

# 3.14

## WATER QUALITY, SEDIMENTS, AND OCEANOGRAPHY

### 3.14.1 Introduction

This section describes the environmental setting for water quality, sediments, and oceanography within the PMPU area, identifies applicable regulations, and analyzes the potential impacts that could result from implementing the proposed Program. Mitigation measures and the significance of impacts after mitigation also are described.

### 3.14.2 Environmental Setting

#### 3.14.2.1 Regional Setting

The Port consists of the Inner Harbor (channels, basins, and slips north of the Vincent Thomas Bridge), Outer Harbor (south of Reservation Point to the San Pedro and Middle breakwaters), and Main Channel (between the Vincent Thomas Bridge and Reservation Point) (Figure 3.14-1). The Port is adjacent to the Port of Long Beach, and oceanographically they function as one unit due to an inland connection via Cerritos Channel and because they share the Outer Harbor behind the San Pedro, Middle, and Long Beach breakwaters. The Port has been physically modified through past dredge and fill projects as well as by construction of breakwaters and other structures such as wharfs and piers.

The Port and Port of Long Beach complex (port complex) is bounded on the landward side by the communities of San Pedro and Wilmington and the City of Long Beach, and on the seaward side by the three breakwaters that protect port facilities. Terminal Island, which is shared by the two ports and supports a number of large cargo terminals and other port uses, comprises nearly a quarter of the total land area and is separated from the mainland by the Los Angeles Main Channel, Long Beach Back Channel, and the Cerritos Channel that links the two ports. A major drainage channel, the Dominguez Channel, discharges into Los Angeles Harbor via the Consolidated Slip, and the Los Angeles River discharges into eastern San Pedro Bay at the east side of Long Beach Harbor. The lower portion of the Dominguez Channel is clay lined and tidal, representing an approximate 8-mile stretch south of Vermont Avenue.

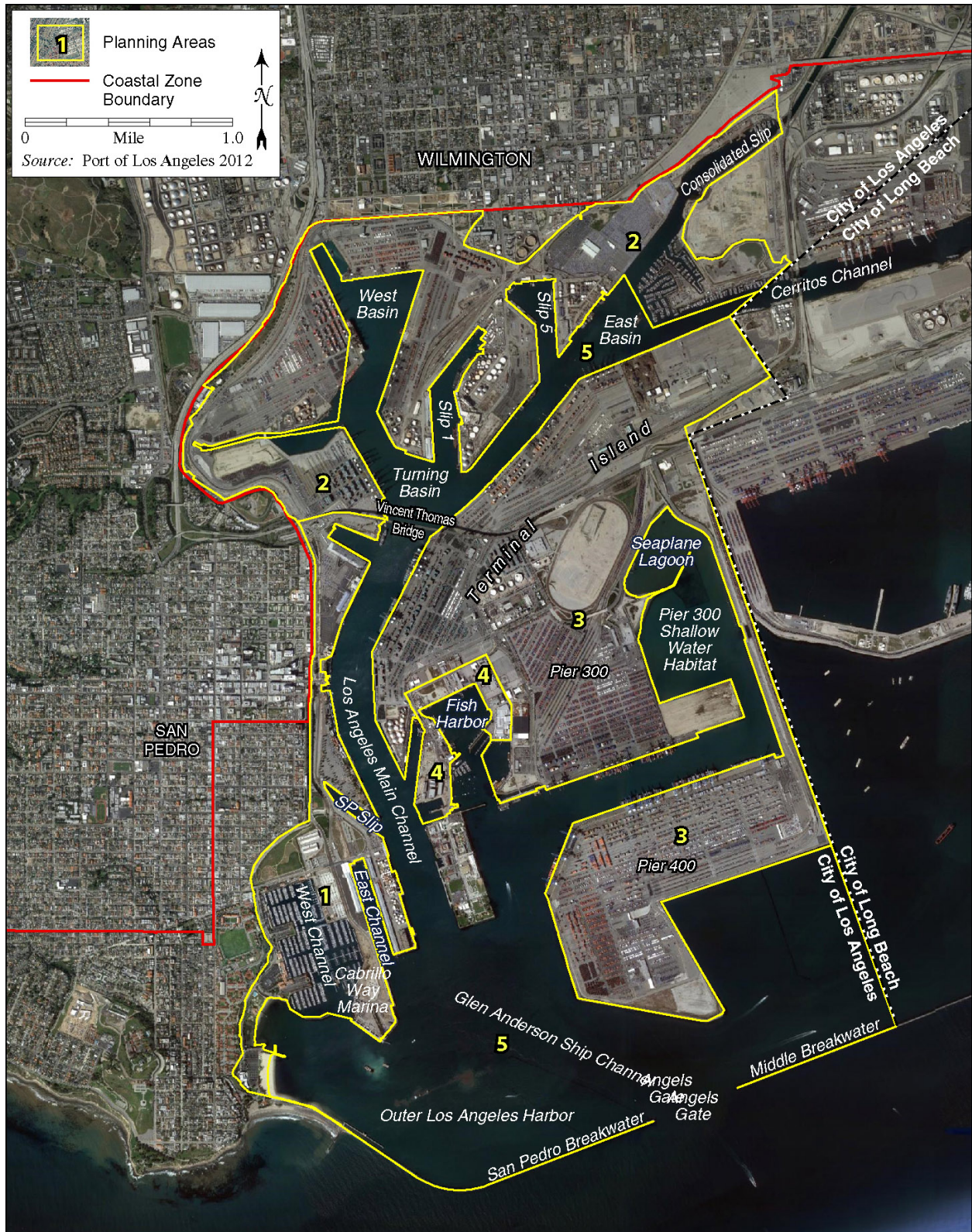


Figure 3.14-1. Major Waterways in the Port of Los Angeles

1 The two ports are at the outlet of the Dominguez Watershed (the term watershed is  
2 used to describe a geographic area of land that drains water to a shared destination, in  
3 this case the port complex and, ultimately, the Pacific Ocean), which encompasses  
4 133 square miles of largely urban and industrial land uses, as well as the waters of the  
5 port complex itself. The Dominguez Watershed extends as far north as Inglewood  
6 and includes several small cities as well as portions of the City of Los Angeles. The  
7 combined land area of the Port and the Port of Long Beach (11.6 square miles)  
8 represents less than 10 percent of the total watershed land area.

9 The oceanographic unit for the combined port complex has two major hydrologic  
10 components - marine and freshwater. The Port is marine and primarily influenced by  
11 the southern California coastal marine environment known as the Southern California  
12 Bight. The main freshwater influx into the Port is through Dominguez Channel and  
13 numerous large Los Angeles County and City of Los Angeles storm drains that  
14 discharge to the harbor. Other sources of freshwater include discharges of treated  
15 sewage from the TIWRP into the Outer Harbor and runoff from smaller storm drains  
16 located throughout the Port. The existing beneficial uses of coastal and tidal waters in  
17 the Inner Harbor, as identified in the *Water Quality Control Plan: Los Angeles Region  
18 Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin  
19 Plan) (Los Angeles RWQCB 1994), include industrial service supply, navigation,  
20 non-contact water recreation, commercial and sport fishing, preservation of rare and  
21 endangered species, and marine habitat. Beneficial uses in the Outer Harbor are  
22 navigation, water contact and non-contact recreation, commercial and sport fishing,  
23 marine habitat, and preservation of rare and endangered species.

24 Areas throughout the Port are listed as impaired waters under Section 303(d) of the  
25 CWA (2010 *Integrated Report [Clean Water Action Section 303(d) List/305(b)  
26 Report]*). These include Consolidated Slip, Cabrillo Marina, Fish Harbor, Inner  
27 Cabrillo Beach Area, Los Angeles/Long Beach Outer Harbor (inside breakwater),  
28 Los Angeles/Long Beach Inner Harbor, and Dominguez Channel Estuary, upstream  
29 from the Port (SWRCB 2010a). The reasons for the impairments are summarized in  
30 Table 3.14-1.

31 As a result of these impairment listings, the Los Angeles RWQCB and the USEPA  
32 are working together to set TMDLs for the listed pollutant/water body combinations.  
33 The TMDL process was established under the CWA as a mechanism to address water  
34 quality problems in a comprehensive manner (such as on a watershed-wide basis).  
35 The first goal of the TMDL process is to establish the maximum amount of a  
36 pollutant (for example, pounds of copper per year) that a water body can receive and  
37 still meet water quality standards. If the amount of a pollutant received by a water  
38 body exceeds this level, the agencies will establish a pollutant load reduction goal to  
39 bring the water body back into compliance and ensure that beneficial uses are not  
40 being impaired. Pollutant load reductions are accomplished through load allocations,  
41 which are apportioned among multiple sources within the watershed.

**Table 3.14-1. Section 303(d) Listed Waters and Impairments in Los Angeles Harbor**

<i>Listed Waters/Reaches</i>	<i>Impairments</i>
Los Angeles/Long Beach Outer Harbor, inside breakwater (4,042 acres)	Tissue: DDT, PCBs Sediment: Toxicity
Cabrillo Marina (77 acres)	Tissue: DDT, PCBs Sediment: Benzo(a)pyrene
Inner Cabrillo Beach (82 acres)	Water: Indicator bacteria Tissue: DDT, PCBs
Los Angeles/Long Beach Inner Harbor (3,003 acres)	Water: Beach closures (pathogens) Tissue: DDT, PCBs Sediments: Benthic community effects, toxicity, benzo(a)pyrene, chrysene, copper, zinc
Fish Harbor (91 acres)	Tissue: DDT, PCBs Sediment: Toxicity, chlordane, DDT, PCBs, PAHs, benzo[a]anthracene, benzo[a]pyrene, chrysene, dibenz[a,h]anthracene, phenanthrene, pyrene, copper, lead, mercury, zinc
Consolidated Slip (36 acres)	Tissue: Chlordane, dieldrin, DDT, PCBs, toxaphene Sediments: Benthic community effects, toxicity, chlordane, DDT, PCBs, benzo[a]anthracene, benzo[a]pyrene, chrysene, phenanthrene, pyrene, 2-methynaphthalene, cadmium, chromium, copper, lead, mercury, zinc
Dominguez Channel Estuary	Water: Ammonia, coliform bacteria Tissue: Chlordane, dieldrin, DDT, lead Sediment: Benthic community effects, benzo[a]pyrene, benzo[a]anthracene, chrysene, phenanthrene, pyrene, DDT, PCBs, zinc, sediment toxicity
Notes: PCBs = polychlorinated biphenyls; DDT = dichloro-diphenyl-trichloroethane; PAHs = polycyclic aromatic hydrocarbons. The term "tissue" typically refers to edible fish tissue. Source: SWRCB 2010a	

1 **3.14.2.2 PMPU Area**

2 **3.14.2.2.1 Water Quality**

3 Marine water quality in the Port is affected primarily by climate, circulation  
 4 (including tidal currents), biological activity, and, to some extent historical  
 5 contaminant inputs (legacy contaminants). Parameters such as salinity, pH,  
 6 temperature, and transparency/turbidity are influenced primarily by large scale  
 7 oceanographic and meteorological conditions, while DO and nutrients are related to  
 8 local processes in addition to regional conditions. Surface runoff, effluent discharges,  
 9 and historical and recent watershed inputs also affect water and sediment quality  
 10 within the Port. Results from the 2008 and previous biological baseline studies  
 11 indicated that water quality characteristics within the port complex do not exhibit  
 12 large spatial or seasonal trends (SAIC 2010).

13 The Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters  
 14 Toxic Pollutants (Harbor Toxics) TMDL (Los Angeles RWQCB and USEPA 2011)  
 15 lists 358 active NPDES permits in the Dominguez Channel and Greater Harbor

1 Waters, including 207 statewide industrial stormwater permits, 90 statewide  
2 construction stormwater permits, 24 municipal stormwater permits, and 6 individual  
3 NPDES permits for a publicly owned treatment work, refineries, and generating  
4 stations. Discharge permits typically specify maximum allowable concentrations and  
5 mass emission rates for effluent constituents. Numeric criteria for priority pollutants  
6 in discharge permits may be based on limits contained in the *California Ocean Plan*  
7 (SWCRB and CalEPA 2005) or by the California Toxics Rule (CTR). The relative  
8 contributions (i.e., loadings) to the Port from regulated point sources and unregulated  
9 non-point sources are expected to vary for individual contaminants. Specific loadings  
10 for stressors (i.e., sources of impairment) identified on the 303(d) list (Table 3.14-1)  
11 are not fully characterized, but they are expected to be addressed by future TMDL  
12 special studies.

13 At present, DO concentrations in most areas of the Port are similar to those of the  
14 nearby ocean. With the exception of copper, concentrations of dissolved metals do  
15 not exceed any regulatory criteria (copper concentrations above the CTR criteria have  
16 been reported from two locations as part of limited sampling). Dissolved organic  
17 contaminants, such as pesticides and PCBs are rarely detected in ambient water  
18 sampling and, with the exception of tributyltin, do not exceed regulatory criteria.  
19 During dry weather, bacterial indicator levels in the Port typically are non-detectable,  
20 but levels following storm events exceed water quality criteria for periods up to 96  
21 hours after the end of the event (Port and Port of Long Beach 2009). The water  
22 quality impairments on the current Section 303(d) list for the ports are based  
23 primarily on localized areas of sediment contamination and on the presence of  
24 sediment toxicity, benthic community effects, and elevated concentrations of  
25 pollutants in fish tissue, rather than the concentrations of dissolved pollutants (Port  
26 and Port of Long Beach 2009).

### 27 **3.14.2.2.2 Marine Sediments**

28 The overall quality of sediments within the port complex varies widely. While studies  
29 have shown that sediment contaminant concentrations in most of the port complex  
30 are below regulatory limits, a number of localized areas of poor sediment quality and  
31 impaired benthic communities still exist (e.g., Consolidated Slip, Long Beach West  
32 Basin, Fish Harbor, Inner Harbor slips). These hotspots are principle factors for  
33 TMDL development and are key to future TMDL implementation strategies. Much of  
34 the sediment pollution in the ports is “legacy contamination” left over from past port  
35 activities and watershed inputs (e.g., DDT contamination that originated from the  
36 Montrose site in Torrance and spread through stormwater conveyances to virtually all  
37 areas of the Port). There are still areas of sediment contamination in both ports that  
38 need some form of remediation or focused management (Port and Port of Long  
39 Beach 2009) which will be accomplished through compliance with the recently  
40 approved Harbor Toxics TMDL.

### 41 **3.14.2.2.3 Oceanography**

42 The Port and Port of Long Beach are protected from incoming waves and currents by  
43 the federal breakwater, which consists of three distinct segments. The three segments  
44 are separated by the harbor entrances (Angels Gate and Queens Gate) through which  
45 much of the water exchange between the ports and the ocean occurs. Over the past

1 80 to 100 years, development of the port complex, through dredging, filling, and  
2 channelization, has altered the harbor bathymetry. Several major capital development  
3 projects constructed during the past three decades have created new land (including  
4 Pier 400 in the Port and the southern expansion of Pier J in the Port of Long Beach)  
5 from dredged material, resulting in altered circulation patterns within the port  
6 complex.

7 Circulation patterns are established and maintained by tidal currents, although wind,  
8 thermal structure, and local topography can influence these patterns. Flood tides flow  
9 into the Port and up the channels, while ebb tides flow down the channels and out of  
10 the Port. A circulation model (WRAP Model, Port and Port of Long Beach 2009)  
11 shows that flood currents entering the Port through Angels Gate are influenced by  
12 Pier 400 and forced to circulate around the structure into the Outer Harbor and up the  
13 Los Angeles Main Channel. During ebb tides water is drawn from all areas of the  
14 Port toward the entrance gaps.

15 Wind has an important role in driving the surface currents in the open water area of  
16 the port complex. During rain events, freshwater flows from the Dominguez Channel,  
17 Los Angeles River, and San Gabriel River can alter circulation patterns in the port  
18 complex. Tidal currents are generally not strong and typically too small to cause re-  
19 suspension and transport of bottom sediments, although some re-suspension and  
20 transport of sediments can occur during rain events.

21 The mean tidal range in the Outer Harbor, calculated by averaging the difference  
22 between all high and low waters, is 3.76 feet. The mean diurnal range, calculated by  
23 averaging the difference between all the higher high water and lower low water tides,  
24 is approximately 5.6 feet (USACE and LAHD 1992). The extreme tidal range  
25 (between maximum high and maximum low water) is about 10.5 feet. The highest  
26 and lowest tides reported are 7.96 feet above mean lower low water (MLLW) and  
27 -2.56 feet below MLLW, respectively (USACE and LAHD 1992). MLLW is the  
28 mean of all lower low water, equal to 2.8 feet below MSL, and is the datum from  
29 which southern California tides are measured.

30 The Port is directly exposed to ocean swells entering from the south and southeast,  
31 regardless of swell origin. The more severe waves from extratropical storms  
32 (Hawaiian storms) enter from a southerly direction. The Channel Islands and Santa  
33 Catalina Island provide some sheltering from these larger waves, depending on the  
34 direction of approach. The other major exposure window opens to the south, allowing  
35 swells to enter from storms in the southern hemisphere. Waves and seas entering the  
36 Port are greatly diminished by the time they reach the Inner Harbor.

37 The only sources of flooding within the 100-year and 500-year flood zones would be  
38 storm surge, tsunami, or seiche (discussed in Section 3.5, Geology). Rainfall events  
39 that result in runoff volumes exceeding the capacity of the storm drains could also  
40 cause temporary, localized ponding until the runoff drains away.

### 41 **3.14.3 Applicable Regulations**

42 This section discusses the applicable regulations and policies that guide development  
43 within the PMPU area.

## 3.14.3.1 Federal Regulations

### 3.14.3.1.1 Clean Water Act

The CWA provides for the restoration and maintenance of the physical, chemical, and biological integrity of the nation's waters. The act sets up a system of water quality standards, discharge limitations, and permit requirements. The SWRCB and its RWQCB implement sections of the CWA through the Water Quality Control Plan, SUSMPs, and permits for discharges.

Section 303(d) of the CWA created the TMDL program. Section 303(d) requires that the states make a list of water bodies that are not attaining standards after the technology-based limits are put into place (the 303(d) list) and develop TMDLs for those water bodies. The USEPA reviews and approves the state's 303(d) list and TMDL submittals. A TMDL is a quantitative assessment of water quality conditions, contributing sources, and the load reductions or control actions needed to restore and protect bodies of water in order to meet their beneficial uses. It must account for all sources of the pollutants that caused the water to be listed, including point sources such as stormwater, and nonpoint sources such as agricultural runoff and aerial deposition. Section 303(d) and its implementing regulations require that approved TMDLs be incorporated into water quality control plans, such as watershed plans and regional (basin) plans, and USEPA regulations require that NPDES permits, as issued or revised, be consistent with approved TMDLs.

The Harbor Toxics TMDL was enacted into law in March 2012, with a 20-year compliance timeframe. The Harbor Toxics TMDL (Los Angeles RWQCB and USEPA 2011) provides an implementation plan to meet numeric targets for toxic pollutants in the Dominguez Channel and greater Los Angeles and Long Beach Harbor Waters. Compliance with the TMDL for metals and PAHs is based on achieving the load and waste load allocations and/or demonstrating attainment of the sediment quality objectives. Compliance with the TMDLs for bioaccumulative compounds is based on achieving the assigned loads and waste load allocations or, alternatively, by meeting fish tissue targets. Compliance requires the elimination of toxic pollutants being loaded into Dominguez Channel and the harbors, and cleanup of contaminated sediments lying at the bottom of greater Los Angeles and Long Beach Harbors. Implementation of the TMDL is envisioned as a phased process. The initial phase (Phase I) includes elements to reduce the amount of sediment transport from point sources that directly or indirectly discharge to Dominguez Channel and the port complex. Phase II will implement site-specific cleanup actions for areas identified as high-priority in Phase I. Phase II will also include implementation of additional BMPs and site remedial actions upstream and in the Port, as determined to be effective based on the success of upstream source control, TMDL monitoring data evaluations, and WRAP and Sediment Management Plan-directed activities implemented during Phase I. Phase III will implement secondary and additional remediation actions as necessary for compliance with final load allocations by the end of the implementation period.

Section 401 of the CWA requires any applicant for a federal license or permit to discharge into navigable waters (including dredging and construction or operation of facilities) to obtain a certification from the appropriate state or regional water quality

1 control board that the discharge will meet applicable water quality standards. In the  
2 Los Angeles area, the Los Angeles RWQCB issues 401 certifications.

3 Section 402 of the CWA created the system, known as NPDES, for permitting  
4 wastewater discharges ([www.epa.gov/npdes/pubs/101pape.pdf](http://www.epa.gov/npdes/pubs/101pape.pdf)). Under NPDES, all  
5 facilities that discharge pollutants from any point source into waters of the U.S. are  
6 required to obtain an NPDES permit. Permits under the NPDES program include  
7 *individual* permits tailored and issued to a specific facility, and *general* permits  
8 covering multiple facilities within a specific category and a specific geographical  
9 area. General permits are issued, for example, to stormwater sources and to groups of  
10 facilities that require the same type of monitoring (Section 3.14.3.2, State  
11 Regulations).

12 Under the authority of the CWA Section 402, the USEPA recently issued a  
13 nationwide NPDES permit, the Vessel General Permit (VGP), that regulates  
14 discharges incidental to the normal operation of vessels operating in a capacity as a  
15 means of transportation within waters of the U.S. The VGP requirements include  
16 narrative effluent discharge limits to be achieved through operational control  
17 measures and the use of best available technology; inspection, monitoring,  
18 recordkeeping, and reporting requirements; and additional requirements applicable to  
19 certain vessel types. The VGP is applicable to specific vessel types and lengths,  
20 including cruise ships, oil tankers, bulk carriers, container ships, and emergency  
21 response vessels, that operate within the ports. All recreational, military, and fishing  
22 vessels, and other vessels less than 79 feet in length, are exempt from this permit.  
23 The VGP is administered and enforced by the USEPA.

24 Section 404 of the CWA regulates dredging and dredged material disposal. The  
25 regulations are administered cooperatively by the USACE, which is the federal  
26 permitting agency, and the USEPA. Under Section 404, discharges of dredged  
27 material into waters of the U.S. require permits. To obtain a permit the applicant must  
28 demonstrate that the dredged material is suitable for discharge at a given location  
29 based on the levels of contaminants and/or response of aquatic organisms to the  
30 material.

### 31 **3.14.3.1.2 Rivers and Harbors Appropriation Act of 1899**

32 This Act, which is administered by the USACE, prohibits discharges to navigable  
33 waters and their tributaries without a permit. It exempts storm drain and sewer  
34 discharges, but includes such discharges as dredged material, fill, and substances  
35 placed on the banks of navigable waters and their tributaries that could be washed  
36 into those waters.

### 37 **3.14.3.1.3 Coastal Nonpoint Source Pollution Control Program**

38 This is a joint program of NOAA and USEPA that was established by Congress  
39 during a reauthorization of the CZMA to provide a more comprehensive solution to  
40 the problem of polluted runoff in coastal areas (NOAA and USEPA 1990). The  
41 program builds on existing coastal zone management and water quality programs by  
42 applying a consistent set of economically achievable measures to prevent and  
43 mitigate runoff pollution problems. State programs incorporate management



1 measures to address land-based sources of runoff from urban developments, marinas,  
2 hydromodification (e.g., stream channelization), and the loss of wetland and riparian  
3 areas.

#### 4 **3.14.3.1.4 Marine Protection, Research and Sanctuaries Act**

5 Ocean disposal of dredged materials is regulated under Title I of the Marine  
6 Protection, Research and Sanctuaries Act (MPRSA; 33 USC. 1401 *et seq.*). The  
7 USEPA and USACE share management responsibility for ocean disposal of dredged  
8 material. Under Section 102 of MPRSA, USEPA has the responsibility for  
9 designating an acceptable location for the ocean dredged material disposal site. With  
10 concurrence from USEPA, the USACE issues permits under MPRSA Section 103 for  
11 ocean disposal of dredged material deemed suitable according to USEPA criteria in  
12 MPRSA Section 102 and EPA regulations in Title 40 of the CFR Part 227 (40 CFR  
13 227).

#### 14 **3.14.3.1.5 Oil Pollution Control Act**

15 As set forth in 33 USC Section 2701 *et seq.*, this act requires vessel owners to report  
16 any hazardous waste spilled from a vessel. Owners are responsible for cleanup and  
17 any damages. Marinas are responsible for any oil contamination resulting from  
18 activities at their facilities including dumping or spilling oil or oil-based paint and the  
19 use of chemically treated agents. The Act is administered by the USCG.

20 **Spill, Prevention, Control, and Countermeasure (SPCC):** Oil SPCC regulations  
21 require the Port to have in-place measures that help ensure oil spills do not occur.  
22 However, if they do, there are protocols and response equipment in place to contain  
23 the spill and neutralize potential harmful impacts. For any proposed project with an  
24 in-water component, an SPCC Plan and an OSCP would be prepared for review and  
25 approval by the RWQCB or the CDFG OSPR, in consultation with other responsible  
26 agencies. The SPCC Plan and OSCP would detail and implement spill prevention and  
27 control measures.

28 **Office of Spill Prevention and Response (OSPR):** This office is both a prevention  
29 and response organization and has the CDFG's public trustee and custodial  
30 responsibilities for protecting, managing, and restoring the state's fish, wildlife, and  
31 plants (CDFG 2012a). Part of OSPR's comprehensive program is the requirement for  
32 all marine facilities and tank vessels carrying petroleum product as cargo, as well as  
33 all non-tank vessels over 300 gross tons, to have California approved oil spill  
34 contingency plans. The Marine Safety Branch is responsible for the review and  
35 approval of oil spill contingency plans submitted to OSPR and for ensuring that those  
36 vessels entering California State waters that are required to have California oil spill  
37 contingency plans have approved plans (CDFG 2012b).

### 38 **3.14.3.2 State Regulations**

#### 39 **3.14.3.2.1 Porter-Cologne Act of 1972**

40 The Porter-Cologne Water Quality Control Act (CWC Section 13000 *et seq.*), which  
41 is the principal law governing water quality regulation in California, establishes a

1 comprehensive program to protect water quality and the beneficial uses of state  
2 waters. The Act established the SWRCB and nine RWQCBs, which are charged with  
3 implementing its provisions and which have primary responsibility for protecting  
4 water quality in California. The Porter-Cologne Water Quality Control Act also  
5 implements many provisions of the federal CWA, such as the NPDES permitting  
6 program. CWA Section 401 gives the SWRCB the authority to review any proposed  
7 federally permitted or federally licensed activity that may impact water quality and to  
8 certify, condition, or deny the activity if it does not comply with state water quality  
9 standards. If the SWRCB imposes a condition on its certification, those conditions  
10 must be included in the federal permit or license.

### 11 **3.14.3.2.2 Water Quality Control Plan, Los Angeles Region** 12 **(Basin Plan)**

13 The Basin Plan (Los Angeles RWQCB 1994) is designed to preserve and enhance  
14 water quality and to protect beneficial uses of regional waters (inland surface waters,  
15 groundwater, and coastal waters such as bays and estuaries). The Basin Plan  
16 designates beneficial uses of surface water and groundwater, such as contact  
17 recreation or municipal drinking water supply. The Basin Plan also establishes water  
18 quality objectives, which are defined as “the allowable limits or levels of water  
19 quality constituents or characteristics which are established for the reasonable  
20 protection of beneficial uses of water or the prevention of nuisance within a specific  
21 area.”

22 The Basin Plan specifies water quality objectives for a number of constituents/  
23 characteristics that could be affected by the proposed Program or alternatives. These  
24 constituents include: bioaccumulation; biostimulatory substances; chemical  
25 constituents; DO; oil and grease; pesticides; pH; PCBs; suspended solids; toxicity;  
26 and, turbidity. With the exceptions of DO and pH, water quality objectives for most  
27 of these constituents are expressed as descriptive rather than numerical limits. For  
28 example, the Basin Plan defines limits for chemical contaminants in terms of  
29 bioaccumulation, chemical constituents, pesticides, PCBs, and toxicity as follows:

- 30 ■ Toxic pollutants shall not be present at levels that bioaccumulate in aquatic life to  
31 levels which are harmful to aquatic life or human health;
- 32 ■ Surface waters shall not contain concentrations of chemical constituents in  
33 amounts that adversely affect any designated beneficial use;
- 34 ■ No individual pesticide or combination of pesticides shall be present in  
35 concentrations that adversely affect beneficial uses. There shall be no increase in  
36 pesticide concentrations found in bottom sediments or aquatic life; and,
- 37 ■ All waters shall be maintained free of toxic substances in concentrations that are  
38 toxic to, or produce detrimental physiological responses in human, plant, animal,  
39 or aquatic life. There shall be no chronic toxicity in ambient waters outside  
40 mixing zones.

41 The Basin Plan also specifies water quality objectives for other constituents,  
42 including ammonia, bacteria, total chlorine residual, and radioactive substances.  
43 These are not evaluated in this PEIR because the proposed Program and its  
44 alternatives do not include any discharges or activities that would affect the water

1 quality objectives for these parameters. A basin plan amendment incorporating the  
2 Harbor Toxics TMDL was enacted into law in March 2012.

### 3 **3.14.3.2.3 State Water Resources Control Board Stormwater** 4 **Permits**

5 The SWRCB has developed a statewide General Construction Activities Stormwater  
6 Permit and a General Industrial Activities Stormwater Permit for projects that do not  
7 require an individual permit for these activities. The General Industrial Activities  
8 Stormwater Permit is a state-wide general NPDES permit issued by the SWRCB that  
9 regulates stormwater discharges associated with 10 broad categories of industrial  
10 activities. In the Los Angeles area, this permit is administered by the Los Angeles  
11 RWQCB under Order 97-03-DWQ, with oversight by USEPA. The General  
12 Industrial Activities Stormwater Permit (Water Quality Order 02-01-DWQ) requires  
13 dischargers to develop and implement a SWPPP to reduce or prevent industrial  
14 pollutants in stormwater discharges, eliminate unauthorized non-storm discharges,  
15 and conduct visual and analytical stormwater discharge monitoring to verify the  
16 effectiveness of the SWPPP.

17 The General Construction Activities Stormwater Permit is a state-wide general  
18 NPDES permit issued by the SWRCB that regulates stormwater discharges from  
19 construction projects that encompass at least 1 acre of soil disturbance, unless the  
20 discharge is in compliance with an NPDES Permit. The General Construction  
21 Activities Stormwater Permit applies to all stormwater discharges associated with  
22 construction activities, except for those on tribal lands, those in the Lake Tahoe  
23 Hydrologic Unit, and those performed by Caltrans. Under this permit, all  
24 construction activities that disturb 1 acre or more must:

- 25 ■ Prepare and implement a SWPPP that specifies BMPs to prevent all construction  
26 pollutants from contacting stormwater. The intent of the SWPPP and BMPs is to  
27 keep all products of erosion from moving offsite into receiving waters;
- 28 ■ Eliminate or reduce non-stormwater discharges to storm sewer systems and  
29 waters of the U.S.; and,
- 30 ■ Perform sampling and analytical monitoring to determine the effectiveness of  
31 BMPs in (a) preventing further impairment by sediment in storm waters  
32 discharged directly into waters listed as impaired for sediment or silt; and, (b)  
33 reducing or preventing pollutants (even if not visually detectable) in stormwater  
34 discharges from causing or contributing to exceedances of water quality  
35 objectives.

### 36 **3.14.3.2.4 Los Angeles Municipal Separate Storm Sewer** 37 **System NPDES Permit**

38 The Municipal Stormwater Permitting Program regulates stormwater discharges from  
39 municipal separate storm sewer systems (MS4s). The Los Angeles RWQCB, with  
40 oversight by USEPA, administers the MS4 permitting program in the Los Angeles  
41 area (USEPA 2012a). The MS4 permits require the municipal discharger (typically, a  
42 city or county) to develop and implement a Stormwater Management Plan/Program  
43 with the goal of reducing the discharge of pollutants to the maximum extent

1 practicable, the performance standard specified in Section 402(p) of the CWA. The  
2 programs specify what BMPs will be used to address certain program areas, which  
3 include public education and outreach; illicit discharge detection and elimination;  
4 construction and post-construction; and, good housekeeping for municipal  
5 operations. MS4 permits also generally include a monitoring program.

### 6 **3.14.3.2.5 California Toxics Rule**

7 The CTR establishes numeric criteria for priority toxic pollutants in inland waters as  
8 well as enclosed bays and estuaries to protect ambient aquatic life (23 priority toxics)  
9 and human health (57 priority toxics). The CTR also includes provisions for  
10 compliance schedules to be issued for new or revised NPDES permit limits when  
11 certain conditions are met. The numeric criteria are the same as those recommended  
12 by the USEPA in its CWA Section 304(a) guidance (USEPA 2012b).

### 13 **3.14.3.2.6 California Bay Protection and Toxics Cleanup 14 Program**

15 The California Bay Protection and Toxic Cleanup Act requires the SWRCB to  
16 develop sediment quality objectives for toxic pollutants to protect the state's enclosed  
17 bays and estuaries. The SWRCB has been developing sediment quality objectives  
18 based on a "multiple lines of evidence" approach utilizing information on sediment  
19 chemistry, toxicity and benthic health. The SWRCB is proposing to amend the *Water  
20 Quality Control Plan for Enclosed Bays and Estuaries - Part 1 Sediment Quality*.  
21 The proposed amendments will only apply to surficial sediments within enclosed  
22 bays and estuaries of California (SWRCB 2009).

## 23 **3.14.3.3 Local Plans**

### 24 **3.14.3.3.1 Water Resources Action Plan**

25 The WRAP was developed jointly by the Port and the Port of Long Beach to address  
26 water and sediment quality issues of mutual concern. The WRAP (Port and Port of  
27 Long Beach 2009) has two main driving forces: 1) the ports' need to achieve their  
28 broad mission to protect and improve water and sediment quality; and, 2) the  
29 promulgation of TMDLs for port waters and the associated CWA permits (Section  
30 1.7.2.4.2, Water Quality). The purpose of the WRAP is to provide the framework and  
31 mechanisms for the ports to achieve the goals and targets established in TMDLs  
32 affecting the port complex, and to comply with the Industrial Activities, Construction  
33 Activities, and Municipal permits issued to the ports and their respective cities and  
34 tenants through the NPDES program. Four basic types of sources are addressed by the  
35 WRAP control measures: land use discharges; on-water discharges; sediments; and  
36 watershed discharges. Control measures for land use and water use are summarized in  
37 Table 3.14-2. The control measures address sources, rather than specific pollutants  
38 since a given measure is likely to be effective for more than one pollutant. Control  
39 measures developed in the WRAP do not identify numerical goals for pollution  
40 reduction, nor do they set compliance standards. Rather, the WRAP provides a  
41 roadmap for the Port and Port of Long Beach to comply with existing regulations.

**Table 3.14-2. WRAP Control Measures**

<i>Control Measure</i>	<i>Description</i>
<i>Landside Sources</i>	
<b>LU-1:</b> Enhance housekeeping BMPs in maintenance and fueling areas, general cargo handling areas, certain dry bulk cargo handling areas, automobile dismantling and boat repair facilities, oil production facilities, and building maintenance and landscaping areas.	Increase the scope of housekeeping BMP application, and improve and add BMPs; apply BMPs already in use more uniformly to facilities port-wide, and institute new BMPs as needed. Review individual facility SWPPPs and recent inspection/audit and annual reports in the normal course of program management to identify needed improvements in terms of existing and new housekeeping BMPs.
<b>LU-2:</b> Develop a Port-wide guidance manual for design of new and redeveloped facilities, including design criteria and operational BMPs.	Develop a guidance manual, in coordination with agencies and city departments, to ensure that port-specific conditions are reflected in SUSMP design guidance for measures instituted on port property.
<b>LU-3:</b> Evaluate the need for structural BMPs for key discharges and targeted pollutants at existing facilities and install where necessary to ensure compliance.	Where LU-1 proves inadequate in high-risk areas, evaluate the need for new or additional structural BMPs (e.g., berms, separators, containment, valves, in-line hydrodynamic treatment units, diversion to sewer, stormwater recycling, and drain capping), and install those deemed necessary and appropriate.
<b>LU-4:</b> Continue and expand upon existing stormwater/dust control programs for vacant/undeveloped property.	Inventory vacant and undeveloped areas within both ports to determine areas of highest priority for runoff and pollutant control measures. For those areas deemed highest priority, install temporary measures pending long-term solutions.
<b>LU-5:</b> Enhance and expand litter control programs and implement relevant elements of those programs in specific sources.	Review all facilities to determine where the scope of existing litter-related housekeeping and structural BMP application needs to be increased and where additional BMPs (e.g., fences, stormceptors, public education, enforcement, new equipment) are necessary.
<b>LU-6:</b> Enhance and expand street and public parking area sweeping/ cleaning programs.	Evaluate sweeping/cleaning activities and inspect all sites to assess debris levels and problem areas (e.g., dry bulk and recycled metals terminals access streets, truck queuing lanes, parking lots at restaurants and fishing piers). Evaluate existing street sweeping and cleaning equipment. Revise sweeping/cleaning schedules and equipment as needed.
<b>LU-7:</b> Evaluate existing construction permit compliance procedures and enhance as necessary.	Evaluate recent inspection reports and reporting protocols, review upcoming revisions to the General Construction Permit, and formulate the necessary program enhancements (e.g., revised permit structure, inspection frequency, and construction specifications).
<b>LU-8:</b> Evaluate Port-owned properties outside the harbor districts and ensure permit compliance as necessary.	Develop a management program that includes procedures for ensuring that remote site facilities found to be deficient in their compliance work with their local agencies to achieve compliance.
<i>On-Water Sources</i>	
<b>OW-1:</b> Develop guidance manual for on-water activities (e.g., allowable and prohibited vessel maintenance activities and discharges).	Develop manuals that will be distributed to vessel operators (including cargo vessels, harbor craft, and recreational vessels) as guidance for allowable and prohibited on-water activities.
<b>OW-2:</b> Develop Port policy and standards for maintenance, in-kind replacement, and eventual phasing out of exposed treated pilings from in-water applications.	Develop plans for phasing out exposed treated pilings by establishing BMPs for current piling management practices (wrapping, storage, installation, and disposal) and identifying feasible alternatives to the use of treated wood pilings.

**Table 3.14-2. WRAP Control Measures**

<i>Control Measure</i>	<i>Description</i>
<b>OW-3:</b> Develop BMPs and Port standards for zinc-based cathodic protection of port structures and vessels.	Identify the feasibility of alternative anti-corrosion technology (e.g., other metals or induced-current systems) and develop guidance for applying those alternatives to port practices.
<i>Sediments</i>	
<b>S-1:</b> Develop sediment management policy/guidance establishing priorities for removal, disposal, and management of sediments with a clear decision-making framework.	Develop sediment management policy and guidance that will apply the Contaminated Sediment Task Force (CSTF) Long-Term Management Strategy to the Port situation. Policy will include identification of data gaps and priority areas, and short-term and long-term management strategies for future projects.
<b>S-2:</b> Develop a sediment management policy establishing priorities for the management of areas of legacy contaminated sediments and hotspots.	Complete remediation of IR Site 7, continue participation in Consolidated Slip Restoration Task Force. Work with regulatory agencies and stakeholders to develop scientifically-based TMDLs; develop implementation plan to manage hotspots and comply with TMDLs. Any remedial process will ultimately be driven by the regulatory agencies and may include other responsible parties.
<i>Watershed</i>	
<b>WS-1:</b> Employ all available means to support efforts to reduce upstream pollutant loadings that adversely affect harbor water and sediment quality.	Participate in local and regional efforts to characterize pollutant inputs to the ports from outside sources; participate in watershed planning efforts; encourage the Los Angeles RWQCB and USEPA to use their authority to address upstream discharges.

## 3.14.4 Impacts and Mitigation Measures

### 3.14.4.1 Methodology

Potential impacts to water quality, sediments, and oceanography as a result of the proposed Program are assessed through a comparison of literature data (including applicable water quality criteria) and results from past projects in the Port, to estimated discharges and other consequences of the proposed Program using scientific expertise of the preparers. For oceanographic resources, potential impacts are assessed using results from previous modeling studies for the Port, the program description (Chapter 2.0, Program Description), and preparer expertise. Potential impacts to groundwater quality are addressed in Section 3.6, Groundwater and Soils, and the effects of flooding impacts associated with the proposed Program are evaluated in Section 3.5, Geology.

### 3.14.4.2 Thresholds of Significance

The *L.A. CEQA Thresholds Guide* (City of Los Angeles 2006) is the basis for the following significance criteria and for evaluating the significance of impacts on water quality, sediments, and oceanography resulting from the proposed Program. Water quality, sediments, and oceanography impacts would be significant under the following conditions.

**WQ-1:** Water quality degradation is considered a significant impact if the proposed Program causes a violation of any water quality standard or waste

1 discharge requirement (WDR), or creates a condition of pollution,  
2 contamination or nuisance as defined in CWC Section 13050.

3 **“Pollution”** means an alteration of the quality of the waters of the state to a degree  
4 that unreasonably affects either of the following: (1) the waters for beneficial uses;  
5 or, (2) facilities that serve these beneficial uses. “Pollution” may include  
6 “Contamination.”

7 **“Contamination”** means an impairment of the quality of the waters of the state by  
8 waste to a degree that creates a hazard to the public health through poisoning or  
9 through the spread of disease. “Contamination” includes any equivalent effect  
10 resulting from the disposal of waste, whether or not waters of the state are affected.

11 **“Nuisance”** means anything that meets all of the following requirements: 1) is  
12 injurious to health, or is indecent or offensive to the senses, or an obstruction to the  
13 free use of property, so as to interfere with the comfortable enjoyment of life or  
14 property; 2) affects at the same time an entire community or neighborhood, or any  
15 considerable number of persons, although the extent of the annoyance or damage  
16 inflicted upon individuals may be unequal; and, 3) occurs during, or as a result of, the  
17 treatment or disposal of wastes.

18 **WQ-2:** Placement of fill is considered a significant impact if the proposed Program  
19 substantially reduces or increases the amount of surface water in a water body.

20 **WQ-3:** Placement of fill is considered a significant impact if it causes permanent  
21 adverse changes to the movement of surface water sufficient to produce a  
22 substantial change in the current or direction of water flow.

23 **WQ-4:** Water quality degradation is considered significant if the proposed  
24 Program accelerates natural processes of wind and water erosion and  
25 sedimentation, resulting in sediment runoff or deposition which would not  
26 be contained or controlled onsite.

### 27 **3.14.4.3 Impacts and Mitigation**

28 Construction of the proposed appealable/fill projects would require permits and  
29 would be governed by WDRs. Assessments of the potential for the proposed  
30 appealable/fill projects to have adverse impacts on water and sediment quality  
31 include the assumptions, based on regulatory controls, that the project would require  
32 the following:

- 33 ■ A Section 404 (of the CWA) permit from the USACE for in-water construction  
34 activities;
- 35 ■ A Section 401 (of the CWA) Water Quality Certification from the Los Angeles  
36 RWQCB for in-water construction activities that contains conditions including  
37 standard WDRs;
- 38 ■ An individual NPDES permit for stormwater discharges or coverage under the  
39 General Construction Activities Storm Water Permit. This permit will include  
40 preparation of a project-specific SWPPP with BMPs to prevent runoff of  
41 pollutants to harbor waters (SWRCB 2010b);

- 1 ■ A Debris Management Plan and SPCC Plan that would be prepared and  
2 implemented prior to the start of construction activities;
- 3 ■ Vessel operators would comply with federal and state regulations governing  
4 discharges to state waters (Port of Long Beach and Port 2012), the VGP, and the  
5 Port Tariff No. 4 (Table 4 in Port of Long Beach and Port 2012 that identifies the  
6 rules related to discharges that are allowed and prohibited by the Port tariff);
- 7 ■ The tenant would obtain and implement the appropriate stormwater discharge  
8 permits for operation of the sites;
- 9 ■ The tenant would comply with Port Marine Oil Terminal lease conditions, which  
10 include provisions for the inspection, control, and cleanup of leaks from  
11 aboveground tank and pipeline sources; and,
- 12 ■ Land-use source control measures (e.g., housekeeping and structural BMPs, if  
13 needed) identified through the stormwater permits, WRAP, and Tenant Outreach  
14 Program would be implemented as appropriate.

15 Other assumptions are included in the impact analysis below where applicable.

16 **Impact WQ-1: The proposed Program would not cause violations**  
17 **of any water quality standard or waste discharge requirement, or**  
18 **create a condition of pollution, contamination or nuisance as**  
19 **defined in California Water Code §13050.**

## 20 **Planning Area 2**

### 21 *Construction*

22 Two of the proposed appealable/fill projects and associated land use changes (Yang  
23 Ming Terminal Redevelopment and China Shipping Fill) in Planning Area 2 entail  
24 cut and fill components that would require in-water construction. The Berths 187-189  
25 Liquid Bulk Relocation Project would involve in-water construction to make the  
26 wharf at Berths 191-194 MOTEMS compliant. None of the proposed appealable/fill  
27 projects, as currently defined (Section 2.5.3.3.2, Appealable/Fill Projects), would  
28 require dredging or dredged material disposal. Instead, it is expected that cut projects  
29 would involve excavation behind temporary bulkheads. Nevertheless, in-water  
30 construction activities would have the potential for degrading water or sediment  
31 quality in the Port or violating water quality standards.

32 Proposed appealable/fill projects that remove, replace, or install sheet pile bulkheads  
33 likely would disturb bottom sediments within the immediate project vicinity.  
34 Resuspension of bottom sediment into the water column would, in turn, result in  
35 impacts to water quality, such as increased turbidity and suspended particle and trace  
36 contaminant concentrations, and decreases in DO concentrations. For example,  
37 removal of sheet pile bulkheads would disturb bottom sediment through movement  
38 and vibration as the sheet pile is pulled out. Similarly, during placement of sheet pile  
39 bulkheads and pilings, vibration from pile driving equipment used to install sheet  
40 piles into the bottom would disturb and resuspend sediments. The magnitude of  
41 changes to water quality would depend, in part, on the specific construction methods  
42 employed and the physical and chemical characteristics of bottom sediments at the  
43 project site, but would be temporary in nature, lasting only as long as the construction



1 activities. Typically, WDRs and USACE permits require monitoring and control  
2 measures, including modification or suspension of activities if excessive turbidity is  
3 observed and, in certain cases, the use of silt curtains.

4 Sediments in some areas of the Port contain elevated contaminant concentrations  
5 which, if released from resuspended sediments, could affect water quality (USACE  
6 2008). However, effects to water quality typically are localized and short-term  
7 because sediments suspended by construction activities settle to the bottom within  
8 periods of minutes to hours, depending on the particle size and settling rate and  
9 mixing and dispersion by local currents (USACE and LAHD 1992; Contaminated  
10 Sediment Task Force [CSTF] 2005). Fill placement is subject to the USACE's 404  
11 permit program and requires a Section 401 Water Quality Certification from the Los  
12 Angeles RWQCB. A 401 Water Quality Certification is an agreement that a proposed  
13 discharge of fill would not violate state water quality standards (CSTF 2005).

14 The water quality certification also would specify receiving water monitoring  
15 requirements, which typically include measurements of water quality parameters  
16 such as DO, turbidity, pH, and suspended solids at varying distances from the  
17 dredging operations. Analyses of contaminant concentrations (metals, DDT, PCBs,  
18 and PAHs) in waters near the in-water construction operations may also be required  
19 if the contaminant concentrations in the Port sediments are elevated and represent a  
20 potential risk to beneficial uses. Monitoring data are used by the construction  
21 contractor to demonstrate that water quality limits specified in the permit are not  
22 exceeded.

23 In developing control measures for sediment management, LAHD considers options  
24 available based on guidance contained in the Los Angeles Region CSTF Strategy  
25 (CSTF 2005). This guidance includes the following key principles:

- 26 ■ Interagency coordination in planning efforts, including an open public process;
- 27 ■ Use of various best management practices for dredging, particularly of  
28 contaminated sediments;
- 29 ■ Beneficial re-use of sediments where possible; and,
- 30 ■ Employment of a hierarchy of disposal methods in the planning process.

31 WRAP sediment control measures S-1 and S-2 also address sediment management  
32 policy/guidance by establishing priorities for removal, disposal, and management of  
33 sediments with a clear decision-making framework, and a sediment management  
34 policy establishing priorities for the management of areas of legacy contaminated  
35 sediments and hotspots, respectively (Table 3.14-2).

36 In general, construction activities in the upland portions of the proposed  
37 appealable/fill projects would have the potential to have adverse impacts on Port  
38 water quality if the construction site is not appropriately managed for erosion, dust,  
39 runoff, and spills/leaks. These sources are addressed under Impact WQ-4.  
40 Construction activities associated with the proposed appealable/fill projects would  
41 require an individual NPDES permit for storm water discharges or coverage under  
42 the General Construction Activities Storm Water Permit. Preparation and  
43 implementation of a construction SWPPP would be required prior to the start of any

1 construction activities, and construction contractors would be required to implement  
2 BMPs to prevent/contain releases of soils and contaminants.

3 Accidents resulting in spills of fuel, lubricants, or hydraulic fluid from equipment  
4 used during construction of the proposed appealable/fill projects could result in  
5 releases of contaminants to Port waters. Based on past history for this type of work,  
6 accidental leaks and spills of large volumes of hazardous materials or wastes  
7 containing contaminants during onshore construction activities have a very low  
8 probability of occurring because large volumes of these materials typically are not  
9 used or stored at construction sites. Spills associated with construction equipment,  
10 such as oil/fluid drips or gasoline/diesel spills during fueling, typically involve small  
11 volumes that can be effectively contained within the work area and cleaned up  
12 immediately (Port of Los Angeles Spill Prevention and Control procedures [CA012]).  
13 Construction and industrial SWPPPs and standard Port BMPs (e.g., use of drip pans,  
14 contained refueling areas, regular inspections of equipment and vehicles, and  
15 immediate repairs of leaks) reduce the potential for materials from onshore  
16 construction activities to be transported off site and enter storm drains or the harbor.

17 The BMPs and other construction controls that would be employed, as described  
18 above, in compliance with the relevant permits would minimize the likelihood and  
19 severity of contaminant inputs to Port waters. Any such discharges are expected to be  
20 small and result in temporary, localized impacts to water quality that would not  
21 violate water quality standards or adversely affect the beneficial uses of waters of the  
22 Port.

### 23 *Operations*

24 Operation of the proposed appealable/fill projects (Yang Ming Terminal  
25 Redevelopment and China Shipping Fill) and activities associated with the proposed  
26 land use changes (e.g., converting vacant land on Mormon Island to liquid bulk and  
27 replacing an existing liquid bulk facility [Kinder Morgan] with container cargo uses)  
28 in Planning Area 2 are not expected to involve discharges of wastewaters other than  
29 stormwater runoff. The exception is that areas converted from liquid bulk to unpaved  
30 open space uses, such as the Berth 187-189 Liquid Bulk Relocation Project site,  
31 would provide increased potential for infiltration of runoff, resulting in somewhat  
32 lower runoff volumes. Similarly, the Berths 187-189 Liquid Bulk Relocation Project  
33 and associated land use change would not involve discharges of wastewaters other  
34 than stormwater runoff.

35 Stormwater runoff from proposed appealable/fill projects would be collected by the  
36 storm drain system and discharged to the harbor in quantities and at locations similar  
37 to existing conditions. The volume of stormwater discharged from the proposed  
38 appealable/fill projects in Planning Area 2 is expected to be comparable to existing  
39 discharge volumes. Similarly, the proposed appealable/fill projects and land use  
40 changes would not involve intensification of commercial/industrial activities.

41 Further, implementation of these appealable/fill projects would include structural  
42 (e.g., SUSMP requirements) and procedural (housekeeping) BMPs that are not part  
43 of the current baseline. Thus, compared to baseline conditions, implementation of the  
44 proposed appealable/fill projects and land use changes would likely result in a  
45 reduction of pollutant concentrations that are commonly present in stormwater runoff  
46 from industrialized portions of the PMPU area. In addition, the facilities associated

1 with the proposed appealable/fill projects would be operated in accordance with one  
2 or more industrial SWPPPs that would contain monitoring requirements to ensure  
3 that stormwater quality complies with permit conditions.

4 Future increases in ship calls associated with the proposed appealable/fill projects  
5 and/or land use changes would increase risks of accidental spills and illegal  
6 discharges into the harbor, with corresponding increases in potentials for impacts to  
7 water and sediment quality. Vessels calling at the Port would be subject to the  
8 requirements of various federal and state regulations governing discharges to state  
9 waters, the VGP, and the Port Tariff No. 4 (Port of Long Beach and Port 2012).  
10 These regulations prohibit most discharges in coastal waters, such as oily bilge water,  
11 sewage, and various other wastes, and restrict the types of maintenance activities that  
12 can be performed in bays and harbors LAHD and the Port of Long Beach have a  
13 long-established spill response system, overseen by the USCG and the CDFG's  
14 OSPR. Under this program, vessels are required to maintain oil spill contingency  
15 plans and have the financial resources to support a spill response. The USCG  
16 conducts regular inspections of vessels to ensure seaworthiness and verify that  
17 appropriate pollution control mechanisms are in place.

18 Vessel traffic also represents one of several potential input sources of contaminants to  
19 the Port through discharges incidental to vessel operation and maintenance. Potential  
20 sources include in-water maintenance activities, deck wash-down, and leachate from  
21 vessel hull anti-fouling paints. Increases in vessel traffic could potentially contribute  
22 to higher mass loadings of contaminants. Through the NPDES program, most vessel  
23 discharges are now regulated under the Vessel General Permit. Copper is the most  
24 common active ingredient in anti-fouling paints. Other sources of copper to the  
25 watershed include atmospheric deposition and stormwater runoff. While vessel traffic  
26 is one of several ongoing and historical input sources of contaminants to the port  
27 complex watershed, portions of the Port are impaired with respect to copper. Thus,  
28 increased loadings associated with increases in vessel traffic compared to baseline  
29 conditions could worsen water and sediment quality conditions for copper.

30 Atmospheric deposition related to Port operational emissions may provide an  
31 increased localized impact to the local watersheds. These impacts are primarily  
32 related to resuspended dust from vehicular traffic and coarse-sized, mechanically-  
33 derived particles, such as zinc from tire wear and copper from brake pad wear. Fine  
34 particulates from vehicle exhaust may also contribute to the local watersheds to a  
35 lesser degree. However, the contribution of particulates from area-wide and regional  
36 transportation sources likely dominate the metal-containing particulate matter that  
37 enters the municipal storm drain systems and far outweighs the Port's contribution.  
38 Furthermore, mixing with Port receiving waters dilutes the pollutants so that the  
39 receiving water standards are not expected to be violated.

40 These watershed contaminant input sources were evaluated, and waste load  
41 allocations for the primary sources were assigned, as part of the Harbor Toxics  
42 TMDL (Los Angeles RWQCB and USEPA 2011). Compliance with the Harbor  
43 Toxics TMDL and the VGP is expected to reduce contaminant loading to harbor  
44 waters and sediments.

## 1                   **Planning Area 3**

### 2                   **Construction**

3                   The Berth 300 Development Project in Planning Area 3 would construct an 18-acre  
4                   fill and a new wharf, but it would not require dredging or dredged material disposal.  
5                   The land use option to convert Berth 301 from maritime support to liquid bulk would  
6                   require upgrades to make the wharf MOTEMS compliant. The conversion of land at  
7                   Pier 400 from container use to maritime support could result in the construction of a  
8                   wharf. As discussed above for Planning Area 2, in-water construction activities  
9                   associated with these projects would involve removal, replacement, or installation of  
10                  sheet pile bulkheads and pilings likely would disturb bottom sediments within the  
11                  immediate project vicinity. Resuspension of bottom sediments into the water column  
12                  would, in turn, result in impacts to water quality, such as increased turbidity and  
13                  suspended particle and trace contaminant concentrations, and decreases in DO  
14                  concentrations. The magnitude of changes to water quality would depend, in part, on  
15                  the specific construction methods employed and the physical and chemical  
16                  characteristics of bottom sediments at the project site, but effects would be  
17                  temporary, lasting only as long as the construction activities. Typically, WDRs and  
18                  USACE permits require monitoring and control measures, including modification or  
19                  suspension of activities if excessive turbidity is observed and use of silt curtains.

20                 Construction activities in the upland portions of the Berth 300 Development Project  
21                 and other land use changes in Planning Area 3 (e.g., converting vacant land to  
22                 maritime support, converting the break bulk and vacant area at Berths 206-209 and  
23                 210-211 to mixed use [i.e., container, dry bulk, and/or break bulk], replacing the  
24                 existing liquid bulk facility north of the TIWRP with container cargo uses, converting  
25                 vacant land, commercial fishing, and industrial areas near Fish Harbor to container  
26                 cargo uses, converting Berth 301 from maritime support to liquid bulk or container  
27                 cargo uses, and conversion of land at Pier 400 from container use to maritime  
28                 support) have the potential for adverse impacts on Port water quality if the  
29                 construction site is not appropriately managed for erosion, dust, runoff, and  
30                 spills/leaks. These sources are addressed under Impact WQ-4. Construction activities  
31                 would require an individual NPDES permit for storm water discharges or coverage  
32                 under the General Construction Activities Storm Water Permit. Preparation and  
33                 implementation of a construction SWPPP would be required prior to start of any  
34                 construction activities, and construction contractors would be required to implement  
35                 BMPs to prevent/contain releases of soils and contaminants.

36                 Accidents resulting in spills of fuel, lubricants, or hydraulic fluid from equipment  
37                 used during construction of the Berth 300 Development Project and construction  
38                 associated with land use changes could result in releases of contaminants to Port  
39                 waters. Based on past history for this type of work, accidental leaks and spills of  
40                 large volumes of hazardous materials or wastes containing contaminants during  
41                 onshore construction activities have a very low probability of occurring because large  
42                 volumes of these materials typically are not used or stored at construction sites.  
43                 Standard Port BMPs reduce the potential for materials from onshore construction  
44                 activities to be transported offsite and enter storm drains or the harbor, thus  
45                 minimizing the likelihood and severity of contaminant inputs to Port waters. Any  
46                 such discharges are expected to be small and result in temporary, localized impacts to

1 water quality that would not violate water quality standards or adversely affect  
2 beneficial uses of Port waters.

### 3 *Operations*

4 Operation of the Berth 300 Development Project and other land use changes in  
5 Planning Area 3 noted above are not expected to involve discharges of wastewaters  
6 other than stormwater runoff. The Berth 300 Development Project would collect  
7 stormwater runoff by the storm drain system and discharge it to the harbor in  
8 quantities and at locations similar to existing conditions. The volume of stormwater  
9 discharged from Berth 300 Development Project in Planning Area 3 is expected to be  
10 comparable to existing discharge volumes, with the exception of minor increases  
11 related to runoff from the 18-acre fill at Berth 300. Similarly, contaminant loading of  
12 stormwater runoff would be similar to or less than existing conditions because the  
13 proposed appealable/fill project and land use changes would not involve  
14 intensification of commercial/industrial activities. Regardless, implementation of the  
15 Berth 300 Development Project would include structural and procedural  
16 (housekeeping) BMPs that are not part of the current baseline. Thus, compared to  
17 baseline conditions, implementation of the proposed appealable/fill project and land  
18 use changes likely would result in a reduction of pollutant concentrations that are  
19 commonly present in stormwater runoff from industrialized portions of the PMPU  
20 area. In addition, the facilities associated with Berth 300 Development Project would  
21 be operated in accordance with one or more industrial SWPPPs that would contain  
22 monitoring requirements to ensure that stormwater quality complies with permit  
23 conditions.

24 Future increases in ship calls associated with the Berth 300 Development Project  
25 and/or land use changes could also result in higher mass loadings of contaminants  
26 through discharges incidental to vessel operation and maintenance. Vessels calling at  
27 the Port would be subject to the requirements of various federal and state regulations  
28 governing discharges to state waters, the VGP, and the Port Tariff No. 4 (Port of  
29 Long Beach and Port 2012). Through the NPDES program, most vessel discharges  
30 are now regulated under the VGP. Future increases in vessel traffic also would  
31 increase risks of accidental spills and illegal discharges into the port complex, with  
32 corresponding increases in potentials for impacts to water and sediment quality. In  
33 accordance with LAHD's spill response system, vessels are required to maintain oil  
34 spill contingency plans and have the financial resources to support a spill response.  
35 The USCG conducts regular inspections of vessels to ensure seaworthiness and verify  
36 that appropriate pollution control mechanisms are in place.

37 Vessel traffic also represents one of several potential input sources of contaminants to  
38 the Port through discharges incidental to vessel operation and maintenance. Potential  
39 sources include in-water maintenance activities, deck wash-down, and leachate from  
40 vessel hull anti-fouling paints. Increases in vessel traffic could potentially contribute  
41 to higher mass loadings of contaminants. Through the NPDES program, most vessel  
42 discharges are now regulated under the Vessel General Permit. Copper is the most  
43 common active ingredient in anti-fouling paints. Other sources of copper to the  
44 watershed include atmospheric deposition and stormwater runoff. While vessel traffic  
45 is one of several ongoing and historical input sources of contaminants to the port  
46 complex watershed, portions of the Port are impaired with respect to copper. Thus,

1 increased loadings associated with increases in vessel traffic compared to baseline  
2 conditions could worsen water and sediment quality conditions for copper.

3 Atmospheric deposition related to Port operational emissions may provide an  
4 increased localized impact to the local watersheds. These impacts are primarily  
5 related to resuspended dust from vehicular traffic and coarse-sized, mechanically-  
6 derived particles, such as zinc from tire wear and copper from brake pad wear. Fine  
7 particulates from vehicle exhaust may also contribute to the local watersheds to a  
8 lesser degree. However, the contribution of particulates from area-wide and regional  
9 transportation sources likely dominate the metal-containing particulate matter that  
10 enters the municipal storm drain systems and far outweighs the Port's contribution.  
11 Furthermore, mixing with Port receiving waters dilutes the pollutants so that the  
12 receiving water standards are not expected to be violated.

13 These watershed contaminant input sources were evaluated, and waste load  
14 allocations for the primary sources were assigned, as part of the Harbor Toxics  
15 TMDL (Los Angeles RWQCB and USEPA 2011). Compliance with the Harbor  
16 Toxics TMDL and the VGP is expected to reduce contaminant loading to harbor  
17 waters and sediments.

## 18 **Planning Area 4**

### 19 *Construction*

20 Of the three proposed appealable/fill projects in Planning Area 4 (Tri Marine  
21 Expansion, 338 Cannery Street Adaptive Reuse, and Al Larson Marina) only the Al  
22 Larson Marina Project would involve in-water construction, consisting primarily of  
23 removal of marina slips. None of the proposed appealable/fill projects would involve  
24 dredging or dredged material disposal.

25 Removal of pilings or other in-water marina structures by the Al Larson Marina  
26 project likely would disturb bottom sediments within the immediate project vicinity.  
27 Resuspension of bottom sediments into the water column would, in turn, result in  
28 impacts to water quality, such as increased turbidity and suspended particle and trace  
29 contaminant concentrations, and decreases in DO concentrations. The magnitude of  
30 changes to water quality would depend, in part, on the specific construction methods  
31 employed and the physical and chemical characteristics of bottom sediments at the  
32 project site, but the effects would be temporary in nature, lasting only as long as the  
33 construction activities. Typically, WDRs and USACE permits require monitoring and  
34 control measures, including modification or suspension of activities and/or the use of  
35 silt curtains if excessive turbidity is observed.

36 Construction activities in the upland portions of the proposed appealable/fill projects  
37 and/or construction activities associated with land use changes have the potential to  
38 have adverse impacts on Port water quality if the construction site is not  
39 appropriately managed for erosion, dust, runoff, and spills/leaks. These sources are  
40 addressed under Impact WQ-4. Construction activities would require an individual  
41 NPDES permit for storm water discharges or coverage under the General  
42 Construction Activities Storm Water Permit. Preparation and implementation of a  
43 construction SWPPP would be required prior to start of any construction activities,

1 and construction contractors would be required to implement BMPs to  
2 prevent/contain releases of soils and contaminants.

3 Accidents resulting in spills of fuel, lubricants, or hydraulic fluid from equipment  
4 used during in-water construction associated with the Al Larson Marina Project could  
5 result in releases of contaminants to Port waters. Based on past history for this type  
6 of work, accidental leaks and spills of large volumes of hazardous materials or wastes  
7 containing contaminants during onshore construction activities have a very low  
8 probability of occurring because large volumes of these materials typically are not  
9 used or stored at construction sites. Standard Port BMPs reduce the potential for  
10 materials from onshore construction activities to be transported offsite and enter  
11 storm drains or the harbor, thus minimizing the likelihood and severity of  
12 contaminant inputs to Port waters. Any such discharges are expected to be small and  
13 result in temporary, localized impacts to water quality that would not violate water  
14 quality standards or adversely affect beneficial uses of waters of the Port.

### 15 *Operations*

16 Operations of the Tri Marine Expansion, 338 Cannery Street Adaptive Reuse, and Al  
17 Larson Marina projects and other land use changes in Planning Area 4 are not  
18 expected to involve discharges of wastewaters other than stormwater runoff. The  
19 proposed appealable/fill projects would collect stormwater runoff by the storm drain  
20 system and discharge it to the harbor in quantities and at locations similar to existing  
21 conditions. The volume of stormwater discharged from Tri Marine Expansion, 338  
22 Cannery Street Adaptive Reuse, and Al Larson Marina projects in Planning Area 4 is  
23 expected to be comparable to existing discharge volumes. Similarly, contaminant  
24 loading of stormwater runoff would be similar to or less than existing conditions  
25 because the proposed appealable/fill projects and land use changes generally would  
26 not involve intensification of commercial/industrial activities, with the exception of  
27 replacing commercial fishing with container uses at Fish Harbor. Regardless,  
28 implementation of the proposed appealable/fill projects would include structural and  
29 procedural (housekeeping) BMPs that are not part of the current baseline. Thus,  
30 compared to baseline conditions, implementation of the proposed appealable/fill  
31 projects and land use changes would likely result in a reduction of pollutant  
32 concentrations that are commonly present in stormwater runoff from industrialized  
33 portions of the PMPU area. In addition, the facilities associated with proposed  
34 appealable/fill projects would be operated in accordance with one or more industrial  
35 SWPPPs that would contain monitoring requirements to ensure that stormwater  
36 quality complies with permit conditions.

37 Future increases in ship calls associated with the proposed appealable/fill projects  
38 and/or land use changes could also result in higher mass loadings of contaminants  
39 through discharges incidental to vessel operation and maintenance. Vessels calling at  
40 the Port would be subject to the requirements of various federal and state regulations  
41 governing discharges to state waters, the VGP, and the Port Tariff No. 4 (Port of  
42 Long Beach and Port 2012). Through the NPDES program, most vessel discharges  
43 are now regulated under the VGP. Future increases in vessel traffic also would also  
44 increase risks of accidental spills and illegal discharges into the harbor, with  
45 corresponding increases in potentials for impacts to water and sediment quality. In  
46 accordance with LAHD's spill response system, vessels are required to maintain oil  
47 spill contingency plans and have the financial resources to support a spill response.

1 The USCG conducts regular inspections of vessels to ensure seaworthiness and verify  
2 that appropriate pollution control mechanisms are in place.

3 Vessel traffic also represents one of several potential input sources of contaminants to  
4 the Port through discharges incidental to vessel operation and maintenance. Potential  
5 sources include in-water maintenance activities, deck wash-down, and leachate from  
6 vessel hull anti-fouling paints. Increases in vessel traffic could potentially contribute  
7 to higher mass loadings of contaminants. Through the NPDES program, most vessel  
8 discharges are now regulated under the Vessel General Permit. Copper is the most  
9 common active ingredient in anti-fouling paints. Other sources of copper to the  
10 watershed include atmospheric deposition and stormwater runoff. While vessel traffic  
11 is one of several ongoing and historical input sources of contaminants to the port  
12 complex watershed, portions of the Port are impaired with respect to copper. Thus,  
13 increased loadings associated with increases in vessel traffic compared to baseline  
14 conditions could worsen water and sediment quality conditions for copper.

15 Atmospheric deposition related to Port operational emissions may provide an  
16 increased localized impact to the local watersheds. These impacts are primarily  
17 related to resuspended dust from vehicular traffic and coarse-sized, mechanically-  
18 derived particles, such as zinc from tire wear and copper from brake pad wear. Fine  
19 particulates from vehicle exhaust may also contribute to the local watersheds to a  
20 lesser degree. However, the contribution of particulates from area-wide and regional  
21 transportation sources likely dominate the metal-containing particulate matter that  
22 enters the municipal storm drain systems and far outweighs the Port's contribution.  
23 Furthermore, mixing with Port receiving waters dilutes the pollutants so that the  
24 receiving water standards are not expected to be violated.

25 These watershed contaminant input sources were evaluated, and waste load  
26 allocations for the primary sources were assigned, as part of the Harbor Toxics  
27 TMDL (Los Angeles RWQCB and USEPA 2011). Compliance with the Harbor  
28 Toxics TMDL and the VGP is expected to reduce contaminant loading to harbor  
29 waters and sediments.

## 30 **Impact Determination**

### 31 *Construction*

32 Compliance with applicable regulations, permit conditions, and source control  
33 measures would reduce the risks that construction activities associated with the  
34 proposed appealable/fill projects and land use changes would significantly degrade  
35 water quality. Potential impacts from in-water construction conducted in accordance  
36 with permit conditions, Water Quality Certifications, and BMPs would be less than  
37 significant.

### 38 *Operations*

39 Similarly, implementing appropriate BMPs and compliance with the requirements of  
40 the NPDES Stormwater Program, LAMC, and other applicable federal, state, and  
41 local regulations would reduce the risks of impacts to water quality from operational  
42 discharges of stormwater. Potential impacts to water and sediment quality from



1 terminal or other Port operations covered by the PMPU would be less than  
2 significant.

### 3 **Mitigation Measures**

4 No mitigation is required.

### 5 **Residual Impacts**

6 Residual impacts would be less than significant.

7 **Impact WQ-2: The proposed Program would not result in**  
8 **placement of fill that substantially reduces or increases the**  
9 **amount of surface water in a water body.**

## 10 **Planning Area 2**

### 11 *Construction*

12 Two of the proposed appealable/fill projects (Yang Ming Terminal Redevelopment  
13 and China Shipping Fill) in Planning Area 2 would have small fill (6 acres and 16  
14 acres, respectively) components. The Yang Ming Terminal Redevelopment Project  
15 also would involve a small cut (i.e., creation of open water) that would create 3 acres  
16 of new open water. The Berths 187-189 Liquid Bulk Relocation Project and other  
17 proposed land use changes in Planning Area 2 would not create new fill or cuts.

18 The net surface area of the fills associated with the Yang Ming Terminal  
19 Redevelopment and China Shipping Fill projects (22 acres combined) represents only  
20 a small portion of the total acreage of open water habitat within the PMPU area  
21 (approximately 3,250 acres). Minor, temporary, and localized changes in surface  
22 water coverage would occur from in-water construction activities due to the presence  
23 of construction equipment. However, this effect would be minor because much of the  
24 construction work likely would occur from land, minimizing the need for in-water  
25 construction equipment. Thus, these proposed appealable/fill projects would have  
26 little effect on the amount of open water in the PMPU area, and construction  
27 activities would not cause changes to water or sediment quality or beneficial uses.

### 28 *Operations*

29 The small net change in the surface area of open water in the port complex associated  
30 with operation of the Yang Ming Terminal Development and China Shipping Fill  
31 projects would not result in significant changes in water or sediment quality or  
32 beneficial uses.

## 33 **Planning Area 3**

### 34 *Construction*

35 The Berth 300 Development Project in Planning Area 3 would construct an 18-acre  
36 fill and new wharf, whereas none of the proposed land use changes would create new  
37 fill or cuts. Some effects would occur during construction of the Berth 300

1 Development fill and wharf and/or wharf upgrades at Berth 301 due to the presence  
2 of construction equipment. However, effects would be minor because much of the  
3 construction work is expected to occur from land, minimizing the need for in-water  
4 construction equipment, and therefore unlikely to cause changes in water or sediment  
5 quality or beneficial uses.

### 6 *Operations*

7 The surface area of the Berth 300 Development fill (18 acres) represents only a very  
8 small portion of the open water habitat within the PMPU area (approximately 3,250  
9 acres). The small, temporary and localized changes in surface water area in the port  
10 complex associated with operation of the Berth 300 Development Project would not  
11 result in significant changes in water or sediment quality or beneficial uses.

## 12 **Planning Area 4**

### 13 *Construction*

14 The Tri Marine Expansion, 338 Cannery Street Adaptive Reuse, and Al Larson  
15 Marina projects and associated land use changes in Planning Area 4 would not  
16 require fill. The Al Larson Marina Project would remove docks and pilings from the  
17 existing marina, which would result in minor, temporary, and localized changes in  
18 surface water coverage due to the presence of construction equipment. However,  
19 once the docks were removed, construction of the Al Larson Marina would result in a  
20 small net increase in open water. Nevertheless, in-water construction activities in  
21 Planning Area 4 would not result in substantial changes in the amount of surface  
22 water.

### 23 *Operations*

24 Operation of the Tri Marine Expansion, 338 Cannery Street Adaptive Reuse, and Al  
25 Larson Marina projects and associated proposed land use changes in Planning Area 4  
26 would not result in substantial reductions in the amount of surface water.

## 27 **Impact Determination**

### 28 *Construction and Operations*

29 Construction and operation of the three projects, associated with small cut and fill  
30 components (Yang Ming Terminal Redevelopment, China Shipping Fill, and Berth  
31 300 Development), would collectively result in less than significant impacts. The  
32 other proposed appealable projects and land use changes would not fill open water  
33 areas of the Port and, therefore, would have no impact on surface water areas.

## 34 **Mitigation Measures**

35 No mitigation is required.

## 36 **Residual Impacts**

37 Residual impacts would be less than significant.

1                   **Impact WQ-3: The proposed Program would not result in**  
2                   **placement of fill that causes permanent adverse changes to the**  
3                   **movement of surface water sufficient to produce a substantial**  
4                   **change in the current or direction of water flow.**

## 5                   **Planning Area 2**

### 6                   *Construction*

7                   The Yang Ming Terminal Redevelopment and China Shipping Fill projects in  
8                   Planning Area 2 would have small fill components (6 acres and 16 acres,  
9                   respectively). The Yang Ming Terminal Redevelopment Project also would involve a  
10                  3-acre cut. The Berths 187-189 Liquid Bulk Relocation Project and other proposed  
11                  land use changes in Planning Area 2 would not create new cuts or fill.

12                 Construction activities associated with the Yang Ming Terminal Redevelopment and  
13                 China Shipping Fill projects would not result in permanent adverse changes in  
14                 surface water movement because they would not create any barriers to water  
15                 movement or promote stagnation or other flow modifications that could result in  
16                 adverse impacts to marine water quality. Instead, minor, temporary and localized  
17                 changes in flow conditions could occur due to the presence of construction  
18                 equipment. However, these effects would be minor because much of the construction  
19                 work would occur from land, minimizing the need for in-water construction  
20                 equipment.

### 21                 *Operations*

22                 Long-term changes to water flow patterns in the port complex related to operation of  
23                 the Yang Ming Terminal Redevelopment and China Shipping Fill projects would be  
24                 minor because the footprints of the cut and fill areas would be small relative to the  
25                 overall surface water area. Proposed land use changes in Planning Area 2 would not  
26                 result in any barriers to water movement in the Port.

## 27                 **Planning Area 3**

### 28                 *Construction*

29                 The Berth 300 Development Project would construct an 18-acre fill. Construction  
30                 activities would cause minor, temporary, and localized changes in flow conditions  
31                 due to the presence of construction equipment. However, these activities would not  
32                 create any barriers to water movement or promote stagnation or other flow  
33                 modifications that could result in adverse impacts to marine water quality. The  
34                 effects of project construction on water flow would be minor because much of the  
35                 construction work would occur from land, minimizing the need for in-water  
36                 construction equipment.

### 37                 *Operations*

38                 Long-term changes to water flow patterns in the port complex related to operation of  
39                 the Berth 300 Development Project and associated land use changes would be minor  
40                 because the footprint of the fill area would be small relative to the overall surface

1 water area, and would have minimal impacts on water movement or exchanges  
2 between open water areas of the Port. Proposed land use changes in Planning Area 3  
3 would not result in any barriers to water movement in the Port.

#### 4 **Planning Area 4**

##### 5 *Construction*

6 The Tri Marine Expansion and 338 Cannery Street Adaptive Reuse projects and  
7 associated proposed land use changes in Planning Area 4 would not require  
8 placement of fill or create any barriers to water movement in the Port. The Al Larson  
9 Marina Project would remove docks and pilings from the existing marina, which  
10 would result in minor, temporary, and localized changes in water movement due to  
11 the presence of construction equipment. However, once the docks have been  
12 removed, construction of the Al Larson Marina would result in small improvements  
13 in water exchange within Fish Harbor. Therefore, the proposed appealable/fill  
14 projects and land use changes in Planning Area 4 would not result in any changes in  
15 surface water flows that would affect water or sediment quality.

##### 16 *Operations*

17 Operation of the Tri Marine Expansion and 338 Cannery Street Adaptive Reuse  
18 projects and associated land use changes in Planning Area 4 would not result in  
19 substantial changes to water flow in the Port. Proposed land use changes in Planning  
20 Area 4 would not result in any barriers to water movement in the Port.

#### 21 **Impact Determination**

##### 22 *Construction and Operations*

23 Construction and operation of the three projects, as associated with small cut or fill  
24 components (Yang Ming Terminal Redevelopment, China Shipping Fill, and Berth  
25 300 Development), would result in less than significant impacts to water flow  
26 patterns. The other proposed appealable projects and land use changes would not fill  
27 open water areas of the Port and, therefore, would have no impact on water flows.

#### 28 **Mitigation Measures**

29 No mitigation is required.

#### 30 **Residual Impacts**

31 Residual impacts would be less than significant.

32 **Impact WQ-4: The proposed Program would not accelerate**  
33 **natural processes of wind and water erosion and sedimentation,**  
34 **resulting in sediment runoff or deposition which would not be**  
35 **contained or controlled onsite.**

## 1                   **Planning Area 2**

### 2                   *Construction*

3                   In general, construction activities have the potential to adversely affect Port water  
4                   quality if the construction site is not appropriately managed for erosion, dust, and  
5                   runoff. Construction activities associated with the Yang Ming Terminal  
6                   Redevelopment, China Shipping Fill, and Berths 187-189 Liquid Bulk Relocation  
7                   projects and associated land use changes in Planning Area 2 would require coverage  
8                   under the General Construction Activities Storm Water Permit. The WDRs for  
9                   stormwater runoff in the County of Los Angeles and incorporated cities covered  
10                  under NPDES Permit No. CAS004001 (December 13, 2001) require implementation  
11                  of runoff control from all construction sites. Preparation and implementation of a  
12                  construction SWPPP would be required prior to the start of any construction  
13                  activities, and construction contractors would be required to implement BMPs such  
14                  as general site management, construction and waste materials management, erosion  
15                  control, and sediment control to prevent/contain releases of soils and contaminants.

16                 Surface water features within the PMPU area, other than open water associated with  
17                 Planning Area 5, consist mostly of channelized flows that drain adjacent land areas.  
18                 While future development of some sites could entail site grading, this would not  
19                 occur within the course of a stream or a river and would not be expected to cause  
20                 appreciable changes to existing drainage patterns. Implementation of appropriate  
21                 BMPs and compliance with the requirements of the NPDES Stormwater Program,  
22                 LAMC, WRAP, and other applicable federal, state, and local regulations prior to  
23                 approval of the proposed appealable/fill projects would minimize potential impacts.

### 24                 *Operations*

25                 Operation of the Yang Ming Terminal Redevelopment, China Shipping Fill, and  
26                 Berths 187-189 Liquid Bulk Relocation projects would result in a small increase in  
27                 open area acreage compared to baseline conditions (e.g., at Berths 187-189). In  
28                 general, parks and open spaces would be designed, landscaped, and maintained to  
29                 prevent soil erosion and offsite transport. Additionally, open space would promote  
30                 comparatively greater infiltration of stormwater. Other proposed land use changes in  
31                 Planning Area 2 would result in similar levels of industrial intensity compared to  
32                 existing conditions. Thus, operations would not accelerate erosion or promote  
33                 deposition or accumulation of soils/sediments in upland areas or in the port complex.

## 34                   **Planning Area 3**

### 35                   *Construction*

36                   Construction activities associated with the Berth 300 Development Project and  
37                   construction associated with land use changes in Planning Area 3 would require  
38                   coverage under the General Construction Activities Storm Water Permit. The WDRs  
39                   for stormwater runoff in the County of Los Angeles and incorporated cities covered  
40                   under NPDES Permit No. CAS004001 (13 December 2001) require implementation  
41                   of runoff control from all construction sites. Preparation and implementation of a  
42                   construction SWPPP would be required prior to the start of any construction  
43                   activities, and construction contractors would be required to implement BMPs such

1 as general site management, construction and waste materials management, erosion  
2 control, and sediment control to prevent/contain releases of soils and contaminants.  
3 Implementation of appropriate BMPs and compliance with the requirements of the  
4 NPDES Stormwater Program, LAMC, WRAP, and other applicable federal, state, and  
5 local regulations prior to approval of the proposed appealable/fill project would  
6 minimize potential impacts.

### 7 *Operations*

8 Operation of the Berth 300 Development Project and land use changes in Planning  
9 Area 3 would result in similar levels of industrial intensity compared to existing  
10 conditions. Thus, operations would not accelerate erosion or promote deposition or  
11 accumulation of soils/sediments in upland areas or in the port complex.

## 12 **Planning Area 4**

### 13 *Construction*

14 Construction activities associated with Tri Marine Expansion, 338 Cannery Street  
15 Adaptive Reuse, and Al Larson Marina projects in Planning Area 4 would require  
16 coverage under the General Construction Activities Storm Water Permit. The WDRs  
17 for stormwater runoff in the County of Los Angeles and incorporated cities covered  
18 under NPDES Permit No. CAS004001 (13 December 2001) require implementation  
19 of runoff control from all construction sites. Preparation and implementation of a  
20 construction SWPPP would be required prior to the start of any construction  
21 activities, and construction contractors would be required to implement BMPs such  
22 as general site management, construction and waste materials management, erosion  
23 control, and sediment control to prevent/contain releases of soils and contaminants.  
24 Implementation of appropriate BMPs and compliance with the requirements of the  
25 NPDES Stormwater Program, LAMC, WRAP, and other applicable federal, state, and  
26 local regulations prior to approval of the proposed appealable/fill projects would  
27 minimize potential impacts.

### 28 *Operations*

29 Operation of the Tri Marine Expansion, 338 Cannery Street Adaptive Reuse, and Al  
30 Larson Marina projects and other land use changes in Planning Area 4 would result in  
31 a slight intensification of industrial activities compared to baseline conditions. In  
32 general, these activities would occur in areas covered by impermeable surfaces and,  
33 therefore, would not accelerate erosion or offsite deposition of soils. Other proposed  
34 land use changes in Planning Area 4 would result in operations with similar levels of  
35 industrial intensity compared to existing conditions. Thus, operations would not  
36 accelerate erosion or promote deposition or accumulation of soils/sediments in  
37 upland areas or in the port complex.

## 38 **Impact Determination**

### 39 *Construction and Operations*

40 Compliance with applicable regulations, permit conditions, and control measures  
41 would minimize the risk that construction and operation of the proposed appealable/fill

1 projects and land use changes under the proposed Program would accelerate erosion or  
 2 sedimentation processes. Therefore, impacts would be less than significant.

3 **Mitigation Measures**

4 No mitigation is required.

5 **Residual Impacts**

6 Residual impacts would be less than significant.

7 **3.14.5 Summary Impact Determination**

8 Table 3.14-3 summarizes the impact determinations of the proposed Program related  
 9 to water quality, sediments, and oceanography. Identified potential impacts are based  
 10 on federal, state, and City of Los Angeles significance criteria, Port criteria, and the  
 11 scientific judgment of the report preparers.

12 For each type of potential impact, the table describes the impact, notes the CEQA  
 13 impact determination, describes any applicable mitigation measures, and notes the  
 14 residual impacts (i.e., the impact remaining after mitigation). All impacts, whether  
 15 significant or not, are included in the table.

**Table 3.14-3. Summary Matrix of Potential Impacts and Mitigation Measures for Water Quality, Sediments, and Oceanography Associated with the Proposed Program**

<i>Environmental Impacts</i>	<i>Impacts Determination</i>	<i>Mitigation Measures</i>	<i>Impacts After Mitigation</i>
<i>Construction</i>			
<b>WQ-1:</b> Construction of the proposed Program would not result in discharges that create pollution, contamination, or nuisance as defined in Section 13050 of the CWC or that cause regulatory standards to be violated.	Less than significant	No mitigation is required	Less than significant
<b>WQ-2:</b> Construction of the proposed Program would not substantially reduce or increase the amount of surface water in a water body.	Less than significant	No mitigation is required	Less than significant
<b>WQ-3:</b> Construction of the proposed Program would not cause permanent adverse changes to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.	Less than significant	No mitigation is required	Less than significant
<b>WQ-4:</b> Construction of the proposed Program would not accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition which would not be contained or controlled onsite.	Less than significant	No mitigation is required	Less than significant

**Table 3.14-3. Summary Matrix of Potential Impacts and Mitigation Measures for Water Quality, Sediments, and Oceanography Associated with the Proposed Program**

<i>Environmental Impacts</i>	<i>Impacts Determination</i>	<i>Mitigation Measures</i>	<i>Impacts After Mitigation</i>
<i>Operations</i>			
<b>WQ-1:</b> Operation of the proposed Program would not result in discharges that create pollution, contamination, or nuisance as defined in Section 13050 of the CWC or that cause regulatory standards to be violated.	Less than significant	No mitigation is required	Less than significant
<b>WQ-2:</b> Operation of the proposed Program would not substantially reduce or increase the amount of surface water in a water body.	Less than significant	No mitigation is required	Less than significant
<b>WQ-3:</b> Operation of the proposed Program would not result in permanent adverse changes to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.	Less than significant	No mitigation is required	Less than significant
<b>WQ-4:</b> Operation of the proposed Program would not accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition which would not be contained or controlled onsite.	Less than significant	No mitigation is required	Less than significant

1 **3.14.6 Significant Unavoidable Impacts**

2 No significant unavoidable impacts to water quality, sediments, and oceanography  
 3 would occur as a result of implementation of the proposed Program.