency and severity of consequences to people or

1 property as a result of an accidental release or explosion of a hazardous substance.  
2 Impacts would be less than significant under NEPA.

3 Accidental spills of petroleum hydrocarbons, hazardous materials, and other pollutants  
4 from proposed Project-related upland operations are expected to be limited to small  
5 volume releases because large quantities of those substances are unlikely to be used,  
6 transported, or stored on the site.

7 In summary, based on the analysis above, Alternative 3 construction activities, including  
8 dredging, pile installation, and backlands improvements, and operations at the improved  
9 terminal, including increased container throughput and increased truck traffic, are not  
10 expected to create pollution, contamination, or a nuisance, or result in violations of water  
11 quality standards or permit conditions. Therefore, significant water quality impacts under  
12 NEPA are not expected to occur from construction, terminal operations, or accidental  
13 spills that could occur from implementation of Alternative 3. Impacts would be less than  
14 significant.

#### 15 ***Mitigation Measures***

16 No mitigation is required.

#### 17 ***Residual Impacts***

18 Impacts would be less than significant.

### 19 **Impact WQ-2: Alternative 3 would not result in increased flooding 20 that would have the potential to harm people or damage property or 21 sensitive biological resources.**

#### 22 ***Construction***

23 Dredging from Alternative 3 is not expected to increase the flood potential in the channel,  
24 and the Zone AE mapping would remain consistent with current mapping after  
25 implementation of Alternative 3.

26 Most of the terminal is designated by FEMA as Flood Zone X (defined as areas of 0.2%  
27 annual chance flood; areas of 1% annual chance flood with average depths of less than 1  
28 foot or with drainage areas less than 1 square mile; and areas protected by levees from  
29 1% annual chance flood).

30 Construction activities would not increase the potential for flooding on site because site  
31 elevations would remain generally the same as the baseline conditions, even though  
32 grading and backland construction would occur. These minor grade changes would not  
33 significantly alter flood depths or flow paths. During construction, BMPs would be  
34 applied to (1) control site runoff from the 50-year design storm as described by the  
35 current County of Los Angeles Hydrology Manual and (2) treat runoff meeting the  
36 criteria defined in the current Los Angeles County Manual for the SUSMP.

#### 37 ***Operations***

38 Although most of the proposed project site is located in Flood Zone X, Alternative 3  
39 operations would not increase the potential for flooding. Runoff from the proposed  
40 project area is collected in catch basins located throughout the YTI Terminal, and is

1 conveyed toward five separate discharge points along the wharf that discharge to the East  
2 Basin, East Basin Channel, and Cerritos Channel. All drains are equipped with smart  
3 drains to help filter runoff prior to discharge into the harbor waters. On-site storm drains  
4 and storm drainage conveyance and treatment are currently adequate to treat and convey  
5 runoff from the proposed project site. In addition, the total impervious area and existing  
6 overland drainage paths are not expected to change.

7 Because the proposed project site is relatively flat, is located along the water's edge  
8 (which would allow excess runoff to flow off site), and has an existing adequate drainage  
9 system, flood water on the proposed project site from a large storm event is not expected  
10 to be deep enough to cause employees to be harmed or to cause substantial damage to  
11 property within stored containers on site. Additionally, as discussed in Section 3.3,  
12 Biological Resources, no sensitive biological resources are located on the proposed  
13 project site.

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

15 Because dredging for Alternative 3 would not alter the current flood mapping in the  
16 channel and because construction of Alternative 3 would not increase the potential for  
17 flooding at the site, Alternative 3 would not substantially increase the potential for people  
18 or property to be adversely affected by flooding. Alternative 3 would not increase the  
19 amount of property, people, or sensitive biological resources exposed to potential  
20 flooding. Site topography and the stormwater management system at the terminal would  
21 control flood conditions to minimize harm to people and property, and no sensitive  
22 biological resources are located on the proposed project site. Therefore, Alternative 3  
23 would not result in significant impacts from flooding under CEQA.

#### 24 ***Mitigation Measures***

25 No mitigation is required.

#### 26 ***Residual Impacts***

27 Impacts would be less than significant.

#### 28 **NEPA Impact Determination**

29 Because proposed dredging would not alter the current flood mapping in the channel and  
30 because construction of Alternative 3 would not increase the potential for flooding at the  
31 site, Alternative 3 would not substantially increase the potential for people or property to  
32 be adversely affected by flooding. Under Alternative 3, the proposed project elements  
33 subject to NEPA would not be exposed to any new flooding impacts. Wharf heights  
34 would remain the same and dredging the berths would not affect water heights in  
35 backland area. Total impervious area and existing overland drainage paths are not  
36 expected to change. However, operation of Alternative 3 would result in an increase in  
37 containers stored at the site compared to baseline conditions. This would subject more  
38 containers to potential interception of some sheet flow or ponding of water if a large  
39 enough storm occurred that generated more rainfall than could be temporarily  
40 accommodated by the capacity of the on-site drainage system. However, because the  
41 proposed project site is relatively flat, is located along the water's edge (which would  
42 allow excess runoff to flow off site), and contains existing adequate storm drainage  
43 facilities on site, flood water on the proposed project site from a large storm event is not  
44 expected to be deep enough to cause employees to be harmed or to cause substantial

1 damage to property within stored containers on site. Therefore, Alternative 3 would not  
2 result in significant impacts from flooding under NEPA.

### 3 ***Mitigation Measures***

4 No mitigation is required.

### 5 ***Residual Impacts***

6 Impacts would be less than significant.

## 7 **Impact WQ-3: Alternative 3 would not result in a permanent adverse** 8 **change in movement of surface water in the Harbor.**

9 Alternative 3 would include dredging 6,000 cubic yards of sediment and installation of  
10 sheet piles and king piles to support and stabilize the existing wharf at Berths 217–220.  
11 This impact threshold addresses changes to the water body that would inhibit circulation  
12 or water mass exchanges with adjacent water bodies, thereby promoting stagnation and  
13 adverse effects to water quality. This alternative does not include the discharge of fill but  
14 includes the disposal of dredged material. Potential impacts due to construction and fill  
15 of the Berths 243–245 CDF and disposal at the LA-2 ODMDS (potential dredged  
16 material disposal locations) were previously evaluated. Dredging off Berths 217–220  
17 will increase the depth from -45 feet to -47 feet MLLW, and approximately 1,200 linear  
18 feet of king piles and sheet piles will be installed along the wharf. None of these in-water  
19 construction elements would result in impediments to water movement.

20 Alternative 3 would not result in any cut or fill along the water's edge that could  
21 contribute to changes in the movement of surface water during terminal operations. Once  
22 construction is completed, operation of Alternative 3 would not cause a permanent  
23 adverse change to the movement of surface water because Alternative 3 would not install  
24 barriers to prevent or impede water movement around the YTI Terminal.

## 25 **CEQA Impact Determination**

26 Alternative 3 would not install barriers to prevent or impede water movement around the  
27 YTI Terminal. Even though the terminal would operate at a higher capacity (a 43%  
28 increase in ship calls), this would not result in a permanent adverse change to the  
29 movement of surface waters. Therefore, impacts on surface water flow would be less  
30 than significant under CEQA.

### 31 ***Mitigation Measures***

32 No mitigation is required.

### 33 ***Residual Impacts***

34 Impacts would be less than significant.

## 35 **NEPA Impact Determination**

36 Although Alternative 3 would include upland and in-water construction, Alternative 3  
37 would not result in a permanent adverse change in surface water movement because these  
38 activities would not impose barriers to water movement into and out of the waters off the  
39 YTI Terminal. The number of ship calls from 2015–2026 would represent a 13%

1 increase from the NEPA baseline (206 ship calls per year). However, operation of  
2 Alternative 3 would not result in a permanent adverse change to the movement of surface  
3 waters, and impacts on surface water flow would be less than significant under NEPA.

#### 4 ***Mitigation Measures***

5 No mitigation is required.

#### 6 ***Residual Impacts***

7 Impacts would be less than significant.

8 **Impact WQ-4: Construction of Alternative 3 would not accelerate**  
9 **natural processes of wind and water erosion and sedimentation,**  
10 **resulting in sediment runoff or deposition that would not be**  
11 **contained or controlled on site.**

#### 12 ***Construction***

13 Alternative 3 would result in similar construction activities on land as described for the  
14 proposed Project. The proposed project site is an operational container terminal that is  
15 paved. Proposed improvements to the site include: grading, re-paving, lighting, drainage,  
16 utility relocation/modifications, striping, relocation of an existing fence, and third party  
17 utility modifications, relocations, or removals, as needed. The potential for erosion of  
18 soils from the site of Alternative 3 is low due to the flat terrain, infrequent rainfall events,  
19 and moderate wind velocities. In addition, re-paving activities would result in temporary  
20 soil exposure for a short period of time so as to minimize impacts to terminal operations  
21 during construction activities. Therefore, the natural processes that could accelerate  
22 erosion during construction activities can be controlled effectively by the use of  
23 temporary berms, barriers, and grading.

24 As discussed above under Impact WQ-1, a SWPPP would be prepared that would specify  
25 (1) logistics and schedule for construction activities that would minimize the potential for  
26 erosion and (2) standard practices that include monitoring and maintenance of control  
27 measures. This would include measures to minimize wind or water erosion from the site  
28 during construction and minimize any potential for eroded sediment to be transported to  
29 the Harbor receiving waters. Standard practices would follow guidance developed by  
30 LAHD for soil management (e.g., temporary sediment basin [ESC 56], solid waste  
31 management [CA 020], and contaminated soil management [CA 022]) to minimize  
32 potentials for soil erosion and off-site transport that would be followed during  
33 construction operations for Alternative 3. Additionally, runoff of soils from the proposed  
34 project site would be controlled by use of BMPs, as required by the construction SWPPP  
35 for Alternative 3. Thus, construction activities would not be expected to accelerate  
36 erosion or increase sediment loads to the Harbor in the form of soils carried by  
37 stormwater runoff.

#### 38 ***Operation***

39 Site activities associated with Alternative 3 on the 185-acre site would not exceed the  
40 operational area that exists under the CEQA and NEPA baselines and would not result in  
41 an increased potential for sediment erosion or deposition. As described above under  
42 Impact WQ-1, BMPs would be implemented and site runoff would be managed in



1 accordance with permits and ordinances, which would prevent or minimize the impacts  
2 from sediment in runoff to the East Basin Channel from site of Alternative 3.

### 3 **CEQA Impact Determination**

4 Construction activities for Alternative 3 would not accelerate natural processes of wind  
5 and water erosion because all applicable BMPs and other standard soil management  
6 procedures would be implemented to minimize erosion from the construction site.  
7 Operation of Alternative 3 would not accelerate erosion and soil deposition in the Harbor  
8 due in part to implementation of BMPs and SUSMP control measures that retain and  
9 remove pollutants and solids from site runoff. Alternative 3 would operate on the same  
10 footprint as the CEQA baseline, and all backlands are already paved. Therefore, there  
11 would be little potential for erosion, and impacts would be less than significant under  
12 CEQA.

#### 13 ***Mitigation Measures***

14 No mitigation is required.

#### 15 ***Residual Impacts***

16 Impacts would be less than significant.

### 17 **NEPA Impact Determination**

18 Construction activities for Alternative 3 would not accelerate natural processes of wind  
19 and water erosion because all applicable BMPs and other standard soil management  
20 procedures would be implemented to minimize erosion from the construction site.  
21 Operation of Alternative 3 would not accelerate erosion and soil deposition in the Harbor  
22 due in part to implementation of BMPs and SUSMP control measures that retain and  
23 remove pollutants and solids from site runoff. Alternative 3 would operate on the same  
24 footprint as the NEPA baseline, and all backlands are already paved. Therefore, impacts  
25 would be less than significant under NEPA.

#### 26 ***Mitigation Measures***

27 No mitigation is required.

#### 28 ***Residual Impacts***

29 Impacts would be less than significant.

## 30 **3.15.4.4 Summary of Impact Determinations**

31 Table 3.15-3 summarizes the CEQA and NEPA impact determinations for the proposed  
32 Project and its alternatives related to water quality, sediments, and circulation, as  
33 described in the detailed discussion above. This table is intended to allow easy  
34 comparison between the potential impacts of the proposed Project and its alternatives  
35 with respect to this resource. Identified potential impacts may be based on federal, state,  
36 or City of Los Angeles significance criteria, LAHD criteria, and the scientific judgment  
37 of the report preparers. For each impact threshold, the table describes the impact, notes  
38 the CEQA and NEPA impact determinations, describes any applicable mitigation  
39 measures, and notes the residual impacts (i.e., the impact remaining after mitigation). All  
40 impacts, whether significant or not, are included in this table.

**Table 3.15-3: Summary Matrix of Potential Impacts and Mitigation Measures for Water Quality, Sediments and Oceanography Associated with the Proposed Project and Alternatives**

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
Proposed Project	<b>WQ-1:</b> The proposed Project would not create pollution, contamination, or a nuisance as defined in Section 13050 of the CWC or cause regulatory standards to be violated in Harbor waters.	CEQA: Less than significant NEPA: Less than significant	No mitigation is required.	CEQA: Less than significant NEPA: Less than significant
	<b>WQ-2:</b> The proposed Project would not result in increased flooding that would have the potential to harm people or damage property or sensitive biological resources.	CEQA: Less than significant NEPA: Less than significant	No mitigation is required.	CEQA: Less than significant NEPA: Less than significant
	<b>WQ-3:</b> The proposed Project would not result in a permanent adverse change in movement of surface water in the Harbor.	CEQA: Less than significant NEPA: Less than significant	No mitigation is required.	CEQA: Less than significant NEPA: Less than significant
	<b>WQ-4:</b> The proposed Project would not accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition that would not be contained or controlled on site.	CEQA: Less than significant NEPA: Less than significant	No mitigation is required.	CEQA: Less than significant NEPA: Less than significant
Alternative 1 – No Project	<b>WQ-1:</b> Alternative 1 would not create pollution, contamination, or a nuisance as in Section 13050 of the CWC or cause regulatory standards to be violated in Harbor waters.	CEQA: Less than significant NEPA: Not applicable	No mitigation is required. Mitigation not applicable	CEQA: Less than significant NEPA: Not applicable
	<b>WQ-2:</b> Alternative 1 would not result in increased flooding that would have the potential to harm people or damage property or sensitive biological resources.	CEQA: Less than significant NEPA: Not applicable	No mitigation is required. Mitigation not applicable	CEQA: Less than significant NEPA: Not applicable
	<b>WQ-3:</b> Alternative 1 would not result in a permanent adverse change in movement of surface water in the Harbor.	CEQA: Less than significant NEPA: Not applicable	No mitigation is required. Mitigation not applicable	CEQA: Less than significant NEPA: Not applicable
	<b>WQ-4:</b> Alternative 1 would not accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition that would not be contained or controlled on site.	CEQA: Less than significant NEPA: Not applicable	No mitigation is required. Mitigation not applicable	CEQA: Less than significant NEPA: Not applicable

**Table 3.15-3: Summary Matrix of Potential Impacts and Mitigation Measures for Water Quality, Sediments and Oceanography Associated with the Proposed Project and Alternatives**

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
Alternative 2 – No Federal Action	<b>WQ-1:</b> Alternative 2 would not create pollution, contamination, or a nuisance as defined in Section 13050 of the CWC or cause regulatory standards to be violated in Harbor waters.	CEQA: Less than significant NEPA: No impact	No mitigation is required.	CEQA: Less than significant NEPA: No impact
	<b>WQ-2:</b> Alternative 2 would not result in increased flooding, which would have the potential to harm people or damage property or sensitive biological resources.	CEQA: Less than significant NEPA: No impact	No mitigation is required.	CEQA: Less than significant NEPA: No impact
	<b>WQ-3:</b> Alternative 2 would not result in a permanent adverse change in movement of surface water in the Harbor.	CEQA: Less than significant NEPA: No impact	No mitigation is required.	CEQA: Less than significant NEPA: No impact
	<b>WQ-4:</b> Alternative 2 would not accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition that would not be contained or controlled on site.	CEQA: Less than significant NEPA: No impact	No mitigation is required.	CEQA: Less than significant NEPA: No impact
Alternative 3 – Reduced Project – Improve Berths 217– 220 Only	<b>WQ-1:</b> Alternative 3 would not create pollution, contamination, or a nuisance as defined in Section 13050 of the CWC or cause regulatory standards to be violated in Harbor waters.	CEQA: Less than significant NEPA: Less than significant	No mitigation is required.	CEQA: Less than significant NEPA: Less than significant
	<b>WQ-2:</b> Alternative 3 would not result in increased flooding, which would have the potential to harm people or damage property or sensitive biological resources.	CEQA: Less than significant NEPA: Less than significant	No mitigation is required.	CEQA: Less than significant NEPA: Less than significant
	<b>WQ-3:</b> Alternative 3 would not result in a permanent adverse change in movement of surface water in the Harbor.	CEQA: Less than significant NEPA: Less than significant	No mitigation is required.	CEQA: Less than significant NEPA: Less than significant
	<b>WQ-4:</b> Alternative 3 would not accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition that would not be contained or controlled on site.	CEQA: Less than significant NEPA: Less than significant	No mitigation is required.	CEQA: Less than significant NEPA: Less than significant

1 **3.15.4.5 Mitigation Monitoring**

2 No mitigation measures are required due to the implementation of existing regulations or  
3 measures included as part of the proposed Project or any of the alternatives.

4 **3.15.5 Significant Unavoidable Impacts**

5 No significant unavoidable impacts on water quality, sediments, and oceanography would  
6 occur as a result of construction or operation of the proposed Project or any of the  
7 alternatives.

8