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Section 3.11

Water Quality, Sediments, and Oceanography

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SECTION SUMMARY

4 This section identifies the existing water quality, sediment conditions, and oceanographic conditions in
5 the Project area and addresses potential impacts that could result from implementing the proposed Project
6 or an alternative. The primary features of the proposed Project that could affect these resources include
7 the following: dredging and disposal of approximately 38,000 cubic yards of sediment; installation of
8 king piles and approximately 2,800 linear feet of sheet piles to stabilize the wharf; raising of up to five
9 existing cranes; installation of five new 100-foot gauge A-frame over-water gantry cranes; and operating
10 the terminal until 2038. Various alternatives to the proposed Project would implement these features to
11 varying degrees, as described in Chapter 2, Project Description.

12 Section 3.11, Water Quality, Sediments, and Oceanography, provides the following:

- 13
- 14 ▪ a description of the existing water and sediment quality and existing oceanographic parameters in
the Los Angeles-Long Beach Harbor (LA/LB Harbor);
 - 15 ▪ a description of applicable local, state, and federal regulations and policies regarding water
16 quality and sediment quality;
 - 17 ▪ a discussion on the methodology used to determine whether the proposed Project or alternatives
18 would adversely affect water quality, sediment quality, or circulation in the proposed Project
19 area;
 - 20 ▪ an impact analysis of both the proposed Project and alternatives; and
 - 21 ▪ a description of any mitigation measures proposed to reduce any potential impacts and residual
22 impacts, as applicable.

23

Key Points of Section 3.11:

24 The proposed Project would improve an existing container terminal, and its operations would be
25 consistent with other uses and container terminals in the proposed Project area. The alternatives
26 evaluated include the No Federal Action Alternative, the No Project Alternative, two Reduced Project
27 Alternatives, and an Expanded On-Dock Railyard Alternative. Construction activities with the potential
28 to impact water quality include dredging and installation of sheet piles and king piles. Potential impacts
29 on water quality from construction include surface runoff and accidental spills. Potential water quality
30 impacts from operational activities include surface runoff, potential vessel spills, potential accidental
31 discharges, and contaminant escape (leaching). The analysis determined potential impacts were less than
32 significant, and no mitigation was required.

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3.11.1 Introduction

This section addresses the potential impacts on water quality, sediments, and circulation that would result from implementing the proposed Project or any alternatives. Potential impacts on groundwater are discussed in Section 3.7, Groundwater and Soils.

3.11.2 Environmental Setting

3.11.2.1 Regional Setting

The proposed Project is located at the lower end of the Dominguez Watershed, which drains an approximately 132 square mile (342 square kilometers) area. The Dominguez Watershed is primarily composed of urban and industrial land uses and includes Los Angeles/Long Beach Harbor (LA/LB Harbor) itself. Upper Dominguez Channel (freshwater) is connected to the harbor via the 8-mile long Dominguez Channel Estuary. Other nearby land areas drain to the harbor via smaller conveyances. 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 Main Channel and Turning Basin in the Harbor. Areas of the Harbor have been designated as either Inner or Outer Harbor in the *Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) (LARWQCB, 1994). The aquatic portions of the Project site are considered Inner Harbor. 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 Machado Lake weir also add freshwater to the Harbor during and after storm events.

The waters of LA/LB Harbor are governed by federal, state, and local regulations. The existing beneficial uses of the waters of Inner Los Angeles Harbor, as identified in the Basin Plan, include industrial service supply, navigation, noncontact water recreation, commercial and sportfishing, marine habitat, and preservation of rare and endangered species (LARWQCB, 1994)**Error! Bookmark not defined.** The existing beneficial uses of Outer Los Angeles Harbor include navigation, noncontact and contact water recreation, commercial and sportfishing, marine habitat, and preservation of rare and endangered species (LARWQCB, 1994). Section 303(d) of the federal 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 requires the establishment of total maximum daily loads (TMDLs) for impaired water bodies. TMDLs and allocations for the listed pollutants are normally set in terms of long-term mass loading levels, and the state and U.S. Environmental

1 Protection Agency (EPA) work with stakeholders to weigh many factors in setting waste
2 load and load allocations. A TMDL is defined as “the sum of the individual waste load
3 allocations for point sources and load allocations for nonpoint sources and natural
4 background” (40 Code of Federal Regulations [CFR] Section 130.2) such that the
5 capacity of the water body to assimilate pollutant loadings is not exceeded. Upon
6 establishment of TMDLs, the state is required to incorporate the TMDLs along with
7 appropriate implementation measures into the state Water Quality Management Plan
8 (40 CFR Sections 130.6(c)(1), 130.7). TMDLs are divided among existing (and
9 potentially future) loading sources through an allocation process.

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

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

27 The water and sediment quality parameters that could be affected directly by the
28 proposed Project and alternatives include dissolved oxygen (DO), hydrogen ion
29 concentration (or acidity/alkalinity [pH]), turbidity/transparency, and contaminants.
30 Water and sediment contaminants could also be indirectly affected by the proposed
31 Project and alternatives. Dredging releases and distributes existing contaminants in the
32 sediments during dredging operations, and removes existing contaminants from the
33 system when sediments are dredged. Other parameters commonly used to describe
34 marine water quality include salinity and temperature. While the proposed Project and
35 alternatives would not directly affect salinity and temperature, they are addressed because
36 stormwater runoff from the Project site could affect these conditions in the receiving
37 waters surrounding Berths 226–236.

38 **3.11.2.2 Water Quality**

39 Water quality conditions in the LA/LB Harbor and proposed Project area have been
40 summarized from the Water Resources Action Plan (WRAP) (POLA and POLB, 2009),
41 results of monthly water quality sampling conducted by the Los Angeles Harbor
42 Department (LAHD) in 2013 (LAHD, 2015), the 2008 San Pedro Bay biological baseline
43 study (SAIC, 2010), and other sources as cited below. Use of data from 2013 (and earlier
44 for some parameters) to approximate conditions for the CEQA baseline is appropriate
45 because the CEQA baseline period is January through December 2013. For some
46 parameters, data are only collected periodically, so earlier data (e.g., from 2000 and

1 2008) are provided for context. Data from these studies have also been included because
 2 the reports provided analysis of spatial patterns in the Harbor. LAHD conducted monthly
 3 water quality sampling at several stations in the Harbor from January through December
 4 2013, including in the proposed Project area. These included two stations (LA 26 and
 5 LA 30) in the channel adjacent to the Project site (Figure 3.11-1).



Figure 3.11-1: Location of proposed Project site and water quality stations LA 26 and LA 30

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

15 Marine water quality in the LA/LB Harbor is primarily affected by climate, circulation
 16 (including tidal currents), and biological activity. Parameters such as salinity, pH,

1 temperature, and transparency/turbidity are influenced primarily by large-scale
2 oceanographic and climatic conditions, while DO is affected by both local processes and
3 regional conditions. Results from the 2008 biological baseline study indicated that water
4 quality characteristics within the LA/LB Harbor did not exhibit large spatial trends, and
5 the variability of water quality parameters appeared to be related to water temperature
6 rather than habitat types (SAIC, 2010).

7 **Dissolved Oxygen**

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

- 12 ▪ Respiration of aquatic plants and other organisms;
- 13 ▪ Oxygen demand from waste discharges;
- 14 ▪ Surface water mixing through wave action;
- 15 ▪ Diffusion rates at the water surface;
- 16 ▪ Water depth; and
- 17 ▪ Disturbance of anaerobic bottom sediments (those with little or no oxygen).

18 The Basin Plan (LARWQCB, 1994) specifies that the mean annual DO concentration of
19 inland surface waters, including bays and estuaries, in the coastal watersheds of Los
20 Angeles and Ventura Counties, shall be 7 milligrams per liter (mg/L, equivalent to parts
21 per million [ppm]) or greater with no event less than 5 mg/L (except when natural
22 conditions cause lesser concentrations), and the mean annual DO concentration in the
23 Outer Harbor area shall be 6 mg/L or higher. Current DO concentrations throughout the
24 LA/LB Harbor generally exceed the 5-mg/L standard, with average values in the 6 to 8
25 mg/L range, values just under 7 mg/L typical at Inner Harbor stations, and just over 7
26 mg/L at Outer Harbor stations (POLA and POLB, 2009).

27 During monthly sampling events in 2013 at two stations adjacent to the Project site, DO
28 concentrations ranged from 4.0 to 6.3 mg/L, with mean values at each station between 5.1
29 and 5.2 mg/L (Figure 3.11-2; LAHD, 2015). Most of the lower DO levels (less than 5
30 mg/L) were recorded near the water surface in April and August and throughout the water
31 column in November and December. The lowest value (3.99 mg/L) was recorded near
32 the bottom at a depth of 15 meters (m) in April 2013 at Station LA 26.

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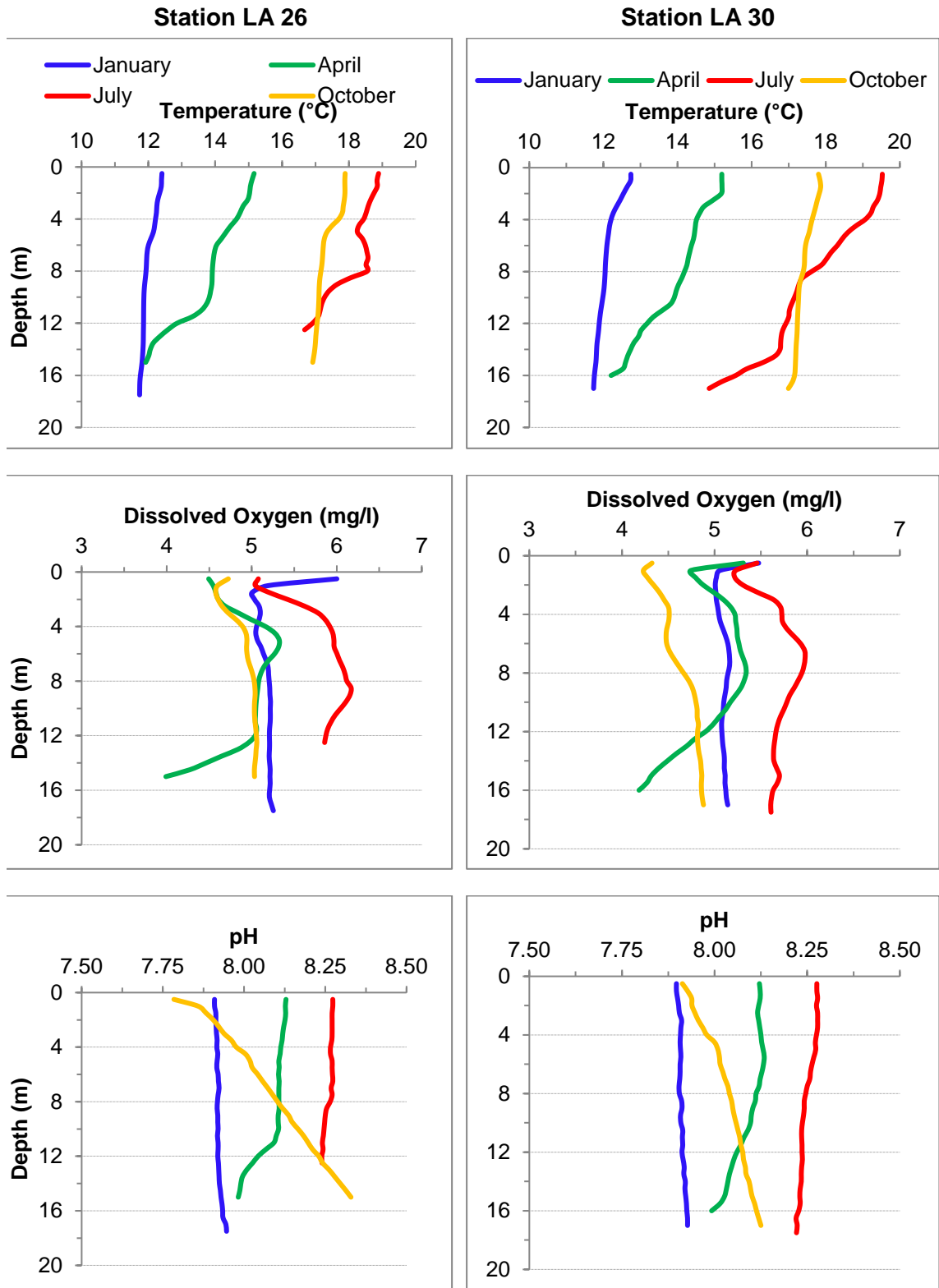


Figure 3.11-2. Temperature, DO, & pH in 2013 at Stations LA 26 (left) and LA 30 (right)

1 **Temperature**

2 Water temperatures in the LA/LB Harbor show seasonal and spatial variation that reflects
3 the influence of the ocean, local climate, physical configuration of the harbors, and
4 circulation patterns. General seasonal trends in water temperature consist of uniform,
5 cooler temperatures throughout the water column in the winter and spring and of
6 stratified, warmer upper water temperatures with cooler waters at the bottom in the
7 summer and fall. The stratified summer and fall conditions may be attributed to warmer
8 ocean currents, local warming of surface waters through insolation, and reduced runoff
9 into nearshore waters.

10 During monthly sampling between January and December 2013 at the two stations
11 adjacent to the Project site, mean station temperatures were 60°F (15.4°C) at Station LA
12 26 and 60°F (15.5°C) at Station LA 30, with a range throughout the water column from
13 53°F to 67°F (11.7°C to 19.5°C) (LAHD, 2015). Lowest temperatures were recorded
14 near the bottom in January and April, while warmest temperatures were recorded near the
15 surface in June and July 2013. Waters were also the most stratified during summer
16 (Figure 3.11-2). Temperatures in the inner portions of the LA/LB Harbor occasionally
17 are slightly warmer due to limited mixing with colder, offshore water masses (MEC and
18 Associates, 2002; SAIC, 2010).

19 **pH**

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

27 The pH and buffering capacity of Harbor waters in the Project vicinity are similar to that
28 of the ocean because the LA/LB Harbor is directly connected to and exchanges seawater
29 with the Pacific Ocean. However, in general, lower pH values are usually recorded in
30 Inner Harbor areas than in Outer Harbor areas (Lyons and Birosik, 2007). The
31 LARWQCB has established an acceptable range of 6.5 to 8.5 with a change in tolerance
32 level of no more than 0.2 due to discharges (e.g., proposed Project impacts) in bays or
33 estuaries (LARWQCB, 1994). During sampling between January through December
34 2013 at the two stations adjacent to the Project site, mean pH at both stations was 8.1,
35 with a maximum range between 7.78 and 8.33 units (Figure 3.11-2).

36 **Transparency**

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

- 40 ▪ Secchi disk: a visual assessment whereby a person determines the depth in the water
41 column that a black and white (secchi) disk can be seen from the surface;
- 42 ▪ Transmissometer: an electronic instrument that measures light attenuation by water as
43 a percent of light transmission;

- 1 ▪ Turbidimeter (or nephelometer): an instrument that measures turbidity, or the
2 muddiness or cloudiness of water expressed as a standard unit of measure
3 (nephelometric turbidity units [NTUs]), which quantifies the diffraction of light by
4 particles suspended in the water; and
- 5 ▪ Total suspended solids (TSS): The measurement of the amount (mass) of suspended
6 material, including sediments and organic solids, such as algae and detritus in water,
7 and is measured in mg/L.

8 The Basin Plan prohibits turbidity (solids) from adversely affecting beneficial uses or
9 causing nuisances, and sets allowable increases in turbidity based on ambient conditions
10 (LARWQCB, 1994). For instance, when natural turbidity is between 0 and 50 NTUs,
11 increases cannot exceed 20 percent, and when turbidity is greater than 50 NTUs,
12 increases cannot exceed 10 percent. The Basin Plan also allows for exceptions during
13 issuance of Waste Discharge Requirements (WDRs).

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

21 Historically, water clarity in the Harbor has varied tremendously, with secchi disk
22 readings ranging from 0 to 40 feet (0 to 12m). However, water clarity has been fairly
23 consistent for the last 40 years, with a slight increase from 1968 to 2006 (USACE and
24 LAHD, 2007). During approximately monthly sampling between January and December
25 2013 at the two stations adjacent to the Project site, mean station light transmission
26 ranged from 67 percent to 70 percent, with a maximum range between 22 percent and 79
27 percent (LAHD, 2015). Light transmission was generally stable throughout the water
28 column (Figure 3.11-3), with lowest surface readings in May and June. Turbidity was
29 also measured between January and December 2013. Mean turbidity at the two stations
30 was 1.4 (LA 26) and 1.6 (LA 30) NTUs, with a range throughout the water column
31 between 0.0 and 44.0 NTUs. Highest values were recorded near the surface at Station
32 LA 30 in October 2013.

33 Total suspended solids—a measure of filterable solids in water - was measured monthly
34 at Station LA 30 in 2013; results ranged from 1.0 to 6.7 ppm (LAHD, 2015). Highest
35 concentrations were recorded in January and February, and lowest concentrations were
36 recorded in June and July 2013.

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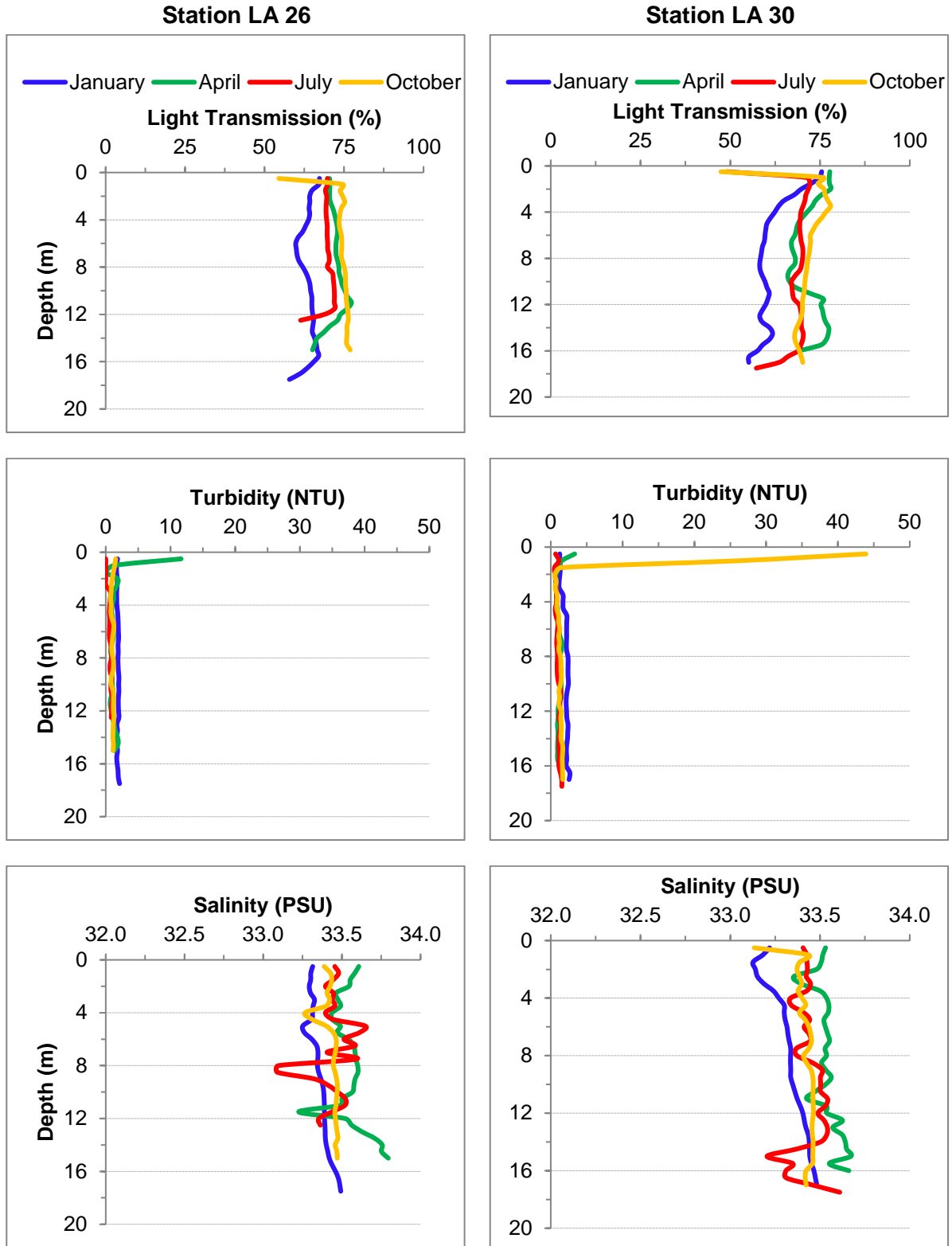


Figure 3.11-3: Light transmission, turbidity, & salinity in 2013 at Stations LA 26 (left) and LA 30 (right)

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

12 **Salinity**

13 Salinity measures the amount of dissolved salts in a water body. Salinities in the LA/LB
14 Harbor usually range from 30.0 to 34.2 parts per thousand (ppt), but salinities ranging
15 from less than 10 ppt to greater than 39 ppt have been reported (USACE and LAHD,
16 1984). Typical salinity for Southern California coastal waters is around 33 ppt. Higher
17 salinity values in the LA/LB Harbor are generally associated with evaporation in warm
18 months in the farther recesses of the harbors (areas with a reduced rate of exchange with
19 offshore waters), while lower values are generally found near the surface as a result of
20 freshwater input, including rainfall, stormwater and urban runoff, and wastewater
21 discharges. Fresh water mixes with the seawater due to wind, vessel traffic, tidal
22 currents, and diffusion, resulting in increasing salinity with distance from the source of
23 the freshwater plume (AMEC, 2007). During monthly sampling between January and
24 December 2013 at two stations adjacent to the Project site, salinity values ranged between
25 32.9 and 33.9 practical salinity units (psu), which is essentially equivalent to ppt in
26 Southern California (LAHD, 2013). Salinity was variable throughout the water column,
27 but within a narrow range (Figure 3.11-3).

28 **Chemical and Biological Contaminants**

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

40 Most of the dissolved or particulate organic contaminants that enter the Harbor have a
41 low solubility in water and adhere to the surface of sediment that eventually settles to the
42 bottom. Routine maintenance dredging, capital improvement dredging, and channel
43 deepening projects in the Harbor, including the Deep Draft Navigation Improvement
44 Program and the Port of Los Angeles Channel Deepening Project, have resulted in a net
45 removal of contaminated sediments from the Harbor (USACE and LAHD, 1992; POLA
46 and POLB, 2009). In addition, some contaminated sediment areas have been covered by
47 less contaminated sediments as part of construction of landfills or shallow water habitat

1 (e.g., Cabrillo Shallow Water Habitat), thereby isolating contaminated sediments from
2 exchange with the overlying water.

3 Ambient contaminant levels in LA/LB Harbor waters were measured during four
4 sampling events in 2005 and 2006. With the exception of copper in 5 of 253 samples
5 from throughout the LA/LB Harbor, concentrations of dissolved metals did not exceed
6 regulatory criteria for continuous or maximum exposure (POLA and POLB, 2009).
7 Copper was detected above California Toxics Rule (CTR) criteria in water samples from
8 two locations in the Harbor—two in the Cabrillo Marina complex (including one sample
9 that exceeded the higher maximum exposure criteria) and one in Fish Harbor.
10 Concentrations of dissolved or particulate organic chemicals (including chlorinated
11 pesticides, PCBs, PAHs, phenols, and phthalates) were consistently very low or not
12 detected in the water column (POLA and POLB, 2009). The antifouling biocide
13 tributyltin (TBT) was detected in 9 of 205 samples collected in the Harbor, with
14 concentrations of TBT in seven of those samples that exceeded the published National
15 Ambient Water Quality Criteria chronic exposure limit (7.4 mg/L; no California-specific
16 criteria, including California Toxics Rule, exist for TBT). Those seven locations,
17 primarily within the Inner Harbor, were in areas typified by limited water circulation.
18 Concentrations of other organic chemicals were low when detected, and concentrations of
19 these contaminants were not a concern in the waters of the LA/LB Harbor (POLA and
20 POLB, 2009).

21 Additional Harbor-wide ambient water monitoring study of contaminant levels was
22 performed in May 2012. At the two stations nearest to the Project site (Stations LA 26
23 and LA 30) concentrations of dissolved metals did not exceed regulatory criteria for
24 continuous or maximum exposure (AMEC, 2012). Concentrations of organic chemicals
25 (including chlorinated pesticides, PCBs, PAHs, phenols, pyrethroids, polybrominated
26 diephenyl ethers [PBDEs], butyltins and phthalates) were consistently very low, and
27 usually below detection limits.

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

44 **Atmospheric Deposition**

45 Direct atmospheric deposition refers to air pollutants that settle directly on water bodies,
46 whereas indirect atmospheric deposition occurs on upland areas where the pollutants

1 collect and are later conveyed to water bodies during storm events. The atmospheric
2 deposition of pollutants—such as particulates, metals, phthalates, and PAHs—has been
3 linked to pollutant loads in Chesapeake Bay and the Great Lakes (The Delta Institute,
4 2000; Batiuk, 2011). In response to such research, California air and water regulators
5 have also begun to examine the role of atmospheric deposition in California waters (both
6 fresh and marine). Still, only limited studies have been undertaken to measure the role of
7 atmospheric deposition in pollutant transport or its contribution to pollutant loading in the
8 LA/LB Harbor (POLA and POLB, 2009). Deposition mechanisms are not understood for
9 all potential pollutants, and the assessment of actual concentrations of such pollutants is
10 not complete. The California Air Resources Board (CARB) and State Water Resources
11 Control Board (SWRCB) are in the process of examining the need to regulate
12 atmospheric deposition to protect both fresh and saltwater bodies from pollution.

13 **Atmospheric Deposition of Metals**

14 Indirect dry deposition of metals on land within a watershed can influence stormwater
15 quality in urban areas and can subsequently affect the water quality in downstream water
16 bodies. Sabin et al. (2005) determined indirect dry deposition to land (not directly to the
17 water surface) of the Los Angeles River, Dominguez Channel, and Ballona Creek
18 watersheds accounted for 57–100 percent of the total trace metal loads in annual
19 stormwater discharges. Heavy metals from road dust, tire wear, and construction dust
20 adsorb on particulates that are greater than 10 microns in diameter that settle in the
21 watershed, and then are washed into bodies of water in storm runoff (Bishop, 2006;
22 Stolzenbach, 2006; Sabin et al., 2007). Direct atmospheric deposition of vanadium and
23 nickel as a result of marine vessels burning crude oil has been linked to concentrations
24 observed in air and rainwater (Poor, 2002). In contrast to indirect aerial deposition, direct
25 aerial deposition of metals onto the water surface is a minor source of pollutants in the
26 water (Sabin et al., 2005).

27 **Aqueous Sources of Contaminants**

28 Potential contaminants in the Harbor might be derived from sources such as permitted
29 discharges, nonpoint source runoff, illicit dumping of wastes, and leaching of
30 contaminants from sediments into the overlying waters. Permitted discharges to the
31 Dominguez Channel and LA/LB Harbor include six major NPDES discharge sources
32 (industrial sources with a yearly average flow of 100,000 gallons per day [gpd] or more)
33 and 12 minor NPDES dischargers (less than 100,000 gpd). The major point sources
34 includes a publicly owned treatment works (i.e., TIWRP), two generating stations, and
35 three refineries. There are also 17 discharges covered by general NPDES permits.
36 General NPDES permits often regulate episodic discharges (such as dewatering
37 operations) rather than continuous flows. The minor NPDES permits issued within the
38 Dominguez Channel watershed are also for episodic discharges. As described above, a
39 number of segments of the bodies of water in the Dominguez Watershed and the LA/LB
40 Harbor are listed under Section 303(d) of the CWA as impaired, including Inner Cabrillo
41 Beach, Cabrillo Marina, Dominguez Channel (estuary to Vermont), Fish Harbor,
42 Consolidated Slip, and Inner and Outer Harbor waters.

43 **Runoff**

44 Runoff from the Everport Container Terminal is collected in catch basins located
45 throughout the existing terminal site, and is conveyed toward seven separate discharge
46 points along the wharf that discharge to the Main Channel. Runoff from the 23.5-acre

1 expansion areas is collected in various storm drain inlets along Terminal Way, Cannery
2 Street, Seaside Avenue, Tuna Street, Ways Street, and Barracuda Street, and conveyed to
3 either the Main Channel or Fish Harbor where it is discharged.

4 **Leachate from Vessel Hulls**

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

20 In addition to TBT, there are a variety of other compounds found in antifouling coatings
21 on vessels that may enter the Harbor. The paint coatings used are dependent on the type
22 of material comprising the hull. TBT or biocide-free silicone-based coatings are used on
23 aluminum hulls, while copper-based coatings are typically applied to steel, fiberglass,
24 glass-reinforced plastic composites, and wood hulls. Copper-based coatings also contain
25 small amounts of zinc, are also used as a biocide in antifouling paints, and, as such, both
26 metals will leach from copper coatings of vessels. Water sampling near the Project site
27 conducted in May 2012 as part of LAHD's Enhanced Water Quality Monitoring measured
28 copper concentrations between 0.8 and 1.1 micrograms per liter ($\mu\text{g/L}$), which is below the
29 chronic toxicity threshold of 3.1 $\mu\text{g/L}$. As noted above, with the exception of copper in
30 five samples from throughout the LA/LB Harbor, concentrations of dissolved metals did
31 not exceed regulatory limits (POLA and POLB, 2009).

32 **3.11.2.3 Marine Sediments**

33 Sediment quality in the Harbor has been investigated during numerous focused studies
34 and monitoring efforts since the 1960s (POLA and POLB, 2009). Studies have been
35 conducted for the characterization of dredge material, during regional monitoring
36 programs, and to locate contamination hotspots. Recent studies included: random
37 sampling studies conducted in 1998, 2003, 2005, and 2006; hotspot characterizations
38 reported in 2005, 2006, and 2007; and a data gap study reported in 2008 (POLA and
39 POLB, 2009). Data from these studies were summarized in the WRAP and are used to
40 characterize current conditions in the Harbor. Sediment quality in the LA/LB Harbor
41 varies widely, and there are localized areas of sediment contamination "hotspots," which
42 have driven the 303(d) listings and creation of TMDLs for the harbors (POLB and
43 POLA, 2009). Much of the sediment contamination in the LA/LB Harbor is "legacy
44 contamination" from historic Port activities and watershed inputs (POLA and POLB,
45 2009). Potential sources of sediment contamination include municipal storm drains, the
46 Dominguez Channel, industrial outfalls, stormwater runoff from Port facilities,
47 commercial vessels (oceangoing vessels and harbor craft), recreational vessels, aerial

1 deposition, and the redistribution into the LA/LB Harbor, by ocean currents, of sediments
 2 from outside the harbors (POLA and POLB, 2009).

3 Marine biological communities in parts of the Inner Harbor appear to be impacted by
 4 water or sediment chemical concentrations. Results from regional sampling efforts in
 5 2003 and 2008 indicated areas of LA/LB Harbor vary from no sediment toxicity to high
 6 toxicity (Bay et al., 2005; Bay et al., 2010). Although the proposed Project area is listed
 7 as impaired pursuant to Section 303(d) of the CWA, the area is not considered a hotspot.
 8 Data from the proposed Project vicinity suggests that sediments within the proposed
 9 Project area are estimated to be “unimpacted” or “likely unimpacted” as determined by
 10 the integration of chemical, biological, and toxicological data conducted under the
 11 Sediment Quality Objectives evaluation process and based on data from Bay et al. (2005,
 12 2010) and the 2008 biological baseline studies (SAIC, 2010).

13 A sediment characterization study was performed at Berths 226-232 to determine the
 14 suitability of the dredged sediments for the range of potential dredged material
 15 management options (Ramboll Environ, 2015). Results from this evaluation are
 16 summarized below; the full sediment characterization study report is included as an
 17 appendix to this EIS/EIR (Appendix F1). The dredge footprint was divided into two
 18 separate dredged material management units (DMMUs): DMMU-1 extended from Berth
 19 229 to 232 (with design depths of -45 and -47 feet MLLW) (see Figure 3.11-4). DMMU-
 20 2 included the dredge footprint at Berths 226-228 (with a design depth of -53 feet
 21 MLLW).

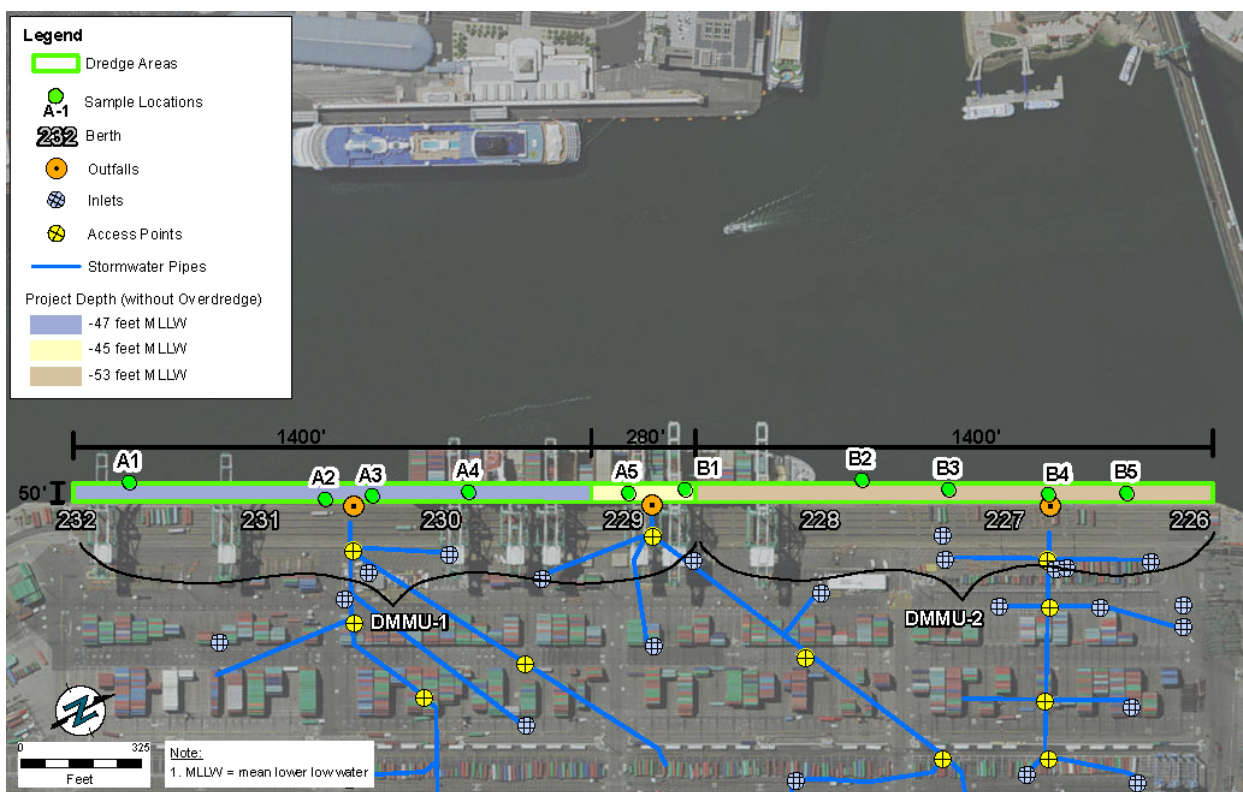


Figure 3.11-4: Location of Everport DMMUs and sediment sampling locations (from Ramboll Environ, 2015)

22

Sediments at each location were collected using a vibratory coring device, and water samples for elutriate tests were collected at one location within each of the DMMUs. One composite sediment sample was obtained from each of the two DMMUs (composite samples IDs DMMU-1 and DMMU-2). Each composite sample contained material obtained from five stations within each DMMU (A1-A5 for DMMU-1, B1-B5 for DMMU-2). Sediment cores from Stations B1-B5 were collected October 28 & 29, 2014. Sediment cores from Stations A1-A5 were collected March 26 and 27, 2015. One composite sample was obtained via pipe dredge from the LA-2 designated reference station along the 620-foot depth contour on October 27, 2014 for comparison to DMMU-2 results. A second composite sample was taken on March 25, 2015 for comparison to DMMU-1 results.

Disposal suitability determinations were conducted through evaluations of sediment chemistry, toxicity, and bioaccumulation potential testing. Within DMMU-1, sediment grain size varied with distance along the wharf (Table 3.11-1). For ocean disposal testing, sediment contaminant concentrations were compared with Effects Range Low (ERL) and Effects Range Median (ERM) values (Long et al. 1995) as a screening level evaluation. Concentrations of all analytes were below ERM values, although some exceeded ERL values at the DMMUs and at the LA-2 reference station (Table 3.11-2).

Table 3.11-1: Sediment Grain Size Results

Sediment Category	Units	DMMU-1-A1	DMMU-1-A2	DMMU-1-A3	DMMU-1-A4	DMMU-1-A5
Gravel	%	<0.01	<0.01	<0.01	<0.01	<0.01
Sand	%	0.53	38.94	49.25	50	89.31
Silt	%	77.64	49.41	40.33	39.72	8.48
Clay	%	21.83	11.65	10.41	10.28	2.22

Source: Ramboll Environ, 2015

Results from all phases of the sediment suitability study, including sediment analysis, elutriate analysis, solid phase and suspended particle phase testing, and bioaccumulation analysis indicated sediments from both DMMUs were suitable for unconfined aquatic disposal. The bioaccumulation potential analyses indicated that the mean concentrations of total polychlorinated biphenyls (PCBs) in tissues from *Neanthes virens* and *Macoma nasuta* exposed to DMMU-1 and DMMU-2 sediments were significantly elevated compared to their respective LA-2 reference samples. However, a screening level risk assessment determined there would be little to no risk to humans from placement of dredged sediments at LA-2. On August 26, 2015, members of the Los Angeles Regional Contaminated Sediments Task Force (CSTF) agreed with the results and conclusions of the sediment suitability study, and determined that all sediments dredged during the proposed Project would be suitable for ocean disposal at LA-2.

1

Table 3.11-2: Sediment Chemistry Results

Sediment Parameter	Units	ERL	ERM	DMMU-1	LA-2 ^A	DMMU-2	LA-2 ^B
Total Solids	%			68.3	64.8	69.7	70.0
Total Organic Carbon	%			0.72	0.80	0.89	0.73
Total Ammonia	mg/kg			4.9	4.8	14	4.8
Total Sulfide	mg/kg			210	0.31	4	0.86
Dissolved Sulfide	mg/kg			0.1	<0.10	<0.017	<0.017
Arsenic	mg/kg	8.2	70	7.09	3.89	9.83	2.47
Cadmium	mg/kg	1.2	9.6	0.209	0.230	0.437	0.218
Chromium	mg/kg	81	370	27.2	27.4	39.8	24.6
Copper	mg/kg	34	270	54.4	11.8	49.4	10.8
Lead	mg/kg	46.7	218	18.7	6.07	19.0	5.54
Mercury	mg/kg	0.15	0.71	0.164	0.0331	0.247	0.0238
Nickel	mg/kg	20.9	51.6	16.8	14.1	29.4	13.0
Selenium	mg/kg	-	-	0.485	0.363	0.587	0.445
Silver	mg/kg	1.0	3.7	0.0791	0.0745	0.190	0.0602
Zinc	mg/kg	150	410	98.6	56.9	108	55.0
TRPH	mg/kg			180	18	180	32
Total Detectable PAHs	µg/kg	4022	44792	594	0	280.8	<8.3
Total Detectable DDTs	µg/kg	1.58	46.1	23.3	6.12	14.1	7.95
Total Detectable PCBs	µg/kg	22.7	180	47.26	1.92	54.36	<0.014
Tributyltin	µg/kg			23	<4.6	10	<2.1

Notes:

Boldface - Value exceeds ERL**Boldface and Underlined** – Value exceeds ERM

% - percent

mg/kg - milligrams per kilogram

µg/kg - micrograms per kilogram

< - less than

Source: Ramboll Environ, 2015

TRPH - total recoverable petroleum hydrocarbons

PAH - polycyclic aromatic hydrocarbons

DDT - dichlorodiphenyltrichloroethane

PCB - polychlorinated biphenyl

A – LA-2 sample collected on Mar. 25, 2015

B – LA-2 sample collected on Oct. 27, 2014

2 3.11.2.4 Oceanography

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

9 Tides

10 Tides are sea level variations that result from astronomical and meteorological forces.
11 Tidal variations along the coast of Southern California are influenced primarily by the
12 passage of two harmonic tide waves, one with a period of 12.5 hours and the other with a
13 period of 25 hours. This combination of two harmonic tide waves usually produces
14 two high and two low tides each day. The twice daily (semidiurnal) tide of 12.5 hours
15 predominates over the daily (diurnal) tide of 25 hours in the Harbor, generating a diurnal

1 inequality, or mixed semidiurnal tides. This causes a difference in height between
2 successive high and low waters (“water” is commonly used in this context instead of
3 “tide”). The result is two high waters and two low waters each day, consisting of a
4 higher-high water (HHW), a lower-high water (LHW), a higher-low water (HLW), and a
5 lower-low water (LLW).

6 The mean tidal range for the Outer Harbor, calculated by averaging the difference
7 between all high and low waters, is 3.81 feet (1.16 m), and the mean diurnal range,
8 calculated by averaging the difference between all the HHW and LLW, is approximately
9 5.5 feet (1.68 m) (NOAA, 2015). Mean lower-low water (MLLW) is the mean of all
10 LLWs, equal to 2.8 feet (0.85 m) below mean sea level (MSL), and 0.7 feet (0.23 m)
11 below North American Vertical Datum of 1988 in the Port. MLLW is the datum from
12 which Southern California tides are usually measured. The extreme tidal range (between
13 maximum high and maximum low waters) is about 10.5 feet (3.20 m). The highest and
14 lowest tides reported are 7.96 feet (2.43 m) above MLLW and -2.56 feet (-0.78 m) below
15 MLLW, respectively (USACE and LAHD, 1992). Since 2005, the highest tide measured
16 at the Los Angeles Harbor tide station (NOAA No. 9410660) is +7.71 feet (+2.35 m)
17 MLLW (measured in December 2012), and the lowest was -2.34 feet (-0.71 m) MLLW,
18 measured in January 2009 (NOAA, 2015).

19 Waves

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

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

38 From January 2005 through January 2015, mean wave height at the Coastal Data
39 Information Program’s (CDIP’s) Buoy 92, located 5.5 nautical miles (10.2 kilometers)
40 south of Point Fermin, was 3.2 feet (1.0 m) (CDIP, 2015). The highest significant wave
41 heights, measured as the mean height of the largest one-third of the waves in a specified
42 sampling period, during that same time period ranged between 14.0 feet (4.2 m) and 15.9
43 feet (4.9 m). Almost all of the significant wave records occurred during the months of
44 December and January.

1 Circulation

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

6 Circulation patterns in LA/LB Harbor are established and maintained by tidal currents.
7 Flood tides in the LA/LB Harbor flow into the Harbor and up the channels (generally
8 northward), while ebb tides flow down the channels and out of the Harbor (generally
9 southward) (POLA and POLB, 2009). The LA/LB Harbor is protected from incoming
10 waves by the Federal Breakwater, which consists of three breakwaters: the San Pedro,
11 Middle, and Long Beach Breakwaters. In addition to protecting the ports from waves,
12 the breakwaters reduce the exchange of the water between the LA/LB Harbor and the rest
13 of San Pedro Bay, hence creating unique tidal circulation patterns. Modeled current
14 direction and velocity throughout the LA/LB Harbor during both ebb and flood tides are
15 summarized in Figure 3.11-5.

16

1

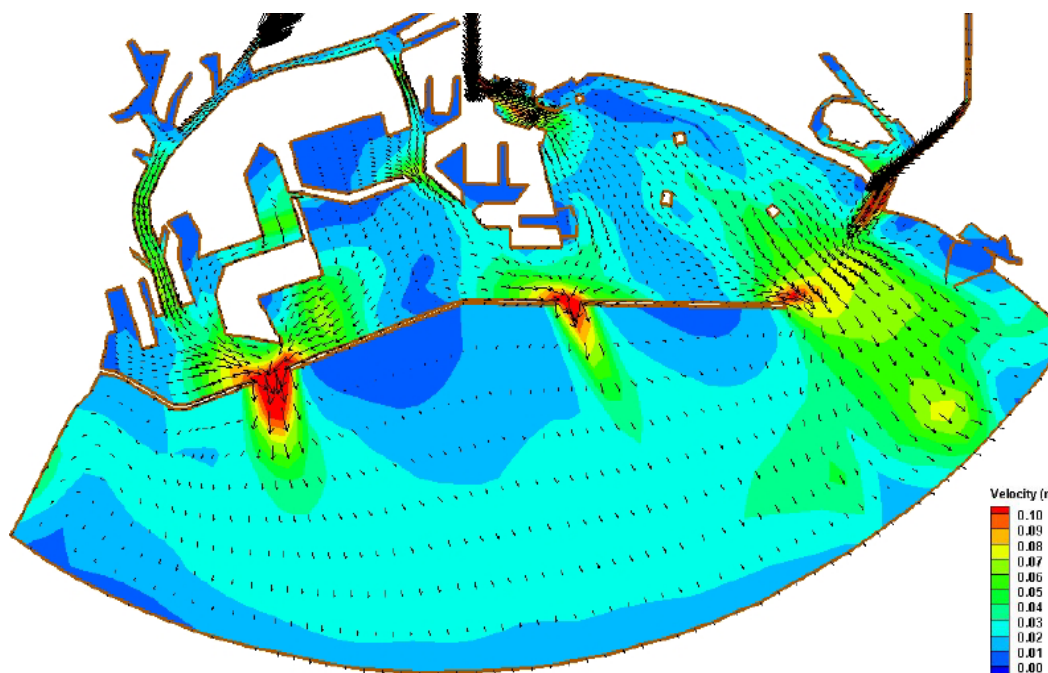
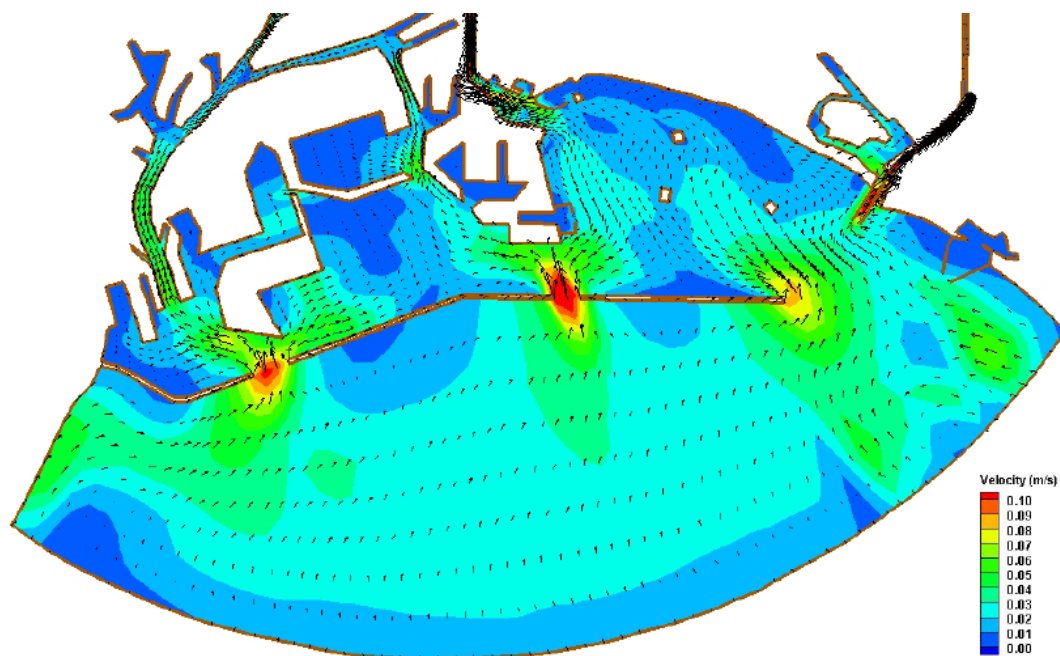


Figure 3.11-5: Current patterns in Los Angeles and Long Beach Harbors predicted by the WRAP Model (POLA and POLB, 2009). Top: Typical flood tide currents. Bottom: Typical ebb tide currents

2

3.11.3 Applicable Regulations

3.11.3.1 Clean Water Act of 1972

The CWA provides for the restoration and maintenance of the physical, chemical, and biological integrity of the nation's waters. Discharges of wastes to waters of the United States (e.g., surface waters) must be authorized through National Pollutant Discharge Elimination System (NPDES) permits (under Section 402 of the CWA). In California, the SWRCB and the nine Regional Water Quality Control Boards (RWQCBs) have authority delegated by EPA to issue NPDES permits. California permits are also issued as WDRs as required under California law by the Porter-Cologne Water Quality Control Act (see below). Section 301(a) of the CWA prohibits discharges without a permit and is the basis of the NPDES permit program. Discharges from vessels were previously exempted from the CWA, but in December 2008 EPA issued the first General Permit (described below) (EPA, 2008).

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

Coordination with the agencies on dredging, permits, and dredged material disposal is handled through the CSTF, in accordance with the CSTF Long Term Management Strategy (Anchor et al., 2005). The RWQCB can issue CWA Section 401 Water Quality Certifications to certify that actions occurring in waters of the United States that would not have adverse water quality impacts. Permits typically include the following conditions to minimize water quality effects:

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

Dredged material from the proposed Project (or an alternative) could be disposed of at an approved upland facility or at the LA-2 Ocean Dredged Material Disposal Site. Effects from sediment disposal at LA-2 were evaluated under Section 404 of the CWA and Section 102 of the Marine Protection, Research and Sanctuaries Act during the site designation process (EPA, 1988), and subsequently evaluated in consideration of higher maximum annual disposal volume (EPA and USACE, 2005). Effects from sediment disposal at an upland facility would have to meet the facility's acceptance criteria.

3.11.3.2 Rivers and Harbors Appropriations Act of 1899

Sections 10 of the Rivers and Harbors Appropriations Act (33 U.S.C. Section 403) regulates work and structures in, over, and under navigable waters that would affect the

1 course, location, condition or capacity of navigable waters of the United States, including
2 dredging, wharf improvements, overwater cranes, and artificial islands and installations
3 on the outer continental shelf (33 CFR 322.3). The objectives of the Rivers and Harbors
4 Appropriations Act include the protection of navigation and navigable capacity for
5 maritime commercial protection. The General Bridge Act applies to bridges and
6 causeways over navigable waters, and is administered by the U.S. Coast Guard (USCG).
7 Under Section 10, USACE issues permits for work (e.g., dredging) and structures (e.g.,
8 cranes, sheet piles, king piles) in, over, and under navigable waters.

9 **3.11.3.3 Marine Protection, Research, and Sanctuaries Act of 1972**

10 Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA)
11 (33 U.S.C. Section 1401 *et seq.*) regulates the transport of dredged material for the
12 purpose of ocean disposal, prohibits ocean disposal of certain wastes without a permit,
13 and prohibits the disposal of certain materials entirely. Prohibited materials include those
14 that contain radiological, chemical, or biological warfare agents; high-level radiological
15 wastes; and industrial waste. The MPRSA applies to unconfined aquatic disposal of
16 dredged material in all U.S. ocean waters from the baseline to the limit of the territorial
17 sea (approximately 12 nautical miles from the shoreline). Section 102 of the MPRSA
18 authorizes EPA to promulgate environmental criteria for evaluation of all disposal permit
19 actions, to retain review authority over the USACE-issued MPRSA Section 103 permits,
20 and to designate ocean disposal sites for dredged material disposal. Disposal of dredged
21 material at the EPA-approved LA-2 site would be conducted only if the dredged material
22 met the permitted annual volume and sediment quality requirements for this site, if the
23 disposal was approved by EPA and USACE, and if beneficial reuse was unavailable or
24 not practicable. Effects to water quality and sediment from disposal of dredged material
25 at LA-2 were determined to be insignificant during an evaluation of increased disposal
26 capacity (to one million cubic yards per annum) (EPA and USACE, 2005).

27 **3.11.3.4 Vessel General Permits**

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

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

42 In 2014, EPA issued the small VGP (sVGP) to provide NPDES permit coverage for
43 discharges incidental to the normal operation of non-military, non-recreational vessels
44 less than 79 feet in length operating in a capacity as a means of transportation. EPA
45 issued the sVGP in anticipation of the expiration date of the then existing moratorium on

1 permitting, which specified that neither EPA nor the states may require NPDES permits,
2 other than for ballast water, for incidental discharges from these vessels. However, on
3 December 18, 2014, President Obama signed into law the Howard Coble Coast Guard
4 and Maritime Transportation Act of 2014, S.2444, which extended that moratorium for
5 an additional three years, until December 18, 2017. Ballast water discharges from vessels
6 less than 79 feet in length are not affected by the moratorium (i.e., discharges still require
7 permit coverage), but are now able to obtain coverage under either the Vessel General
8 Permit (VGP) or the sVGP as of December 19, 2014.

9 **3.11.3.5 Coastal Nonpoint Source Pollution Control Program**

10 This is a joint program between EPA and the National Oceanic and Atmospheric
11 Administration (NOAA). Established during reauthorization of the Coastal Zone
12 Management Act of 1972, the program provides a more comprehensive solution to the
13 problem of polluted runoff in coastal areas. The program sets economically achievable
14 measures to prevent and mitigate runoff pollution problems stemming from agriculture,
15 forestry, urban developments, marinas, hydromodification (e.g., stream channelization),
16 and the loss of wetland and riparian areas. The *Plan for California's Nonpoint Source*
17 *Pollution Control Program* is implemented by the SWRCB, the RWQCBs, and the
18 California Coastal Commission.

19 **3.11.3.6 Porter-Cologne Water Quality Control Act of 1972**

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

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

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

3.11.3.8 Water Quality Control Plan, Los Angeles Region (Basin Plan)

The Basin Plan (LARWQCB, 1994) is designed to preserve and enhance water quality and to protect beneficial uses of regional waters (inland surface waters, groundwater, and coastal waters such as bays and estuaries). The Basin Plan designates beneficial uses of surface water and groundwater, such as contact recreation or municipal drinking water supply. The Basin Plan also establishes water quality objectives, which are defined as "the allowable limits or levels of water quality constituents or characteristics that are established for the reasonable protection of beneficial uses of water or the prevention of nuisance in a specific area."

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

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

3.11.3.9 State Water Resources Control Board General Stormwater Permits

The SWRCB has issued and periodically renews a statewide General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (GCASP) and a statewide General Industrial Activities Stormwater Permit (GIASP) for projects that do not require an individual permit for these activities. The GCASP was adopted in 2009 and further revised in 2012 (Order No. 2012-0006-DWQ). All construction activities that disturb one acre or more must prepare and implement a

1 construction Stormwater Pollution Prevention Plan (SWPPP) that specifies Best
2 Management Practices (BMPs) to prevent pollutants from contacting stormwater. Best
3 Management Practices are effective, practical, structural, or nonstructural methods used
4 to prevent or reduce the movement of sediments, nutrients, and pollutants from land to
5 surface waters. The intent of the SWPPP and BMPs is to keep all products of erosion
6 from moving off site into receiving waters, eliminate or reduce non-stormwater
7 discharges to storm sewer systems and other waters of the United States, and perform
8 sampling and analysis to determine the effectiveness of BMPs in reducing or preventing
9 pollutants (even if not visually detectable) in stormwater discharges from causing or
10 contributing to violations of water quality objectives.

11 The most recent GIASP (Order No. 2014-0057-DWQ) was adopted in April 2014 and
12 requires dischargers to develop and implement a SWPPP to reduce or prevent industrial
13 pollutants in stormwater discharges, eliminate unauthorized non-storm discharges, and
14 conduct visual and analytical stormwater discharge monitoring to verify the effectiveness
15 of the SWPPP and submit an annual report.

16 **3.11.3.10 Los Angeles Municipal Separate Storm Sewer System** 17 **(MS4) NPDES Permit**

18 The agencies that discharge stormwater and non-stormwater (urban runoff) to MS4s in
19 Los Angeles County are required to obtain and comply with an NPDES permit/WDRs to
20 meet the NPDES requirements. In Los Angeles County, all of the MS4 agencies except
21 for City of Long Beach are permitted under a single permit issued to Los Angeles County
22 and 84 incorporated cities. The permit is the *Waste Discharge Requirements for*
23 *Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal*
24 *Watersheds of Los Angeles County, Except Those Discharges Originating from the City*
25 *of Long Beach MS4* (Order No. R4-2012-0175, NPDES Permit No. CAS004001). The
26 City of Los Angeles, Department of Public Works, Bureau of Sanitation, Watershed
27 Protection Division (WPD) implements the MS4 inspection program of
28 industrial/commercial “critical sources” located within the City of Los Angeles. The
29 current permit was issued on November 8, 2012, and became effective on December 28,
30 2012. It was originally issued in 2001 and was amended in 2006 to incorporate
31 provisions of the Santa Monica Bay Beaches Dry Weather TMDL. This amendment was
32 voided in 2011 by order of a writ of mandate; however, this amendment was included in
33 the 2012 permit. The permit was also revised in 2007 to incorporate provisions of the
34 Marina del Rey Harbor Mother’s Beach and Back Basins Bacterial TMDL and again in
35 2009 to be consistent with the Los Angeles River Watershed Trash TMDL.

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

Development and Construction Program

For construction activities that would result in the disturbance of one acre or more, permittees must develop, implement, and enforce a program to reduce pollutant runoff in stormwater. This includes (1) a program to prevent illicit stormwater discharges, (2) structural and non-structural BMPs to reduce pollutants in runoff from construction sites, and (3) preventing discharges from causing or contributing to violations of water quality standards. Permittees are required to review construction site plans to determine potential water quality impacts and ensure proposed controls are adequate. These include preparation and submission of an Erosion and Sediment Control Plan (ESCP) with elements of a SWPPP prior to issuance of building or grading permits. The 2012 MS4 permit requires that ESCP must be developed by Qualified SWPPP Developers to ensure high quality. Permittees are required to develop a list of BMPs for a range of construction activities.

Industrial / Commercial Business Program

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

Planning and Land Development Program

The Planning and Land Development Program applies to all development and re-development projects subject to the MS4. The requirements of the Program include: lessening water quality impacts by using smart growth strategies and safeguarding environmentally sensitive areas; minimizing the amount of impervious surfaces, designing projects to minimize impervious footprints, and employing Low Impact Development (LID) design principles; minimizing pollutant loads from impervious surfaces through properly designed, technically appropriate BMPs and LID strategies; and prioritizing the selection of BMPs to remove stormwater pollutants, reduce stormwater volume, and beneficially reuse stormwater.

TMDL Provisions

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

Low Impact Development

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

1 The LID is intended to manage the quantity and quality of stormwater runoff by setting
2 standards and practices to maintain or restore the hydrologic character of a development
3 site, reduce off-site runoff, improve water quality, and provide groundwater recharge.
4 The LID ordinance expands the SUSMP requirements by increasing the number of new
5 and re-development conditions under which stormwater mitigation measures must be
6 implemented. As with SUSMP requirements, the LID requirements would need to be
7 met for a building permit to be issued. For new non-residential development or for re-
8 development projects that result in an alteration of at least 50 percent or more of the
9 impervious surfaces of an existing developed site, the entire site would need to comply
10 with the standards and requirements of the ordinance and of the LID section of the
11 Development BMP Handbook.

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

20 **3.11.3.11 California Toxics Rule**

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

27 **3.11.3.12 Oil Spill Prevention and Response**

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

38 **3.11.3.13 Water Resources Action Plan**

39 The WRAP was prepared by the Ports of Los Angeles and Long Beach, in coordination
40 with their cities, EPA, and the LARWQCB (POLA and POLB, 2009). The WRAP's
41 purpose is to provide a programmatic framework to identify mechanisms for the Ports to
42 achieve the goals and targets that will be established in the relevant TMDLs and to
43 comply with the GCASP, GIASP, and municipal permits issued to the ports and their
44 respective cities and tenants through the NPDES program. The WRAP identifies
45 multiple current and potential control measures to minimize effects to water and sediment

1 quality. These include Land Use Control Measures, On-Water Source Control Measures,
2 Sediment Control Measures, and Watershed Control Measures. The WRAP is considered
3 a living document, and the ports will modify it as circumstances warrant. The LAHD has
4 prepared several documents in support of the WRAP objectives, including a Vessel
5 Discharge Rules and Regulations guidance document and a Sediment Management
6 Strategy document. Preparation of a Design Guidance Manual (to address LID and other
7 BMPs) is underway.

8 **3.11.3.14 Port Tariff No. 4**

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

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

26 **3.11.4 Impacts and Mitigation Measures**

27 **3.11.4.1 Methodology**

28 Potential impacts of the proposed Project and alternatives to water quality and sediment
29 conditions were assessed through a combination of literature data (including applicable
30 water quality criteria), results from past dredge and fill projects in the Port, results from
31 previous testing of Harbor sediments, results from current testing of sediment chemistry
32 and water quality, and scientific expertise of the preparers. For oceanographic resources,
33 potential impacts were assessed using results from previous modeling studies for the
34 Harbor and preparer expertise. Impacts are considered significant if any of the
35 significance criteria listed below in Section 3.11.4.2 occur in association with
36 construction or operation of the proposed Project or an alternative.

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

- 39 ■ Coverage under the GCASP for the onshore portions of the proposed Project will be
40 obtained by LAHD as the “Legally Responsible Person” that will delegate applicable
41 responsibilities to the construction contractor. The associated SWPPP will contain the
42 following measures:

- 1 ◦ Equipment will be inspected regularly (daily) during construction, and any
2 leaks found will be repaired immediately.
- 3 ◦ Refueling of vehicles and equipment will occur in a designated, contained
4 area.
- 5 ◦ Drip pans will be used under stationary equipment (e.g., diesel fuel
6 generators), during refueling, and when equipment is maintained.
- 7 ◦ Drip pans that are in use will be covered during rainfall to prevent washout
8 of pollutants.
- 9 ◦ Appropriate containment structures will be constructed and maintained to
10 prevent off-site transport of pollutants from spills and construction debris.
- 11 ◦ Monitoring will occur to verify that the BMPs are implemented and kept in
12 good working order.
- 13 ▪ Other relevant standard operating procedures and BMPs for Port construction projects
14 will be followed.
- 15 ▪ This includes adherence to a SWPPP during operation of the proposed Project or
16 alternatives as part of the GIASP.
- 17 ▪ The LAHD will incorporate MS4/LID measures into the proposed Project design for
18 review and approval by the City of Los Angeles Department of Building and Safety.
- 19 ▪ All contaminated upland soils will be characterized and remediated in accordance with
20 LAHD, LARWQCB, Department of Toxic Substances Control, and Los Angeles
21 County Fire Department protocol and cleanup standards.
- 22 ▪ The tenant will obtain and implement the appropriate stormwater discharge permits
23 for operations.
- 24 ▪ Sediments from the proposed dredging area were evaluated using standard
25 EPA/USACE protocols to determine the suitability of the material for unconfined,
26 aquatic disposal. Dredged sediments would be disposed of at the LA-2 disposal site or
27 an approved upland disposal site.
- 28 ▪ A Section 10 permit will be required from USACE for dredging, crane raising and
29 installation, and pile installation activities in waters of the United States. An
30 MPRSA Section 103 permit will be required for transport and disposal of dredged
31 sediments at LA-2. No DA permit would be required for sediment disposal at an
32 approved upland facility.
- 33 ▪ A CWA Section 401 Water Quality Certification from the LARWQCB would be
34 required for dredging.
- 35 ▪ A Debris Management Plan and OSCP will be prepared and implemented prior to the
36 start of demolition, dredging, and construction activities associated with the proposed
37 Project. The OSCP will specifically identify in-water containment and spill
38 management in the event of an accidental spill. The plan will require that emergency
39 cleanup equipment is available on site to respond to such accidental spills. All
40 pollutants will be managed in accordance with all applicable laws and regulations.
- 41 ▪ During dredging, LAHD will implement a water quality monitoring program in
42 conjunction with both USACE and LARWQCB permit requirements. The objective
43 of the monitoring program will be adaptive management of the dredging operation,

1 whereby potential exceedances of water quality objectives can be measured and
2 dredging operations subsequently modified, if warranted. If turbidity levels exceed
3 the threshold established in the WDRs issued by the LARWQCB, water chemistry
4 analysis will be conducted and LAHD will immediately meet with the construction
5 manager to discuss modifications of dredging operations to reduce turbidity to
6 acceptable levels. This could include alteration of dredging methods, and/or
7 implementation of additional BMPs such as a silt curtain.

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

12 **CEQA Baseline**

13 Section 15125 of the CEQA Guidelines requires EIRs to include a description of the
14 physical environmental conditions in the vicinity of a project that exist at the time of the
15 NOP. These environmental conditions normally would constitute the baseline physical
16 conditions by which the CEQA lead agency determines if an impact is significant. The
17 NOP for the proposed Project was published in October 2014. For purposes of this Draft
18 EIS/EIR, the CEQA baseline takes into account the throughput for the 12-month calendar
19 year preceding NOP publication (January through December 2013) in order to provide a
20 representative characterization of terminal activity levels throughout the complete
21 calendar year preceding release of the NOP. In 2013, the Everport Container Terminal
22 encompassed approximately 205 acres (181 acres under its long-term permit plus an
23 additional 25 acres on month-to-month space assignment), supported eight cranes,
24 handled approximately 1.24 million TEUs, and had 166 vessel calls. The CEQA baseline
25 conditions are also described in Section 2.7.1 and summarized in Table 2-1.

26 The CEQA baseline represents the setting at a fixed point in time. The CEQA baseline
27 differs from the No Project Alternative (Alternative 2) in that the No Project Alternative
28 addresses what is likely to happen at the Project site over time without improvements,
29 starting from the existing conditions. Therefore, the No Project Alternative allows for
30 growth at the Project site that could be expected to occur without additional approvals,
31 whereas the CEQA baseline does not.

32 **NEPA Baseline**

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

40 Unlike the CEQA baseline, which is defined by conditions at a point in time, the NEPA
41 baseline is not bound by statute to a “flat” or “no-growth” scenario. Instead, the NEPA
42 baseline is dynamic and includes increases in operations for each study year (2017, 2018,
43 2019, 2026, 2033 and 2038), which are projected to occur absent a federal permit.
44 Federal permit decisions focus on direct impacts of the proposed Project permit area to
45 the aquatic environment, as well as indirect and cumulative impacts in the uplands

1 determined to be within the scope of federal control and responsibility. Significance of
2 the proposed Project or the alternatives under NEPA is determined by comparing the
3 proposed Project or the alternatives to the NEPA baseline.

4 The NEPA baseline, for purposes of this Draft EIS/EIR, is the same as the No Federal
5 Action Alternative. Under the No Federal Action Alternative (Alternative 1), no
6 dredging, dredged material disposal, in-water pile installation, or crane raising or
7 installation would occur, and the existing terminal capacity would not be increased. The
8 No Federal Action Alternative includes the installation of AMP vaults along the wharf
9 and the addition of 23.5 acres of additional backlands (addition of the 1.5-acre area at the
10 southern end of the terminal and the 22-acre backland expansion area) to improve
11 efficiency (these improvements could occur absent a federal permit).

12 The NEPA baseline assumes that the terminal would handle up to approximately
13 1,818,000 TEUs annually by 2038, and accommodate 208 annual ship calls at two
14 existing berths with eight cranes.

15 **3.11.4.2 Thresholds of Significance**

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

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

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

27 **3.11.4.3 Impact Determination**

28 **Proposed Project**

29 Proposed Project construction would include dredging and disposing of dredged material,
30 installing piles, raising of up to five existing cranes, adding five new wharf cranes,
31 modifying the wharf to accommodate five additional AMP vaults, and
32 improving/developing backlands. Approximately 30,000 cubic yards of sediment would
33 be dredged from Berths 226–229, and king piles and sheet piles would be installed over
34 1,400 linear feet along those berths. Approximately 8,000 cubic yards would be dredged
35 from Berths 230–232, and sheet piles would be installed over 1,400 linear feet along
36 those berths.

37 Sediments from the proposed dredging area were tested using standard EPA/USACE
38 protocols (according to an approved SAP) to determine the suitability of the material for
39 unconfined aquatic disposal or other disposal alternatives (Ramboll Environ, 2015).
40 Sediments within the dredge footprint at Berths 226–232 were determined to be suitable
41 for unconfined, aquatic disposal, and suitability for disposal of all sediments at LA-2 was
42 confirmed by the Contaminated Sediments Task Force on August 26, 2015. Therefore,

1 the dredged material could be disposed of at LA-2 or an approved upland disposal site.
2 Effects from sediment disposal at LA-2 were evaluated during the site designation
3 process (EPA, 1988) and subsequently evaluated in consideration of higher maximum
4 annual disposal volume (EPA and USACE, 2005).

5 Following completion of construction activities, the terminal would be able to
6 accommodate the same number of vessels, but the design depths along the wharf would
7 allow the terminal to accommodate larger vessels with deeper drafts (up to 16,000 TEU
8 vessels). This would increase the throughput potential and improve the efficiency of
9 cargo handling at the terminal. For purposes of impact analyses, it is assumed that
10 increased container throughput would increase truck traffic and cargo handling
11 equipment at the terminal, and result in a corresponding increase in the amount of
12 pollutants in runoff from terminal surfaces. The proposed Project would also result in the
13 addition of impervious backlands after development of 23.5 acres of land. This could
14 affect water quality in the vicinity of the Project site.

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

18 **Construction**

19 As shown in Table 2-3 (see Chapter 2, Project Description), in-water and over-water
20 construction activities would extend over approximately 11–13 months. Mobilization
21 would take up to two months. Installation of sheet piles and dredging/disposal at Berths
22 230–232 would take approximately 4.5 months, while installation of sheet and king piles
23 and dredging/disposal at Berths 226–229 would take approximately 6 months.

24 Impacts on water quality could occur from dredging, installation of sheet piles and king
25 piles, backland improvements, and potential construction-related spills. Impacts on water
26 quality could result from the resuspension of sediments and/or the introduction of
27 contaminants to the water column. Resuspension is the dislodgement and dispersal of
28 sediment into the water column (where finer sediments are subject to transport and
29 dispersion by currents). Sediment resuspension can also result in the short-term release
30 of contaminants in the water column through release of pore water (water between
31 individual sediment particles) and by separation from suspended particles. The potential
32 water quality effects from construction for each of the major proposed Project
33 components are described separately below.

34 The types of water quality impacts from proposed Project construction could include:

- 35 ■ Increased turbidity (sediment resuspension resulting in reduced water clarity and light
36 transmittance),
- 37 ■ Increased dissolved or particulate contaminants (that were previously bound to
38 dredged sediments or in pore water),
- 39 ■ Reduced dissolved oxygen (from suspension of sediments with low oxygen), and
- 40 ■ Reduced pH

1 There would be no effects to salinity or temperature from construction and operation of
2 the proposed Project. The biological effects on marine biota from potential water quality
3 impacts are discussed in Section 3.3, Biological Resources.

4 **Effects of Dredging and Pile Installation**

5 Dredging would resuspend some bottom sediments and create localized and temporary
6 turbidity plumes over a relatively small area. The extent of disturbance would depend on
7 the method of dredging. Resuspension of sediments during clamshell dredging occurs
8 during bucket impact, penetration, and removal of the bucket from the sediment, as well
9 as during bucket retrieval through the water column. During cutterhead dredging,
10 resuspended sediments are limited to the immediate vicinity of the dredge.

11 For continuous dredging operations, elevated turbidity would occur in the immediate
12 vicinity of the dredge for periods of days to several weeks. The majority of suspended
13 sediments settle within one hour of dredging (Palermo et al., 2008). Transport of
14 suspended particles by tidal currents would result in some redistribution of sediment
15 contaminants. The amount of contaminants redistributed in this manner would be small,
16 and the distribution would be localized and adjacent to the work area. Monitoring efforts
17 associated with previous dredging projects in the Harbor have shown that resuspension
18 followed by settling of sediments is low (generally 2 percent or less) (Anchor
19 Environmental, 2002), suggesting that only a small portion of the dredged sediment is
20 subject to movement and transport through the water column.

21 Dredging at the Project site would likely generate a relatively small turbidity plume.
22 Sediment particle sizes transitioned from mostly sand (89 percent) adjacent to Berth 229
23 to mostly silt (78 percent) at Berth 232 (Table 3.11-1). Receiving water monitoring
24 studies at other dredge sites in the Harbor and other water bodies have documented a
25 relatively small, turbid dredge plume that dissipates rapidly with distance from dredging
26 operations (MBC, 2001a–b, 2002; USACE and LAHD, 2008**Error! Bookmark not**
27 **defined.**; POLA, 2009a–i, 2010a–d; Parish and Wiener, 1987; Jones & Stokes, 2007a–b).
28 Water quality was measured during dredging at Berths 212–215 (northeast of the
29 proposed Project site) in 2001 (MBC, 2001a). During dredging, light transmittance was
30 reduced by about 15 percent in the bottom half of the water column 300 feet downcurrent
31 from the dredge (MBC 2001a). Similar effects are expected during dredging for the
32 proposed Project due to similarity in sediment character, dredging depths and currents.

33 Sheet piles and king piles would be lowered through the water column, and then driven
34 into the seafloor by either vibratory and impact driving methods. Some sediment would
35 be resuspended during this process, but over a much smaller area than during dredging,
36 and any turbidity would be limited to waters near the seafloor. In general, sediment
37 resuspension during pile driving represents only about 30 percent of the resuspension that
38 occurs during dredging (Hayes, 2012).

39 Within areas of sediment resuspension, DO and pH could be slightly reduced.
40 Reductions in DO concentrations, however, would be brief and are not expected to persist
41 or cause detrimental effects to biological resources. During dredging at Berths 212–215
42 in 2001, there was little difference in DO and pH between Station C (300 feet
43 downcurrent of dredging) and Station D (the control station, located at Berth 195 in East
44 Basin) (MBC, 2001a**Error! Bookmark not defined.**). Similar effects are expected
45 during dredging for the proposed Project due to similarity in sediment character, dredging
46 depths and currents.

1 Contaminants, including metals and organics, could be released into the water column
2 during the dredging and pile installation. However, any increase in contaminant levels in
3 the water is expected to be localized and of short duration. The magnitude of
4 contaminant releases would be related to the sediment particle sizes, sediment organic
5 content, and contaminant concentrations associated with the disturbed sediments.
6 Sediment grain size affects the binding capacity of contaminants. Concentrations of all
7 contaminants at the Project site were below ERM levels, and results from elutriate testing
8 (which used a 4:1 mixture of water and sediments from the dredge footprint) were below
9 EPA Criteria for Continuous Concentrations (CCC) (Ramboll Environ, 2015). There was
10 also no demonstrated toxicity in solid phase and suspended particulate phase bioassays
11 tests in sediments at the Everport Container Terminal. Therefore, contaminant
12 concentrations associated with any potentially disturbed or resuspended sediments during
13 dredging and pile installation are not expected to result in any long-term effects in the
14 waters near the Project site.

15 **Effects of Dredge Material Disposal**

16 Ocean Disposal

17 Effects from sediment disposal at LA-2 were evaluated during the site designation
18 process (EPA, 1988) and subsequently evaluated in consideration of higher maximum
19 annual disposal volume (EPA and USACE, 2005). The proposed Project would not
20 result in additional or new impacts to sediment quality or water quality related to disposal
21 of dredge material at LA-2 that were not previously evaluated.

22 Upland Disposal

23 Disposal of dredged material at an upland disposal site would not affect sediment quality
24 or water quality near the Project site. In addition, disposal of dredged material at an
25 upland disposal site is not expected to result in water quality impacts due to required
26 operational best management practices (leachate management practices), protocols and
27 design (such as the lining of the landfill) at the landfill site.

28 **Effects of Backlands Improvements**

29 Ground disturbances and construction activities related to backlands improvements could
30 result in temporary impacts on surface water quality if uncontrolled runoff of exposed
31 soils, asphalt leachate, concrete washwater, and other construction materials enter Harbor
32 waters. No upland surface bodies of water currently exist within the proposed Project
33 boundaries. Thus, proposed Project-related impacts on surface water quality would be
34 limited to potential non-stormwater discharges or discharges of stormwater runoff to
35 Harbor waters. Runoff from the upland portions of the Project site would flow into the
36 Harbor, along with runoff from other adjacent areas of the Harbor's subwatershed.
37 Runoff at the Project site is collected by the on-site storm drain system and is managed in
38 compliance with applicable permits and ordinances (including MS4/LID requirements).
39 The 1.5-acre expansion area is currently unpaved, and the site topography contains
40 various low points that collect rainfall, which will minimize runoff from the site during
41 construction activities. The 22-acre expansion area is partially developed and paved, and
42 runoff from this area enters the local storm drain system. During construction, runoff
43 from the construction site would be subject to SWPPP requirements, including
44 implementation of BMPs, to control pollutant discharges. In addition to soils, runoff from
45 a construction site could contain a variety of contaminants, including metals and PAHs,

1 associated with construction materials, and spills of oil or other petroleum products.
2 Impacts on surface water quality from accidental spills are addressed below.

3 **Accidental Spills**

4 Accidental spills of fuel, lubricants, or hydraulic fluid from equipment used during
5 dredging, pile installation, backlands improvement, and/or disposal of dredged material,
6 could occur during proposed Project construction. Based on the history for this type of
7 work in the Harbor, accidental leaks and spills of large volumes of hazardous materials or
8 wastes containing contaminants during onshore construction activities have a very low
9 probability of occurring because large volumes of these materials typically are not used
10 or stored at construction sites. In addition, appropriate spill response equipment would
11 be present at the site.

12 **Operation**

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

16 **Deposition of Contaminants**

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

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

35 **Runoff**

36 Operation of the proposed Project facilities would not involve any direct point source
37 discharges of wastes or wastewaters to the Harbor. The operation of marine terminals
38 and backland container facilities on land adds particulates and other pollutants to the site
39 from cargo handling equipment (pollutants include hydrocarbons, brake dust, and
40 particulates from tire wear) Operations of non-electric equipment and vehicles for the
41 proposed Project would also generate air emissions containing particulate pollutants. A
42 portion of these particulates would be deposited on the site and subject to subsequent
43 transport by storm runoff. At the Project site, stormwater is collected in catch basins and
44 conveyed to storm drains along the Main Channel. Transport of contaminants, such as

1 metals, by runoff from the Project site would contribute incrementally to changes in
2 receiving water quality.

3 **Accidental Spills**

4 Other potential operational sources of pollutants that could affect water quality in the
5 waters adjacent to the Project site include accidental spills on land that enter storm drains,
6 as well as accidental spills from vessels. If spilled materials in upland areas were not
7 captured prior to reaching the storm drain system, such materials could reach the Main
8 Channel adjacent to the Project site. Spills or illegal discharges from vessels could also
9 occur in the same waters, or during their transit to and from the Project site from the
10 Harbor entrance at Angel's Gate. Impacts on water and sediment quality would depend
11 on (1) the characteristics of the material spilled, such as volatility, solubility in water, and
12 sedimentation rate, and (2) the speed and effectiveness of the spill response and cleanup
13 efforts. Potential releases of pollutants from a large spill on land to Harbor waters and
14 sediments would be minimized through existing regulatory and on-site controls, such as
15 containment of hazardous substances, and are unlikely to occur during the life of the
16 proposed Project.

17 **Vessel Discharges and Contaminants**

18 The amount of vessel traffic at the Project site would increase compared to the CEQA
19 baseline as a result of the proposed Project. However, ship calls for the proposed Project
20 would be the same as the NEPA baseline. Discharges of polluted water (such as bilge
21 water or gray water) or ballast water directly to the Harbor are prohibited under the Port
22 tariff and other regulations. Ballast water cannot be discharged to the Harbor without
23 treatment or exchange, or unless the ballast water originated in the Port Complex or the
24 El Segundo Marine Oil Terminal.

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

34 **CEQA Impact Determination**

35 **Construction**

36 Dredging and pile installation during the construction phases of the proposed Project
37 would not cause any direct or intentional discharges of wastes to waters adjacent to the
38 Project site. However, in-water dredging and pile installation would disturb and
39 resuspend bottom sediments, which would result in temporary and localized changes to
40 water quality. Dredging of Berths 226–232 may reduce DO concentrations in the
41 immediate vicinity of the dredge, but this decrease would generally not extend beyond
42 the dredge area or persist following the completion of the dredging operation. Changes
43 in pH and contaminant levels could also occur as a result of construction activities for the
44 proposed Project. The extent of sediment dispersal would depend on the dredge method,
45 the specific sediment characteristics, and the current speed and direction during dredging.

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

5 Dredging for the proposed Project would require a Section 10 permit from USACE and a
6 CWA Section 401 Water Quality Certification from the LARWQCB. The Water Quality
7 Certification would include monitoring requirements necessary to assure compliance with
8 applicable effluent limitations, or any other CWA limitation, or with any State laws or
9 regulations. Monitoring requirements typically include measurements of DO, light
10 transmittance (turbidity), pH, and TSS at varying distances from the dredging operations.
11 If turbidity levels exceed the threshold established in the WDRs issued by the
12 LARWQCB, water chemistry analysis would be conducted and the LAHD would
13 immediately meet with the construction manager to discuss modifications of dredging
14 operations to keep turbidity to acceptable levels. Monitoring data would be used by the
15 dredging contractor to ensure that water quality limits specified in the permit are not
16 exceeded. This could include alteration of dredging methods, and/or implementation of
17 additional BMPs to limit the size and extent of the dredge plume.

18 Sediments could be disposed of at LA-2 or an approved upland location. Sediments from
19 the proposed dredging area were tested using standard EPA/USACE protocols (according
20 to an approved SAP) prior to dredging to determine the suitability of the material for
21 unconfined, aquatic disposal or other disposal alternatives. The sediments within the
22 Berths 226–232 dredging footprint complied with the chemistry, toxicity, and
23 bioaccumulation suitability requirements for ocean disposal (Title 40 CFR Parts 220–
24 228; Appendix F), and the CSTF determined in August 2015 that the sediments are
25 suitable for disposal at LA-2. If the sediments were disposed of at an upland disposal
26 facility, they would have to meet acceptance criteria and would not result in adverse
27 impacts. Therefore, water quality impacts due to dredging and disposal would be less
28 than significant.

29 Runoff from the Project site during construction would be managed under a construction
30 SWPPP prepared in accordance with GCASP requirements and implemented prior to
31 start of any construction activities. This construction SWPPP would specify BMPs to
32 prevent and/or control releases of soils and contaminants and avoid adverse impacts on
33 receiving water quality. One or more types of runoff control structures (such as a silt
34 fence or sand bag barrier) would be placed and maintained around the construction area
35 to minimize loss of site soils to the storm drain system. As another standard measure,
36 concrete truck wash water and runoff of any water that has come in contact with wet
37 cement would be contained on site so that it does not runoff into the Harbor. These
38 measures would minimize any soil and contaminant loading to the Harbor resulting from
39 construction activities. The SWPPP would be prepared by LAHD (or contractor) with
40 LAHD designated as the “Legally Responsible Person.” Runoff during construction is
41 not anticipated to cause regulatory standards to be violated, and impacts would be less
42 than significant.

43 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel
44 spills during fueling, typically involve small volumes that can be effectively contained in
45 the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and
46 Control Procedures [CA012]). Accidental or incidental spills or leaks that occur on land
47 are expected to be contained and cleaned up before any impacts on surface water quality

1 can occur. Construction and industrial SWPPPs and standard BMPs (e.g., use of drip
2 pans, contained refueling areas, regular inspections of equipment and vehicles, and
3 immediate repairs of leaks) would reduce potentials for materials from onshore
4 construction activities to be transported off site and enter storm drains. The unlikelihood
5 of spills to occur, combined with established prevention measures, would reduce and
6 minimize the probability that regulatory standards would be violated due to an accidental
7 spill. Therefore, impacts would be less than significant.

8 Accidental spills from dredges or barges could directly affect water quality in the waters
9 adjacent to the Project site; however, the probability of an accidental spill from a
10 construction vessel to the Harbor is low. In addition, if an accidental spill does occur, the
11 planning effort to contain and neutralize the spill and the actual spill response by the
12 dredging contractors (such as deployment of floating booms to contain and absorb the
13 spill and use pumps to assist the cleanup) are expected to prevent the accidental spill
14 from causing a nuisance or from adversely affecting beneficial uses of the Harbor.

15 **Operation**

16 As part of the proposed Project, the footprint of the terminal would increase, and the
17 amount of truck traffic and yard equipment would increase to handle up to 2,379,525
18 TEUs annually (from approximately 1.24 million TEUs annually under the CEQA
19 baseline). Rail traffic would also increase at the existing on-dock railyard. This would
20 increase the amount of particulates and chemical pollutants from normal wear of
21 tires/train wheels and other moving parts, as well as from leaks of lubricants and
22 hydraulic fluids that can fall on backland surfaces and subsequently be transported by
23 stormwater runoff into the Harbor.

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

31 The design and operation of the proposed Project would comply with both the MS4
32 permit and LID requirements. Applicable BMPs would be incorporated into the
33 proposed Project plan that must be approved by the Bureau of Sanitation WPD prior to
34 issuance of building and grading permits. The BMPs would include, as applicable, site
35 design BMPs, source control BMPs, and treatment control BMPs. To the maximum
36 extent feasible, treatment control BMPs would be selected from LID BMPs.

37 Given the limited footprint of the proposed Project, there may be very limited opportunity
38 to incorporate significant site design BMPs, but these will be incorporated where
39 possible. All applicable source control BMPs would be incorporated in the proposed
40 Project design. Feasible treatment control BMPs would be selected from the list of
41 treatment control categories in the 2010 Stormwater Quality Post-Construction Guidance
42 Manual. For the backland portion of the proposed Project, BMPs would be designed to
43 retain and/or treat the water quality design volume for the entire area subject to grading
44 and resurfacing. These BMPs must meet the specified design standards in the guidance
45 manual to mitigate (infiltrate or treat) stormwater runoff. The controls and BMPs for
46 runoff and storm drain discharges described above are designed to reduce impacts on

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

4 LA/LB Harbor-wide water quality studies from 2005–2008 found only five instances
5 where metal concentrations exceeded CTR criteria for chronic exposure of marine life
6 (POLA and POLB, 2009). All five instances were for dissolved copper: two samples
7 were in 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 below). Ambient monitoring and stormwater
10 monitoring in Long Beach Harbor in 2010–2011 showed that pollutants, such as metals
11 and semivolatile organic compounds, were present in harbor waters during both dry-
12 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 Project site, pollutants in runoff would not cause violations of receiving water quality
18 objectives, given compliance with SWPPP and LID requirements. Upland operations
19 associated with the proposed Project would not result in direct discharges of wastes to
20 Harbor waters. However, stormwater runoff from the Project site could contain
21 particulate debris from operation of the proposed Project facilities, including aerially
22 deposited pollutants. Discharges of stormwater would comply with the NPDES
23 discharge permit limits and SWPPP requirements. Therefore, water quality impacts from
24 site runoff would not be significant.

25 In 2012, the Ports of Los Angeles and Long Beach published “Vessel Discharge Rules
26 and Regulations,” which summarizes the rules and regulations of ballast water discharge
27 and other discharges (POLB and POLA, 2012). This document, which is updated as the
28 applicable regulations change, has been distributed to all terminal operators/shipping
29 lines to make them aware of the regulations. Port Tariff No. 4 prohibits the discharge of
30 ballast water without written permission from the Executive Director of the Harbor
31 Department. With international, federal, and state regulations in place, the increased
32 vessel traffic and terminal operations associated with the proposed Project are not
33 anticipated to result in significant ballast water discharge impacts from vessels.

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

43 By the 1980s, numerous studies had documented toxic effects of TBT at extremely low
44 concentrations (parts per trillion) to non-target species (Huggett et al., 1992). Because of
45 these studies, regulatory actions were adopted in France (1982) and the United Kingdom
46 (1985), and in 1988 the U.S. Congress passed the Organotin Antifouling Paint Control
47 Act. On an international level, the IMO passed the International Convention on the

1 Control of Harmful Antifouling Systems on Ships. This prohibits or restricts the use of
2 antifouling systems on ships that are parties to the convention, those that are more than
3 400 gross tonnage that are engaged in international voyages, or those greater than 24 m in
4 length. This convention was ratified in 2007, and became binding on those governments
5 who ratified it on September 17, 2008. This convention was signed by the U.S. on
6 December 12, 2002 (NOAA, 2011).

7 The proposed Project would result in an additional 42 ship calls annually compared to the
8 CEQA baseline, and the sizes of the ships calling at the terminal may increase.
9 Evergreen Line, which uses the Everport Container Terminal, uses tin-free coatings on its
10 vessels (Evergreen Line, 2015), but the hull fouling strategies of other vessels that could
11 use the terminal are unknown. Therefore, hull leaching of non-TBT substances, such as
12 metals, could incrementally increase. However, concentrations of metals in waters near
13 the Project site have been well below regulatory criteria (POLA and POLB, 2009;
14 AMEC, 2012). Therefore, water quality impacts related to leaching of contaminants
15 from hull coatings would be less than significant.

16 Even though small amounts of hazardous materials/wastes are stored on the site of the
17 proposed Project, operation of the proposed Project would require compliance with all
18 existing hazardous material/waste laws and regulations. Compliance with these laws
19 would ensure that potentially hazardous materials handling would occur in a safe and
20 acceptable manner. These regulations, which govern the shipping, transport, storage, and
21 handling of hazardous materials, would limit the severity and frequency of potential
22 releases of hazardous materials. Therefore, operation of the proposed Project would not
23 substantially increase the probable frequency and severity of consequences to people or
24 property as a result of a potential accidental release (including spill from vessels) or
25 explosion of a hazardous substance. Impacts would be less than significant under CEQA.

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

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

36 In summary, based on the analysis above, proposed Project-related construction
37 activities, including dredging, pile installation, and backlands improvements, and
38 operations at the improved terminal, including increased container throughput and
39 increased truck traffic, are not expected to create pollution, contamination, or a nuisance,
40 or result in violations of water quality standards or permit conditions. Therefore,
41 significant water quality impacts under CEQA are not expected to occur from
42 construction, terminal operations, or accidental spills that could occur from
43 implementation of the proposed Project. Impacts would be less than significant under
44 CEQA.

1 **Mitigation Measures**

2 No mitigation is required.

3 **Residual Impacts**

4 Impacts would be less than significant.

5 **NEPA Impact Determination**

6 **Construction**

7 The proposed Project would include in-water work and infrastructure installation within
8 100 feet of the water's edge that would not occur under the NEPA baseline. Dredging and
9 pile installation during the construction phases of the proposed Project would not cause
10 any direct or intentional discharges of wastes to waters adjacent to the Project site.
11 However, in-water dredging and pile installation would disturb and resuspend bottom
12 sediments, which would result in temporary and localized changes to water quality.
13 Dredging of Berths 226–232 may reduce DO concentrations in the immediate vicinity of
14 the dredge, but this decrease would generally not extend beyond the dredge area or
15 persist following the completion of the dredging operation. Changes in pH and
16 contaminant levels could also occur as a result of construction activities for the proposed
17 Project. The extent of sediment dispersal would depend on the dredge method, the
18 specific sediment characteristics, and the current speed and direction during dredging.
19 Results from previous dredge receiving water monitoring studies in the Harbor indicate
20 that turbidity and TSS concentrations would rapidly drop to levels approaching
21 background concentrations within a few hundred meters of the dredge once dredging
22 ceases.

23 Dredging for the proposed Project would require a Section 10 permit from USACE and a
24 CWA Section 401 Water Quality Certification from the LARWQCB. The Water Quality
25 Certification would be required to include monitoring requirements necessary to assure
26 compliance with applicable effluent limitations, or any other Clean Water Act limitation,
27 or with any State laws or regulations. Monitoring requirements typically include
28 measurements of DO, light transmittance (turbidity), pH, and TSS at varying distances
29 from the dredging operations. If turbidity levels exceed the threshold established in the
30 WDRs issued by the LARWQCB, water chemistry analysis would be conducted and the
31 LAHD would immediately meet with the construction manager to discuss modifications
32 of dredging operations to keep turbidity to acceptable levels. Monitoring data would be
33 used to ensure that water quality limits specified in the permit are not exceeded. This
34 could include alteration of dredging methods, and/or implementation of additional BMPs
35 to limit the size and extent of the dredge plume.

36 Sediments would be disposed of at LA-2 or approved upland disposal site. Sediments
37 from the proposed dredging area were tested using standard EPA/USACE protocols
38 (according to an approved SAP) prior to dredging to determine the suitability of the
39 material for unconfined, aquatic disposal or other disposal alternatives. The sediments
40 within the Berths 226-232 dredging footprint complied with the chemistry, toxicity, and
41 bioaccumulation suitability requirements for ocean disposal (Title 40 CFR Parts 220–
42 228; Appendix F). In addition, all sediments would be subject to acceptance
43 requirements if disposed of at an approved upland facility. Therefore, water quality
44 impacts due to dredging and disposal would be less than significant.

1 Runoff from the Project site would be controlled under a construction SWPPP prepared
2 in accordance with GCASP requirements and implemented prior to start of any
3 construction activities. This construction SWPPP would specify BMPs to prevent and/or
4 control releases of soils and contaminants and avoid adverse impacts on receiving water
5 quality. One or more types of runoff control structures would be placed and maintained
6 around the construction area to minimize loss of site soils to the storm drain system. As
7 another standard measure, concrete truck wash water and runoff of any water that has
8 come in contact with wet cement would be contained on site so that it does not runoff
9 into the Harbor. These measures, combined with the low potential for erosion, would
10 minimize any soil and contaminant loading to the Harbor resulting from construction
11 activities. The SWPPP would be prepared by LAHD (or contractor) with LAHD
12 designated as the “Legally Responsible Person.” Runoff during construction is not
13 anticipated to cause regulatory standards to be violated, and impacts would be less than
14 significant.

15 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel
16 spills during fueling, typically involve small volumes that can be effectively contained in
17 the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and
18 Control Procedures [CA012]). Accidental or incidental spills or leaks that occur on land
19 are expected to be contained and cleaned up before any impacts on surface water quality
20 can occur. Construction and industrial SWPPPs and standard BMPs (e.g., use of drip
21 pans, contained refueling areas, regular inspections of equipment and vehicles, and
22 immediate repairs of leaks) would reduce potentials for materials from onshore
23 construction activities to be transported off site and enter storm drains. The unlikelihood
24 of spills to occur, combined with established prevention measures, would reduce and
25 minimize the probability that regulatory standards would be violated due to an accidental
26 spill. Therefore, impacts would be less than significant.

27 Accidental spills from dredges or barges could directly affect water quality in the waters
28 adjacent to the Project site; however, the probability of an accidental spill from a
29 construction vessel to the Harbor is low. In addition, if an accidental spill does occur, the
30 planning effort to contain and neutralize the spill and the actual spill response by the
31 dredging contractors (deployment of floating booms to contain and absorb the spill and
32 use pumps to assist the cleanup) would likely prevent the accidental spill from causing a
33 nuisance or from adversely affecting beneficial uses of the Harbor.

34 **Operation**

35 The footprint of the terminal would increase, and the amount of truck traffic and yard
36 equipment operations at the Project site would increase to handle up to 2,379,525 TEUs
37 annually (from about 1,818,000 TEUs annually under the NEPA baseline [2038]). Rail
38 traffic would also increase at the existing on-dock railyard. This would increase the
39 amount of particulates and chemical pollutants from normal wear of tires/train wheels
40 and other moving parts, as well as from leaks of lubricants and hydraulic fluids that can
41 fall on backland surfaces and subsequently be transported by stormwater runoff into the
42 Harbor.

43 As noted above, runoff would be managed (consistent with applicable permit and
44 ordinance requirements) prior to discharge into Harbor waters. Site operations would be
45 conducted in accordance with an industrial SWPPP to minimize the generation of
46 particulate pollutants. In addition, monitoring would be conducted under the SWPPP to
47 observe the quality of the stormwater runoff discharged to the Harbor. This would allow

1 the tenant and LAHD to ensure that the quality of any runoff would comply with the
2 permit conditions and verify that any BMPs are performing as anticipated.

3 The design and operation of the proposed Project would comply with both the MS4
4 permit and the LID requirements. Applicable BMPs would be incorporated into the
5 proposed Project plan that must be approved by the Bureau of Sanitation WPD prior to
6 issuance of building and grading permits. The BMPs would include, as applicable, site
7 design BMPs, source control BMPs, and treatment control BMPs. To the maximum
8 extent feasible, treatment control BMPs would be selected from LID BMPs.

9 Given the limited footprint of the proposed Project, there may be very limited opportunity
10 to incorporate significant site design BMPs, but these will be incorporated where
11 possible. All applicable source control BMPs would be incorporated in the proposed
12 Project design. Feasible treatment control BMPs would be selected from for the list of
13 treatment control categories in the 2010 Stormwater Quality Post-Construction Guidance
14 Manual. For the backland portion of the proposed Project, BMPs would need to be
15 designed to retain and/or treat the water quality design volume for the entire area subject
16 to grading and resurfacing.

17 The controls and BMPs for runoff and storm drain discharges described above are
18 designed to reduce impacts on water quality and would be fully implemented for the
19 proposed Project. Tenants would be required to obtain and meet all conditions of
20 applicable stormwater discharge permits as well as meet all Port pollution control
21 requirements.

22 LA/LB Harbor-wide water quality studies from 2005–2008 found only five instances
23 where metal concentrations exceeded CTR criteria for chronic exposure of marine life
24 (POLA and POLB, 2009). All five instances were for dissolved copper: two samples
25 were in Cabrillo Marina, one in Fish Harbor, and two in Long Beach Inner Harbor.
26 Concentrations of organic chemicals (such as pesticides, PCBs, and PAHs) were very
27 low; the exception was TBT (discussed in Section 3.11.2.2). Ambient monitoring and
28 stormwater monitoring in Long Beach Harbor in 2010–2011 showed that pollutants, such
29 as metals and semivolatile organic compounds, were present in harbor waters during both
30 dry-weather surveys and storm surveys (MBC, 2011). However, in one sample during
31 the 2010 dry-weather survey, zinc exceeded the standard for marine waters; all other
32 metals were well below regulatory standards. Mixing with the harbor receiving waters
33 dilutes the pollutants so that the receiving water standards are usually not exceeded. It
34 is reasonable to expect that these findings would also apply to stormwater runoff from the
35 Project site, and pollutants in runoff would not cause violations of receiving water quality
36 objectives, given compliance with SWPPP and LID requirements. Upland operations
37 associated with the proposed Project would not result in direct discharges of wastes to
38 Harbor waters. However, stormwater runoff from the Project site could contain
39 particulate debris from operation of the proposed Project facilities, including aerially
40 deposited pollutants. Discharges of stormwater would comply with the NPDES
41 discharge permit limits and SWPPP requirements. Therefore, water quality impacts from
42 site runoff would not be significant.

43 In 2012, the Ports of Los Angeles and Long Beach published “Vessel Discharge Rules
44 and Regulations,” which summarizes the rules and regulations of vessel discharges,
45 including ballast water and other discharges (POLB and POLA, 2012). This document,
46 which is updated as the applicable regulations change, has been distributed to all terminal

1 operators/shipping lines to make them aware of the regulations. Port Tariff No. 4
2 prohibits the discharge of ballast water without written permission from the Executive
3 Director of the Harbor Department. Vessel traffic would not increase compared to the
4 NEPA baseline. Therefore, the proposed Project is not anticipated to result in significant
5 ballast water discharge impacts from vessels, or hull leeching of antifouling materials.
6 Water quality impacts related to these activities would not be significant.

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

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

28 The proposed Project would not result in increased vessel traffic compared to the NEPA
29 baseline, although the sizes of the ships calling at the terminal may increase. Evergreen
30 Line, which uses the Everport Container Terminal, uses tin-free coatings on its vessels
31 (Evergreen Line, 2015), but the hull fouling strategies of other vessels that could use the
32 terminal are unknown. Therefore, hull leaching of non-TBT substances, such as metals,
33 could incrementally increase. However, concentrations of metals in waters near the
34 Project site have been well below regulatory criteria (POLA and POLB, 2009; AMEC,
35 2012). Therefore, water quality impacts related to leaching of contaminants from hull
36 coatings would be less than significant.

37 Even though small amounts of hazardous materials/wastes are stored on the Project site,
38 operation of the proposed Project would require compliance with all existing hazardous
39 material/waste laws and regulations (such as the Resource Conservation and Recovery
40 Act of 1976, Department of Transportation Hazardous Materials Regulations, and the
41 Hazardous Waste Control Law of the California Health and Safety Code). Compliance
42 with these laws would ensure that potentially hazardous materials handling would occur
43 in a safe and acceptable manner. These regulations, which govern the shipping,
44 transport, storage, and handling of hazardous materials, would limit the severity and
45 frequency of potential releases of hazardous materials. Therefore, under NEPA,
46 proposed Project operations would not substantially increase the probable frequency and
47 severity of consequences to people or property as a result of a potential accidental release

1 (including spill from vessels) or explosion of a hazardous substance. Impacts would be
2 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, although the proposed Project would include in-water work and
8 infrastructure installation within 100 feet of the water's edge that would not occur under
9 the NEPA baseline, as well as increased operational throughput, based on the analysis
10 above, proposed Project-related construction activities, including dredging, pile
11 installation, and backlands improvements, and operations at the improved terminal,
12 including increased container throughput and increased truck traffic, are not expected to
13 create pollution, contamination, or a nuisance, or result in violations of water quality
14 standards or permit conditions. Therefore, significant water quality impacts under NEPA
15 are not expected to occur from construction, terminal operations, or accidental spills that
16 could occur from implementation of the proposed Project. Impacts would be less than
17 significant under NEPA.

18 ***Mitigation Measures***

19 No mitigation is required.

20 ***Residual Impacts***

21 Impacts would be less than significant.

22 **Alternative 1 – No Federal Action**

23 Alternative 1 is a NEPA-required No-Action Alternative for purposes of this Draft
24 EIS/EIR. This alternative includes the activities that would occur absent a DA permit
25 and could include improvements that require a local permit. Absent a DA permit, no
26 dredging, dredged material disposal, in-water pile installation, or raising existing cranes
27 and new crane installation would occur. The existing terminal's ability to handle larger
28 ships (compared to current terminal constraints) would be facilitated by activities that
29 require a DA permit (dredging, in-water pile driving, and raising or new cranes).
30 Therefore, without the activities that address the constraints of the terminal's berths (the
31 existing berth depths cannot accommodate vessels larger than about 8,000 TEUs, and
32 deeper berths would allow the terminal to service larger ships), the existing terminal berth
33 capacity would not be increased. The No Federal Action Alternative includes 23.5 acres
34 of additional backlands to improve efficiency, which could occur absent a federal permit.

35 The site would continue to operate as an approximately 228-acre container terminal
36 where cargo containers are loaded to/from vessels, temporarily stored on backlands, and
37 transferred to/from trucks or on-dock rail. Based on the throughput projections, the site
38 of Alternative 1 is expected to operate at its capacity of approximately 1,818,000 TEUs
39 by 2038. In addition, under this alternative, five new AMP vaults and associated
40 infrastructure (e.g., electrical conduit and wires) would be constructed at various
41 locations within the wharf face of Berths 226 to 232 for a total of eight AMP vaults.

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

4 **Construction**

5 Alternative 1 would not involve dredging and pile installation, or disposal of dredged
6 material; therefore, impacts associated with dredging, disposal, and pile installation as
7 described under the proposed Project would not occur under this alternative.

8 **Effects of Backlands Improvements**

9 Alternative 1 would have the same backland improvements as the proposed Project (23.5
10 acres of additional backlands and associated improvements) and therefore would have the
11 same effects related to backlands improvements as the proposed Project described above.
12 Construction-related impacts on surface water quality would be limited to potential non-
13 stormwater discharges or discharges of stormwater runoff to Harbor waters that receive
14 runoff from the terminal site of Alternative 1. Runoff from the upland portions of the
15 terminal is managed in compliance with applicable permits and ordinances (including
16 SWPPP requirements) prior to discharge to the Harbor (to the Main Channel). In
17 addition, runoff from the construction site could contain a variety of contaminants,
18 including metals and PAHs, associated with construction materials, and spills of oil or
19 other petroleum products.

20 **Accidental Spills**

21 Because Alternative 1 would have the same backland improvements as the proposed
22 Project (23.5 acres of additional backlands and associated improvements), there would be
23 the same potential for accidental spills during backlands construction as the proposed
24 Project (described above). However, accidental leaks and spills of large volumes of
25 hazardous materials or wastes containing contaminants during onshore construction
26 activities have a very low probability of occurring because large volumes of these
27 materials typically are not used or stored at construction sites.

28 **Operation**

29 Operation of Alternative 1 would handle up to 1,818,000 TEUs with 208 vessel calls
30 annually by 2038 (increase of approximately 577,000 TEUs and 42 annual vessel calls
31 above the CEQA baseline). There would be no increase in throughput or ship calls
32 compared to the NEPA baseline. Like the proposed Project, this alternative would not
33 involve any direct point source discharges of wastes or wastewaters to the Harbor. The
34 increase in terminal operations from increased vessel, truck, rail, and backland equipment
35 could incrementally increase polluted runoff in receiving waters.

36 **Runoff**

37 Operation of the site under Alternative 1, as with the proposed Project, would not involve
38 any direct point source discharges of wastes or wastewaters to the Harbor. However, the
39 transport of contaminants deposited on the terminal site from operations, such as metals,
40 by runoff from the site of Alternative 1 would contribute incrementally to changes in
41 receiving water quality.

1 Deposition of Contaminants

2 Direct atmospheric deposition of air pollutants that settle in the Port (including at the site
3 of Alternative 1) and on Harbor would be similar to that described above for the proposed
4 Project, and may provide an increased impact on local watersheds. For particulates,
5 including suspended zinc and copper pollutants from the site of Alternative 1 (e.g., tire
6 and brake wear from equipment and trucks), direct impacts would not be expected to
7 significantly affect water quality due to the likely limited and dispersed nature of direct
8 deposition on Harbor waters, and because direct aerial deposition would not allow for a
9 significant buildup of these pollutants before entering Harbor waters.

10 Accidental Spills

11 The potential for accidental spills (in upland areas and from vessels) to affect Harbor
12 waters under Alternative 1 would be similar to the proposed Project, albeit somewhat less
13 due to lower operational throughput i.e., higher throughput but similar number of ship
14 calls). If spilled materials in upland areas were not captured prior to reaching the storm
15 drain system, such materials could reach the Main Channel adjacent to the site of
16 Alternative 1. Spills or illegal discharges from vessels could also occur in the same
17 waters, or during their transit to and from the Everport Container Terminal from the
18 Harbor entrance at Angel's Gate. Impacts on water and sediment quality would depend
19 on (1) the characteristics of the material spilled, such as volatility, solubility in water, and
20 sedimentation rate, and (2) the speed and effectiveness of the spill response and cleanup
21 efforts. Potential releases of pollutants from a large spill to Harbor waters and sediments
22 would be minimized through existing regulatory and on-site controls and are unlikely to
23 occur during the life of Alternative 1.

24 Vessel Discharges and Contaminants

25 The amount of vessel traffic at the site of Alternative 1 would increase by 42 annual ship
26 calls compared to the CEQA baseline, but would be the same as the NEPA baseline. The
27 water quality effects under Alternative 1 from vessel discharges and leaching of
28 contaminants from vessel coatings (including TBT, copper, and zinc) would be similar to
29 the proposed Project, albeit slightly lower due to lower operational throughput. TBT has
30 been discontinued from use, and concentrations of metals, such as those used in
31 antifouling applications (copper and zinc), have been measured near or below detection
32 limits in waters adjacent to the site of Alternative 1.

33 CEQA Impact Determination**34 Construction**

35 Runoff from the Alternative 1 site during construction would be managed under a
36 construction SWPPP prepared in accordance with GCASP requirements and
37 implemented prior to start of any construction activities, as described for the proposed
38 Project. Implementation of BMPs, would minimize any soil and contaminant loading to
39 the Harbor resulting from construction activities. The SWPPP would be prepared by
40 LAHD (or contractor) with LAHD designated as the "Legally Responsible Person."
41 Runoff during construction is not anticipated to cause regulatory standards to be violated,
42 and impacts would be less than significant.

43 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel
44 spills during fueling, as with the proposed Project, would be managed via construction
45 and industrial SWPPPs and standard Port BMPs, which would minimize the potential for

1 materials from onshore construction activities to be transported off site and enter storm
2 drains. The unlikelihood of spills to occur, combined with established prevention
3 measures, would reduce and minimize the probability that regulatory standards would be
4 violated due to an accidental spill. Therefore, impacts would be less than significant.

5 **Operation**

6 The footprint of the terminal would increase, and the amount of truck traffic and yard
7 equipment operations at the site of Alternative 1 would increase to handle up to
8 1,818,000 TEUs annually (from 1,240,773 TEUs annually under the CEQA baseline).
9 Rail traffic would also increase at the existing on-dock railyard. This would increase the
10 amount of particulates and chemical pollutants from normal wear of tires/train wheels
11 and other moving parts, as well as from leaks of lubricants and hydraulic fluids that can
12 fall on backland surfaces and subsequently be transported by stormwater runoff into the
13 Harbor.

14 As with the proposed Project, runoff under Alternative 1 would be managed under an
15 industrial SWPPP to minimize the generation of particulate pollutants, and the quality of
16 any runoff is expected to comply with the permit conditions.

17 Similar to the proposed Project, the design and operation of Alternative 1 would comply
18 with both the MS4 permit requirements and LID requirements, and would implement
19 BMPs to maximize the reduction of pollutant loadings in terminal runoff. The BMPs
20 would include, as applicable, site design BMPs, source control BMPs, and treatment
21 control BMPs. To the maximum extent feasible, treatment control BMPs would be
22 selected from LID BMPs.

23 As with the proposed Project, given the limited footprint of Alternative 1, there may be
24 very limited opportunity to incorporate significant site design BMPs, but these will be
25 incorporated where possible. All applicable source control BMPs would be incorporated
26 in the proposed Project design. Feasible treatment control BMPs would be selected from
27 for the list of treatment control categories in the 2010 Stormwater Quality Post-
28 Construction Guidance Manual. For the backland portion of Alternative 1, BMPs would
29 need to be designed to retain and/or treat the water quality design volume for the entire
30 area subject to grading and resurfacing, where applicable. The controls and BMPs for
31 runoff and storm drain discharges described above are designed to reduce impacts on
32 water quality and would be fully implemented for Alternative 1. Tenants would be
33 required to obtain and meet all conditions of applicable stormwater discharge permits as
34 well as meet all Port pollution control requirements.

35 As described under the proposed Project above, receiving water standards for the Harbor
36 are usually not exceeded due in part to mixing effects, and it is reasonable to expect that
37 these effects would also keep pollutants in runoff under Alternative 1 from resulting in
38 violations of receiving water quality objectives, given compliance with MS4 and LID
39 requirements. Upland operations associated with Alternative 1 would not result in direct
40 discharges of wastes to Harbor waters. Stormwater runoff from the terminal site under
41 Alternative 1 could contain particulate debris from operation of the facilities, including
42 aerially deposited pollutants. Discharges of stormwater would comply with the NPDES
43 discharge permit limits and SWPPP requirements. Therefore, water quality impacts from
44 site runoff would not be significant.

1 Vessel discharges under Alternative 1 would be similar to those for the proposed Project
2 because the number of annual ship calls would be the same (even though throughput
3 would increase by about 577,000 TEUs annually). In 2012, the Ports of Los Angeles and
4 Long Beach published “Vessel Discharge Rules and Regulations,” which summarizes the
5 rules and regulations of ballast water discharge and other discharges (POLB and POLA,
6 2012). With international, federal, and state regulations in place, the increased terminal
7 operations associated with Alternative 1 are not anticipated to result in significant
8 discharge impacts from vessels.

9 The number or severity of illegal discharges, and corresponding changes to water and
10 sediment quality, from increased vessel traffic cannot be accurately quantified because
11 the rate and chemical composition of illegal discharges from commercial vessels is
12 unknown. However, there is no evidence that illegal discharges from ships presently
13 utilizing the Harbor are causing widespread problems in the Harbor. Over several
14 decades, there has been a vast improvement in Harbor water quality despite an overall
15 increase in ship traffic. In addition, the Port Police are authorized to cite any vessel that
16 is in violation of Port tariffs, including illegal discharges. Illegal discharges resulting
17 from operation of Alternative 1 are not likely to occur.

18 As with the proposed Project, vessels under Alternative 1 would not contain TBT in their
19 hull coatings; therefore, TBT is not expected to leech from vessel hulls at the site of
20 Alternative 1. The number of ship calls under Alternative 1 would be higher than the
21 CEQA baseline (208 compared with 166 ship calls), but the maximum size of the ships
22 calling at the terminal (up to 8,000 TEU vessels) would not increase. Concentrations of
23 metals in waters near the site of Alternative 1 have been well below regulatory criteria
24 (POLA and POLB, 2009; AMEC, 2012). Therefore, water quality impacts related to
25 leaching of contaminants from hull coatings would be less than significant.

26 Even though small amounts of hazardous materials/wastes are stored on the site of
27 Alternative 1, operation of this alternative would require compliance with all existing
28 hazardous material/waste laws and regulations (such as the Resource Conservation and
29 Recovery Act of 1976, Department of Transportation Hazardous Materials Regulations,
30 and the Hazardous Waste Control Law of the California Health and Safety Code).
31 Compliance with these laws would ensure that potentially hazardous materials handling
32 would occur in a safe and acceptable manner. These regulations, which govern the
33 shipping, transport, storage, and handling of hazardous materials, would limit the severity
34 and frequency of potential releases of hazardous materials. Therefore, operation of
35 Alternative 1 would not substantially increase the probable frequency and severity of
36 consequences to people or property as a result of a potential accidental release (including
37 spill from vessels) or explosion of a hazardous substance. Impacts would be less than
38 significant.

39 Accidental spills of petroleum hydrocarbons, hazardous materials, and other pollutants
40 from Alternative 1-related upland operations are expected to be limited to small volume
41 releases because large quantities of those substances are unlikely to be used, transported,
42 or stored on the site.

43 In summary, construction and operations under Alternative 1, including increased
44 container throughput and increased truck traffic, are not expected to create pollution,
45 contamination, or a nuisance, or result in violations of water quality standards or permit
46 conditions. Significant water quality impacts under CEQA are not expected to occur as a

1 result of construction, terminal operations, or accidental spills that could occur from
2 implementation of Alternative 1. Impacts would be less than significant under CEQA.

3 ***Mitigation Measures***

4 No mitigation is required.

5 ***Residual Impacts***

6 Impacts would be less than significant.

7 **NEPA Impact Determination**

8 Alternative 1 would include 23.5 acres of additional backlands and related improvements.
9 This would consist of removal of existing structures, placement of engineered fill,
10 placement of base and pavement, relocation of the main gate, and installation of
11 infrastructure, such as electrical lines, lighting, and drainage. No construction of in-water
12 or over-water features would occur under Alternative 1. The No Federal Action
13 Alternative would involve the same construction activities and operations as would occur
14 under the NEPA baseline. Therefore, there would be no incremental difference between
15 Alternative 1 and the NEPA baseline, and Alternative 1 would result in no impact under
16 NEPA.

17 ***Mitigation Measures***

18 No mitigation is required.

19 ***Residual Impacts***

20 No impacts would occur.

21 **Alternative 2 – No Project**

22 Alternative 2 is a CEQA-only alternative. The No Project Alternative is not evaluated
23 under NEPA because NEPA requires an evaluation of the No Federal Action Alternative
24 (see Section 2.9.1.2), which is Alternative 1 analyzed above. Section 15126.6(e) of the
25 State CEQA Guidelines requires the analysis of a no-project alternative. This no-project
26 analysis must discuss the existing conditions as well as what would be reasonably
27 expected to occur in the foreseeable future if the proposed Project is not approved.

28 Under Alternative 2, none of the proposed construction activities would occur in water or
29 in water-side or backland areas. LAHD would not implement any terminal
30 improvements or increases in backland acreage. No existing cranes would be raised and
31 no new cranes would be added, as well as no dredging would occur.

32 Under the No Project Alternative, the existing Everport Container Terminal would
33 continue to operate as an approximately 205-acre container terminal. Based on the
34 throughput projections for the Port, the site of Alternative 2 is expected to operate at its
35 capacity of approximately 1,818,000 TEUs in 2038. AMP facilities have been installed
36 and are currently in use at Berths 227 (two existing AMP vaults) and 230 (one existing
37 AMP vault).

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

4 **Construction**

5 Alternative 2 would not involve any construction activities. Therefore, there would be no
6 pollution, contamination, nuisance, or violation of regulatory standards due to
7 construction.

8 **Operation**

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

12 **Runoff**

13 Operation of the site under Alternative 2 would not involve any direct point source
14 discharges of wastes or wastewaters to the Harbor. Similar to the proposed Project,
15 operation of Alternative 2 would generate air emissions containing particulate pollutants,
16 and a portion of these particulates would be deposited on the site and subject to
17 subsequent transport by storm runoff. Transport of contaminants, such as metals, by
18 runoff from the site of Alternative 2 would contribute incrementally to changes in
19 receiving water quality. Impacts would be lower than those from the proposed Project
20 because throughput of Alternative 2 would be lower than that associated with the
21 proposed Project.

22 **Deposition of Contaminants**

23 Direct atmospheric deposition of air pollutants that settle in the Port (including on the site
24 of Alternative 2) and on Harbor waters would be less than that described above for the
25 proposed Project, and may provide an increased impact on local watersheds. Impacts
26 would be lower than those from the proposed Project because throughput of Alternative 2
27 would be lower than that for the proposed Project. For particulates, including suspended
28 zinc and copper pollutants from the site of Alternative 2 (e.g., tire and brake wear from
29 equipment and trucks), direct impacts would not be expected to significantly affect water
30 quality due to the likely limited and dispersed nature of direct deposition on Harbor
31 waters, and because direct aerial deposition would not allow for a significant buildup of
32 these pollutants before entering Harbor waters.

33 **Accidental Spills**

34 The potential for accidental spills (in upland areas and from vessels) to affect Harbor
35 waters under Alternative 2 would be similar to the proposed Project, albeit somewhat less
36 due to lower operational throughput (the number of vessel calls would be the same for
37 Alternative 2 and the proposed Project, although container throughput for Alternative 2
38 would be about 24 percent lower than that for the proposed Project). If spilled materials
39 in upland areas were not captured prior to reaching the storm drain system, such materials
40 could reach the Main Channel adjacent to the site of Alternative 2. Spills or illegal
41 discharges from vessels could also occur in the same waters, or during their transit to and
42 from the Everport Container Terminal from the Harbor entrance at Angel's Gate.
43 Impacts on water and sediment quality would depend on (1) the characteristics of the

1 material spilled, such as volatility, solubility in water, and sedimentation rate, and (2) the
2 speed and effectiveness of the spill response and cleanup efforts. Potential releases of
3 pollutants from a large spill to Harbor waters and sediments would be minimized through
4 existing regulatory and on-site controls and are unlikely to occur during the life of
5 Alternative 2.

6 **Vessel Discharges and Contaminants**

7 The amount of vessel traffic at the site of Alternative 2 would increase by 42 annual ship
8 calls compared to the CEQA baseline and would be the same as the NEPA baseline. The
9 water quality effects under Alternative 2 from vessel discharges and contaminants
10 (including TBT, copper, and zinc) would be similar to the proposed Project, albeit
11 slightly lower due to lower operational throughput. TBT has been discontinued from use,
12 and concentrations of metals, such as those used in antifouling applications (copper and
13 zinc), have been measured near or below detection limits in waters adjacent to the site of
14 Alternative 2.

15 **CEQA Impact Determination**

16 **Construction**

17 Because there would be no new construction at the proposed site of Alternative 2, there
18 would be no pollution, contamination, nuisance, or violation of regulatory standards due
19 to proposed Project construction. No impacts would occur.

20 **Operation**

21 Even though the footprint of the terminal would not increase, the amount of truck traffic
22 and yard equipment operations at the site of Alternative 2 would increase to handle up to
23 1,818,000 TEUs annually (from 1,240,773 TEUs annually under the CEQA baseline).
24 Rail traffic would also increase at the existing on-dock railyard. This would increase the
25 amount of particulates and chemical pollutants from normal wear of tires/train wheels
26 and other moving parts, as well as from leaks of lubricants and hydraulic fluids that can
27 fall on backland surfaces and subsequently be transported by stormwater runoff into the
28 Harbor.

29 Runoff under Alternative 2 would be similar to that under the CEQA baseline, and
30 managed under an industrial SWPPP to minimize the generation of particulate pollutants.
31 The quality of any runoff would be expected to comply with the permit conditions.

32 Runoff from the existing terminal is routed to catch basins on site, and discharged to
33 harbor waters. Under Alternative 2, runoff would still be collected on site and discharged
34 to the Main Channel until 2038. With increased throughput, the amount of contaminants
35 (such as metals and PAHs) in runoff would increase. As described under the proposed
36 Project above, receiving water standards for the Harbor are usually not exceeded due in
37 part to mixing effects, and it is reasonable to expect that these effects would also keep
38 pollutants in runoff under Alternative 2 from resulting in violations of receiving water
39 quality objectives.

40 Upland operations associated with Alternative 2 would not result in direct discharges of
41 wastes to Harbor waters. Stormwater runoff from the terminal site under Alternative 2
42 could contain particulate debris from operation of the facilities, including aeri-ally
43 deposited pollutants. Discharges of stormwater would comply with the NPDES

1 discharge permit limits and SWPPP requirements. Therefore, water quality impacts from
2 site runoff would not be significant.

3 Vessel discharges under Alternative 2 would be similar to, although somewhat less than,
4 the proposed Project due to lower operational throughput. With international, federal,
5 and state regulations in place, the increased vessel traffic and terminal operations
6 associated with Alternative 2 are not anticipated to result in significant discharge impacts
7 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 Los Angeles Harbor are causing widespread problems in the Harbor. Over
13 several decades, there has been a vast improvement in Harbor water quality despite an
14 overall increase in ship traffic. In addition, the Port Police are authorized to cite any
15 vessel that is in violation of Port tariffs, including illegal discharges. Illegal discharges
16 resulting from operation of Alternative 2 are not likely to occur.

17 As with the proposed Project, vessels under Alternative 2 would not contain TBT in their
18 hull coatings; therefore, TBT is not expected to leach from vessel hulls at the site of
19 Alternative 2. The number of ship calls under Alternative 2 would be higher than the
20 CEQA baseline (208 compared with 166 ship calls), even though the maximum sizes of
21 the ships calling at the terminal would not increase (up to 8,000 TEU vessels).
22 Concentrations of metals in waters near the site of Alternative 2 have been well below
23 regulatory criteria (POLA and POLB, 2009; AMEC, 2012). Therefore, water quality
24 impacts related to leaching of contaminants from hull coatings would be less than
25 significant.

26 Even though small amounts of hazardous materials/wastes are stored on the site of
27 Alternative 2, operation of this alternative would require compliance with all existing
28 hazardous material/waste laws and regulations (such as the Resource Conservation and
29 Recovery Act of 1976, Department of Transportation Hazardous Materials Regulations,
30 and the Hazardous Waste Control Law of the California Health and Safety Code).
31 Compliance with these laws would ensure that potentially hazardous materials handling
32 would occur in a safe and acceptable manner. These regulations, which govern the
33 shipping, transport, storage, and handling of hazardous materials, would limit the severity
34 and frequency of potential releases of hazardous materials. Therefore, operation of
35 Alternative 2 would not substantially increase the probable frequency and severity of
36 consequences to people or property as a result of a potential accidental release (including
37 spill from vessels) or explosion of a hazardous substance. Impacts would be less than
38 significant under CEQA.

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

43 In summary, based on the analysis above, no construction would occur under Alternative
44 2. Operations at the terminal from Alternative 2, including increased container
45 throughput and increased truck traffic, are not expected to create pollution,

1 contamination, or a nuisance, or result in violations of water quality standards or permit
2 conditions. Therefore, significant water quality impacts under CEQA are not expected to
3 occur from terminal operations, or accidental spills that could occur from implementation
4 of Alternative 2. Impacts would be less 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 Analysis of the No Project Alternative is required by CEQA. NEPA requires the analysis
11 of a No Federal Action Alternative (Alternative 1 in this document). Therefore, the
12 analysis of this alternative is not required under NEPA.

13 ***Mitigation Measures***

14 Mitigation measures are not applicable.

15 ***Residual Impacts***

16 An impact determination is not applicable.

17 **Alternative 3 – Reduced Project: Reduced Wharf Improvements**

18 Under Alternative 3, there would be two operating berths after construction, similar to the
19 proposed Project; but Berths 230-232 would remain at the existing depth (-45 feet plus
20 two feet of overdepth), which would eliminate the need for sheet pile placement at this
21 operating berth. Under this alternative, dredging along Berths 226-229 would occur as
22 described for the proposed Project. This alternative would require less dredging (by
23 approximately 8,000 cubic yards for a total of about 30,000 cubic yards) and less sheet
24 pile driving and a slightly shorter construction period than the proposed Project. Based
25 on the throughput projections, this alternative is expected to operate at its capacity of
26 approximately 2,225,000 TEUs by 2038, similar to the proposed Project. However,
27 while the terminal could handle similar levels of cargo, the reduced project alternative
28 would not achieve the same level of efficient operations as achieved by the proposed
29 Project. This alternative would include the raising of up to five existing cranes and five
30 new cranes. Berths 226-229 would accommodate the largest vessels (16,000 TEUs). The
31 existing design depth that would remain at Berths 230-232 would only be capable of
32 handling vessels up to 8,000 TEUs. Other proposed Project elements, such as installation
33 of AMP and backland improvements would be implemented under this alternative.
34 Under this alternative, 208 vessels would call on the terminal by 2038, which is the same
35 number or annual vessel calls as the proposed Project.

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

4 **Construction**

5 Impacts on water quality could occur from dredging, installation of sheet piles and king
6 piles, disposal of dredged materials, backland improvements, and potential construction-
7 related spills. Impacts to water quality could result from the suspension of sediments
8 and/or the introduction of contaminants to the water column.

9 Dredging would disturb bottom sediments, and suspend sediments over a relatively small
10 area. The extent of disturbance would depend on the method of dredging. Suspension of
11 sediments during clamshell dredging occurs during bucket impact, penetration, and
12 removal of the bucket from the sediment, as well as during bucket retrieval through the
13 water column. During cutterhead dredging, suspended sediments are limited to the
14 immediate vicinity of the dredge. Sheet piles and king piles would be installed along
15 Berths 226-229, as described under the proposed Project, which would result in some
16 sediment suspension, but over a much smaller area than dredging. During pile
17 installation, turbidity would be limited to waters near the seafloor.

18 Similar to the proposed Project, backland improvements under Alternative 3 would not
19 directly introduce sediments to the waters adjacent to the site of Alternative 3; however,
20 stormwater runoff could carry sediments to the Harbor waters without intervention.
21 Accidental spills could also introduce contaminants to Harbor waters.

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

- 23 ▪ Increased turbidity (sediment resuspension resulting in reduced water clarity and light
24 transmittance),
- 25 ▪ Increased dissolved or particulate contaminants (that were previously bound to
26 dredged sediments or in pore water),
- 27 ▪ Reduced dissolved oxygen (from suspension of sediments with low oxygen), and
28 ▪ Reduced pH

29 There are no projected effects to salinity or temperature from construction and operation
30 of Alternative 3. The biological effects on marine biota from potential water quality
31 impacts are discussed in Section 3.3, Biological Resources.

32 **Effects of Dredging and Pile Installation**

33 Dredging impacts to water quality under Alternative 3 would be similar to those of the
34 proposed Project, albeit slightly less because dredging would only occur along Berths
35 226-229.

36 The majority of suspended sediments settle within one hour of dredging (Palermo et al.,
37 2008). Similarly, dredging would result in a relatively small turbidity plume with an
38 associated slight reduction in light transmission (about 15 percent); however, as with the
39 proposed Project, the turbidity plume and reductions in light transmission during
40 dredging for Alternative 3 are expected to dissipate rapidly with distance from dredging
41 operations. As with the proposed Project, contaminants, including metals and organics,

1 could be released into the water column during the dredging and pile installation.
2 Concentrations of all contaminants in the dredge footprint were below ERM levels, and
3 results from elutriate testing (which used a 4:1 mixture of water and sediments from the
4 dredge footprint) were below EPA CCC (Ramboll Environ, 2015). There was also no
5 demonstrated toxicity in solid phase and suspended particulate phase bioassays tests in
6 sediments at the Everport Container Terminal. Therefore, contaminant concentrations
7 associated with any potentially disturbed or resuspended sediments during dredging are
8 not expected to result in any long-term effects in the waters near the site of Alternative 3.

9 As with the proposed Project, DO and pH could be slightly reduced within areas of
10 sediment resuspension. Reductions in DO concentrations, however, would be brief and
11 are not expected to persist or cause detrimental effects to biological resources.

12 **Effects of Dredge Material Disposal**

13 **Ocean Disposal**

14 Effects from sediment disposal at LA-2 were evaluated during the site designation
15 process (EPA, 1988) and subsequently evaluated in consideration of higher maximum
16 annual disposal volume (EPA and USACE, 2005). Alternative 3 would not result in
17 additional or new impacts to sediment quality or water quality related to disposal of
18 dredge material at LA-2 that were not previously evaluated.

19 **Upland Disposal**

20 Disposal of dredged material at an approved upland disposal site would not affect
21 sediment quality or water quality in the vicinity of Alternative 3.

22 **Effects of Backlands Improvements**

23 Alternative 3 would have the same backland improvements as the proposed Project (23.5
24 acres of additional backlands and associated improvements) and therefore would have the
25 same effects related to runoff from backlands improvements as the proposed Project
26 described above. Construction-related impacts on surface water quality would be limited
27 to potential non-stormwater discharges or discharges of stormwater runoff to Harbor
28 waters that receive runoff from the terminal site under Alternative 3. During
29 construction, runoff from the construction site would be subject to SWPPP requirements,
30 including implementation of BMPs, to control pollutant discharges. Runoff from the
31 upland portions of the site of Alternative 3 is managed in compliance with applicable
32 permits and ordinances (including MS4 requirements) prior to discharge to the Harbor (to
33 the Main Channel).

34 **Accidental Spills**

35 Alternative 3 would have the same backland improvements as the proposed Project (23.5
36 acres of additional backlands and associated improvements) and therefore would have the
37 same effects related to accidental spills during backlands construction as the proposed
38 Project (described above). Accidental leaks and spills of large volumes of hazardous
39 materials or wastes containing contaminants during onshore construction activities have a
40 very low probability of occurring because large volumes of these materials typically are
41 not used or stored at construction sites. Appropriate spill response equipment would be
42 stored at the site.

1 **Operation**

2 Operation of Alternative 3 would result in similar water quality impacts as described
3 under the proposed Project, and handle up to 2,250,000 TEUs annually by 2038
4 (compared to 1,240,773 TEUs under the CEQA baseline, and 1,818,000 TEUs under the
5 NEPA baseline). This alternative would also result in 208 annual vessel calls (an
6 increase of 42 annual vessel calls above the CEQA baseline, but the same number of
7 annual ship calls as the NEPA baseline). This alternative would handle vessels capable
8 of holding up to 16,000 TEUs at Berths 226-229.

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

12 **Runoff**

13 Operation of the site under Alternative 3, as with the proposed Project, would not involve
14 any direct point source discharges of wastes or wastewaters to the Harbor, and the
15 transport of contaminants, such as metals, by runoff from the site would contribute
16 incrementally to changes in receiving water quality.

17 **Deposition of Contaminants**

18 Direct atmospheric deposition of air pollutants that settle in the Port (including at the site
19 of Alternative 3), and on Harbor waters would be similar to that described above for the
20 proposed Project, and may provide an increased impact on local watersheds. For
21 particulates, including suspended zinc and copper pollutants from site of Alternative 3
22 (tire and brake wear from equipment and trucks), direct impacts would not be expected to
23 significantly affect water quality due to the likely limited and dispersed nature of direct
24 deposition on Harbor waters, and because direct aerial deposition would not allow for a
25 significant buildup of these pollutants before entering Harbor waters.

26 **Accidental Spills**

27 The potential for accidental spills (in upland areas and from vessels) to affect Harbor
28 waters under Alternative 3 would be similar to the proposed Project. If spilled materials
29 in upland areas were not captured prior to reaching the storm drain system, such materials
30 could reach the Main Channel. Spills or illegal discharges from vessels could also occur
31 in the same waters or during their transit to and from the Everport Container Terminal
32 from the Harbor entrance at Angel's Gate. Impacts on water and sediment quality would
33 depend on (1) the characteristics of the material spilled, such as volatility, solubility in
34 water, and sedimentation rate, and (2) the speed and effectiveness of the spill response
35 and cleanup efforts. Potential releases of pollutants from a large spill to Harbor waters
36 and sediments would be minimized through existing regulatory and on-site controls and
37 are unlikely to occur during the life of Alternative 3.

38 **Vessel Discharges and Contaminants**

39 The amount of vessel traffic under Alternative 3 would increase by up to 42 annual ship
40 calls (by 2038) as compared to the CEQA baseline, but the number of annual ship calls
41 would be the same as the NEPA baseline. The water quality effects under Alternative 3
42 from vessel discharges and leaching of contaminants (including TBT, copper, and zinc)
43 from vessel coatings would be similar to the proposed Project. TBT has been
44 discontinued from use, and concentrations of metals, such as those used in antifouling

1 applications (copper and zinc), have been measured near or below detection limits in
2 waters adjacent to the site of Alternative 3.

3 **CEQA Impact Determination**

4 **Construction**

5 As with the proposed Project, in-water dredging and pile installation under Alternative 3
6 would disturb and resuspend bottom sediments, which would result in temporary and
7 localized changes to some water quality indicators. Dredging of Berths 226–229 may
8 reduce DO concentrations in the immediate vicinity of the dredge, but this decrease
9 would generally not extend beyond the dredge area or persist following the completion of
10 the dredging operation. Changes in pH and contaminant levels could also occur as a
11 result of construction activities for Alternative 3. Turbidity and TSS concentrations are
12 expected to rapidly drop to levels approaching background concentrations within a few
13 hundred meters of the dredge once dredging ceases.

14 As with the proposed Project, dredging for Alternative 3 would require a Section 10
15 permit from USACE and a CWA Section 401 Water Quality Certification from the
16 LARWQCB, which include monitoring requirements and controls for DO, light
17 transmittance (turbidity), pH, and suspended solids necessary to assure compliance with
18 applicable effluent limitations, or any other CWA limitation, or with any State laws or
19 regulations. Monitoring data would be used by the dredge contractor to ensure that water
20 quality limits specified in the permit are not exceeded. This could include alteration of
21 dredging methods, and/or implementation of additional BMPs to limit the size and extent
22 of the dredge plume.

23 Sediments could be disposed of at LA-2 or an approved upland disposal site. Sediments
24 from the proposed dredging area were tested using standard EPA/USACE protocols
25 (according to an approved SAP) prior to dredging to determine the suitability of the
26 material for unconfined, aquatic disposal or other disposal alternatives. The sediments
27 within the Berths 226–229 dredging footprints complied with the chemistry, toxicity, and
28 bioaccumulation suitability requirements for ocean disposal (Title 40 CFR Parts 220–
29 228; Appendix F), and the CSTF determined in August 2015 that the sediments are
30 suitable for disposal at LA-2. If the sediments are disposed of at an upland disposal
31 facility, they would have to meet acceptance criteria and would not result in adverse
32 impacts. Therefore, water quality impacts due to dredging and disposal would be less
33 than significant.

34 Potential effects from runoff and spills during construction of Alternative 3 would be
35 similar to those associated with the proposed Project. Runoff from the terminal site
36 during construction would be managed under a construction SWPPP and control
37 measures would be used during construction. Runoff during construction is not
38 anticipated to cause regulatory standards to be violated, and impacts would be less than
39 significant.

40 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel
41 spills during fueling, typically involve small volumes that can be effectively contained in
42 the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and
43 Control Procedures [CA012]). Accidental or incidental spills or leaks that occur on land
44 are expected to be contained and cleaned up before any impacts on surface water quality
45 can occur. Construction and industrial SWPPPs and standard BMPs (e.g., use of drip

1 pans, contained refueling areas, regular inspections of equipment and vehicles, and
2 immediate repairs of leaks) would reduce potentials for materials from onshore
3 construction activities to enter storm drains. The unlikelihood of spills to occur,
4 combined with established prevention measures, would reduce the probability that
5 regulatory standards would be violated due to an accidental spill. Therefore, impacts
6 would be less than significant.

7 Accidental spills from dredges or barges could directly affect water quality in the waters
8 adjacent to the site of Alternative 3; however, the probability of an accidental spill from
9 a construction vessel to the Harbor is low. In addition, if an accidental spill does occur,
10 the planning effort to contain and neutralize the spill and the actual spill response by the
11 dredging contractors (deployment of floating booms to contain and absorb the spill and
12 use pumps to assist the cleanup) would likely prevent the accidental spill from causing a
13 nuisance or from adversely affecting beneficial uses of the Harbor.

14 **Operation**

15 The footprint of the terminal would increase, and the amount of truck traffic and yard
16 equipment operations at the site of Alternative 3 would increase to handle up to
17 2,250,000 TEUs annually (from 1,240,773 TEUs annually under the CEQA baseline).
18 Rail traffic would also increase at the existing on-dock railyard. This would increase the
19 amount of particulates and chemical pollutants from normal wear of tires/train wheels
20 and other moving parts, as well as from leaks of lubricants and hydraulic fluids that can
21 fall on backland surfaces and subsequently be transported by stormwater runoff into the
22 Harbor.

23 As with the proposed Project, runoff under Alternative 3 would be managed under an
24 industrial SWPPP to minimize the generation of particulate pollutants, and the quality of
25 any runoff is expected to comply with the permit conditions.

26 Similar to the proposed Project, the design and operation of Alternative 3 would comply
27 with both the MS4 permit and LID requirements, and would implement BMPs to
28 maximize the reduction of pollutant loadings in terminal runoff. For the backland portion
29 of Alternative 3, BMPs would be designed to retain and/or treat the water quality design
30 volume for the entire area subject to grading and resurfacing, where applicable.

31 The controls and BMPs for runoff and storm drain discharges described above are
32 designed to reduce impacts on water quality and would be fully implemented for
33 Alternative 3. Tenants would be required to obtain and meet all conditions of applicable
34 stormwater discharge permits as well as meet all Port pollution control requirement

35 As described under the proposed Project above, receiving water standards for the Harbor
36 are usually not exceeded due in part to mixing effects, and it is reasonable to expect that
37 these effect would also keep pollutant concentrations in runoff under Alternative 3 from
38 resulting in violations of receiving water quality objectives, given compliance with
39 SWPPP and MS4/LID requirements.

40 Upland operations associated with Alternative 3 would not result in direct discharges of
41 wastes to Harbor waters. Stormwater runoff from the terminal site under Alternative 3
42 could contain particulate debris from operation of the Project facilities, including aerially
43 deposited pollutants. Discharges of stormwater would comply with the NPDES

1 discharge permit limits and SWPPP requirements. Therefore, water quality impacts from
2 site runoff would not be significant.

3 Vessel discharges under Alternative 3 would be similar to the proposed Project. In 2012,
4 the Ports of Los Angeles and Long Beach published “Vessel Discharge Rules and
5 Regulations,” which summarizes the rules and regulations of ballast water discharge and
6 other discharges (POLB and POLA, 2012). With international, federal, and state
7 regulations in place, the increased vessel traffic and terminal operations associated with
8 Alternative 3 are not anticipated to result in significant ballast water discharge impacts
9 from vessels.

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

19 As with the proposed Project, vessels under Alternative 3 would not contain TBT in their
20 hull coatings; therefore, TBT is not expected to leach from vessel hulls at the site of
21 Alternative 3. The number of ship calls under Alternative 3 would be higher than the
22 CEQA baseline (208 compared with 166 ship calls), and the maximum size of the ships
23 calling at the terminal would increase (to up to 16,000TEU vessels). Concentrations of
24 metals in waters near the site of Alternative 3 have been well below regulatory criteria
25 (POLA and POLB, 2009; AMEC, 2012). Therefore, water quality impacts related to
26 leaching of contaminants from hull coatings would be less than significant.

27 Even though small amounts of hazardous materials/wastes are stored on the site of
28 Alternative 3, operation of this alternative would require compliance with all existing
29 hazardous material/waste laws and regulations (such as the Resource Conservation and
30 Recovery Act of 1976, Department of Transportation Hazardous Materials Regulations,
31 and the Hazardous Waste Control Law of the California Health and Safety Code).
32 Compliance with these laws would ensure that potentially hazardous materials handling
33 would occur in a safe and acceptable manner. These regulations, which govern the
34 shipping, transport, storage, and handling of hazardous materials, would limit the severity
35 and frequency of potential releases of hazardous materials. Therefore, operation of
36 Alternative 3 would not substantially increase the probable frequency and severity of
37 consequences to people or property as a result of a potential accidental release (including
38 spill from vessels) or explosion of a hazardous substance. Impacts would be less than
39 significant.

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

44 In summary, based on the analysis above, Alternative 3 construction activities, including
45 dredging, pile installation, and backlands improvements, and operations at the improved

1 terminal, including increased container throughput and increased truck traffic, are not
2 expected to create pollution, contamination, or a nuisance, or result in violations of water
3 quality standards or permit conditions. Therefore, significant water quality impacts under
4 CEQA are not expected to occur from construction, terminal operations, or accidental
5 spills that could occur from implementation of Alternative 3. Impacts would be less than
6 significant under CEQA.

7 ***Mitigation Measures***

8 No mitigation is required.

9 ***Residual Impacts***

10 Impacts would be less than significant.

11 **NEPA Impact Determination**

12 **Construction**

13 Alternative 3 would include in-water work and infrastructure installation within 100 feet
14 of the water's edge that would not occur under the NEPA baseline. As with the proposed
15 Project, in-water dredging and pile installation under Alternative 3 would disturb and
16 resuspend bottom sediments, which would result in temporary and localized changes to
17 some water quality indicators. Dredging of Berths 226–229 may reduce DO
18 concentrations in the immediate vicinity of the dredge, but this decrease would generally
19 not extend beyond the dredge area or persist following the completion of the dredging
20 operation. Changes in pH and contaminant levels could also occur as a result of
21 construction activities for Alternative 3. Turbidity and TSS concentrations are expected
22 to rapidly drop to levels approaching background concentrations within a few hundred
23 meters of the dredge once dredging ceases.

24 As with the proposed Project, dredging for Alternative 3 would require a Section 10
25 permit from USACE and a CWA Section 401 Water Quality Certification from the
26 LARWQCB, which include monitoring requirements and controls for DO, light
27 transmittance (turbidity), pH, and suspended solids necessary to assure compliance with
28 applicable effluent limitations, or any other CWA limitation, or with any state laws or
29 regulations. Monitoring data would be used by the dredge contractor to ensure that water
30 quality limits specified in the permit are not exceeded. This could include alteration of
31 dredging methods, and/or implementation of additional BMPs to limit the size and extent
32 of the dredge plume.

33 Sediments could be disposed of at LA-2 or an upland disposal site. Sediments from the
34 proposed dredging area were tested using standard EPA/USACE protocols (according to
35 an approved SAP) prior to dredging to determine the suitability of the material for
36 unconfined, aquatic disposal or other disposal alternatives. The sediments within the
37 Berths 226-229 dredging footprints complied with the chemistry, toxicity, and
38 bioaccumulation suitability requirements for ocean disposal (Title 40 CFR Parts 220–
39 228; Appendix F), and the CSTF determined in August 2015 that the sediments are
40 suitable for disposal at LA-2. If the sediments are disposed of at an upland disposal
41 facility, they would have to meet acceptance criteria and would not result in adverse
42 impacts. Therefore, water quality impacts due to dredging and disposal would be less
43 than significant.

1 Runoff from the terminal site during construction would be controlled under a
2 construction SWPPP prepared in accordance with GCASP requirements, and control
3 measures would be used during construction. Runoff during construction would not
4 cause regulatory standards to be violated, and impacts would be less than significant.

5 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel
6 spills during fueling, typically involve small volumes that can be effectively contained in
7 the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and
8 Control Procedures [CA012]). Accidental or incidental spills or leaks that occur on land
9 are expected to be contained and cleaned up before any impacts on surface water quality
10 can occur. Construction and industrial SWPPPs and standard BMPs (e.g., use of drip
11 pans, contained refueling areas, regular inspections of equipment and vehicles, and
12 immediate repairs of leaks) would reduce potentials for materials from onshore
13 construction activities to enter storm drains. The unlikelihood of spills to occur,
14 combined with established prevention measures, would reduce the probability that
15 regulatory standards would be violated due to an accidental spill. Therefore, impacts
16 would be less than significant.

17 Accidental spills from dredges or barges could directly affect water quality in the waters
18 adjacent to the site of Alternative 3; however, the probability of an accidental spill from a
19 construction vessel to the Harbor is low. In addition, if an accidental spill does occur, the
20 planning effort to contain and neutralize the spill and the actual spill response by the
21 dredging contractors (deployment of floating booms to contain and absorb the spill and
22 use pumps to assist the cleanup) would likely prevent the accidental spill from causing a
23 nuisance or from adversely affecting beneficial uses of the Harbor.

24 **Operation**

25 The footprint of the terminal would increase, and the amount of truck traffic and yard
26 equipment operations at the site of Alternative 3 would increase to handle up to
27 2,250,000 TEUs annually (from 1,818,000 TEUs annually under the NEPA baseline) by
28 2038. Rail traffic would also increase at the existing on-dock railyard. This would
29 increase the amount of particulates and chemical pollutants from normal wear of
30 tires/train wheels and other moving parts, as well as from leaks of lubricants and
31 hydraulic fluids that can fall on backland surfaces and subsequently be transported by
32 stormwater runoff into the Harbor.

33 As with the proposed Project, runoff under Alternative 3 would be managed under an
34 industrial SWPPP to minimize the generation of particulate pollutants, and the quality of
35 any runoff is expected to comply with the permit conditions.

36 Similar to the proposed Project, the design and operation of Alternative 3 would comply
37 with both the MS4 permit and LID requirements, and would implement BMPs to
38 maximize the reduction of pollutant loadings in terminal runoff. Given the limited
39 footprint of Alternative 3, there may be very limited opportunity to incorporate
40 significant site design BMPs, but these will be incorporated where possible. All
41 applicable source control BMPs would be incorporated in the Project design. For the
42 backland portion of Alternative 3, BMPs would be designed to retain and/or treat the
43 water quality design volume for the entire area subject to grading and resurfacing, where
44 applicable.

1 The controls and BMPs for runoff and storm drain discharges described above are
2 designed to reduce impacts on water quality and would be fully implemented for
3 Alternative 3. Tenants would be required to obtain and meet all conditions of applicable
4 stormwater discharge permits as well as meet all Port pollution control requirements.

5 As described under the proposed Project above, receiving water standards for the Harbor
6 are usually not exceeded due in part to mixing effects, and it is reasonable to expect that
7 these effects would also keep pollutant concentrations in runoff under Alternative 3 from
8 resulting in violations of receiving water quality objectives, given compliance with
9 SWPPP and MS4/LID requirements.

10 Upland operations associated with Alternative 3 would not result in direct discharges of
11 wastes to Harbor waters. Stormwater runoff from the terminal site under Alternative 3
12 could contain particulate debris from operation of the Project facilities, including aerially
13 deposited pollutants. Discharges of stormwater would comply with the NPDES
14 discharge permit limits and SWPPP requirements. Therefore, water quality impacts from
15 site runoff would not be significant.

16 Vessel discharges under Alternative 3 would be similar to the proposed Project. In 2012,
17 the Ports of Los Angeles and Long Beach published "Vessel Discharge Rules and
18 Regulations," which summarizes the rules and regulations of ballast water discharge and
19 other discharges (POLB and POLA, 2012). With international, federal, and state
20 regulations in place, the increased vessel traffic and terminal operations associated with
21 Alternative 3 is not anticipated to result in significant ballast water discharge impacts
22 from vessels.

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

32 As with the proposed Project, vessels under Alternative 3 would not contain TBT in their
33 hull coatings; therefore, TBT is not expected to leach from vessel hulls at the site of
34 Alternative 3. The number of ship calls under Alternative 3 would be the same as the
35 NEPA baseline (208 ship calls), but the maximum size of the ships calling at the terminal
36 would increase (to up to 16,000 TEU vessels). Concentrations of metals in waters near
37 the site of Alternative 3 have been well below regulatory criteria (POLA and POLB,
38 2009; AMEC, 2012). Therefore, water quality impacts related to leaching of
39 contaminants from hull coatings would be less than significant.

40 Even though small amounts of hazardous materials/wastes are stored on the site of
41 Alternative 3, operation of this alternative would require compliance with all existing
42 hazardous material/waste laws and regulations (such as the Resource Conservation and
43 Recovery Act of 1976, Department of Transportation Hazardous Materials Regulations,
44 and the Hazardous Waste Control Law of the California Health and Safety Code).
45 Compliance with these laws would ensure that potentially hazardous materials handling

1 would occur in a safe and acceptable manner. These regulations, which govern the
2 shipping, transport, storage, and handling of hazardous materials, would limit the severity
3 and frequency of potential releases of hazardous materials. Therefore, operation of
4 Alternative 3 would not substantially increase the probable frequency and severity of
5 consequences to people or property as a result of a potential accidental release (including
6 spill from vessels) or explosion of a hazardous substance. Impacts would be less than
7 significant.

8 Accidental spills of petroleum hydrocarbons, hazardous materials, and other pollutants
9 from alternative-related upland operations are expected to be limited to small volume
10 releases because large quantities of those substances are unlikely to be used, transported,
11 or stored on the site.

12 In summary, although Alternative 3 would include in-water work and infrastructure
13 installation within 100 feet of the water's edge that would not occur under the NEPA
14 baseline, as well as increased operational throughput, based on the analysis above,
15 Alternative 3 construction activities, including dredging, pile installation, and backlands
16 improvements, and operations at the improved terminal, including increased container
17 throughput and increased truck traffic, are not expected to create pollution,
18 contamination, or a nuisance, or result in violations of water quality standards or permit
19 conditions. Therefore, significant water quality impacts under NEPA are not expected to
20 occur from construction, terminal operations, or accidental spills that could occur from
21 implementation of Alternative 3. Impacts would be less than significant under NEPA.

22 ***Mitigation Measures***

23 No mitigation is required.

24 ***Residual Impacts***

25 Impacts would be less than significant.

26 **Alternative 4 – Reduced Project: Reduced Backland** 27 **Improvements**

28 Under Alternative 4 there would be two operating berths after construction, similar to the
29 proposed Project. This alternative would require the same dredging as the proposed
30 Project. Up to five of the existing cranes would be raised and five new cranes installed,
31 as well as AMP. This alternative would not include any backland expansion. Based on
32 the throughput projections, this alternative is expected to operate at its capacity of
33 2,115,133 TEUs by 2038, slightly less than the proposed Project. However, while the
34 terminal could handle similar levels of cargo, this reduced project alternative would not
35 achieve the same level of efficient operations as achieved by the proposed Project. This
36 alternative would accommodate the largest vessels (16,000 TEUs) at Berths 226-229.
37 The new design depth at Berths 230-232 would be capable of handling vessels up to
38 10,000 TEUs. Under this alternative, 208 vessels would call on the terminal in 2038,
39 which is the same as the proposed Project.

1 **Impact WQ-1: Alternative 4 would not create pollution,**
2 **contamination, or a nuisance as defined in Section 13050 of the CWC**
3 **or cause regulatory standards to be violated in Harbor waters.**

4 **Construction**

5 Impacts on water quality could occur from dredging, installation of sheet piles and king
6 piles, disposal of dredged materials, and potential construction-related spills. Impacts to
7 water quality could result from the suspension of sediments and/or the introduction of
8 contaminants to the water column.

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

15 Sheet piles and king piles would be installed along Berths 226-229 and Berths 230-232,
16 as described under the proposed Project, which would result in some sediment
17 suspension, but over a much smaller area than dredging. During pile installation, turbidity
18 would be limited to waters near the seafloor.

19 Existing backlands under Alternative 4 would not directly introduce sediments to the
20 waters adjacent to the site of Alternative 4; however, stormwater runoff could carry
21 sediments to the Harbor waters without intervention. Accidental spills could also
22 introduce contaminants to Harbor waters.

23 The types of water quality impacts from construction of Alternative 4 could include:

- 24 ▪ Increased turbidity (sediment resuspension resulting in reduced water clarity and light
25 transmittance),
- 26 ▪ Increased dissolved or particulate contaminants (that were previously bound to
27 dredged sediments or in pore water),
- 28 ▪ Reduced dissolved oxygen (from suspension of sediments with low oxygen), and
29 ▪ Reduced pH

30 There are no projected effects to salinity or temperature from construction and operation
31 of Alternative 4. The biological effects on marine biota from potential water quality
32 impacts are discussed in Section 3.3, Biological Resources.

33 **Effects of Dredging and Pile Installation**

34 Dredging impacts to water quality under Alternative 4 would be the same as for the
35 proposed Project. The majority of suspended sediments settle within one hour of
36 dredging (Palermo et al., 2008). Similarly, dredging would result in a relatively small
37 turbidity plume with an associated slight reduction in light transmission (about 15
38 percent); however, as with the proposed Project, the turbidity plume and reductions in
39 light transmission during dredging for Alternative 4 are expected to dissipate rapidly with
40 distance from dredging operations. As with the proposed Project, contaminants,
41 including metals and organics, could be released into the water column during the

1 dredging and pile installation. However, any increase in contaminant levels in the water
2 is expected to be localized and of short duration, and contaminant concentrations
3 associated with any potentially disturbed or resuspended sediments during dredging are
4 not expected to result in any long-term effects in the waters near the site.

5 As with the proposed Project, within areas of sediment resuspension, DO and pH could
6 be slightly reduced. Reductions in DO concentrations, however, would be brief and are
7 not expected to persist or cause detrimental effects to biological resources.

8 Contaminants, including metals and organics, could be released into the water column
9 during the dredging and pile installation. However, any increase in contaminant levels in
10 the water is expected to be localized and of short duration. The sediment testing
11 performed in the proposed dredge footprint determined concentrations of all
12 contaminants were below ERM levels, and results from elutriate testing (which used a 4:1
13 mixture of water and sediments from the dredge footprint) were below EPA CCC
14 (Ramboll Environ, 2015). There was also no demonstrated toxicity in solid phase and
15 suspended particulate phase bioassays tests in sediments at the Everport Container
16 Terminal. Therefore, contaminant concentrations associated with any potentially
17 disturbed or resuspended sediments during dredging and pile installation are not expected
18 to result in any long-term effects in the waters near the site of Alternative 4.

19 **Effects of Dredge Material Disposal**

20 **Ocean Disposal**

21 Effects from sediment disposal at LA-2 were evaluated during the site designation
22 process (EPA 1988) and subsequently evaluated in consideration of higher maximum
23 annual disposal volume (EPA and USACE, 2005). Alternative 4 would not result in
24 additional or new impacts to sediment quality or water quality related to disposal of
25 dredge material at LA-2 that were not previously evaluated.

26 **Upland Disposal**

27 Disposal of dredged material at an upland disposal site would not affect sediment quality
28 or water quality in the vicinity of Alternative 4.

29 **Accidental Spills**

30 Accidents resulting in spills of fuel, lubricants, or hydraulic fluid from equipment used
31 during dredging, pile installation, and/or disposal of dredged material, could occur during
32 construction of Alternative 4. Based on the history for this type of work in the Harbor,
33 accidental leaks and spills of large volumes of hazardous materials or wastes containing
34 contaminants during onshore construction activities have a very low probability of
35 occurring because large volumes of these materials typically are not used or stored at
36 construction sites. Appropriate spill response equipment would be present at the site.

37 **Operation**

38 Operation of Alternative 4 would result in similar water quality impacts as described
39 under the proposed Project, and would handle up to 2,115,133 TEUs annually by 2038
40 (compared to 1,240,773 TEUs under the CEQA baseline, and 1,818,000 [2038] under the
41 NEPA baseline). This alternative would result in 208 vessel calls (an increase of 42

1 vessel calls above the CEQA baseline, and the same number of ship calls as the NEPA
2 baseline). This alternative would handle vessels up to 16,000 TEUs.

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

6 **Runoff**

7 Operation of the site under Alternative 4, as with the proposed Project, would not involve
8 any direct point source discharges of wastes or wastewaters to the Harbor, and the
9 transport of contaminants, such as metals, by runoff from the site of Alternative 4 would
10 contribute incrementally to changes in receiving water quality.

11 **Deposition of Contaminants**

12 Direct atmospheric deposition of air pollutants that settle in the Port (including at the site
13 of Alternative 4) and on harbor waters would be similar to that described above for the
14 proposed Project, and may provide an increased impact on local watersheds. For
15 particulates, including suspended zinc and copper pollutants from the site of Alternative 4
16 (tire and brake wear from equipment and trucks), direct impacts would not be expected to
17 significantly affect water quality due to the likely limited and dispersed nature of direct
18 deposition on Harbor waters, and because direct aerial deposition would not allow for a
19 significant buildup of these pollutants before entering Harbor waters.

20 **Accidental Spills**

21 The potential for accidental spills (in upland areas and from vessels) to affect Harbor
22 waters under Alternative 4 would be similar to the proposed Project. If spilled materials
23 in upland areas were not captured prior to reaching the storm drain system, such materials
24 could reach the Main Channel adjacent to the site of Alternative 4. Spills or illegal
25 discharges from vessels could also occur in the same waters or during their transit to and
26 from the Everport Container Terminal from the Harbor entrance at Angel's Gate.
27 Impacts on water and sediment quality would depend on (1) the characteristics of the
28 material spilled, such as volatility, solubility in water, and sedimentation rate, and (2) the
29 speed and effectiveness of the spill response and cleanup efforts. Potential releases of
30 pollutants from a large spill to Harbor waters and sediments would be minimized through
31 existing regulatory and on-site controls and are unlikely to occur during the life of
32 Alternative 4.

33 **Vessel Discharges and Contaminants**

34 The amount of vessel traffic at the site of Alternative 4 would increase by up to 42 annual
35 ship calls (by 2038) as compared to the CEQA baseline (but there would be no increase
36 compared with the NEPA baseline). The water quality effects under Alternative 4 from
37 vessel discharges and leaching of contaminants from vessel coatings (including TBT,
38 copper, and zinc) would be similar to the proposed Project. TBT has been discontinued
39 from use, and concentrations of metals, such as those used in antifouling applications
40 (copper and zinc), have been measured near or below detection limits in waters adjacent
41 to the site of Alternative 4.

CEQA Impact Determination

Construction

As with the proposed Project, in-water dredging and pile installation under Alternative 4 would disturb and resuspend bottom sediments, which would result in temporary and localized changes to some water quality indicators. Dredging of Berths 226–229 and Berths 230-232 may reduce DO concentrations in the immediate vicinity of the dredge, but this decrease would generally not extend beyond the dredge area or persist following the completion of the dredging operation. Changes in pH and contaminant levels could also occur as a result of construction activities for Alternative 4. Turbidity and TSS concentrations would rapidly drop to levels approaching background concentrations within a few hundred meters of the dredge once dredging ceases.

As with the proposed Project, dredging for Alternative 4 would require a Section 10 permit from USACE and a CWA Section 401 Water Quality Certification from the LARWQCB, which include monitoring requirements and controls for DO, light transmittance (turbidity), pH, and suspended solids necessary to assure compliance with applicable effluent limitations, or any other CWA limitation, or with any State laws or regulations. Monitoring data would be used by the dredge contractor to ensure that water quality limits specified in the permit are not exceeded. This could include alteration of dredging methods, and/or implementation of additional BMPs to limit the size and extent of the dredge plume.

Sediments could be disposed of at LA-2 or an approved upland disposal site. Sediments from the proposed dredging area were tested using standard EPA/USACE protocols (according to an approved SAP) prior to dredging to determine the suitability of the material for unconfined, aquatic disposal or other disposal alternatives. The sediments within the Berths 226–229 and Berths 230-232 dredging footprints complied with the chemistry, toxicity, and bioaccumulation suitability requirements for ocean disposal (Title 40 CFR Parts 220–228; Appendix F), and the CSTF determined in August 2015 that the sediments are suitable for disposal at LA-2. If the sediments are disposed of at an upland disposal facility, they would have to meet acceptance criteria and would not result in adverse impacts. Therefore, water quality impacts due to dredging and disposal would be less than significant.

Runoff from the terminal site during installation of infrastructure would be managed under a construction SWPPP prepared in accordance with GCASP requirements, and runoff control structures would be placed and maintained around the construction area to minimize loss of site soils to the storm drain system. Runoff during construction would not cause regulatory standards to be violated, and impacts would be less than significant.

Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel spills during fueling, typically involve small volumes that can be effectively contained in the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and Control Procedures [CA012]). Accidental or incidental spills or leaks that occur on land are expected to be contained and cleaned up before any impacts on surface water quality can occur. Construction and industrial SWPPPs and standard BMPs (e.g., use of drip pans, contained refueling areas, regular inspections of equipment and vehicles, and immediate repairs of leaks) would reduce potentials for materials from onshore construction activities to enter storm drains. The unlikelihood of spills to occur, combined with established prevention measures, would reduce the probability that

1 regulatory standards would be violated due to an accidental spill. Therefore, impacts
2 would be less than significant.

3 Accidental spills from dredges or barges could directly affect water quality in the waters
4 adjacent to the site of Alternative 4; however, the probability of an accidental spill from a
5 construction vessel to the Harbor is low. In addition, if an accidental spill does occur, the
6 planning effort to contain and neutralize the spill and the actual spill response by the
7 dredging contractors (deployment of floating booms to contain and absorb the spill and
8 use pumps to assist the cleanup) would likely prevent the accidental spill from causing a
9 nuisance or from adversely affecting beneficial uses of the Harbor.

10 **Operation**

11 The footprint of the terminal would not change from existing conditions, but the amount
12 of truck traffic and yard equipment operations at the terminal under Alternative 4 would
13 increase to handle up to 2,115,133 TEUs annually (from 1,240,773 TEUs annually under
14 the CEQA baseline). Rail traffic would also increase at the existing on-dock railyard.
15 This would increase the amount of particulates and chemical pollutants from normal wear
16 of tires/train wheels and other moving parts, as well as from leaks of lubricants and
17 hydraulic fluids that can fall on backland surfaces and subsequently be transported by
18 stormwater runoff into the Harbor.

19 Runoff under Alternative 4 would be similar to that under Alternative 2 (the No Project
20 Alternative) and managed under an industrial SWPPP to minimize the generation of
21 particulate pollutants. The quality of any runoff would be expected to comply with the
22 permit conditions. Runoff from the existing terminal is routed to catch basins on site, and
23 discharged to harbor waters. Under Alternative 4, runoff would still be collected on site
24 and discharged to the Main Channel until 2038. With increased throughput, the amount
25 of contaminants (such as metals and PAHs) in runoff would increase. As described under
26 the proposed Project above, receiving water standards for the Harbor are usually not
27 exceeded due in part to mixing effects, and it is reasonable to expect that these effects
28 would also keep pollutants in runoff under Alternative 4 from resulting in violations of
29 receiving water quality objectives.

30 Upland operations associated with Alternative 4 would not result in direct discharges of
31 wastes to Harbor waters. Stormwater runoff from the terminal site under Alternative 4
32 could contain particulate debris from operation of the facilities, including aerially
33 deposited pollutants. Discharges of stormwater would comply with the NPDES
34 discharge permit limits and SWPPP requirements. Therefore, water quality impacts from
35 site runoff would not be significant.

36 Vessel discharges under Alternative 4 would be similar to, although somewhat less than
37 the proposed Project due to lower operational throughput. In 2012, the Ports of Los
38 Angeles and Long Beach published "Vessel Discharge Rules and Regulations," which
39 summarizes the rules and regulations of ballast water discharge and other discharges
40 (POLB and POLA, 2012). This document, which is updated as the applicable regulations
41 change, has been distributed to all terminal operators/shipping lines to make them aware
42 of the regulations. With international, federal, and state regulations in place, the
43 increased vessel traffic and terminal operations associated with Alternative 4 are not
44 anticipated to result in significant ballast water discharge impacts from vessels.

1 The number or severity of illegal discharges, and corresponding changes to water and
2 sediment quality, from increased vessel traffic cannot be accurately quantified because
3 the rate and chemical composition of illegal discharges from commercial vessels is
4 unknown. However, there is no evidence that illegal discharges from ships presently
5 utilizing the Harbor are causing widespread problems in the Harbor. Over several
6 decades, there has been a vast improvement in Harbor water quality despite an overall
7 increase in ship traffic. In addition, the Port Police are authorized to cite any vessel that
8 is in violation of Port tariffs, including illegal discharges. Illegal discharges resulting
9 from operation of Alternative 4 are not likely to occur.

10 As with the proposed Project, vessels under Alternative 4 would not contain TBT in their
11 hull coatings. Therefore, TBT is not expected to leach from vessel hulls at the site of
12 Alternative 4. The number of ship calls under Alternative 4 would increase compared to
13 the CEQA baseline (by 42 ship calls), and the maximum size of the ships calling at the
14 terminal would increase (to 16,000 TEU vessels). Concentrations of metals in waters near
15 the site of Alternative 4 have been well below regulatory criteria (POLA and POLB,
16 2009; AMEC, 2012). Therefore, water quality impacts related to leaching of
17 contaminants from hull coatings would be less than significant.

18 Even though small amounts of hazardous materials/wastes are stored on the site of
19 Alternative 4, operation of this alternative would require compliance with all existing
20 hazardous material/waste laws and regulations (such as the Resource Conservation and
21 Recovery Act of 1976, Department of Transportation Hazardous Materials Regulations,
22 and the Hazardous Waste Control Law of the California Health and Safety Code).
23 Compliance with these laws would ensure that potentially hazardous materials handling
24 would occur in a safe and acceptable manner. These regulations, which govern the
25 shipping, transport, storage, and handling of hazardous materials, would limit the severity
26 and frequency of potential releases of hazardous materials. Therefore, operation of
27 Alternative 4 would not substantially increase the probable frequency and severity of
28 consequences to people or property as a result of a potential accidental release (including
29 spill from vessels) or explosion of a hazardous substance. Impacts would be less than
30 significant.

31 Accidental spills of petroleum hydrocarbons, hazardous materials, and other pollutants
32 from Alternative 4-related upland operations are expected to be limited to small volume
33 releases because large quantities of those substances are unlikely to be used, transported,
34 or stored on the site.

35 In summary, based on the analysis above, Alternative 4 construction activities, including
36 dredging, pile installation, and infrastructure installation, and operations at the improved
37 terminal, including increased container throughput and increased truck traffic, are not
38 expected to create pollution, contamination, or a nuisance, or result in violations of water
39 quality standards or permit conditions. Therefore, significant water quality impacts are
40 not expected to occur from construction, terminal operations, or accidental spills that
41 could occur from implementation of Alternative 4. Impacts would be less than
42 significant under CEQA.

43 ***Mitigation Measures***

44 No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination**Construction**

Alternative 4 would include in-water work and infrastructure installation within 100 feet of the water's edge that would not occur under the NEPA baseline. As with the proposed Project, in-water dredging and pile installation under Alternative 4 would disturb and resuspend bottom sediments, which would result in temporary and localized changes to some water quality indicators, which would not occur under the NEPA baseline.

Dredging of Berths 226–229 and Berths 230-232 may reduce DO concentrations in the immediate vicinity of the dredge, but this decrease would generally not extend beyond the dredge area or persist following the completion of the dredging operation. Changes in pH and contaminant levels could also occur as a result of construction activities for Alternative 4. Turbidity and TSS concentrations would rapidly drop to levels approaching background concentrations within a few hundred meters of the dredge once dredging ceases.

As with the proposed Project, dredging for Alternative 4 would require a Section 10 permit from USACE and a CWA Section 401 Water Quality Certification from the LARWQCB, which include monitoring requirements and controls for DO, light transmittance (turbidity), pH, and suspended solids necessary to assure compliance with applicable effluent limitations, or any other CWA limitation, or with any state laws or regulations. Monitoring data would be used by the dredge contractor to ensure that water quality limits specified in the permit are not exceeded. This could include alteration of dredging methods, and/or implementation of additional BMPs to limit the size and extent of the dredge plume.

Sediments would be disposed of at LA-2. Sediments from the proposed dredging area were tested using standard EPA/USACE protocols (according to an approved SAP) prior to dredging to determine the suitability of the material for unconfined, aquatic disposal or other disposal alternatives. The sediments within the Berths 226-229 and Berths 230-232 dredging footprints complied with the chemistry, toxicity, and bioaccumulation suitability requirements for ocean disposal (Title 40 CFR Parts 220–228; Appendix F), and the CSTF determined in August 2015 that the sediments are suitable for disposal at LA-2. If the sediments are disposed of at an upland disposal facility, they would have to meet acceptance criteria and would not result in adverse impacts. Therefore, water quality impacts due to dredging and disposal would be less than significant.

Runoff from the terminal site during installation of infrastructure would be managed under a construction SWPPP prepared in accordance with GCASP requirements and implemented prior to the start of any construction activities. This construction SWPPP would specify BMPs to prevent and/or control releases of soils and contaminants and avoid adverse impacts on receiving water quality. One or more types of runoff control structures would be placed and maintained around the construction area to minimize loss of site soils to the storm drain system. As another standard measure, concrete truck wash water and runoff of any water that has come in contact with wet cement would be contained on site so that it does not runoff into the Harbor. These measures, combined with the low potential for erosion, would minimize any soil and contaminant loading to the Harbor resulting from construction activities. The SWPPP would be prepared by

1 LAHD (or contractor) with LAHD designated as the “Legally Responsible Person.”
2 Runoff during construction is not anticipated to cause regulatory standards to be violated,
3 and impacts would be less than significant.

4 Although Alternative 4 would include infrastructure construction within 100-feet of the
5 water’s edge, runoff during construction would not cause regulatory standards to be
6 violated, and impacts would be less than significant. Spills associated with construction
7 equipment, such as oil/fluid drips or gasoline/diesel spills during fueling, typically
8 involve small volumes that can be effectively contained in the work area and cleaned up
9 immediately (Port of Los Angeles Spill Prevention and Control Procedures [CA012]).
10 Accidental or incidental spills or leaks that occur on land within 100 feet of the water’s
11 edge are expected to be contained and cleaned up before any impacts on surface water
12 quality can occur. Construction and industrial SWPPPs and standard BMPs (e.g., use of
13 drip pans, contained refueling areas, regular inspections of equipment and vehicles, and
14 immediate repairs of leaks) would reduce potentials for materials from onshore
15 construction activities to be transported off site and enter storm drains.

16 Although Alternative 4 would include infrastructure construction within 100-feet of the
17 water’s edge, the unlikelihood of spills to occur, combined with established prevention
18 measures, would reduce the probability that regulatory standards would be violated due
19 to an accidental spill. Therefore, impacts would be less than significant. Accidental
20 spills from dredges or barges could directly affect water quality in the waters adjacent to
21 the site of Alternative 4; however, the probability of an accidental spill from a
22 construction vessel to the Harbor is low. In addition, if an accidental spill does occur, the
23 planning effort to contain and neutralize the spill and the actual spill response by the
24 dredging contractors (deployment of floating booms to contain and absorb the spill and
25 use pumps to assist the cleanup) would likely prevent the accidental spill from causing a
26 nuisance or from adversely affecting beneficial uses of the Harbor.

27 **Operation**

28 The footprint of the terminal would not increase, but the amount of truck traffic and yard
29 equipment operations at the site of Alternative 4 would increase to handle up to
30 2,115,133 TEUs annually (from about 1,818,000 TEUs annually under the NEPA
31 baseline) by 2038. Rail traffic would also increase at the existing on-dock railyard. This
32 would increase the amount of particulates and chemical pollutants from normal wear of
33 tires/train wheels and other moving parts, as well as from leaks of lubricants and
34 hydraulic fluids that can fall on backland surfaces and subsequently be transported by
35 stormwater runoff into the Harbor.

36 The terminal site under Alternative 4 would be the same as that under the NEPA
37 baseline; however, terminal operations would increase slightly. Runoff under Alternative
38 4 would be similar to that under Alternative 2 (the No Project Alternative) and managed
39 under an industrial SWPPP to minimize the generation of particulate pollutants. The
40 quality of any runoff would be expected to comply with the permit conditions. Runoff
41 from the existing terminal is routed to catch basins on site, and discharged to harbor
42 waters. Under Alternative 4, runoff would still be collected on site and discharged to the
43 Main Channel until 2038. With increased throughput, the amount of contaminants (such
44 as metals and PAHs) in runoff would increase. As described under the proposed Project
45 above, receiving water standards for the Harbor are usually not exceeded due in part to
46 mixing effects, and it is reasonable to expect that these effects would also keep pollutants

1 in runoff under Alternative 4 from resulting in violations of receiving water quality
2 objectives.

3 Upland operations associated with Alternative 4 would not result in direct discharges of
4 wastes to Harbor waters. Stormwater runoff from the terminal site under Alternative 4
5 could contain particulate debris from operation of the facilities, including aerially
6 deposited pollutants. Discharges of stormwater would comply with the NPDES
7 discharge permit limits and SWPPP requirements. Therefore, water quality impacts from
8 site runoff would not be significant.

9 Vessel discharges under Alternative 4 would be similar to, although somewhat greater than
10 the NEPA baseline due to slightly higher operational throughput. In 2012, the Ports of
11 Los Angeles and Long Beach published “Vessel Discharge Rules and Regulations,”
12 which summarizes the rules and regulations of ballast water discharge and other
13 discharges (POLB and POLA, 2012). This document, which is updated as the applicable
14 regulations change, has been distributed to all terminal operators/shipping lines to make
15 them aware of the regulations. With international, federal, and state regulations in place,
16 the increased vessel traffic and terminal operations associated with Alternative 4 is not
17 anticipated to result in significant ballast water discharge impacts from vessels.

18 The number or severity of illegal discharges, and corresponding changes to water and
19 sediment quality, from increased vessel traffic cannot be accurately quantified because
20 the rate and chemical composition of illegal discharges from commercial vessels is
21 unknown. However, there is no evidence that illegal discharges from ships presently
22 utilizing the Harbor are causing widespread problems in the Harbor. Over several
23 decades, there has been a vast improvement in Harbor water quality despite an overall
24 increase in ship traffic. In addition, the Port Police are authorized to cite any vessel that
25 is in violation of Port tariffs, including illegal discharges. Illegal discharges resulting
26 from operation of Alternative 4 are not likely to occur.

27 As with the proposed Project, vessels under Alternative 4 would not contain TBT in their
28 hull coatings. Therefore, TBT is not expected to leach from vessel hulls at the site of
29 Alternative 4. The number of ship calls under Alternative 4 would not increase compared
30 to the NEPA baseline (208 annual ship calls), but the maximum size of the ships calling
31 at the terminal would increase (to up to 16,000 TEU vessels). Concentrations of metals
32 in waters near the site of Alternative 4 have been well below regulatory criteria (POLA
33 and POLB, 2009; AMEC, 2012). Therefore, water quality impacts related to leaching of
34 contaminants from hull coatings would be less than significant. Even though small
35 amounts of hazardous materials/wastes are stored on the site of Alternative 4, operation
36 of this alternative would require compliance with all existing hazardous material/waste
37 laws and regulations (such as the Resource Conservation and Recovery Act of 1976,
38 Department of Transportation Hazardous Materials Regulations, and the Hazardous
39 Waste Control Law of the California Health and Safety Code). Compliance with these
40 laws would ensure that potentially hazardous materials handling would occur in a safe
41 and acceptable manner. These regulations, which govern the shipping, transport, storage,
42 and handling of hazardous materials, would limit the severity and frequency of potential
43 releases of hazardous materials. Therefore, operation of Alternative 4 would not
44 substantially increase the probable frequency and severity of consequences to people or
45 property as a result of a potential accidental release (including spill from vessels) or
46 explosion of a hazardous substance. Impacts would be less than significant.

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

5 In summary, although Alternative 4 would include in-water work and infrastructure
6 installation within 100 feet of the water's edge that would not occur under the NEPA
7 baseline, as well as increased operational throughput, based on the analysis above,
8 Alternative 4 construction activities, including dredging, pile installation, and
9 infrastructure construction within 100 feet of the water's edge, and operations at the
10 improved terminal, including increased container throughput and increased truck traffic,
11 are not expected to create pollution, contamination, or a nuisance, or result in violations
12 of water quality standards or permit conditions. Therefore, significant water quality
13 impacts under NEPA are not expected to occur from construction, terminal operations, or
14 accidental spills that could occur from implementation of Alternative 4. Impacts would
15 be less than significant under NEPA.

16 ***Mitigation Measures***

17 No mitigation is required.

18 ***Residual Impacts***

19 Impacts would be less than significant.

20 **Alternative 5 – Expanded On-Dock Railyard: Wharf and** 21 **Backland Improvements with an Expanded TICTF**

22 Alternative 5 would be the same as the proposed Project, but with an additional on-dock
23 rail track at the Terminal Island Container Transfer Facility (TICTF). Under Alternative
24 5, there would be two operating berths after construction and the terminal would add 23.5
25 acres of backlands, similar to the proposed Project. This alternative would require the
26 same dredging as the proposed Project. This alternative would accommodate the largest
27 vessels (16,000 TEUs) at Berths 226-229. The new design depth at Berths 230-232
28 would be capable of handling vessels up to 10,000 TEUs. Based on the throughput
29 projections, this alternative is expected to operate at its capacity of approximately
30 2,379,525 TEUs by 2038, the same as the proposed Project. Under this project
31 alternative, the terminal could handle similar levels of cargo as the proposed Project, but
32 would have added capacity at the TICTF and be able to transport a greater number of
33 containers via rail than the proposed Project. Under this alternative, 208 vessels would
34 call on the terminal in 2038, the same as the proposed Project.

35 **Impact WQ-1: Alternative 5 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, disposal of dredged materials, and potential construction-related spills. Impacts to
41 water 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 installed along Berths 226-229 and Berths 230-232,
8 as described under the proposed Project, which would result in some sediment
9 suspension, but over a much smaller area than dredging. During pile installation, turbidity
10 would be limited to waters near the seafloor.

11 Existing backlands under Alternative 5 would not directly introduce sediments to the
12 waters adjacent to the site of Alternative 5; however, stormwater runoff could carry
13 sediments to the Harbor waters without intervention. Accidental spills could also
14 introduce contaminants to Harbor waters.

15 They types of water quality impacts from construction of Alternative 5 could include:

- 16 ■ Increased turbidity (sediment resuspension resulting in reduced water clarity and light
17 transmittance),
- 18 ■ Increased dissolved or particulate contaminants (that were previously bound to
19 dredged sediments or in pore water),
- 20 ■ Reduced dissolved oxygen (from suspension of sediments with low oxygen), and
- 21 ■ Reduced pH

22 There would be no effects to salinity or temperature from construction and operation of
23 Alternative 5. The biological effects on marine biota from potential water quality
24 impacts are discussed in Section 3.3, Biological Resources.

25 **Effects of Dredging and Pile Installation**

26 Dredging impacts to water quality under Alternative 5 would be the same as for the
27 proposed Project. The majority of suspended sediments settle within one hour of
28 dredging (Palermo et al., 2008). Similarly, dredging would result in a relatively small
29 turbidity plume with an associated slight reduction in light transmission (about 15
30 percent); however, as with the proposed Project, the turbidity plume and reductions in
31 light transmission during dredging for Alternative 5 are expected to dissipate rapidly with
32 distance from dredging operations. As with the proposed Project, contaminants, including
33 metals and organics, could be released into the water column during the dredging and pile
34 installation. However, any increase in contaminant levels in the water is expected to be
35 localized and of short duration, and contaminant concentrations associated with any
36 potentially disturbed or resuspended sediments during dredging are not expected to result
37 in any long-term effects in the waters near the site of Alternative 5.

38 As with the proposed Project, within areas of sediment resuspension, DO and pH could
39 be slightly reduced. Reductions in DO concentrations, however, would be brief and are
40 not expected to persist or cause detrimental effects to biological resources.

41 Contaminants, including metals and organics, could be released into the water column
42 during the dredging and pile installation. However, any increase in contaminant levels in

1 the water is expected to be localized and of short duration. The sediment testing
2 performed in the proposed dredge footprint determined concentrations of all
3 contaminants were below ERM levels, and results from elutriate testing (which used a 4:1
4 mixture of water and sediments from the dredge footprint) were below EPA CCC
5 (Ramboll Environ, 2015). There was also no demonstrated toxicity in solid phase and
6 suspended particulate phase bioassays tests in sediments at the Everport Container
7 Terminal. Therefore, contaminant concentrations associated with any potentially
8 disturbed or resuspended sediments during dredging are not expected to result in any
9 long-term effects in the waters near the site of Alternative 5.

10 **Effects of Dredge Material Disposal**

11 **Ocean Disposal**

12 Effects from sediment disposal at LA-2 were evaluated during the site designation
13 process (EPA 1988) and subsequently evaluated in consideration of higher maximum
14 annual disposal volume (EPA and USACE, 2005). Alternative 5 would not result in
15 additional or new impacts to sediment quality or water quality related to disposal of
16 dredge material at LA-2 that were not previously evaluated.

17 **Upland Disposal**

18 Disposal of dredged material at an upland disposal site would not affect sediment quality
19 or water quality in the vicinity of Alternative 5.

20 **Effects of Backlands Improvements**

21 Alternative 5 would have the same backland improvements as the proposed Project (23.5
22 acres of additional backlands and associated improvements) and therefore would have the
23 same effects related to runoff from backlands improvements as the proposed Project
24 described above. Construction-related impacts on surface water quality would be limited
25 to potential non-stormwater discharges or discharges of stormwater runoff to Harbor
26 waters that receive runoff from the terminal site under Alternative 5. Runoff from the
27 upland portions of the site of Alternative 5 is managed in compliance with applicable
28 permits and ordinances (including MS4 requirements) prior to discharge to the Harbor (to
29 the Main Channel).

30 **Effects of Rail Line Addition at TICTF**

31 Alternative 5 includes construction of one additional rail line at the TICTF. Construction
32 of the rail line would include excavation of the rail line corridor, soil compaction,
33 placement of crushed base, installation of the track, and paving. Therefore, potential
34 effects resulting from construction of the rail line would be similar to those described for
35 backland improvements described above. Construction-related impacts on surface water
36 quality would be limited to potential non-stormwater discharges or discharges of
37 stormwater runoff to Harbor waters that receive runoff from the terminal site under
38 Alternative 5. Runoff from the upland portions of the site of Alternative 5 is managed in
39 compliance with applicable permits and ordinances (including MS4 requirements) prior
40 to discharge to the Harbor (to the Main Channel).

41 **Accidental Spills**

42 Accidents resulting in spills of fuel, lubricants, or hydraulic fluid from equipment used
43 during dredging, pile installation, and/or disposal of dredged material, could occur during

1 construction of Alternative 5. Based on the history for this type of work in the Harbor,
2 accidental leaks and spills of large volumes of hazardous materials or wastes containing
3 contaminants during onshore construction activities have a very low probability of
4 occurring because large volumes of these materials typically are not used or stored at
5 construction sites.

6 **Operation**

7 Operation of Alternative 5 would result in similar water quality impacts as described
8 under the proposed Project, and would handle up to 2,379,525 TEUs annually by 2038
9 (compared to 1,240,773 TEUs under the CEQA baseline, and 1,818,000 TEUs under the
10 NEPA baseline by 2038). This alternative would result in 208 vessel calls (an increase of
11 42 vessel calls above the CEQA baseline, but no increase above the NEPA baseline) and
12 an increase in the peak day vessel calls at the terminal. This alternative would handle
13 vessels up to 16,000 TEUs.

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

17 **Runoff**

18 Operation of the site under Alternative 5, as with the proposed Project, would not involve
19 any direct point source discharges of wastes or wastewaters to the Harbor, and the
20 transport of contaminants, such as metals, by runoff from the site of Alternative 5 would
21 contribute incrementally to changes in receiving water quality.

22 **Deposition of Contaminants**

23 Direct atmospheric deposition of air pollutants that settle in the Port (including at the site
24 of Alternative 5) and on harbor waters would be slightly higher than that described above
25 for the proposed Project (due to increased railyard activities related to the addition of the
26 on-dock rail track), and may provide an increased impact on local watersheds. For
27 particulates, including suspended zinc and copper pollutants from the site of Alternative 5
28 (tire and brake wear from equipment and trucks), direct impacts would not be expected to
29 significantly affect water quality due to the likely limited and dispersed nature of direct
30 deposition on Harbor waters, and because direct aerial deposition would not allow for a
31 significant buildup of these pollutants before entering Harbor waters.

32 **Accidental Spills**

33 The potential for accidental spills (in upland areas and from vessels) to affect Harbor
34 waters under Alternative 5 would be similar to the proposed Project. If spilled materials
35 in upland areas were not captured prior to reaching the storm drain system, such materials
36 could reach the Main Channel adjacent to the site of Alternative 5. Spills or illegal
37 discharges from vessels could also occur in the same waters or during their transit to and
38 from the Everport Container Terminal from the Harbor entrance at Angel's Gate.
39 Impacts on water and sediment quality would depend on (1) the characteristics of the
40 material spilled, such as volatility, solubility in water, and sedimentation rate, and (2) the
41 speed and effectiveness of the spill response and cleanup efforts. Potential releases of
42 pollutants from a large spill to Harbor waters and sediments would be minimized through
43 existing regulatory and on-site controls and are unlikely to occur during the life of
44 Alternative 5.

Vessel Discharges and Contaminants

The amount of vessel traffic at the site of Alternative 5 would increase by up to 42 annual ship calls (by 2038) as compared to the CEQA baseline. However, ship calls for Alternative 5 would be the same as the NEPA baseline. The water quality effects under Alternative 5 from vessel discharges and leaching of contaminants (including TBT, copper, and zinc) from vessel coatings would be similar to the proposed. TBT has been discontinued from use, and concentrations of metals, such as those used in antifouling applications (copper and zinc), have been measured near or below detection limits in waters adjacent to the site of Alternative 5.

CEQA Impact Determination

Construction

As with the proposed Project, in-water dredging and pile installation under Alternative 5 would disturb and resuspend bottom sediments, which would result in temporary and localized changes to some water quality indicators. Dredging off Berths 226–229 and Berths 230-232 may reduce DO concentrations in the immediate vicinity of the dredge, but this decrease would generally not extend beyond the dredge area or persist following the completion of the dredging operation. Changes in pH and contaminant levels could also occur as a result of construction activities for Alternative 5. Turbidity and TSS concentrations would rapidly drop to levels approaching background concentrations within a few hundred meters of the dredge once dredging ceases.

As with the proposed Project, dredging for Alternative 5 would require a Section 10 permit from USACE and a CWA Section 401 Water Quality Certification from the LARWQCB, which include monitoring requirements and controls for DO, light transmittance (turbidity), pH, and suspended solids necessary to assure compliance with applicable effluent limitations, or any other CWA limitation, or with any State laws or regulations. Monitoring data would be used by the dredge contractor to demonstrate that water quality limits specified in the permit are not exceeded. This would include alteration of dredging methods, and/or implementation of additional BMPs to limit the size and extent of the dredge plume.

Sediments could be disposed of at LA-2 or an approved upland disposal site. Sediments from the proposed dredging area were tested using standard EPA/USACE protocols (according to an approved SAP) prior to dredging to determine the suitability of the material for unconfined, aquatic disposal or other disposal alternatives. The sediments within the Berths 226–229 and Berths 230-232 dredging footprints complied with the chemistry, toxicity, and bioaccumulation suitability requirements for ocean disposal (Title 40 CFR Parts 220–228; Appendix F) and the CSTF determined in August 2015 that the sediments are suitable for disposal at LA-2. If the sediments are disposed of at an upland disposal facility, they would have to meet acceptance criteria and would not result in adverse impacts. Therefore, water quality impacts due to dredging and disposal would be less than significant.

Runoff from the terminal site during installation of infrastructure would be managed under a construction SWPPP prepared in accordance with GCASP requirements, and runoff control structures would be placed and maintained around the construction area to minimize loss of site soils to the storm drain system. Runoff during construction is not anticipated to cause regulatory standards to be violated, and impacts would be less than significant.

1 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel
2 spills during fueling, typically involve small volumes that can be effectively contained in
3 the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and
4 Control Procedures [CA012]). Accidental or incidental spills or leaks that occur on land
5 are expected to be contained and cleaned up before any impacts on surface water quality
6 can occur. Construction and industrial SWPPPs and standard BMPs (e.g., use of drip
7 pans, contained refueling areas, regular inspections of equipment and vehicles, and
8 immediate repairs of leaks) would reduce potentials for materials from onshore
9 construction activities to enter storm drains. The unlikelihood of spills to occur,
10 combined with established prevention measures, would reduce the probability that
11 regulatory standards would be violated due to an accidental spill. Therefore, impacts
12 would be less than significant.

13 Accidental spills from dredges or barges could directly affect water quality in the waters
14 adjacent to the site of Alternative 5; however, the probability of an accidental spill from a
15 construction vessel to the Harbor is low. In addition, if an accidental spill does occur, the
16 planning effort to contain and neutralize the spill and the actual spill response by the
17 dredging contractors (deployment of floating booms to contain and absorb the spill and
18 use pumps to assist the cleanup) would likely prevent the accidental spill from causing a
19 nuisance or from adversely affecting beneficial uses of the Harbor.

20 **Operation**

21 The footprint of the terminal would not change from existing conditions, but the amount
22 of truck traffic and yard equipment operations at the terminal under Alternative 5 would
23 increase to handle up to 2,379,525 TEUs annually (from 1,240,773 TEUs annually under
24 the CEQA baseline). An additional on-dock rail line would be constructed, and rail
25 traffic would also increase at the existing on-dock railyard. The percentage of terminal
26 throughput that would be handled by on-dock rail is expected to increase from
27 approximately 18.5 percent in 2013 to approximately 27.7 percent in 2038 under this
28 alternative. This would increase the amount of particulates and chemical pollutants from
29 normal wear of tires/train wheels and other moving parts, as well as from leaks of
30 lubricants and hydraulic fluids that can fall on backland surfaces and subsequently be
31 transported by stormwater runoff into the Harbor.

32 Runoff under Alternative 5 would be similar to the proposed Project and managed under
33 an industrial SWPPP to minimize the generation of particulate pollutants. The quality of
34 any runoff would be expected to comply with the permit conditions. Runoff from the
35 existing terminal is routed to catch basins on site, and discharged to harbor waters. Under
36 Alternative 5, runoff would still be collected on site and discharged to the Main Channel
37 until 2038. With increased throughput, the amount of contaminants (such as metals and
38 PAHs) in runoff would increase. As described under the proposed Project above,
39 receiving water standards for the Harbor are usually not exceeded due in part to mixing
40 effects, and it is reasonable to expect that these effects would also keep pollutants in
41 runoff under Alternative 5 from resulting in violations of receiving water quality
42 objectives.

43 Upland operations associated with Alternative 5 would not result in direct discharges of
44 wastes to Harbor waters. Stormwater runoff from the terminal site under Alternative 5
45 could contain particulate debris from operation of the facilities, including aerially
46 deposited pollutants. Discharges of stormwater would comply with the NPDES

1 discharge permit limits and SWPPP requirements. Therefore, water quality impacts from
2 site runoff would not be significant.

3 Vessel discharges under Alternative 5 would be similar to those for the proposed Project
4 due to lower operational throughput. In 2012, the Ports of Los Angeles and Long Beach
5 published “Vessel Discharge Rules and Regulations,” which summarizes the rules and
6 regulations of ballast water discharge and other discharges (POLB and POLA, 2012).
7 This document, which is updated as the applicable regulations change, has been
8 distributed to all terminal operators/shipping lines to make them aware of the regulations.
9 With international, federal, and state regulations in place, the increased vessel traffic and
10 terminal operations associated with Alternative 5 are not anticipated to result in
11 significant ballast water discharge impacts from vessels.

12 The number or severity of illegal discharges, and corresponding changes to water and
13 sediment quality, from increased vessel traffic cannot be accurately quantified because
14 the rate and chemical composition of illegal discharges from commercial vessels is
15 unknown. However, there is no evidence that illegal discharges from ships presently
16 utilizing the Harbor are causing widespread problems in the Harbor. Over several
17 decades, there has been a vast improvement in Harbor water quality despite an overall
18 increase in ship traffic. In addition, the Port Police are authorized to cite any vessel that
19 is in violation of Port tariffs, including illegal discharges. Illegal discharges resulting
20 from operation of Alternative 5 are not likely to occur.

21 As with the proposed Project, vessels under Alternative 5 would not contain TBT in their
22 hull coatings. Therefore, TBT is not expected to leach from vessel hulls at the site of
23 Alternative 5. The number of ship calls under Alternative 5 would increase compared to
24 the CEQA baseline (by 42 ship calls), and the maximum size of the ships calling at the
25 terminal would increase to 16,000 TEU vessels). Concentrations of metals in waters near
26 the site of Alternative 5 have been well below regulatory criteria (POLA and POLB,
27 2009; AMEC, 2012). Therefore, water quality impacts related to leaching of
28 contaminants from hull coatings would be less than significant.

29 Even though small amounts of hazardous materials/wastes are stored on the site of
30 Alternative 5, operation of this alternative would require compliance with all existing
31 hazardous material/waste laws and regulations (such as the Resource Conservation and
32 Recovery Act of 1976, Department of Transportation Hazardous Materials Regulations,
33 and the Hazardous Waste Control Law of the California Health and Safety Code).
34 Compliance with these laws would ensure that potentially hazardous materials handling
35 would occur in a safe and acceptable manner. These regulations, which govern the
36 shipping, transport, storage, and handling of hazardous materials, would limit the severity
37 and frequency of potential releases of hazardous materials. Therefore, operation of
38 Alternative 5 would not substantially increase the probable frequency and severity of
39 consequences to people or property as a result of a potential accidental release (including
40 spill from vessels) or explosion of a hazardous substance. Impacts would be less than
41 significant under CEQA.

42 Accidental spills of petroleum hydrocarbons, hazardous materials, and other pollutants
43 from Alternative 5-related upland operations are expected to be limited to small volume
44 releases because large quantities of those substances are unlikely to be used, transported,
45 or stored on the site.

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

9 ***Mitigation Measures***

10 No mitigation is required.

11 ***Residual Impacts***

12 Impacts would be less than significant.

13 **NEPA Impact Determination**

14 **Construction**

15 Alternative 5 would include in-water work and infrastructure installation within 100 feet
16 of the water's edge that would not occur under the NEPA baseline. However,
17 construction of the additional TICTF rail line in the backlands could occur absent a DA
18 permit. As with the proposed Project, in-water dredging and pile installation under
19 Alternative 5 would disturb and resuspend bottom sediments, which would result in
20 temporary and localized changes to some water quality indicators, which would not occur
21 under the NEPA baseline. Dredging off Berths 226–229 and Berths 230-232 may reduce
22 DO concentrations in the immediate vicinity of the dredge, but this decrease would
23 generally not extend beyond the dredge area or persist following the completion of the
24 dredging operation. Changes in pH and contaminant levels could also occur as a result of
25 construction activities for Alternative 5. Turbidity and TSS concentrations would rapidly
26 drop to levels approaching background concentrations within a few hundred meters of the
27 dredge once dredging ceases.

28 As with the proposed Project, dredging for Alternative 5 would require a Section 10
29 permit from USACE and a CWA Section 401 Water Quality Certification from the
30 LARWQCB, which include monitoring requirements and controls for DO, light
31 transmittance (turbidity), pH, and suspended solids necessary to assure compliance with
32 applicable effluent limitations, or any other CWA limitation, or with any state laws or
33 regulations. Monitoring data would be used by the dredge contractor to demonstrate that
34 water quality limits specified in the permit are not exceeded. This would include
35 alteration of dredging methods, and/or implementation of additional BMPs to limit the
36 size and extent of the dredge plume.

37 Sediments would be disposed of at LA-2. Sediments from the proposed dredging area
38 were tested using standard EPA/USACE protocols (according to an approved SAP) prior
39 to dredging to determine the suitability of the material for unconfined, aquatic disposal or
40 other disposal alternatives. The sediments within the Berths 226-229 and Berths 230-232
41 dredging footprints complied with the chemistry, toxicity, and bioaccumulation
42 suitability requirements for ocean disposal (Title 40 CFR Parts 220–228; Appendix F),
43 and the CSTF determined in August 2015 that the sediments are suitable for disposal at
44 LA-2. If the sediments are disposed of at an upland disposal facility, they would have to

1 meet acceptance criteria and would not result in adverse impacts. Therefore, water
2 quality impacts due to dredging and disposal would be less than significant.

3 Runoff from the terminal site during installation of infrastructure would be managed
4 under a construction SWPPP prepared in accordance with GCASP requirements and
5 implemented prior to the start of any construction activities. This construction SWPPP
6 would specify BMPs to prevent and/or control releases of soils and contaminants and
7 avoid adverse impacts on receiving water quality. One or more types of runoff control
8 structures would be placed and maintained around the construction area to minimize loss
9 of site soils to the storm drain system. As another standard measure, concrete truck wash
10 water and runoff of any water that has come in contact with wet cement would be
11 contained on site so that it does not runoff into the Harbor. These measures, combined
12 with the low potential for erosion, would minimize any soil and contaminant loading to
13 the Harbor resulting from construction activities. The SWPPP would be prepared by
14 LAHD (or contractor) with LAHD designated as the “Legally Responsible Person.”
15 Runoff during construction is not anticipated to cause regulatory standards to be violated,
16 and impacts would be less than significant.

17 Spills associated with construction equipment, such as oil/fluid drips or gasoline/diesel
18 spills during fueling, typically involve small volumes that can be effectively contained in
19 the work area and cleaned up immediately (Port of Los Angeles Spill Prevention and
20 Control Procedures [CA012]). Accidental or incidental spills or leaks that occur on land
21 within 100 feet of the water’s edge are expected to be contained and cleaned up before
22 any impacts on surface water quality can occur. Construction and industrial SWPPPs and
23 standard BMPs (e.g., use of drip pans, contained refueling areas, regular inspections of
24 equipment and vehicles, and immediate repairs of leaks) would reduce potentials for
25 materials from onshore construction activities to be transported off site and enter storm
26 drains. Although Alternative 5 would include infrastructure construction within 100 feet
27 of the water’s edge, the unlikelihood of spills to occur, combined with established
28 prevention measures, would reduce the probability that regulatory standards would be
29 violated due to an accidental spill. Therefore, impacts would be less than significant.

30 Accidental spills from dredges or barges could directly affect water quality in the waters
31 adjacent to the site of Alternative 5; however, the probability of an accidental spill from a
32 construction vessel to the Harbor is low. In addition, if an accidental spill does occur, the
33 planning effort to contain and neutralize the spill and the actual spill response by the
34 dredging contractors (deployment of floating booms to contain and absorb the spill and
35 use pumps to assist the cleanup) would likely prevent the accidental spill from causing a
36 nuisance or from adversely affecting beneficial uses of the Harbor.

37 **Operation**

38 The footprint of the terminal would increase with the expansion of the 23.5 acres;
39 however, the railyard footprint would not change. The amount of truck traffic and yard
40 equipment operations at the site of Alternative 5 would increase to handle up to
41 2,379,525 TEUs annually (from about 1,818,000 TEUs annually under the NEPA
42 baseline [2038]). Rail traffic would also increase at the existing on-dock railyard. The
43 percentage of terminal throughput that would be handled by on-dock rail is expected to
44 increase from approximately 18.5 percent in 2013 to approximately 27.7 percent in 2038
45 under this alternative. This would increase the amount of particulates and chemical
46 pollutants from normal wear of tires/train wheels and other moving parts, as well as from

1 leaks of lubricants and hydraulic fluids that can fall on backland surfaces and
2 subsequently be transported by stormwater runoff into the Harbor.

3 Although the terminal site under Alternative 5 would be the same as that under the NEPA
4 baseline, terminal operations would increase over the NEPA baseline. Runoff under
5 Alternative 5 would be similar to that under the proposed Project and managed under an
6 industrial SWPPP to minimize the generation of particulate pollutants. The quality of
7 any runoff would be expected to comply with the permit conditions. Runoff from the
8 existing terminal is routed to catch basins on site, and discharged to harbor waters. Under
9 Alternative 5, runoff would still be collected on site and discharged to the Main Channel
10 until 2038. With increased throughput, the amount of contaminants (such as metals and
11 PAHs) in runoff would increase. As described under the proposed Project above,
12 receiving water standards for the Harbor are usually not exceeded due in part to mixing
13 effects, and it is reasonable to expect that these effects would also keep pollutants in
14 runoff under Alternative 5 from resulting in violations of receiving water quality
15 objectives.

16 Upland operations associated with Alternative 5 would not result in direct discharges of
17 wastes to Harbor waters. Stormwater runoff from the terminal site under Alternative 5
18 could contain particulate debris from operation of the facilities, including aurally
19 deposited pollutants. Discharges of stormwater would comply with the NPDES
20 discharge permit limits and SWPPP requirements. Therefore, water quality impacts from
21 site runoff would not be significant.

22 Vessel discharges under Alternative 5 would be similar to those of the NEPA baseline.
23 The number of ship calls under Alternative 5 would be the same as those with the NEPA
24 baseline; however, the sizes of the ships calling at the terminal would increase (and
25 container throughput would increase). In 2012, the Ports of Los Angeles and Long Beach
26 published "Vessel Discharge Rules and Regulations," which summarizes the rules and
27 regulations of ballast water discharge and other discharges (POLB and POLA, 2012).
28 This document, which is updated as the applicable regulations change, has been
29 distributed to all terminal operators/shipping lines to make them aware of the regulations.
30 With international, federal, and state regulations in place, the increased terminal
31 operations associated with Alternative 5 is not anticipated to result in significant ballast
32 water discharge impacts from vessels.

33 The number or severity of illegal discharges, and corresponding changes to water and
34 sediment quality, from increased vessel traffic cannot be accurately quantified because
35 the rate and chemical composition of illegal discharges from commercial vessels is
36 unknown. However, there is no evidence that illegal discharges from ships presently
37 utilizing the Harbor are causing widespread problems in the Harbor. Over several
38 decades, there has been a vast improvement in Harbor water quality despite an overall
39 increase in ship traffic. In addition, the Port Police are authorized to cite any vessel that
40 is in violation of Port tariffs, including illegal discharges. Illegal discharges resulting
41 from operation of Alternative 5 are not likely to occur.

42 As with the proposed Project, vessels under Alternative 5 would not contain TBT in their
43 hull coatings. Therefore, TBT is not expected to leach from vessel hulls at the site of
44 Alternative 5. The number of ship calls under Alternative 5 would be the same compared
45 to the NEPA baseline, but the maximum size of the ships calling at the terminal would
46 increase to 16,000 TEU vessels. Concentrations of metals in waters near the site of

1 Alternative 5 have been well below regulatory criteria (POLA and POLB, 2009; AMEC,
2 2012). Therefore, water quality impacts related to leaching of contaminants from hull
3 coatings would be less than significant.

4 Even though small amounts of hazardous materials/wastes are stored on the site of
5 Alternative 5, operation of this alternative would require compliance with all existing
6 hazardous material/waste laws and regulations (such as the Resource Conservation and
7 Recovery Act of 1976, Department of Transportation Hazardous Materials Regulations,
8 and the Hazardous Waste Control Law of the California Health and Safety Code).
9 Compliance with these laws would ensure that potentially hazardous materials handling
10 would occur in a safe and acceptable manner. These regulations, which govern the
11 shipping, transport, storage, and handling of hazardous materials, would limit the severity
12 and frequency of potential releases of hazardous materials. Therefore, operation of
13 Alternative 5 would not substantially increase the probable frequency and severity of
14 consequences to people or property as a result of a potential accidental release (including
15 spill from vessels) or explosion of a hazardous substance. Impacts would be less than
16 significant under NEPA.

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

21 In summary, although Alternative 5 would include in-water work and infrastructure
22 installation within 100 feet of the water's edge that would not occur under the NEPA
23 baseline, as well as increased operational throughput, based on the analysis above,
24 construction and operation of Alternative 5 is not expected to create pollution,
25 contamination, or a nuisance, or result in violations of water quality standards or permit
26 conditions. Therefore, significant water quality impacts under NEPA are not expected to
27 occur from construction, terminal operations, or accidental spills that could occur from
28 implementation of Alternative 5. Impacts would be less than significant under NEPA.

29 ***Mitigation Measures***

30 No mitigation is required.

31 ***Residual Impacts***

32 Impacts would be less than significant.

33 **3.11.4.4 Summary of Impact Determinations**

34 Table 3.11-3 summarizes the CEQA and NEPA impact determinations for the proposed
35 Project and its alternatives related to water quality, sediments, and circulation, as
36 described in the detailed discussion above. This table is intended to allow easy
37 comparison between the potential impacts of the proposed Project and its alternatives
38 with respect to this resource. Identified potential impacts may be based on federal, state,
39 or City of Los Angeles significance criteria, LAHD criteria, and the scientific judgment
40 of the report preparers. For each impact threshold, the table describes the impact, notes
41 the CEQA and NEPA impact determinations, describes any applicable mitigation
42 measures, and notes the residual impacts (i.e., the impact remaining after mitigation). All
43 impacts, whether significant or not, are included in this table.

Table 3.11-3: 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	Residual Impacts after Mitigation
Proposed Project	WQ-1: 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	CEQA: No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	NEPA: No mitigation is required.	NEPA: Less than significant
Alternative 1 – No Federal Action	WQ-1: 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	CEQA: No mitigation is required.	CEQA: Less than significant
		NEPA: No impact	NEPA: No mitigation is required.	NEPA: No impact
Alternative 2 – No Project	WQ-1: 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	CEQA: No mitigation is required.	CEQA: Less than significant
		NEPA: Not applicable	NEPA: Not applicable.	NEPA: Not applicable.
Alternative 3 – Reduced Project: Reduced Wharf Improvements	WQ-1: 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	CEQA: No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	NEPA: No mitigation is required.	NEPA: Less than significant
Alternative 4 – Reduced Project: No Backlands Improvements	WQ-1: Alternative 4 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	CEQA: No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	NEPA: No mitigation is required.	NEPA: Less than significant
Alternative 5 – Expanded On-Dock Railyard: Wharf and Backland Improvements with an Expanded TICTF	WQ-1: Alternative 5 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	CEQA: No mitigation is required.	CEQA: Less than significant
		NEPA: Less than significant	NEPA: No mitigation is required.	NEPA: Less than significant

1 **3.11.4.5 Mitigation Monitoring**

2 Neither the proposed Project nor any of the alternatives would result in significant
3 impacts on Water Quality, Sediments, and Oceanography. Therefore, no mitigation
4 measures nor monitoring is required.

5 **3.11.5 Significant Unavoidable Impacts**

6 No significant unavoidable impacts on Water Quality, Sediments, and Oceanography
7 would occur as a result of construction or operation of the proposed Project or any of the
8 alternatives.

9