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Section 3.7 Groundwater and Soils

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SECTION SUMMARY

4 This section characterizes the existing groundwater and soil conditions in the proposed Project area and
5 assesses how the construction and operation of the proposed Project or one of its alternatives would affect
6 or be affected by them. The primary features of the proposed Project and alternatives that could affect
7 these resources include the modification and development of entrances and gates, development of
8 backlands behind Berths 301 and 306, modifications to the existing Power Shop, and development of the
9 former LAXT right-of-way. Potential impacts to surface water and marine water quality (including the
10 potential impacts associated with the excavation of marine sediment during dredging) are addressed in
11 Section 3.14, Water Quality, Sediments, and Oceanography.

12 Section 3.7, Groundwater and Soils, provides the following:

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- 14 ▪ A description of the existing environmental setting in the Port area;
 - 15 ▪ A description of the existing groundwater and soil conditions;
 - 16 ▪ A description and summary of findings from previous soil and groundwater investigations;
 - 17 ▪ A description of potential site contamination;
 - 18 ▪ A description of applicable local, state, and federal regulations and policies regarding hazardous
19 materials or hazardous substances that may require special handling if encountered in soil or
20 groundwater during construction of the proposed Project or alternative;
 - 21 ▪ A discussion on the methodology used to determine whether the proposed Project or alternatives
22 result in impacts to groundwater or soil resources;
 - 23 ▪ An impact analysis of both the proposed Project and alternatives; and,
 - 24 ▪ A description of any mitigation measures proposed to reduce any potential impacts, as applicable.

24

Key Points of Section 3.7:

25 The proposed Project would expand an existing container terminal, and its operations would be consistent
26 with other container terminals and other uses in the Project area.

27 All impacts related to groundwater and soils were determined to result in a less than significant level or
28 no impact, as identified below:

- 1 ▪ The proposed Project construction activities may encounter toxic substances or other contaminants
2 associated with historical uses of the Port, resulting in short-term exposure (duration of construction)
3 to construction/operations personnel and/or long-term exposure to future site occupants. However, the
4 proposed Project would handle, transport, remediate, and/or dispose all contaminated soil in
5 accordance with all applicable federal, state, and local laws and regulations and in accordance with the
6 regulatory lead agency (e.g., State Department of Toxic Substances Control [DTSC], Los Angeles
7 Regional Water Quality Control Board [RWQCB]) and the LAHD's Site Remediation and
8 Contamination Contingency Plan lease measures as listed below:

9 **LM GW-1: Site Remediation.** Unless otherwise authorized by the lead regulatory
10 agency for any given site, the Tenant (i.e., APL) shall address all contaminated soils
11 within proposed Project boundaries discovered during demolition and grading activities.
12 Contamination existing at the time of discovery shall be the responsibility of the past
13 and/or current property owner. Contamination as a result of the construction process
14 shall be the responsibility of the Tenant and/or Tenant contractors. Remediation shall
15 occur in compliance with local, state, and federal regulations, as described in Section
16 3.7.3 (in this section) and Section 3.8.3 (in Section 3.8, Hazards and Hazardous
17 Materials), and as directed by the lead regulatory agency for the site (such as the Los
18 Angeles RWQCB or DTSC).

19 Soil removal shall be completed such that remaining contamination levels are below risk-
20 based health screening levels for industrial sites established by OEHHA and/or applicable
21 action levels (e.g., Environmental Screening Levels, Preliminary Remediation Goals)
22 established by the lead regulatory agency with jurisdiction over the site. Soil
23 contamination waivers may be acceptable as a result of encapsulation (i.e., paving) and/or
24 risk-based soil assessments for industrial sites, but are subject to the review of the lead
25 regulatory agency and LAHD. Excavated contaminated soil shall be properly disposed of
26 off-site unless use of such material on-site is beneficial to construction and approved by
27 the agency overseeing environmental concerns. All imported soil to be used as backfill
28 in excavated areas shall be sampled to ensure that it is suitable for use as backfill at an
29 industrial site.

30 **LM GW-2: Contamination Contingency Plan.** The following contingency plan shall
31 be implemented to address contamination discovered during demolition, grading, and
32 construction.

- 33 a) All trench excavation and filling operations shall be observed for the presence of
34 free petroleum products, chemicals, or contaminated soil. Soil suspected of
35 contamination shall be segregated from other soil. In the event soil suspected of
36 contamination is encountered during construction, the contractor shall notify the
37 LAHD's environmental representative. The LAHD shall confirm the presence of
38 the suspect material and direct the contractor to remove, stockpile or contain, and
39 characterize the suspect material. Continued work at a contaminated site shall
40 require the approval of the LAHD Project Engineer.
- 41 b) Excavation of VOC-impacted soil may require obtaining and complying with a
42 South Coast Air Quality Management District Rule 1166 permit.
- 43 c) The remedial option(s) selected shall be dependent upon a suite of criteria
44 (including but not limited to types of chemical constituents, concentration of the
45 chemicals, health and safety issues, time constraints, cost, etc.) and shall be

- 1 determined on a site-specific basis. Both off-site and on-site remedial options may
2 be evaluated.
- 3 d) The extent of removal actions shall be determined on a site-specific basis. At a
4 minimum, the impacted area(s) within the boundaries of the construction area shall
5 be remediated to the satisfaction of the LAHD and the lead regulatory agency for
6 the site. The LAHD Project Manager overseeing removal actions shall inform the
7 contractor when the removal action is complete.
- 8 e) Copies of hazardous waste manifests or other documents indicating the amount,
9 nature, and disposition of such materials shall be submitted to the LAHD Project
10 Manager within 60 days of project completion.
- 11 f) In the event that contaminated soil is encountered, all on-site personnel handling or
12 working in the vicinity of the contaminated material must be trained in accordance
13 with USEPA and Occupational Safety and Health and Administration (OSHA)
14 regulations for hazardous waste operations or demonstrate they have completed the
15 appropriate training. Training must provide protective measures and practices to
16 reduce or eliminate hazardous materials/waste hazards at the work place.
- 17 g) When impacted soil must be excavated, air monitoring will be conducted as
18 appropriate for related emissions adjacent to the excavation.
- 19 h) All excavations shall be backfilled with structurally suitable fill material that is free
20 from contamination.
- 21 ■ Neither the proposed Project nor any of the alternatives would excavate significant quantities of
22 surface soil. Minor excavation activities would be required for the expansion of utilities, footings for
23 structures and buildings, roads and paving, and rail.
- 24 ■ Neither the proposed Project nor any of the alternatives would contribute to groundwater
25 contamination; nor would they reduce groundwater or existing potable water levels.

26

3.7.1 Introduction

This section describes the existing conditions of groundwater and soil resources in the proposed Project area, including soil and groundwater contamination, and evaluates the impact of these conditions on proposed Project or alternative development. The environmental setting is based on a review of published reports, as well as a review of previous consulting reports completed in the Port area.

3.7.2 Environmental Setting

The proposed Project site is located at Pier 300 on Terminal Island near sea level, within an industrial area region of the Port adjacent to Fish Harbor and the Pier 300 Channel. Terminal Island is a flat, almost entirely man-made formation that was once a sand bar called Rattlesnake Island. The land area was increased greatly by placement of hydraulic fill prior to World War II as well as smaller increases since, and is predominantly fine-grained sand and silt.

The proposed Project site is underlain by artificial fill material of varying depths. A great majority of these fill materials were placed as spoils from various nearby dredging operations. Approximately 190 acres of the existing 291-acre site was created in the early 1980s by materials dredged from the inner and outer harbors as part of the Los Angeles Harbor Deepening Project (USACE and LAHD, 1980). Quaternary and Neogene¹ deposits make up most of the regional vicinity and lie under the Pier 300 fill, as discussed in Section 3.5, Geology (refer to Figure 3.5-1). The alluvial sands and silts were deposited from recent and Pleistocene² river action as outwash from the Los Angeles Basin (Yerkes et al., 1965).

The proposed Project area is predominantly underlain by a shallow unconfined aquifer, which has historically occurred at depths as shallow as 5 ft below ground surface (bgs). This shallow aquifer is underlain by several major water-bearing zones. Spills of petroleum products and hazardous substances, due to long-term industrial land use, have resulted in contamination of some surface soils and shallow groundwater.

3.7.2.1 Groundwater

Tertiary and Quaternary age marine sediments have filled the Los Angeles Basin, which includes Los Angeles Harbor, to depths of several thousand feet. Four major aquifers, the Sunnyside, Silverado, Lynwood, and Gage, underlie the West Coast Groundwater Basin (here after referred to as West Coast Basin) of the Los Angeles Coastal Groundwater Basins and are used for industrial and municipal water supply outside of the harbor area (WRD, 2004). The West Coast Basin is bound on the north by the Santa Monica Mountains, on the east by the Newport-Inglewood fault, on the west by the Palos Verdes Hills, and on the south by the Pacific Ocean.

¹ The **Neogene** is a geologic period and system starting 23.03 ± 0.05 million years ago and lasting until 2.588 million years ago with the beginning of the Quaternary period. The **Quaternary period** is the youngest of three periods of the Cenozoic era in the geologic time scale. It follows after the Neocene period, spanning 2.588 +/- 0.005 million years ago to the present. Quaternary includes two geologic epochs: the Pleistocene and the Holocene epochs. Quaternary and Neogene deposits refer to the geologic materials that were being deposited during the respective time periods.

² The **Pleistocene** is the epoch from 2.588 million to 12 000 years BP covering the world's recent period of repeated glaciations.

1 Sediments underlying the West Coast Basin are composed primarily of nearshore marine
2 or estuarine sediments, which were either deposited in place along the margin of the early
3 San Pedro embayment or subsequently dredged and placed at their current locations as
4 fill material (Ebasco, 1991).

5 Groundwater is generally present at a depth of 10 to 16 ft below ground surface
6 (Woodward-Clyde Consultants, 1998). Groundwater depth, gradient, and flow direction
7 are subject to tidal variation in portions of the West Coast Basin. Extensive saltwater
8 intrusion has been documented in the Gaspar aquifer, suggesting open communication
9 with the Pacific Ocean (Jones & Stokes, 2002).

10 The Los Angeles Regional Water Quality Control Board (Los Angeles RWQCB)
11 Resolution No. 98-18, dated November 2, 1998, modified the regulatory provisions of the
12 Water Quality Control Plan for the Los Angeles Region by removing the beneficial use
13 designation (de-designation) from two specifically defined areas within the West Coast
14 Basin: 1) groundwater underlying the Ports of Los Angeles and Long Beach and 2)
15 Chevron El Segundo Refinery. Therefore, the groundwater underlying the proposed
16 Project site was included in this de-designation (LARWQCB, 1999). The shallow
17 groundwater beneath the Project site currently is not considered a potable water supply,
18 and is unlikely to be considered such a source in the future.

19 Drinking water is provided to the area by the City of Los Angeles Department of Water
20 and Power (LADWP). The LADWP obtains water supply for the Los Angeles area from
21 three major sources: (1) The Owens Valley and the Mono basin on the east side of the
22 Sierra Nevada Mountains via the Los Angeles Aqueduct; (2) Northern California and
23 Colorado River imports from Metropolitan Water District of Southern California (MWD);
24 and (3) Local groundwater basins, including the San Fernando, Sylmar, Central Coast
25 and West Coast Basins. Within the West Coast Basin area, the Silverado aquifer is the
26 most productive, yielding 80 to 90 percent of the groundwater within the basin extracted
27 annually (MWD, 2007). In addition to these sources, some wastewater within the
28 LADWP service area is being reclaimed and reused as a source for irrigation, industrial
29 use, habitat development, recreation, and groundwater recharge.

30 Groundwater beneath the Project site is not considered potable water, and likely would
31 not be considered a potable or beneficial water source in the future, based on Los Angeles
32 Regional Water Quality Control Board (Los Angeles RWQCB) Resolution No. 98-018,
33 dated November 2, 1998, which designated the West Coast Basin groundwater
34 underlying portions of the Port Complex as non-potable (RWQCB, 1999). There are two
35 seawater intrusion barriers located in the West Coast Basin, including the Dominguez
36 Gap Barrier Project which consists of intrusion injection wells along the Dominguez
37 Channel to prevent sea water intrusion into the Silverado Aquifer (WRD, 2004). The
38 proposed Project site is located seaward of the Dominguez Gap. No groundwater wells
39 were identified within a 2-mile radius of the proposed Project site (LACoDPW, 2010).

3.7.2.2 Soil Conditions

Prior to development of the Los Angeles Harbor, extensive estuarine deposits were present at the mouth of Bixby Slough, Dominguez Channel, and the Los Angeles River. The organic tidal muds were dredged extensively and mostly covered with artificial fill (California Department of Conservation, 1998). Soils within the proposed Project site generally consist of hydraulic fill. Soil descriptions are derived from geotechnical studies conducted within the Project site area by various consultants, as described in the next section. Generally, the fill soils are heterogeneous, characterized by varying micaceous content and locally occurring shell fragments. The hydraulic fill material used to construct Pier 300 is generally composed of interlayered and intermixed silty fine sands and highly plastic clayey silt. The silty fine sands are typically loose to medium dense. Soil colors include distinct lenses of buff, brown, and grey. The overall thickness of the fill ranges from approximately 35 to 40 ft, which overlies a basal sand unit, representing the original seafloor prior to hydraulic deposition (POLA, 1993).

Sediments beneath the Outer Harbor have been extensively sampled in support of harbor channel deepening and potential offshore expansion investigations. Bore-hole data and soil analyses generally indicate the presence of medium-dense to dense sand-silt mixtures below 2 to 4 ft of organic mud on the harbor bottom. Silty sand is the predominant material. Sediment grain size and sand percentage vary slightly between boring locations, showing a general trend toward increased amounts of silt and clay landward toward Terminal Island (POLA, 1993).

3.7.2.3 Soil and Groundwater Investigations

The following section summarizes the environmental setting for certain areas located within the boundary of the proposed Project site. Site conditions including any on-site contamination, impacts to soil and groundwater, and remediation activities are summarized from various environmental assessments and hazardous materials evaluation reports conducted for the proposed Project site. Site conditions described herein and in the referenced reports are representative of the 2009 CEQA baseline conditions for determining the significance of impacts. The NEPA baseline is also represented by existing site conditions because an absence of federal action (i.e., USACE permit) would not be expected to result in substantive physical upland improvements that could change existing site conditions. Figure 3.7-1 illustrates the areas of potential concern within the proposed Project site, which are based on the reports summarized in this section.





Legend

	Dry Bulk Handling Facility		New 4 acres
	Remote Storage Area		New 7 acres
	Waste Disposal Area		New 2 acres
	Auto Shredder Waste Disposal Area		New 2 acres
	Near Berth Storage Area		Existing Terminal
	New 41 acres		

**Port of Los Angeles
Berths 302 - 306 [APL]
Container Terminal Project
Proposed Project**

Figure 3.7-1

3.7.2.3.1 Pier 300: Former Waste Disposal Area

A subsurface investigation was conducted at the former waste disposal area that reportedly contained auto shredder waste located in the north-central portion of Pier 300 in 1992 (Schaefer Dixon Associates [SDA], 1992). The waste disposal area is located in the vicinity of the proposed new reefer area. The investigation included ten soil borings that advanced to a depth of 15 ft bgs. Waste, black in color, was encountered at depths ranging from 10 to 13 ft bgs. The investigation results identified elevated concentration of chemicals, which included the following:

- Elevated concentrations of total petroleum hydrocarbons (TPH) were detected in excess of the regulatory limit of 100 milligram per kilogram (mg/kg) in borings where waste materials were encountered. Benzene, toluene, ethylbenzene and xylenes, the major components of concern in gasoline, were encountered at elevated concentrations in two of the boreholes. Analytical results of the major components of concern in gasoline, as well as regulatory limits in brackets, are as follows: Benzene - 55 micrograms per kilogram ($\mu\text{g}/\text{kg}$) [$10 \mu\text{g}/\text{kg}$], toluene - 3,600 $\mu\text{g}/\text{kg}$ [$1,000 \mu\text{g}/\text{kg}$], ethylbenzene - 7,600 $\mu\text{g}/\text{kg}$ [$6,800 \mu\text{g}/\text{kg}$], o-Xylene - 20,000 $\mu\text{g}/\text{kg}$ [$6,200 \mu\text{g}/\text{kg}$], and p,m-Xylene - 18,000 $\mu\text{g}/\text{kg}$ [$6,200 \mu\text{g}/\text{kg}$].
- The semi-volatile organic compounds (SVOCs) benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i) perylene, benzo(a)pyrene, chrysene, phenanthrene, and pyrene were detected in three borings at elevated concentrations.
- Cadmium (110 milligrams per kilogram [mg/kg]), copper (up to 37,000 mg/kg), lead (up to 41,000 mg/kg), and zinc (up to 18,000 mg/kg) were all reported in soil samples at concentrations above the Toxic Threshold Leaching Concentrations (TTLCs). Only lead and zinc exceeded the Soluble Threshold Limit Concentration (STLCs).
- The polychlorinated biphenyl (PCB) Aroclor 1242 was detected at 150 mg/kg in one borehole in excess of the PCB TTLC.

The report concluded the area of waste material was confined primarily to the western portion of the study area, which was the site of the former TNT Auto Lot. The chemical concentrations reported were high in comparison to regulatory guidelines; however, the materials analyzed were waste material and not merely contaminated soil. Groundwater was observed at depths between 13 and 15 ft bgs in the soil borings. No asbestos-containing materials were detected at the site.

The report does not indicate whether or not the waste disposal area was fully defined, removed, or remediated. Further, due to its proximity to the proposed new reefer area, construction activities that result in subsurface disturbances (i.e., installation of utility lines) may encounter these waste materials.

3.7.2.3.2 Pier 300: Car Dumper Pit of the Remote Storage Area

A soil and groundwater investigation was conducted by Geofon in 1993 for the car dumper pit area approximately 0.35 mile north of the proposed Project site (Geofon, 1993). The depth of the proposed car pit was 50 ft bgs and groundwater was encountered at 11 ft bgs. The report indicated that a dewatering system would be required for the excavation and construction of the pit.

1 The investigation included installation of two monitoring wells (MW-1 and MW-2 to a
2 depth of 21 ft bgs, collection of a total of six soil samples from two borings at depths of 1,
3 5, and 10 ft bgs, groundwater sampling, and soil classification. The results of the
4 investigation indicated the following:

- 5 ■ TPH was detected in 1 and 5 ft soil samples in the range of 20-100 mg/kg. TPH was
6 not detected in 10 ft samples. The low concentrations likely represent heavier
7 hydrocarbons (i.e., asphalt, waste oil, etc.) and are not perceived to be hazardous or a
8 threat to groundwater. Low concentrations of one organochlorine pesticide
9 (4,4'-DDE [dichlorodiphenyldichloroethylene]) were detected at 2 to 3 µg/kg in
10 three out of six soil samples (in 1 and 5 ft soil samples), which is below the
11 regulatory limit of 0.1 mg/kg (100 µg/kg) and not considered hazardous.
- 12 ■ Total lead concentrations detected in both 5 ft samples exceeded STLC limits and
13 were reanalyzed by WET. The results were less than 0.11 micrograms per liter
14 (µg/L), which is below the regulatory limit of 5.0 mg/L (5,000 µg/L) and not
15 considered hazardous.
- 16 ■ The volatile organic compound (VOC) carbon disulfide was detected in one soil
17 boring (MW-10) at concentrations of 8 and 20 µg/kg (in 1 ft and 5 ft soil samples,
18 respectively). These concentrations were below the regulatory limit of 14.4 mg/kg
19 (14,400 µg/kg) and not considered hazardous.
- 20 ■ Heavy metals were detected in soil samples at concentrations that were within the
21 naturally occurring ranges for the area silts as well as below the TTLC and the STLC.
- 22 ■ Analytical results of two groundwater samples collected from the two groundwater
23 monitoring wells installed at the site did not indicate detectable concentrations of
24 petroleum hydrocarbons, VOCs, SVOCs, PCBs, or pesticides. The results were used
25 to determine if groundwater discharge during dewatering is permissible under the
26 National Pollutant Discharge Elimination System (NPDES) discharge limits.
- 27 ■ Two metals, mercury and selenium were detected above the NPDES limits. Mercury
28 was detected at 0.0005 and 0.0022 mg/L in one of wells. The average value of the
29 mercury from both wells was below the NPDES limit of 0.2 mg/L. Selenium was
30 detected at 0.027 mg/L in MW-1, and at 0.023 mg/L in MW-s. The average value of
31 the selenium was above the NPDES limit of 0.01 mg/L and treatment was
32 recommended.
- 33 ■ Groundwater samples contained high total dissolved solid (TDS) of up to 4,700 mg/L.
- 34 ■ All other tested constituents were below the NPDES limits.
- 35 ■ Groundwater was encountered in the two monitoring wells at a depth of
36 approximately 11 ft bgs.

37 Therefore, it does not appear that any significant sources of contamination were
38 identified during the investigation conducted of the car dumper pit site.

39 **3.7.2.3.3 Pier 300: Dry Bulk Handling Facility**

40 A site characterization was conducted in 1993 within the Dry Bulk Handling Facility area
41 at Pier 300 to determine baseline or background levels of soil and groundwater
42 constituents of concern (SDA, 1993). The study area was composed of two parcels of
43 land: an approximate 110-acre parcel that was referred to in the report as the Remote
44 Storage Area and an approximate 20-acre parcel referred to as the Near Berth Storage

1 Area. The Remote Storage Area extended from Terminal Way in the northeastern corner
2 of Pier 300, to farther northeast where the former Reeves Airfield was located. No
3 portion of the Remote Storage Area is within the proposed Project site. The Near Berth
4 Storage Area corresponds to a man-made extension of Terminal Island created by the
5 addition of hydraulic fill in 1969. The area is bounded by Starkist Foods, Inc. and Earle
6 Street to the north, Barracuda Street and the harbor to the west, the harbor on the south,
7 and Pier 300 to the east. This area contains a former LAXT area, and APL Power Shop
8 and Security Office, all of which are part of the proposed Project. The 7-acre
9 southernmost portion of the site (formerly an LAXT area behind Berth 301) is currently
10 partially paved, with stockpiled construction materials, structures, and a stormwater basin.
11 This 7-acre area behind Berth 301 would be developed as backland.

12 The site characterization included drilling and sampling of 40 soil borings, installing and
13 sampling of 9 groundwater monitoring wells, and an assessing the aquifer characteristics.
14 Potential contaminants identified in the Phase I investigation were analyzed in the soil
15 and groundwater samples. These included TPH, total fuel hydrocarbons (TFH) with
16 carbon-chain analysis, VOCs, the California Code of Regulations (CCR) list of total
17 metals, soluble lead, and PCBs. In addition, semi-volatile organic compounds (SVOCs)
18 were analyzed for groundwater samples.

19 The results of the investigation indicated the following:

- 20 ■ Three predominant soil materials occurred in the study area: new fill (dating from
21 mid-1980s) in the raised grade area of the Remote Storage Area; original hydraulic
22 fill at the former airfield base grade; and hydraulic fill in the Near Berth Storage Area.
23 Baseline characterization found that VOCs, TFH, and PCBs were not detected in the
24 soil samples collected from the new fill, however TPH was detected between
25 non-detectable and 270 mg/kg. One sample collected at 5 ft bgs exceed 100 mg/kg
26 (270 mg/kg), however 10 foot sample in the same soil boring showed non detect level
27 of TPH. Total metals and soluble lead concentrations detected in the new fill
28 samples were within regulatory limits. The original fill contained no detectable
29 VOCs or PCBs, and metals are within regulatory limits TPH and TFH are generally
30 non-detectable, but a few samples contained low concentrations (less than 38 mg/kg
31 and 28 mg/kg, respectively).
- 32 ■ The Near Berth Storage Area fill, located above the organic silt, contained no
33 detectable TFH, VOCs, or PCBs, and metals were within regulatory limits. TPH
34 varied between 5.7 and 240 mg/kg (exceeded 100 mg/kg in 10 ft bgs), which was
35 likely impacted by the underlying organic silt.
- 36 ■ No obvious plumes of groundwater contamination were identified. Groundwater
37 sample collected from monitoring well MW-9 installed in the Near Berth Storage
38 Area contained trace amounts (1.7 µg/L) of 1,1,1-trichloroethane (TCA) just above
39 the laboratory detection limit (1.0 µg/L). This value is well below the maximum
40 contaminant level (MCL) of 200 µg/L. The groundwater sample from this
41 monitoring well also contained lead (0.078 mg/L) and mercury (0.0014 mg/L) above
42 the detection limit but below the STLC limit of 5.0 mg/L and 0.2 mg/L respectively.
43 Monitoring well MW-3 also contained Cadmium slightly above the MCL of
44 0.01 mg/L.

- 1 ▪ The water table was observed to be between approximately 2.5 to 5 ft above MSL.
2 The Near Berth Storage Area and southern part of the Remote Storage Area at the
3 former grade had an approximate water elevation of 5 ft. The northern part of the
4 Remote Storage Area had a water table at approximately 3.5 ft above MSL.

5 **3.7.2.3.4 Former LAXT Dry Bulk Handling Facilities**

6 A shallow soil investigation was conducted in 1998 at the two operable units within the
7 former LAXT Dry Bulk Handling Facilities – the Remote Storage Area and the Near
8 Berth Storage Area (Tetra Tech, 1998). Only the results for the Near Berth Storage Area
9 are discussed because it is located within the proposed Project site.

10 During the environmental baseline study, three shallow composite soil samples were
11 collected (identified as LAXT#7, LAXT#8, and LAXT#9 in the report) from the Near
12 Berth Storage Area, and four sediment samples (identified as LAXT1-SED, LAXT2-SED,
13 LAXT3-SED, and LAXT4-SED in the report) were obtained off the dock from the Near
14 Berth Storage Area at an average depth of 80 ft below sea level (bsl). No groundwater
15 samples were collected during this investigation.

16 The soil samples were located as follows:

- 17 ▪ LAXT#7 was located north of the electrical sub-station.
18 ▪ LAXT#8 was in the emergency discharge pile area, adjacent to Sample Tower #8.
19 ▪ LAXT#9 was placed in the vacant area adjacent to the stormwater basin and drainage
20 ditch.

21 The results of the sediment sample analysis (identified as LAXT-1-SED through
22 LAXT-4-SED in the report) that were collected 50 ft off the berth line and shallow
23 composite soil sample analytical results are summarized below:

24 *Composite Soil Samples*

- 25 ▪ TPH concentrations ranged from 165 mg/kg in LAXT#2 to a high of 738 mg/kg in
26 LAXT#9 (collected from the unpaved vacant area adjacent to the stormwater basin
27 of-the Near Berth Storage Area). The carbon chain distributions were nearly
28 identical in all samples, reflecting heavy petroleum hydrocarbon fraction in the C29
29 to C36 range, typical of asphalt and petroleum oils. These hydrocarbons are
30 generally considered non-hazardous and pose minor risks to groundwater due to their
31 low mobility and solubility.
- 32 ▪ Metal concentrations found in the soil samples appeared to be consistent with the
33 regional background concentrations, as established in California Administrative Code
34 Title 22, Section 66261.24.
- 35 ▪ All three samples contained polynuclear aromatic hydrocarbons (PAHs) that are
36 typically found in petroleum coke. In general, the samples from the Near Berth
37 Storage Area contained more PAH analytes and higher concentrations than those
38 from the Remote Storage Area. Dibenz(a,h)anthracene was the only PAH analyte
39 consistently detected in the site soils and at concentrations exceeding the USEPA's
40 preliminary remediation goal (PRG) screening level of 1 mg/kg. However, it was
41 reported that the health risk posed by this PAH compound is relatively low due to the
42 specific exposure pathway and long exposure duration required to develop such risk.

- 1 ▪ VOCs were not detected in any of the soil samples tested.
- 2 ▪ PCBs were not detected.

3 *Sediments*

4 The concentrations of TPH and PCBs in sediment samples were all below detection
5 limits. PAH analysis identified low levels of fluoranthene (120 µg/kg) and pyrene
6 (110 µg/kg) in one of the sediment samples, identified as LAXT-3-SED in the report.
7 Metals were generally present in the sediment samples. However, the sample taken from
8 the westernmost location (LAXT-1-SED) contained notably higher levels of barium,
9 chromium, copper, nickel, and zinc than others. This sample also contained 3.6 µg/kg of
10 dibutyltin and 8.2 µg/kg of tributyltin. Because this sample location was close to a boat
11 yard operation, the report recommended that metal concentrations in the other three
12 sample locations (LAXT-2-SED through LAXT-4-SED) be used as the baseline sediment
13 metal concentrations for LAXT.

14 The report concluded that the chemical data obtained from soil and sediment sampling
15 indicated no significant environmental concerns at the former LAXT Dry Bulk Handling
16 Facilities. The chemical constituents detected during sampling were at concentrations
17 below the screening criteria used by the USEPA. Therefore, the report concluded that the
18 chemical constituents found in the study area pose very limited environmental liability
19 and health concerns for the workers and surrounding public.

20 **3.7.2.3.5 Pier 300 Auto Shredder Waste Disposal Area**

21 A groundwater investigation was conducted at Pier 300 in 1998, which entailed
22 installation of a long-term groundwater monitoring well network around the Auto
23 Shredder Waste Disposal Area (ASW), and implementation of a groundwater monitoring
24 and sampling program (Woodward-Clyde, 1998). The groundwater monitoring program
25 included installation of six monitoring wells (identified as MW-1 through MW-6 in the
26 report) around the ASW disposal area, occupying approximately 25 acres in the northern
27 portion of Pier 300. The objective of the monitoring well program was to provide
28 long-term groundwater quality information around the ASW disposal area and to evaluate
29 groundwater quality, elevation, flow direction, and gradient. Soil samples were also
30 collected during well installation and analyzed in the laboratory for various chemicals of
31 concern. The findings of the study are summarized below:

32 *Soil Sampling Results*

33 Soil samples collected at 5 and 10 ft bgs from each soil boring (12 total) were selected for
34 analytical testing. Soil sample analytical methods included USEPA Methods 8260, 8081,
35 and 8270 and California Code of Regulations (CCR) Title 22 metals.

36 Analytical results for USEPA Method 8260 identified the presence of VOCs in four of
37 the 12 soil samples submitted for analysis. The VOCs detected included benzene,
38 toluene, and naphthalene and ranged in concentration from 0.009 mg/kg to 0.022 mg/kg.
39 Concentrations of toluene ranged from 0.009 mg/kg to 0.022 mg/kg in the soil samples
40 collected from well MW-1 and MW-6. Benzene was detected in the 10-foot bgs sample
41 collected at well MW-6 at a concentration of 0.009 mg/kg. Naphthalene was detected at
42 a concentration of 0.014 mg/kg in the 5-foot sample from well MW-5. SVOCs were not
43 detected in the 12 soil samples submitted for analysis.

1 Analytical results by USEPA Method 8081 detected 4,4'-DDE in one of the soil samples
2 analyzed. The pesticide 4,4'-DDE was detected in the 5-foot soil sample collected from
3 MW-5 at a concentration of 0.014 mg/kg. No other pesticides or PCBs were detected in
4 the 12 soil samples analyzed.

5 Soil analytical results for metals did not detect concentrations that exceed the established
6 CRR, Title 22 TTLC values. In addition, soil metals concentrations did not exceed
7 10 times the STLC values.

8 *Groundwater Results*

9 Groundwater elevations in the wells ranged from approximately 2.90 ft mean lower low
10 water (MLLW) in well MW-5 to approximately 3.75 ft MLLW in wells MW-2 and
11 MW-3 during the monitoring period (May 30, 1997 through July 31, 1997). The report
12 states that elevation and gradient of groundwater beneath the site appears to be only
13 slightly affected by tidal influences (less than 0.3 ft).

14 Groundwater analytical results from three sampling events detected the presence of four
15 VOCs; acetone, benzene, chloroform, and bromodichloromethane, in samples collected
16 from wells MW-2, MW-5, and MW-6. Acetone was detected in three wells, MW-2,
17 MW-5, and MW-6, with concentrations ranging between 34 µg/L and 167 µg/L. Benzene
18 concentrations ranged from 2 to 3 µg/L in the samples collected from MW -2.

19 Bromochloromethane and/or chloroform were detected at concentrations ranging from
20 1 to 10 µg/L in samples collected from MW-5 and MW-6 during the May 30, 1997 event
21 and were not detected in the two subsequent groundwater sampling events.

22 Concentrations of CCR Title metals were below CCR, Title 22 STLC values.

23 Concentrations of benzene in the samples collected from MW-2 (2 µg/L to 3 µg/L)
24 exceed the established MCL of 1µg/L for drinking water under CCR, Title 22, Section
25 64444. However, this groundwater source is not used to supply potable drinking water.

26 *Conclusions*

27 The report concluded with the following recommendations:

- 28 ■ Implement an annual groundwater monitoring program utilizing the existing
29 monitoring well network in accordance with CCR Title 23, Chapter 15, Article 5.
- 30 ■ Analyze groundwater samples by USEPA Method 8260 for VOCs, and by USEPA
31 Method 6010 for selected metals (barium, total chromium, copper, molybdenum
32 vanadium and zinc).

33 **3.7.2.4 Potential Site Contamination**

34 Readily available and reasonably ascertainable federal, state, tribal, and local government
35 agency records using a regulatory records database report provided by Environmental
36 Data Resources, Inc. (EDR) were reviewed. A copy of the EDR database report is
37 included in Appendix I. As detailed in Section 3.8, Hazards and Hazardous Materials,
38 the review identified eight potentially contaminated sites within the search radius of one
39 mile. Of the eight sites identified, only one was determined to be of potential
40 environmental concern to the proposed Project site. The other seven sites were
41 determined to represent a lesser potential environmental concern due to the distance from
42 the proposed Project element, type of contaminant, intervening development and water

1 body, or cleanup program. The single potential environmental concern to the proposed
2 Project site is described below:

- 3 ▪ **Auto Warehousing LA Inc/TNT Auto Warehouse/TNT Transportation:** The site
4 is located in the northwest portion of the Project site at 760 Earle Street. The site
5 contained a leaking underground storage tank (LUST), which released gasoline to the
6 subsurface and impacted the groundwater. The case was closed in 1996. However,
7 due to the proximity to the redevelopment of the former LAXT right-of-way along
8 the western Project boundary, if soil is disturbed during the modifications, any
9 potential residual contamination and chemicals not analyzed during previous site
10 investigations (e.g., methyl tertiary butyl ether [MTBE]) at the site could have a
11 potential impact on the redevelopment of the area.

12 3.7.3 Applicable Regulations

13 As detailed in Section 3.8, Hazards and Hazardous Materials, applicable federal, state,
14 and local laws each contain lists of hazardous materials or hazardous substances that may
15 require special handling if encountered in soil or groundwater during construction of the
16 proposed Project or one of the alternatives. These include “hazardous substances” under
17 the Comprehensive Environmental Response, Compensation, and Liability Act of 1980
18 (CERCLA) and the state Hazardous Substances Account Act (Health and Safety Code
19 Section 25300, et seq.); “hazardous materials” under Health and Safety Code Section
20 25501, California Labor Code Section 6380 and CCR Title 8, Section 339; “hazardous
21 substances” under 40 CFR Part 116; and, priority toxic pollutants under CFR Part 122.
22 In addition, “hazardous materials” are frequently defined under local hazardous materials
23 ordinances, such as the Uniform Fire Code.

24 Generally speaking, “hazardous materials” means any material that, because of its
25 quantity, concentration, or physical or chemical characteristics, poses a significant
26 present or potential hazard to human health and safety or to the environment if released
27 into the workplace or the environment. Hazardous materials that are commonly found in
28 soil and groundwater include petroleum products, fuel additives, heavy metals, and
29 volatile organic compounds. Hazardous substances are defined by State and Federal
30 regulations as substances that must be regulated in order to protect the public health and
31 the environment. Hazardous materials are characterized by certain chemical, physical, or
32 infectious properties. CCR Title 22, Chapter 11, Article 2, Section 66261 defines a
33 hazardous material as a substance or combination of substances which, because of its
34 quantity, concentration, or physical, chemical, or infectious characteristics, may either:
35 (1) cause, or significantly contribute to, an increase in mortality or an increase in serious
36 irreversible, or incapacitating reversible illness; or (2) pose a substantial present or
37 potential hazard to human health or environment when improperly treated, stored,
38 transported, or disposed of or otherwise managed.

39 According to Title 22 (Chapter 11, Article 3, CCR), substances having a characteristic of
40 toxicity, ignitability, corrosivity, or reactivity are considered hazardous. Hazardous
41 wastes are materials that no longer have a practical use, such as material that has been
42 abandoned, discarded, spilled, and is either listed in the regulations as a hazardous waste
43 or meets one of the characteristics of hazardous waste specified in the regulations.

44 Depending on the type and degree of contamination that is present in soil and
45 groundwater, any of several governmental agencies may have jurisdiction over the

1 proposed Project site. Generally, the agency with the most direct statutory authority over
2 the affected media is designated as the lead agency for purposes of overseeing any
3 necessary investigation or remediation. Typically, sites that are nominally contaminated
4 with hazardous materials remain in the jurisdiction of local hazardous materials agencies,
5 such as the Los Angeles Fire Department. Sites that have more heavily contaminated
6 soils are more likely to fall under the jurisdiction of DTSC, which is authorized to
7 administer the federal hazardous waste program under the Resource Conservation and
8 Recovery Act, and is also responsible for administering the State Superfund Program,
9 under the Hazardous Substance Account Act. The DTSC provides guidelines for cleanup
10 oversight through an environmental oversight agreement for government agencies or a
11 voluntary cleanup agreement for private parties.

12 Sites that have contaminated groundwater fall within the jurisdiction of the Los Angeles
13 RWQCB and are subject to the requirements of the Porter-Cologne Water Quality
14 Control Act. Contaminated groundwater that is proposed to be discharged to surface
15 waters or to a publicly owned treatment works would be subject to the applicable
16 provisions of the Clean Water Act (CWA), including permitting and possibly
17 pretreatment requirements. An NPDES permit is required to discharge pumped
18 groundwater (whether contaminated or not) to surface waters, including local storm
19 drains, in accordance with California Water Code Section 13260. Additional restrictions
20 may be imposed upon discharges to water bodies that are listed as “impaired” under
21 Section 303(d) of the CWA, including San Pedro Bay.

22 In July 2002, USEPA amended the Oil Pollution Prevention regulation at Title 40 of the
23 Code of Federal Regulations, Part 112 (40 CFR Part 112). The regulation incorporated
24 revisions proposed in 1991, 1993, and 1997. Subparts A through C of the Oil Pollution
25 Prevention regulation are often referred to as the “SPCC Rule” because they describe the
26 requirements for certain facilities to prepare, amend, and implement Spill Prevention,
27 Control, and Countermeasure (SPCC) Plans. These plans ensure that facilities include
28 containment and other countermeasures that would prevent oil spills that could reach
29 navigable waters. In addition, oil spill contingency plans are required as part of this
30 legislation to address spill cleanup measures after a spill has occurred.

31 **3.7.4 Impacts and Mitigation Measures**

32 **3.7.4.1 Methodology**

33 Groundwater and surface soils impacts have been evaluated with respect to several
34 general parameters, including groundwater quality, groundwater quantity, and soil
35 contaminants. The impact of the proposed Project and the alternatives on each of these
36 parameters has been evaluated with respect to the significance criteria listed below.

37 The assessment of impacts is also based on regulatory controls and on the assumptions
38 that the proposed Project would include the following:

- 39 ■ An individual NPDES permit for stormwater discharges or coverage under the
40 General Construction Activity Storm Water Permit would be obtained for the
41 proposed Project or alternative.
- 42 ■ The contractor would prepare a SPCC Plan and an Oil Spill Contingency Plan
43 (OSCP), which would be reviewed and approved by the California Department of

1 Fish and Game Office of Spill Prevention and Response, in consultation with other
2 responsible agencies. The SPCC Plan would detail and implement spill prevention
3 and control measures to prevent oil spills from reaching navigable waters. The
4 OSCP would identify and plan as necessary for contingency measures that would
5 minimize damage to water quality and provide for restoration to pre-spill conditions.

- 6 ■ All contaminated soil and groundwater encountered during construction of the
7 proposed Project or alternative would be handled, transported, remediated, and/or
8 disposed of in accordance with the LAHD lease conditions and all applicable federal,
9 state, and local laws and regulations.
- 10 ■ In accordance with standard LAHD lease conditions, the terminal operator would
11 implement a source control program, which provides for the inspection, control, and
12 cleanup of leaks from aboveground tank and pipeline sources, as well as
13 requirements related to groundwater and soil remediation.

14 Potential impacts to surface water and marine water quality are addressed in Section 3.14,
15 Water Quality, Sediments, and Oceanography.

16 **3.7.4.1.1 CEQA Baseline**

17 Section 15125 of the CEQA Guidelines requires EIRs to include a description of the
18 physical environmental conditions in the vicinity of a project that exist at the time of the
19 NOP. These environmental conditions normally would constitute the baseline physical
20 conditions by which the CEQA lead agency determines if an impact is significant. For
21 purposes of this Draft EIS/EIR, the CEQA baseline for determining the significance of
22 potential Project impacts is the environmental set of conditions that prevailed at the time
23 the NOP was published for the proposed Project - July 2009. The CEQA baseline takes
24 into account the throughput for the 12-month period preceding July 2009 (July 2008
25 through the end of June 2009) in order to provide a representative characterization of
26 activity levels throughout the year. The CEQA baseline conditions are described in
27 Section 2.6.1. The CEQA baseline for this proposed Project includes approximately 1.13
28 million TEUs per year, 998,728 annual truck trips, and 247 annual ship calls that
29 occurred on the 291-acre APL Terminal in the year prior to and including June 2009.

30 The CEQA baseline represents the setting at a fixed point in time and differs from the No
31 Project Alternative (Alternative 1) in that the No Project Alternative addresses what is
32 likely to happen at the proposed Project site over time, starting from the existing
33 conditions. Therefore, the No Project Alternative allows for growth at the proposed
34 Project site that could be expected to occur without additional approvals, whereas the
35 CEQA baseline does not.

36 **3.7.4.1.2 NEPA Baseline**

37 For purposes of this Draft EIS/EIR, the evaluation of significance under NEPA is defined
38 by comparing the proposed Project or other alternative to the NEPA baseline. The NEPA
39 baseline conditions are described in Section 2.6.2. Briefly, the NEPA baseline condition
40 for determining significance of impacts includes the full range of construction and
41 operational activities the applicant could implement and is likely to implement absent a
42 federal action, in this case the issuance of a USACE permit. The NEPA baseline includes
43 minor terminal improvements in the upland area (i.e., conversion of a portion of the dry
44 container storage unit area to reefers and utility infrastructure), operation of the 291-acre
45 container terminal, and assumes that by 2027, the terminal (Berths 302 to 305) handles up

1 to approximately 2.15 million TEUs annually and accommodates 286 annual ships calls
2 and 2,336 on-way rail trips, without any federal action. Because the NEPA baseline is
3 dynamic, it includes different levels of terminal operations at each study year (2012, 2015,
4 2020, 2025, and 2027).

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

14 The NEPA baseline, for purposes of this Draft EIS/EIR, is the same as the No Federal
15 Action Alternative. Under the No Federal Action Alternative, only minor terminal
16 improvements (utility infrastructure, and conversion of dry container storage to
17 refrigerated container storage) would occur, but no new cranes would be added, and the
18 terminal configuration would remain as it was configured in 2008 (291 acres, 12 A-frame
19 cranes, and a 4,000-ft wharf). However, forecasted increases in cargo throughput and
20 annual ship calls would still occur as container growth occurs.

21 3.7.4.2 Threshold of Significance

22 Significance criteria used in this assessment are based on the *L.A. CEQA Thresholds*
23 *Guide* (City of Los Angeles, 2006) and other criteria applicable to Port projects. There
24 are no specific NEPA thresholds associated with groundwater and soils. The effects of a
25 project or alternative on groundwater and soils resources are considered to be significant
26 if the Project or alternative would result in any of the following:

27 **GW-1** Exposure of soils containing toxic substances and petroleum hydrocarbons,
28 associated with prior operations, which would be deleterious to humans, based
29 on regulatory standards established by the lead agency for the site.

30 **GW-2** Changes in the rate or direction of movement of existing contaminants;
31 expansion of the area affected by contaminants; or increased level of
32 groundwater contamination, which would increase risk of harm to humans.

33 **GW-3** Change in potable water levels sufficient to:

- 34 ■ Reduce the ability of a water utility to use the groundwater basin for public
35 water supplies, conjunctive use purposes, storage of imported water,
36 summer/winter peaking, or to respond to emergencies and drought;
- 37 ■ Reduce yields of adjacent wells or well fields (public or private); or
- 38 ■ Adversely change the rate or direction of groundwater flow.

39 **GW-4** Demonstrable and sustained reduction in groundwater recharge capacity.

1 **GW-5** Violation of regulatory water quality standards at an existing production well,
 2 as defined in the CCR, Title 22, Division 4, Chapter 15 and in the Safe
 3 Drinking Water Act.

4 Under GW-4, groundwater recharge is considered to be part of potable water supply
 5 management.

6 **3.7.4.3 Impact Determination**

7 **3.7.4.3.1 Proposed Project**

8 **Impact GW-1: Proposed Project construction activities would not**
 9 **encounter toxic substances or other contaminants associated with**
 10 **historical uses of the Port, resulting in short-term exposure (duration**
 11 **of construction) to construction/operations personnel and/or**
 12 **long-term exposure to future site occupants.**

13 The proposed Project would encompass 347 acres and include improvements to the
 14 existing 291-acre terminal and 56-acre expansion area. Soil and/or groundwater
 15 contamination has been identified during investigations that were conducted at the
 16 Project site, as discussed in Section 3.7.2.3. Those results indicated that there are three
 17 potential contamination areas within the proposed Project site, including: 1) the Near
 18 Berth Storage Area, which is the location of the proposed 7-acre backland behind
 19 Berth 301 and adjacent Power Shop parcel; 2) the waste disposal area, which is located in
 20 the north-central portion of the Project site; and, 3) the auto shredder waste disposal area,
 21 also located in the north-central portion of the Project site. Improvements under the
 22 proposed Project that would be located within or in close proximity to these three areas
 23 include the modified Earle Street gate, development of the former LAXT right-of-way,
 24 backland development behind Berth 301, Power Shop, new “meet and greet” booth,
 25 installation of utility infrastructure, new reefer area, and the new roadability facility.

26 The proposed Project would include grading, excavation, and other construction-related
 27 activities that could disturb or expose soils that are contaminated. Project elements that
 28 could result in exposure of soils include: demolition and reconstruction of the existing
 29 roadability facility; modification of terminal entrance lanes and gates; utility and
 30 infrastructure installation; new reefer storage area; and, expansion of the Power Shop to
 31 include tractor bays and marine office facilities. New wharf construction at Berth 306 is
 32 not anticipated to encounter contaminated soils because the 41 acres were created with
 33 recent fill.

34 **CEQA Impact Determination**

35 Excavations associated with upland improvements could encounter previously unknown
 36 soil and/or groundwater contamination. Such discoveries could result in adverse impacts
 37 to construction and operations personnel. Development of additional backlands would
 38 include asphalt paving at the Project site, or the placement of similar impervious surface
 39 material, which would essentially cap contamination in the Near Berth Storage Area and
 40 other areas, thereby preventing runoff from leaching through the remaining contaminants.
 41 This would reduce the potential for exposure to underlying contaminants. All
 42 contaminated soil or groundwater encountered during construction of the proposed
 43 Project would be handled, transported, remediated, and/or disposed of in accordance with
 44 all applicable federal, state, and local laws and regulations and in accordance with the

1 regulatory lead agency (e.g., DTSC, Los Angeles RWQCB) and LAHD lease measures
2 pertaining to site remediation and development of contamination contingency plan.
3 Compliance with lease measures would ensure that should contaminated material during
4 be encountered on-site, personnel on-site would not have short-term and/or long-term
5 exposure to toxic substances or other contaminants associated with historical uses of the
6 Port. Therefore, the impact would be less than significant under CEQA.

7 *Mitigation Measures*

8 Although significant impacts related to the potential for exposure to underlying
9 contaminants would not occur, lease measures **LM GW-1** and **LM GW-2** would
10 further reduce potential impacts.

11 **LM GW-1: Site Remediation Lease Requirement.** Unless otherwise
12 authorized by the lead regulatory agency for any given site, the
13 Tenant (i.e., APL) shall address all contaminated soils within
14 proposed Project boundaries discovered during demolition and
15 grading activities. Contamination existing at the time of discovery
16 shall be the responsibility of the past and/or current property owner.
17 Contamination as a result of the construction process shall be the
18 responsibility of the Tenant and/or Tenant contractors. Remediation
19 shall occur in compliance with local, state, and federal regulations,
20 as described in Section 3.7.3 (above) and Section 3.8.3 (in
21 Section 3.8, Hazards and Hazardous Materials), and as directed by
22 the lead regulatory agency for the site (such as the Los Angeles
23 RWQCB or DTSC).

24 Soil removal shall be completed such that remaining contamination
25 levels are below risk-based health screening levels for industrial
26 sites established by OEHHA and/or applicable action levels
27 (e.g., Environmental Screening Levels, Preliminary Remediation
28 Goals) established by the lead regulatory agency with jurisdiction
29 over the site. Soil contamination waivers may be acceptable as a
30 result of encapsulation (i.e., paving) and/or risk-based soil
31 assessments for industrial sites, but are subject to the review of the
32 lead regulatory agency and LAHD. Excavated contaminated soil
33 shall be properly disposed of off-site unless use of such material
34 on-site is beneficial to construction and approved by the agency
35 overseeing environmental concerns. All imported soil to be used as
36 backfill in excavated areas shall be sampled to ensure that it is
37 suitable for use as backfill at an industrial site.

38 **LM GW-1: Contamination Contingency Plan Lease Requirement.** The
39 following contingency plan shall be implemented to address
40 contamination discovered during demolition, grading, and
41 construction.

- 42 a) All trench excavation and filling operations shall be observed
43 for the presence of free petroleum products, chemicals, or
44 contaminated soil. Soil suspected of contamination shall be
45 segregated from other soil. In the event soil suspected of
46 contamination is encountered during construction, the

1 contractor shall notify the LAHD's environmental
2 representative. The LAHD shall confirm the presence of the
3 suspect material and direct the contractor to remove, stockpile
4 or contain, and characterize the suspect material. Continued
5 work at a contaminated site shall require the approval of the
6 LAHD Project Engineer.

- 7 b) Excavation of VOC-impacted soil may require obtaining and
8 complying with a South Coast Air Quality Management District
9 Rule 1166 permit.
- 10 c) The remedial option(s) selected shall be dependent upon a suite
11 of criteria (including but not limited to types of chemical
12 constituents, concentration of the chemicals, health and safety
13 issues, time constraints, cost, etc.) and shall be determined on a
14 site-specific basis. Both off-site and on-site remedial options
15 may be evaluated.
- 16 d) The extent of removal actions shall be determined on a site-
17 specific basis. At a minimum, the impacted area(s) within the
18 boundaries of the construction area shall be remediated to the
19 satisfaction of the LAHD and the lead regulatory agency for the
20 site. The LAHD Project Manager overseeing removal actions
21 shall inform the contractor when the removal action is
22 complete.
- 23 e) Copies of hazardous waste manifests or other documents
24 indicating the amount, nature, and disposition of such materials
25 shall be submitted to the LAHD Project Manager within
26 60 days of project completion.
- 27 f) In the event that contaminated soil is encountered, all on-site
28 personnel handling or working in the vicinity of the
29 contaminated material must be trained in accordance with
30 USEPA and Occupational Safety and Health and
31 Administration (OSHA) regulations for hazardous waste
32 operations or demonstrate they have completed the appropriate
33 training. Training must provide protective measures and
34 practices to reduce or eliminate hazardous materials/waste
35 hazards at the work place.
- 36 g) When impacted soil must be excavated, air monitoring will be
37 conducted as appropriate for related emissions adjacent to the
38 excavation.
- 39 h) All excavations shall be backfilled with structurally suitable fill
40 material that is free from contamination.

41 *Residual Impacts*

42 Impacts would be less than significant.

43 **NEPA Impact Determination**

44 The proposed Project would include upland improvements, new wharf construction,
45 dredging activities, installation of additional cranes, and other elements that would not be

1 part of the NEPA baseline. Construction activities associated with these upland
2 improvements could encounter previously unknown soil and/or groundwater
3 contamination. Such discoveries could result in adverse impacts to construction and
4 operations personnel. Grading and construction could expose construction and
5 operations personnel at the site to contaminated soil. Development of additional
6 backlands would include asphalt paving at the Project site, or the placement of similar
7 impervious surface material, which would essentially cap contamination in the Near
8 Berth Storage Area and other areas, thereby preventing runoff from leaching the
9 remaining contaminants. This would reduce the potential for exposure to underlying
10 contaminants. As discussed above, all contaminated soil or groundwater encountered
11 during construction of the proposed Project would be handled, transported, remediated,
12 and/or disposed of in accordance with all applicable federal, state, and local laws and
13 regulations and in accordance with the regulatory lead agency (e.g., DTSC, Los Angeles
14 RWQCB) and conditions under LAHD leasing requirements for site remediation and a
15 contamination contingency plan. Thus, personnel on-site would not have short-term
16 and/or long-term exposure to toxic substances or other contaminants associated with
17 historical uses of the Port. The impact would be less than significant under NEPA.

18 *Mitigation Measures*

19 Although significant impacts related to the potential for exposure to underlying
20 contaminants would not occur, lease measures **LM GW-1** and **LM GW-2** would
21 further reduce potential impacts.

22 *Residual Impacts*

23 Impacts would be less than significant.

24 **Impact GW-2: Proposed Project construction and operation would** 25 **not result in expansion of the area affected by contaminants.**

26 As discussed for Impact GW-1, soil and groundwater in limited portions of the Project
27 site have been affected by hazardous substances, solid waste, and petroleum products, as
28 a result of historic terminal and industrial uses. Remediation of much of the soil
29 contamination has occurred, but some contamination could remain on-site. Excavation
30 and grading activities in these areas, and potentially others areas with unknown
31 contamination, could encounter contaminated soil or groundwater. However, the
32 removal of contaminated soil or dewatering of contaminated groundwater would be
33 localized to the site and not expected to cause remaining contamination to migrate to
34 off-site areas.

35 Stormwater currently infiltrates in the undeveloped 41-acre backland area, which was
36 created in 2005. The fill is considered clean and the groundwater beneath the site
37 non-potable due to its proximity to the Harbor. Although construction of the proposed
38 Project would develop the 41 acres, improvements to the area could potentially include
39 infiltration BMPs. The net increase in impermeable surface area by developing the
40 41-acre backland (beyond the infiltration BMPs) is expected to be minimal in relation to
41 the entire terminal area (for additional details regarding the proposed BMPs, refer to
42 Section 3.14, Water Quality, Sediment, and Oceanography). Because the 41-acre area is
43 comprised of uncontaminated fill and no potable groundwater exists beneath the site,
44 neither paving of the backlands nor installation of infiltration BMPs would adversely
45 affect soils or groundwater. Regarding other portions of the site, although the proposed
46 Project would not change the impermeable surface area where contamination potentially

1 exists, and runoff would be conveyed to the Pier 300 Channel (in the same way as under
2 the CEQA baseline), some BMPs may be utilized that will retain and/or treat runoff and
3 allow it to permeate the soil. In the case of infiltration BMPs, compliance with the LID
4 ordinance would ensure that existing soil or groundwater contamination would not be
5 exacerbated.

6 Operation of the proposed Project would comply with all applicable existing regulations,
7 which would prevent the Project from affecting, or expanding any potential areas affected
8 by contamination, nor increasing the level of contamination.

9 **CEQA Impact Determination**

10 The proposed Project is not expected to change the rate, direction, or extent of existing
11 soils and/or groundwater contamination. Should any contaminated soil or groundwater
12 be encountered it would be remediated in compliance with federal, state, and local
13 requirements. Further, operation of the proposed Project would comply with all
14 applicable regulations governing use and handling of hazardous materials. As discussed
15 above, infiltration BMPs are not expected to result in significant impacts related to soil or
16 groundwater contamination. Therefore, no significant impact is anticipated. In addition,
17 no permanent dewatering systems are anticipated with development of the Project. As
18 such, no significant impact is anticipated to the rate or direction of movement of any
19 existing contaminants beneath the proposed Project site or the area affected by or the
20 level of groundwater contaminants. Thus, construction and operation of the proposed
21 Project would not result in expansion of the existing area affected by contaminants and
22 would not cause a significant impact under CEQA.

23 *Mitigation Measures*

24 No mitigation is required.

25 *Residual Impacts*

26 Impacts would be less than significant.

27 **NEPA Impact Determination**

28 As described above, any contaminated soils and groundwater encountered during
29 construction would be remediated in compliance with applicable requirements. Further,
30 operations would comply with all applicable regulations governing use and handling of
31 hazardous materials. Thus, construction and operation of the proposed Project would not
32 result in expansion of the existing area affected by contaminants and would not cause
33 significant impacts under NEPA.

34 *Mitigation Measures*

35 No mitigation is required.

36 *Residual Impacts*

37 Impacts would be less than significant.

1 **Impact GW-3: Proposed Project construction and operation would**
2 **not result in a change to potable water levels.**

3 Drinking water is provided to the proposed Project area by the LADWP. Although
4 shallow groundwater may be locally extracted during construction dewatering operations
5 (e.g., for placement of utility lines, storm drains, and SUSMP devices), groundwater
6 beneath the Project site is non-potable. Localized groundwater withdrawal would have
7 no impact on potential potable water supplies.

8 **CEQA Impact Determination**

9 Because drinking water is provided to the Project area by the LADWP, and because no
10 potable groundwater exists beneath the Project site, construction and operation of the
11 Project would result in no impacts to potable water levels under CEQA.

12 *Mitigation Measures*

13 No mitigation is required.

14 *Residual Impacts*

15 There would be no impacts.

16 **NEPA Impact Determination**

17 Although shallow groundwater may be locally extracted during construction dewatering
18 operations (e.g., for placement of utility lines, storm drains, and SUSMP devices),
19 groundwater beneath the Project site is non-potable. Thus, localized groundwater
20 withdrawal would have no impact on potential underlying potable water supplies.
21 Therefore, no impacts to potable water levels would occur under NEPA.

22 *Mitigation Measures*

23 No mitigation is required.

24 *Residual Impacts*

25 There would be no impacts.

26 **Impact GW-4: Proposed Project construction and operation would**
27 **not result in a demonstrable and sustained reduction in groundwater**
28 **recharge capacity (for potable water storage).**

29 The proposed Project area is underlain by saline, non-potable groundwater. As such, any
30 changes in site permeability will not affect potable groundwater recharge capacity.

31 **CEQA Impact Determination**

32 Because the water is non-potable, the amount of infiltration to the groundwater beneath
33 the Project site is irrelevant with respect to potential recharge of the groundwater for
34 drinking water storage. Therefore, any temporary increase or decrease in site
35 permeability at the Project site during construction or operational activities would not
36 result in impacts under CEQA.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

5 **NEPA Impact Determination**

6 The proposed Project site is not used to recharge potable groundwater supplies as
7 groundwater in the Project area vicinity is saline and non-potable. Thus, no reductions in
8 potable groundwater capacity would occur during construction or operation of the
9 proposed Project. Therefore, no impacts to potable groundwater recharge would occur
10 under NEPA.

11 *Mitigation Measures*

12 No mitigation is required.

13 *Residual Impacts*

14 There would be no impacts.

15 **Impact GW-5: Proposed Project construction and operation would**
16 **not result in violation of regulatory water quality standards at an**
17 **existing production well.**

18 Drinking water is provided to the proposed Project area by the LADWP. No potable
19 water production wells are located within a 2-mile radius of the proposed Project.
20 Groundwater in the vicinity of the proposed Project is subject to extensive saltwater
21 intrusion and is not a source of potable water.

22 **CEQA Impact Determination**

23 As no existing production wells are located in the vicinity of the proposed Project site,
24 Project construction and operation would not result in impacts to water quality at
25 production wells under CEQA.

26 *Mitigation Measures*

27 No mitigation is required.

28 *Residual Impacts*

29 There would be no impacts.

30 **NEPA Impact Determination**

31 No existing production wells are located in the vicinity of the proposed Project site,
32 hence, construction and operation would not result in impacts to water quality at
33 production wells. Therefore, no impacts would occur under NEPA.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

5 **3.7.4.3.2 Alternatives**

6 **3.7.4.3.2.1 Alternative 1 – No Project**

7 Under Alternative 1, no further Port action or federal action would occur. The Port
8 would not construct and develop additional backlands, wharves, or terminal
9 improvements. No new cranes would be added, no gate or backland improvements
10 would occur, and no infrastructure for AMP at Berth 306 or automation in the backland
11 area adjacent to Berth 306 would be provided. This alternative would not include any
12 dredging, new wharf construction, or new cranes. The No Project Alternative would not
13 include development of any additional backlands because the existing terminal is berth-
14 constrained and additional backlands would not improve its efficiency.

15 Under the No Project Alternative, the existing APL Terminal would continue to operate
16 as an approximately 291-acre container terminal. Based on the throughput projections,
17 terminal operations are expected to grow over time as throughput demands increase.
18 Under Alternative 1, the existing APL Terminal would handle approximately 2.15
19 million TEUs by 2027, which would result in 286 annual ship calls at Berths 302-305. In
20 addition, this alternative would result in up to 7,273 peak daily one-way truck trips
21 (1,922,497 annual), and up to 2,336 annual one-way rail trip movements. Under
22 Alternative 1, cargo ships that currently berth and load/unload at the Berths 302-305
23 terminal would continue to do so.

24 The No Project Alternative would not preclude future improvements to the proposed
25 Project site. However, any future changes in use or new improvements with the potential
26 to significantly impact the environment would need to be analyzed in a separate
27 environmental document.

28 **Impact GW-1: Alternative 1 construction activities would not**
29 **encounter toxic substances or other contaminants associated with**
30 **historical uses of the Port, resulting in short-term exposure (duration**
31 **of construction) to construction/operations personnel and/or**
32 **long-term exposure to future site occupants.**

33 **CEQA Impact Determination**

34 As discussed for Impact GW-1 for the proposed Project, soil and groundwater within the
35 proposed site have been affected by hazardous substances, solid waste, and petroleum
36 products, as a result of historic terminal and industrial uses. Remediation of much of the
37 soil contamination has occurred, but some contamination could remain on-site. However,
38 Alternative 1 would not develop or improve the existing APL Terminal, which would
39 continue to operate as a container terminal through 2027. Because this alternative would
40 not result in land development, it would not directly affect any soils, contaminated or
41 otherwise. As a consequence, implementation of Alternative 1 would result in no impact
42 under CEQA.

1 *Mitigation Measures*
2 No mitigation is required.

3 *Residual Impacts*
4 There would be no impacts.

5 **NEPA Impact Determination**

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

9 *Mitigation Measures*
10 Mitigation measures are not applicable.

11 *Residual Impacts*
12 An impact determination is not applicable.

13 **Impact GW-2: Alternative 1 construction and operation would not**
14 **result in expansion of the area affected by contaminants.**

15 **CEQA Impact Determination**

16 As discussed for Impact GW-1 for the proposed Project, soil and groundwater in limited
17 portions of the proposed site have been affected by hazardous substances, solid waste,
18 and petroleum products, as a result of historic terminal and industrial uses. Remediation
19 of much of the soil contamination has occurred, but some contamination could remain
20 on-site. However, Alternative 1 would not develop or improve the existing APL
21 Terminal, which would continue to operate as a container terminal through 2027.
22 Because this alternative would not result in land development, it would not directly affect
23 any soils, contaminated or otherwise. As a consequence, Alternative 1 would result in no
24 impact under CEQA.

25 *Mitigation Measures*
26 No mitigation is required.

27 *Residual Impacts*
28 There would be no impacts.

29 **NEPA Impact Determination**

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

1 *Mitigation Measures*
2 Mitigation measures are not applicable.

3 *Residual Impacts*
4 An impact determination is not applicable.

5 **Impact GW-3: Alternative 1 construction and operation would not**
6 **result in a change to potable water levels.**

7 **CEQA Impact Determination**

8 Drinking water is provided to the proposed site by the LADWP. There is no potable
9 water supply beneath the proposed site. Further, Alternative 1 would not develop or
10 improve the existing APL Terminal, and would continue to operate as a container
11 terminal through 2027. Therefore, Alternative 1 would result in no impact under CEQA.

12 *Mitigation Measures*
13 No mitigation is required.

14 *Residual Impacts*
15 There would be no impacts.

16 **NEPA Impact Determination**

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

20 *Mitigation Measures*
21 Mitigation measures are not applicable.

22 *Residual Impacts*
23 An impact determination is not applicable.

24 **Impact GW-4: Alternative 1 construction and operation would not**
25 **result in a demonstrable and sustained reduction in groundwater**
26 **recharge capacity (for potable water storage).**

27 **CEQA Impact Determination**

28 The proposed site is not used for groundwater recharge and is underlain by saline non-
29 potable groundwater. Because the water is non-potable, the amount of infiltration to the
30 groundwater beneath the site is irrelevant with respect to groundwater recharge capacity.
31 Further, Alternative 1 would not develop or improve the existing APL Terminal, which
32 would continue to operate as a container terminal through 2027. Therefore, Alternative 1
33 would result in no impact under CEQA.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

5 **NEPA Impact Determination**

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

9 *Mitigation Measures*

10 Mitigation measures are not applicable.

11 *Residual Impacts*

12 An impact determination is not applicable.

13 **Impact GW-5: Alternative 1 construction and operation would not**
14 **result in violation of regulatory water quality standards at an existing**
15 **production well.**

16 **CEQA Impact Determination**

17 As indicated in Section 3.7.2.1, drinking water is provided to the Alternative 1 area by the
18 LADWP. No potable water production wells are located within a 2-mile radius of the
19 proposed Project. Alternative 1 would not develop or improve the existing APL
20 Terminal, which would continue to operate as a container terminal through 2027.
21 Therefore, Alternative 1 would result in no impact under CEQA.

22 *Mitigation Measures*

23 No mitigation is required.

24 *Residual Impacts*

25 There would be no impacts.

26 **NEPA Impact Determination**

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

30 *Mitigation Measures*

31 Mitigation measures are not applicable.

32 *Residual Impacts*

33 An impact determination is not applicable.

34

3.7.4.3.2.2 Alternative 2 – No Federal Action

The No Federal Action Alternative would be the same as the NEPA baseline and would include only the activities and impacts likely to occur absent further USACE federal approval but could include improvements that require a local action. Under Alternative 2, no federal action would occur; however, minor terminal improvements in the upland area of the existing APL Terminal would be implemented. These minor upland improvements would include conversion of a portion of the dry container storage area to an additional 200 reefers, associated electrical lines, and installation of utility infrastructure at locations in the existing backland areas. Beyond these minor upland improvements, the Port would not construct and develop additional backlands or wharves. No gate or additional backland improvements would occur, and no in-water features such as dredging or a new berth, wharf extension, or over-water features such as new cranes would occur under the No Federal Action Alternative.

Under the No Federal Action Alternative, the existing APL Terminal would continue to operate as an approximately 291-acre container terminal, and up to approximately 2.15 million TEUs could be handled at the terminal by 2027. Based on the throughput projections, the No Federal Action Alternative would result in 286 annual ship calls at Berths 302-305. In addition, this alternative would result in up to 7,273 peak daily truck trips (1,922,497 annual), and up to 2,336 annual one-way rail trip movements. Cargo ships that currently berth and load/unload at the Berths 302-305 terminal would continue to do so.

Impact GW-1: Alternative 2 construction activities would not encounter toxic substances or other contaminants associated with historical uses of the Port, result in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants.

Soil and groundwater in limited portions of the proposed site have been affected by hazardous substances, solid waste, and petroleum products as a result of historic terminal and industrial uses at the site. Remediation of much of the soil contamination has occurred, but some contamination could remain on-site.

Alternative 2 would include minor upland improvements, including installation of utility infrastructure in the backland areas and a new reefer area. Construction and operational activities related to these improvements are likely to be insignificant. However, construction activities requiring excavation, grading, or disturbance of subsurface soils could result in the potential exposure of construction workers and operations personnel to contaminants and related health hazard risks. Once the improvements are completed, any exposed area would be capped (paved), so future occupants would not be in contact with subsurface contamination. Construction of Alternative 2 terminal infrastructure could extend beneath the water table (in the saturated zone) and encounter existing contaminated soil or groundwater, which could result in exposure to contaminants and related risks.

CEQA Impact Determination

Implementation of the minor upland improvements under Alternative 2 could result in the potential to encounter contaminated material during construction and operational activities, which could expose on-site personnel. As discussed for Impact GW-1 under

1 the proposed Project, all contaminated soil or groundwater encountered during
2 construction of the proposed Project would be handled, transported, remediated, and/or
3 disposed of in accordance with all applicable federal, state, and local laws and regulations
4 and in accordance with the regulatory lead agency (e.g., DTSC, Los Angeles RWQCB) and
5 conditions under LAHD leasing requirements for site remediation and a contamination
6 contingency plan (LM GW-1 and LM GW-2). Thus, personnel on-site would not have
7 short-term and/or long-term exposure to toxic substances or other contaminants
8 associated with historical uses of the Port. The impact would be less than significant
9 under CEQA.

10 *Mitigation Measures*

11 Although significant impacts related to the potential for exposure to underlying
12 contaminants would not occur, lease measures LM GW-1 and LM GW-2 would
13 further reduce potential impacts.

14 *Residual Impacts*

15 Impacts would be less than significant.

16 **NEPA Impact Determination**

17 The No Federal Action Alternative would have the same conditions as the NEPA
18 baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no
19 incremental difference between Alternative 2 and the NEPA baseline. As a consequence,
20 Alternative 2 would result in no impact under NEPA.

21 *Mitigation Measures*

22 No mitigation is required.

23 *Residual Impacts*

24 There would be no impacts.

25 **Impact GW-2: Alternative 2 construction and operation would not** 26 **result in expansion of the area affected by contaminants.**

27 **CEQA Impact Determination**

28 As discussed for Impact GW-1, soil and groundwater in limited portions of the proposed
29 site have been contaminated with hazardous substances, solid waste, and petroleum
30 products, as a result of historic terminal and industrial uses at the site. However, the
31 minor upland improvements proposed under Alternative 2 are not likely to result in
32 expansion of the potentially contaminated areas because excavation would be minimal
33 and repaving materials would serve as an impermeable surface barrier above
34 contaminated areas. Therefore, construction and operation of Alternative 2 would not
35 result in expansion of the existing area affected by contaminants and would not cause
36 significant impacts under CEQA.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 Impacts would be less than significant.

5 **NEPA Impact Determination**

6 The No Federal Action Alternative would have the same conditions as the NEPA
7 baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no
8 incremental difference between Alternative 2 and the NEPA baseline. As a consequence,
9 Alternative 2 would result in no impact under NEPA.

10 *Mitigation Measures*

11 No mitigation is required.

12 *Residual Impacts*

13 There would be no impacts.

14 **Impact GW-3: Alternative 2 construction and operation would not**
15 **result in a change to potable water levels.**

16 **CEQA Impact Determination**

17 Drinking water is provided to the area by the LADWP. Because no potable water
18 supplies exist beneath the proposed site, construction and operation would result in no
19 impacts to potable water levels. Therefore, no impacts would occur under CEQA.

20 *Mitigation Measures*

21 No mitigation is required.

22 *Residual Impacts*

23 There would be no impacts.

24 **NEPA Impact Determination**

25 The No Federal Action Alternative would have the same conditions as the NEPA
26 baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no
27 incremental difference between Alternative 2 and the NEPA baseline. As a consequence,
28 Alternative 2 would result in no impact under NEPA.

29 *Mitigation Measures*

30 No mitigation is required.

31 *Residual Impacts*

32 There would be no impacts.

1 **Impact GW-4: Alternative 2 construction and operation would not**
2 **result in a demonstrable and sustained reduction in groundwater**
3 **recharge capacity (for potable water storage).**

4 **CEQA Impact Determination**

5 The proposed site is not used for groundwater recharge and is underlain by saline, non-
6 potable groundwater. Because the water is non-potable, the amount of infiltration to the
7 groundwater beneath the site is irrelevant with respect to groundwater recharge capacity.
8 Therefore, any temporary increase or decrease in site permeability at the proposed site
9 during construction and operational activities would not result in impacts under CEQA.

10 *Mitigation Measures*

11 No mitigation is required.

12 *Residual Impacts*

13 There would be no impacts.

14 **NEPA Impact Determination**

15 The No Federal Action Alternative would have the same conditions as the NEPA
16 baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no
17 incremental difference between Alternative 2 and the NEPA baseline. As a consequence,
18 Alternative 2 would result in no impact under NEPA.

19 *Mitigation Measures*

20 No mitigation is required.

21 *Residual Impacts*

22 There would be no impacts.

23 **Impact GW-5: Alternative 2 construction and operation would not**
24 **result in violation of regulatory water quality standards at an existing**
25 **production well.**

26 **CEQA Impact Determination**

27 Drinking water is provided to the Alternative 2 area by the LADWP. No existing
28 production wells are located in the vicinity of the proposed site. Therefore, no impacts
29 would occur under CEQA.

30 *Mitigation Measures*

31 No mitigation is required.

32 *Residual Impacts*

33 There would be no impacts.

34

NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

3.7.4.3.2.3 Alternative 3 – Reduced Project: Four New Cranes

Under Alternative 3, four new cranes would be added to the existing wharf along Berths 302-305 and only minor improvements to the existing APL Terminal would be made (utility infrastructure and conversion of dry container storage to reefers). No other upland terminal improvements would be constructed. The existing terminal is berth-constrained, and adding the additional four cranes would improve the terminal's efficiency.

The total acreage of backlands under Alternative 3 would remain at approximately 291 acres, which would be less than the proposed Project. This alternative would not include the extension of the existing wharf, construction of a new berth, dredging, or the relocation and improvement of various gates and entrance lanes.

Based on the throughput projections, TEU throughput under Alternative 3 would be less than the proposed Project, with an expected throughput of approximately 2.58 million TEUs by 2027. This would translate into 338 annual ship calls at Berths 302-305. In addition, this alternative would result in up to 8,725 peak daily truck trips (2,306,460 annual), and up to 2,544 annual one-way rail trip movements. Configuration of all other landside terminal components would be identical to the existing terminal.

Impact GW-1: Alternative 3 construction activities would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants.

Soil and groundwater at the proposed site have been affected by hazardous substances, solid waste, and petroleum products as a result of historic terminal and industrial uses at the site. Remediation of much of the soil contamination has occurred, but some contamination could remain on-site.

The limited upland improvements under Alternative 3 would include four new cranes, a new reefer storage area, and utility and AMP installation. Construction and operational activities related to these improvements are likely to be insignificant. However, construction activities requiring excavation, grading, or disturbance of subsurface soils could result potential exposure of construction workers and operations personnel to contaminants and related health hazard risks. Once the improvements are completed, all

1 exposed areas would be capped (paved), so that future occupants would not be at risk for
2 contact with subsurface contamination.

3 **CEQA Impact Determination**

4 Construction of Alternative 3 terminal infrastructure could extend beneath the water table
5 (in the saturated zone) and encounter existing contaminated soil or groundwater, which
6 could result in exposure to contaminants and related risks. As discussed under Impact
7 GW-1 for the proposed Project, all contaminated soil or groundwater encountered during
8 construction of the proposed Project would be handled, transported, remediated, and/or
9 disposed of in accordance with all applicable federal, state, and local laws and regulations
10 and in accordance with the regulatory lead agency (e.g., DTSC, Los Angeles RWQCB) and
11 conditions under LAHD leasing requirements for site remediation and a contamination
12 contingency plan (LM GW-1 and LM GW-2). Thus, personnel on-site would not have
13 short-term and/or long-term exposure to toxic substances or other contaminants
14 associated with historical uses of the Port. The impact would be less than significant
15 under CEQA.

16 *Mitigation Measures*

17 Although significant impacts related to the potential for exposure to underlying
18 contaminants would not occur, lease measures LM GW-1 and LM GW-2 would
19 further reduce potential impacts.

20 *Residual Impacts*

21 Impacts would be less than significant.

22 **NEPA Impact Determination**

23 Construction of Alternative 3 would not result in additional excavations beyond the
24 NEPA baseline that could result in impacts related to the potential to expose construction
25 workers and existing operations personnel to contaminants and related health hazard risks,
26 because the new cranes would not require excavation in the contaminated areas.
27 Therefore, Alternative 3 would result in no impact under NEPA.

28 *Mitigation Measures*

29 No mitigation is required.

30 *Residual Impacts*

31 There would be no impact.

32 **Impact GW-2: Alternative 3 construction and operation would not** 33 **potentially result in expansion of the area affected by contaminants.**

34 As discussed for Impact GW-1, soil and groundwater in limited portions of the proposed
35 site have been affected by hazardous substances, solid waste, and petroleum products as a
36 result of historic terminal and industrial uses at the site. Remediation of much of the soil
37 contamination has occurred, but some contamination could remain on-site.

38 Improvements under this alternative would include four new cranes, a new reefer storage
39 area, and utility installation. Construction of Alternative 3 would not affect the overall
40 percentage of permeable surface area, as the total acreage would remain at approximately

1 291 acres. As a result, runoff would be conveyed in the same way as under the CEQA
2 baseline, and would not create opportunities for runoff to permeate the soil or enter the
3 groundwater. Consequently, this alternative is not expected to change the rate, direction,
4 or extent of existing soil and/or groundwater contamination.

5 During construction, contaminated materials could be encountered in soil or groundwater.
6 However, the removal of contaminated soil or dewatering of contaminated groundwater
7 would be localized to the site and not expected to cause remaining contamination to
8 migrate to off-site areas.

9 In addition, operation associated with Alternative 3 improvements would comply with all
10 applicable regulations, which would prevent the alternative from affecting, expanding, or
11 increasing the level of contamination.

12 **CEQA Impact Determination**

13 As discussed above, construction and operation of Alternative 3 would not result in
14 expansion of the existing area affected by contaminants and would not cause significant
15 impacts under CEQA.

16 *Mitigation Measures*

17 No mitigation is required.

18 *Residual Impacts*

19 Impacts would be less than significant.

20 **NEPA Impact Determination**

21 As discussed above, construction and operation of Alternative 3 would be less than the
22 proposed Project, and only include minor upland improvements. Consequently, this
23 alternative would not affect, expand, or increase the level of contamination. Therefore,
24 Alternative 3 would result in no impact under NEPA.

25 *Mitigation Measures*

26 No mitigation is required.

27 *Residual Impacts*

28 There would be no impacts.

29 **Impact GW-3: Alternative 3 construction and operation would not** 30 **result in a change to potable water levels.**

31 Drinking water is provided to the proposed site by the LADWP. Because no potable
32 water supplies exist beneath the proposed site, construction and operation would result in
33 no impacts to potable water levels.

34 **CEQA Impact Determination**

35 Construction and operation of this alternative would not result in any changes to potable
36 water levels in the vicinity of the site. Therefore, no impacts to potable water levels
37 would occur under CEQA.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

5 **NEPA Impact Determination**

6 Construction and operation under this alternative would not result in any changes to
7 potable water levels in the vicinity of the site. Therefore, no impacts to potable water
8 levels would occur under NEPA.

9 *Mitigation Measures*

10 No mitigation is required.

11 *Residual Impacts*

12 There would be no impacts.

13 **Impact GW-4: Alternative 3 construction and operation would not**
14 **result in a demonstrable and sustained reduction in groundwater**
15 **recharge capacity (for potable water storage).**

16 The proposed site is not used to recharge potable groundwater supplies. Groundwater in
17 the area is saline and non-potable. Groundwater in the vicinity is not used as a potable
18 water supply.

19 **CEQA Impact Determination**

20 Alternative 3 would not result in reductions to potable groundwater capacity as a result of
21 construction and operational activities. Therefore, no impacts to potable groundwater
22 recharge would occur under CEQA.

23 *Mitigation Measures*

24 No mitigation is required.

25 *Residual Impacts*

26 There would be no impacts.

27 **NEPA Impact Determination**

28 As discussed above, Alternative 3 would not result in reductions to potable groundwater
29 capacity would occur. Therefore, Alternative 3 would result in no impact under NEPA.

30

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impact.

5 **Impact GW-5: Alternative 3 construction and operation would not**
6 **result in violation of regulatory water quality standards at an existing**
7 **production well.**

8 Drinking water is provided to the area by the LADWP. No existing production wells are
9 located in the vicinity of the site.

10 **CEQA Impact Determination**

11 Because no existing production wells are located in the vicinity of the proposed site,
12 construction and operational activities would not result in impacts to existing water
13 production wells under CEQA.

14 *Mitigation Measures*

15 No mitigation is required.

16 *Residual Impacts*

17 There would be no impacts.

18 **NEPA Impact Determination**

19 As discussed above, construction and operation of Alternative 3 would not affect
20 groundwater production wells because none are located within the vicinity of the
21 proposed site. Therefore, no impacts to groundwater recharge capacity would occur
22 under NEPA.

23 *Mitigation Measures*

24 No mitigation is required.

25 *Residual Impacts*

26 There would be no impacts.

27 **3.7.4.3.2.4 Alternative 4 – Reduced Project: No New Wharf**

28 Under Alternative 4, six cranes would be added to the existing terminal wharf at Berths
29 302-305, and the 41-acre fill area adjacent to the APL Terminal would be developed as
30 container yard backlands. EMS would relinquish the 30 acres of backlands under space
31 assignment. EMS would not add the nine acres of land behind Berth 301 or the two acres
32 at the main gate to its permit. Because no new wharf would be constructed at Berth 306,
33 the 41-acre backland would be operated using traditional methods and would not be
34 expected to transition to use of automated equipment. As the existing wharf would not be
35 extended to create Berth 306, no dredging would occur.

36 Under Alternative 4, the total terminal acreage would be 302 acres, which is less than the
37 proposed Project. Based on the throughput projections, TEU throughput would be less

1 than the proposed Project, with an expected throughput of approximately 2.78 million
2 TEUs by 2027. This would translate into 338 annual ship calls at Berths 302-305. In
3 addition, Alternative 4 would result in up to 9,401 peak daily truck trips (2,485,050
4 annual), and up to 2,563 annual one-way rail trip movements. Configuration of all other
5 landside terminal components (i.e., Main Gate improvements) would be identical to the
6 proposed Project.

7 **Impact GW-1: Alternative 4 construction activities would not**
8 **encounter toxic substances or other contaminants associated with**
9 **historical uses of the Port, resulting in short-term exposure (duration**
10 **of construction) to construction/operations personnel and/or**
11 **long-term exposure to future site occupants.**

12 As discussed in Impact GW-1 under the proposed Project, soil and groundwater have
13 been affected by hazardous substances, solid waste, and petroleum products as a result of
14 historic terminal and industrial uses at the site. Remediation of much of the soil
15 contamination has occurred, but some contamination could remain on-site.

16 As discussed in Section 3.7.2.3, soil and/or groundwater contamination has been
17 identified during investigations that were conducted at the proposed site. Those results
18 indicated that there are three potential contamination areas within the proposed site,
19 including: 1) the Near Berth Storage Area, which is the location of the proposed 7-acre
20 backland at Berth 301 and adjacent Power Shop parcel; 2) the waste disposal area, which
21 is located in the north-central portion of the proposed site; and, 3) the auto shredder waste
22 disposal area, also located in the north-central portion of the proposed site.
23 Improvements under Alternative 4 that would be located within or in close proximity to
24 these three areas include the modified Earle Street gate, installation of utility
25 infrastructure, new reefer area, and the new roadability facility.

26 **CEQA Impact Determination**

27 During construction of improvements under Alternative 4, grading, demolition, and
28 excavation activities could expose construction and operations personnel at the site to
29 contaminated soil and/or groundwater. As discussed under Impact GW-1 under the
30 proposed Project, all contaminated soil or groundwater encountered during construction
31 of the proposed Project would be handled, transported, remediated, and/or disposed of in
32 accordance with all applicable federal, state, and local laws and regulations and in
33 accordance with the regulatory lead agency (e.g., DTSC, Los Angeles RWQCB) and
34 conditions under LAHD leasing requirements for site remediation and a contamination
35 contingency plan (**LM GW-1** and **LM GW-2**). Thus, personnel on-site would not have
36 short-term and/or long-term exposure to toxic substances or other contaminants
37 associated with historical uses of the Port. The impact would be less than significant
38 under CEQA.

39

1 *Mitigation Measures*

2 Although significant impacts related to the potential for exposure to underlying
3 contaminants would not occur, lease measures **LM GW-1** and **LM GW-2** would
4 further reduce potential impacts.

5 *Residual Impacts*

6 Impacts would be less than significant.

7 **NEPA Impact Determination**

8 Alternative 4 would develop the vacant 41-acre area behind Berth 306 as backland, but
9 this area is not likely to be contaminated (as it was created in 2005 with clean fill material
10 from the Channel Deepening project). It would also relinquish the 30 acres of backlands
11 under space assignment, but these activities would not result in excavations that could
12 encounter contaminated soils. Alternative 4 would require some installation of utilities,
13 which could encounter contamination. These improvements would pose minimal
14 potential for exposure to underlying contaminants. Further, as discussed under Impact
15 GW-1 under the proposed Project, all contaminated soil or groundwater encountered
16 during construction of the proposed Project would be handled, transported, remediated,
17 and/or disposed of in accordance with all applicable federal, state, and local laws and
18 regulations and in accordance with the regulatory lead agency (e.g., DTSC, Los Angeles
19 RWQCB) and conditions under LAHD leasing requirements for site remediation and a
20 contamination contingency plan (**LM GW-1** and **LM GW-2**). Thus, personnel on-site
21 would not have short-term and/or long-term exposure to toxic substances or other
22 contaminants associated with historical uses of the Port. The impact would be less than
23 significant under NEPA.

24 *Mitigation Measures*

25 Although significant impacts related to the potential for exposure to underlying
26 contaminants would not occur, lease measures **LM GW-1** and **LM GW-2** would
27 further reduce potential impacts.

28 *Residual Impacts*

29 Impacts would be less than significant.

30 **Impact GW-2: Alternative 4 construction and operation would not**
31 **potentially result in expansion of the area affected by contaminants.**

32 As discussed for Impact GW-1, soil and groundwater in limited portions of the proposed
33 site have been affected by hazardous substances, solid waste, and petroleum products as a
34 result of historic terminal and industrial uses at the site. Remediation of much of the soil
35 contamination has occurred, but some contamination could remain on-site. Stormwater
36 currently infiltrates in the undeveloped 41-acre backland area, which was created in 2005.
37 The fill is considered clean and the groundwater beneath the site non-potable due to its
38 proximity to the Harbor. Although construction of Alternative 4 would develop the 41
39 acres, improvements to the area could potentially include infiltration BMPs. The net
40 increase in impermeable surface area by developing the 41-acre backland (beyond the
41 infiltration BMPs) is expected to be minimal in relation to the entire terminal area (for
42 additional details regarding the proposed BMPs, refer to Section 3.14, Water Quality,
43 Sediment, and Oceanography). Because the 41-acre area is comprised of uncontaminated

1 fill and no potable groundwater exists beneath the site, neither paving of the backlands
2 nor installation of infiltration BMPs would adversely affect soils or groundwater.
3 Regarding other portions of the site, although Alternative 4 would not change the
4 impermeable surface area where contamination potentially exists, and runoff would be
5 conveyed to the Pier 300 Channel (in the same way as under the CEQA baseline), some
6 BMPs may be utilized that will retain and/or treat runoff and allow it to permeate the soil.
7 In the case of infiltration BMPs, compliance with the LID ordinance would ensure that
8 existing soil or groundwater contamination would not be exacerbated.

9 **CEQA Impact Determination**

10 During construction, contaminated materials could be encountered in soil or groundwater.
11 However, the removal of contaminated soil or dewatering of contaminated groundwater
12 would be localized to the site and not expected to cause remaining contamination to
13 migrate to off-site areas. As discussed above, infiltration BMPs are not expected to result
14 in significant impacts related to soil or groundwater contamination.

15 In addition, operation associated with Alternative 4 improvements would comply with all
16 applicable regulations, which would prevent the alternative from affecting, expanding, or
17 increasing the level of contamination. As a consequence, construction and operation of
18 Alternative 4 would not result in expansion of the existing area affected by contaminants
19 and would not cause significant impacts under CEQA.

20 *Mitigation Measures*

21 No mitigation is required.

22 *Residual Impacts*

23 Impacts would be less than significant.

24 **NEPA Impact Determination**

25 For the reasons discussed above, construction and operation of Alternative 4 would not
26 result in expansion of the existing area affected by contaminants. Therefore,
27 implementation of this alternative would not cause significant impacts under NEPA.

28 *Mitigation Measures*

29 No mitigation is required.

30 *Residual Impacts*

31 Impacts would be less than significant.

32 **Impact GW-3: Alternative 4 construction and operation would not** 33 **result in a change to potable water levels.**

34 Drinking water is provided to the Alternative 4 area by the LADWP. Because no potable
35 water supplies exist beneath the proposed site, construction and operation would result in
36 no impacts to potable water levels.

1 **CEQA Impact Determination**

2 Construction and operation of this alternative would not result in any changes to potable
3 water levels in the vicinity of the site. Therefore, no impacts to potable water levels
4 would occur under CEQA.

5 *Mitigation Measures*

6 No mitigation is required.

7 *Residual Impacts*

8 There would be no impacts.

9 **NEPA Impact Determination**

10 Construction and operation of this alternative would not result in any changes to potable
11 water levels in the vicinity of the site. Therefore, no impacts to potable water levels
12 would occur under NEPA.

13 *Mitigation Measures*

14 No mitigation is required.

15 *Residual Impacts*

16 There would be no impacts.

17 **Impact GW-4: Alternative 4 construction and operation would not
18 result in a demonstrable and sustained reduction in groundwater
19 recharge capacity (for potable water storage).**

20 The proposed site is not used to recharge potable groundwater supplies. Groundwater in
21 the area is saline and non-potable. The groundwater in the vicinity is not used as a
22 potable water supply.

23 **CEQA Impact Determination**

24 Construction and operation of Alternative 4 would not result in a reduction to potable
25 groundwater capacity as discussed under the proposed Project, and above. Therefore, no
26 impacts to potable groundwater recharge would occur under CEQA.

27 *Mitigation Measures*

28 No mitigation is required.

29 *Residual Impacts*

30 There would be no impacts.

31 **NEPA Impact Determination**

32 As discussed under the proposed Project, and above, construction and operation of
33 Alternative 4 would not result in a reduction to potable groundwater capacity. Therefore,
34 no impacts to potable groundwater recharge capacity would occur under NEPA.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

5 **Impact GW-5: Alternative 4 construction and operation would not**
6 **result in violation of regulatory water quality standards at an existing**
7 **production well.**

8 Drinking water is provided to the area by the LADWP. No existing production wells are
9 located in the vicinity of the site. No existing production wells are located in the vicinity
10 of the proposed site.

11 **CEQA Impact Determination**

12 Because no existing production wells are located in the vicinity of the proposed site,
13 construction and operational activities would not result in impacts under CEQA.
14 Therefore, no impacts to existing water production wells would occur under CEQA.

15 *Mitigation Measures*

16 No mitigation is required.

17 *Residual Impacts*

18 There would be no impacts.

19 **NEPA Impact Determination**

20 Because no existing production wells are located in the vicinity of the proposed site,
21 construction and operational activities would not result in impacts under NEPA.
22 Therefore, no impacts to existing water production wells would occur under NEPA.

23 *Mitigation Measures*

24 No mitigation is required.

25 *Residual Impacts*

26 There would be no impacts.

27 **3.7.4.3.2.5 Alternative 5 – Reduced Project: No Space Assignment**

28 Alternative 5 would improve the existing terminal, construct a new wharf (1,250 ft)
29 creating Berth 306, add 12 new cranes to Berths 302-306, add 56 acres for backlands,
30 wharfs, and gates improvements, construct electrification infrastructure in the backlands
31 behind Berths 305-306, and relinquish the 30 acres currently on space assignment. This
32 alternative would be the same as the proposed Project, except that EMS would relinquish
33 the 30 acres of backlands under space assignment. As with the proposed Project, the 41-
34 acre backlands and Berth 306 under Alternative 5 could utilize traditional container
35 operations, electric automated operations, or a combination of the two over time.
36 Dredging of the Pier 300 Channel along the new wharf at Berth 306 (approximately
37 20,000 cy) would occur, with the dredged material beneficially reused, and/or disposed of

1 at an approved disposal site (such as the CDF at Berths 243-245 and/or Cabrillo shallow
2 water habitat) or, if needed, disposed of at an ocean disposal site (i.e., LA-2).

3 Under Alternative 5, the total gross terminal acreage would be 317 acres, which is less
4 than the proposed Project. TEU throughput would be the same as the proposed Project,
5 with an expected throughput of approximately 3.2 million TEUs by 2027. This would
6 translate into 390 annual ship calls at Berths 302-306. In addition, this alternative would
7 result in up to 11,361 peak daily truck trips (3,003,157 annual) including drayage, and up
8 to 2,953 annual one-way rail trip movements. Configuration of all other landside
9 terminal components would be identical to the existing terminal.

10 **Impact GW-1: Alternative 5 construction activities would not**
11 **encounter toxic substances or other contaminants associated with**
12 **historical uses of the Port, resulting in short-term exposure (duration**
13 **of construction) to construction/operations personnel and/or**
14 **long-term exposure to future site occupants.**

15 As discussed in Impact GW-1 under the proposed Project, soil and groundwater have
16 been affected by hazardous substances, solid waste, and petroleum products as a result of
17 historic terminal and industrial uses at the site. Remediation of much of the soil
18 contamination has occurred, but some contamination could remain on-site.

19 As discussed in Section 3.7.2.3, soil and/or groundwater contamination has been
20 identified during investigations that were conducted at the proposed site. Those results
21 indicated that there are three potential contamination areas within the proposed site,
22 including: 1) the Near Berth Storage Area, which is the location of the proposed 7-acre
23 backland at Berth 301 and adjacent Power Shop parcel; 2) the waste disposal area, which
24 is located in the north-central portion of the proposed site; and, 3) the auto shredder waste
25 disposal area, also located in the north-central portion of the proposed site.

26 Improvements under Alternative 5 that would be located within or in close proximity to
27 these three areas include the modified Earle Street gate, backland development behind
28 Berth 301, Power Shop, new “meet and greet” booth, installation of utility infrastructure,
29 new reefer area, and the new roadability facility.

30 **CEQA Impact Determination**

31 Excavations associated with upland improvements described above, could encounter
32 previously unknown soil and/or groundwater contamination. Such discoveries could
33 result in adverse impacts to construction and operations personnel. As discussed under
34 Impact GW-1 under the proposed Project, all contaminated soil or groundwater
35 encountered during construction of the proposed Project would be handled, transported,
36 remediated, and/or disposed of in accordance with all applicable federal, state, and local
37 laws and regulations and in accordance with the regulatory lead agency (e.g., DTSC,
38 Los Angeles RWQCB) and conditions under LAHD leasing requirements for site
39 remediation and a contamination contingency plan (**LM GW-1** and **LM GW-2**). Thus,
40 personnel on-site would not have short-term and/or long-term exposure to toxic
41 substances or other contaminants associated with historical uses of the Port. The impact
42 would be less than significant under CEQA.

1 *Mitigation Measures*

2 Although significant impacts related to the potential for exposure to underlying
3 contaminants would not occur, lease measures **LM GW-1** and **LM GW-2** would
4 further reduce potential impacts.

5 *Residual Impacts*

6 Impacts would be less than significant.

7 **NEPA Impact Determination**

8 Grading and construction could expose construction and operations personnel at the site
9 to contaminated soil. As discussed for Impact GW-1 under the proposed Project, all
10 contaminated soil or groundwater encountered during construction of the proposed
11 Project would be handled, transported, remediated, and/or disposed of in accordance with
12 all applicable federal, state, and local laws and regulations and in accordance with the
13 regulatory lead agency (e.g., DTSC, Los Angeles RWQCB) and conditions under LAHD
14 leasing requirements for site remediation and a contamination contingency plan
15 (**LM GW-1** and **LM GW-2**). Thus, personnel on-site would not have short-term and/or
16 long-term exposure to toxic substances or other contaminants associated with historical
17 uses of the Port. The impact would be less than significant under NEPA.

18 *Mitigation Measures*

19 Although significant impacts related to the potential for exposure to underlying
20 contaminants would not occur, lease measures **LM GW-1** and **LM GW-2** would
21 further reduce potential impacts.

22 *Residual Impacts*

23 Impacts would be less than significant.

24 **Impact GW-2: Alternative 5 construction and operation would not**
25 **potentially result in expansion of the area affected by contaminants.**

26 As discussed for Impact GW-1, soil and groundwater in limited portions of the proposed
27 site have been affected by hazardous substances, solid waste, and petroleum products as a
28 result of historic terminal and industrial uses at the site. Remediation of much of the soil
29 contamination has occurred, but some contamination could remain on-site. Stormwater
30 currently infiltrates in the undeveloped 41-acre backland area, which was created in 2005.
31 The fill is considered clean and the groundwater beneath the site non-potable due to its
32 proximity to the Harbor. Although construction of Alternative 5 would develop the 41
33 acres, improvements to the area could potentially include infiltration BMPs. The net
34 increase in impermeable surface area by developing the 41-acre backland (beyond the
35 infiltration BMPs) is expected to be minimal in relation to the entire terminal area (for
36 additional details regarding the proposed BMPs, refer to Section 3.14, Water Quality,
37 Sediment, and Oceanography). Because the 41-acre area is comprised of uncontaminated
38 fill and no potable groundwater exists beneath the site, neither paving of the backlands
39 nor installation of infiltration BMPs would adversely affect soils or groundwater.
40 Regarding other portions of the site, although Alternative 5 would not change the
41 impermeable surface area where contamination potentially exists, and runoff would be
42 conveyed to the Pier 300 Channel (in the same way as under the CEQA baseline), some
43 BMPs may be utilized that will retain and/or treat the runoff and allow it to permeate the

1 soil. In the case of infiltration BMPs, compliance with the LID ordinance would ensure
2 that existing soil or groundwater contamination would not be exacerbated.

3 **CEQA Impact Determination**

4 During construction, contaminated materials could be encountered in soil or groundwater.
5 However, the removal of contaminated soil or dewatering of contaminated groundwater
6 would be localized to the site and not expected to cause remaining contamination to
7 migrate to off-site areas. As discussed above, infiltration BMPs are not expected to result
8 in significant impacts related to soil or groundwater contamination.

9 In addition, operation associated with Alternative 5 improvements would comply with all
10 applicable regulations, which would prevent the alternative from affecting, expanding, or
11 increasing the level of contamination. As a consequence, construction and operation of
12 Alternative 5 would not result in expansion of the existing area affected by contaminants
13 and would not cause significant impacts under CEQA.

14 *Mitigation Measures*

15 No mitigation is required.

16 *Residual Impacts*

17 Impacts would be less than significant.

18 **NEPA Impact Determination**

19 During construction, contaminated materials could be encountered in soil or groundwater.
20 However, the removal of contaminated soil or dewatering of contaminated groundwater
21 would be localized to the site and not expected to cause remaining contamination to
22 migrate to off-site areas. Construction of Alternative 5 would increase the impermeable
23 surface area of the site by developing the 41-acre area as backlands, but it would not
24 affect the site's percentage of permeable surface area where contamination is located. As
25 a result, there would be less opportunity for water to permeate the soil or enter the
26 groundwater and generated runoff would instead be conveyed to the Pier 300 Channel via
27 the site's stormwater system. Consequently, this alternative is not expected to change the
28 rate, direction, or extent of existing soil and/or groundwater contamination.

29 In addition, operations associated with Alternative 5 improvements would comply with
30 all applicable regulations, which would prevent the alternative from affecting, expanding,
31 or increasing the level of contamination. As a consequence, construction and operation
32 of Alternative 5 would not result in expansion of the existing area affected by
33 contaminants and would not cause significant impacts under NEPA. Mitigation Measures

34 No mitigation is required.

35 *Residual Impacts*

36 Impacts would be less than significant.

37

1 **Impact GW-3: Alternative 5 construction and operation would not**
2 **result in a change to potable water levels.**

3 Drinking water is provided to the Alternative 5 area by the LADWP. No potable water
4 supplies exist beneath the proposed site.

5 **CEQA Impact Determination**

6 As with the proposed Project, construction and operation of Alternative 5 would not
7 result in any changes to potable water levels in the vicinity of the site. Therefore, no
8 impacts to potable water levels would occur under CEQA.

9 *Mitigation Measures*

10 No mitigation is required.

11 *Residual Impacts*

12 There would be no impacts.

13 **NEPA Impact Determination**

14 As with the proposed Project, construction and operation of Alternative 5 would not
15 result in any changes to potable water levels in the vicinity of the site. Therefore, no
16 impacts to potable water levels would occur under NEPA.

17 *Mitigation Measures*

18 No mitigation is required.

19 *Residual Impacts*

20 There would be no impacts.

21 **Impact GW-4: Alternative 5 construction and operation would not**
22 **result in a demonstrable and sustained reduction in groundwater**
23 **recharge capacity (for potable water storage).**

24 The proposed site is not used to recharge potable groundwater supplies. Groundwater in
25 the area is saline and non-potable. Groundwater in the vicinity of this alternative is not
26 used as a potable water supply.

27 **CEQA Impact Determination**

28 No reductions in potable groundwater capacity would occur during construction or
29 operation of Alternative 5. Therefore, no impacts to potable groundwater recharge would
30 occur under CEQA.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

5 **NEPA Impact Determination**

6 No reductions in potable groundwater capacity would occur during construction or
7 operation of Alternative 5. Therefore, no impacts to potable groundwater recharge would
8 occur under NEPA.

9 *Mitigation Measures*

10 No mitigation is required.

11 *Residual Impacts*

12 There would be no impacts.

13 **Impact GW-5: Alternative 5 construction and operation would not**
14 **result in violation of regulatory water quality standards at an existing**
15 **production well.**

16 Drinking water is provided to the area by the LADWP. No existing production wells are
17 located in the vicinity of the site. No existing production wells are located in the vicinity
18 of the proposed site.

19 **CEQA Impact Determination**

20 Because no existing production wells are located in the vicinity of the proposed site,
21 construction and operational activities would not result in impacts under CEQA.
22 Therefore, no impacts to existing water production wells would occur under CEQA.

23 *Mitigation Measures*

24 No mitigation is required.

25 *Residual Impacts*

26 There would be no impacts.

27 **NEPA Impact Determination**

28 Because no existing production wells are located in the vicinity of the proposed site,
29 construction and operational activities would not result in impacts under NEPA.
30 Therefore, no impacts to existing water production wells would occur under NEPA.

1 *Mitigation Measures*
2 No mitigation is required.

3 *Residual Impacts*
4 There would be no impacts.

5 **3.7.4.3.2.6 Alternative 6 – Proposed Project with Expanded On-Dock Railyard**

6 Alternative 6 would be the same as the proposed Project; however, the existing on-dock
7 railyard on the terminal would be redeveloped and expanded. Under this alternative,
8 approximately 10 acres of backlands would be removed from container storage for the
9 railyard expansion. Alternative 6 would improve the existing terminal, develop the
10 existing 41-acre fill area as backlands, add 1,250 ft of new wharf creating Berth 306, and
11 dredge the Pier 300 Channel along Berth 306. Under this alternative, 12 new cranes
12 would be added to the wharves along Berths 302-306, for a total of 24 cranes. As with
13 the proposed Project, the 41-acre backlands and Berth 306 under Alternative 6 could
14 utilize traditional container operations, electric automated operations, or a combination of
15 the two over time. Dredging of the Pier 300 Channel along Berth 306 would occur
16 (removal of approximately 20,000 cy of material), with the dredged material beneficially
17 reused and/or disposed of at an approved disposal site (such as the CDF at Berths 243-
18 245 and/or Cabrillo shallow water habitat) or, if needed, disposed of at an ocean disposal
19 site (i.e., LA-2). Total terminal acreage (347) would be the same as the proposed Project.

20 Based on the throughput projections, TEU throughput would be the same as the proposed
21 Project, with an expected throughput of approximately 3.2 million TEUs by 2027. This
22 would translate into 390 annual ship calls at Berths 302-306. In addition, Alternative 6
23 would result in up to 10,830 peak daily truck trips (2,862,760 annual), and up to
24 2,953 annual rail trip movements. Configuration of all other landside terminal
25 components would be identical to the existing terminal.

26 **Impact GW-1: Alternative 6 construction activities would not**
27 **encounter toxic substances or other contaminants associated with**
28 **historical uses of the Port, resulting in short-term exposure (duration**
29 **of construction) to construction/operations personnel and/or long-**
30 **term exposure to future site occupants.**

31 As discussed in Impact GW-1 under the proposed Project, soil and groundwater have
32 been affected by hazardous substances, solid waste, and petroleum products as a result of
33 historic terminal and industrial uses at the site. Remediation of much of the soil
34 contamination has occurred, but some contamination could remain on-site.

35 As discussed in Section 3.7.2.3, soil and/or groundwater contamination has been
36 identified during investigations that were conducted at the proposed site. Those results
37 indicated that there are three potential contamination areas within the proposed site,
38 including: 1) the Near Berth Storage Area, which is the location of the proposed 7-acre
39 backland at Berth 301 and adjacent Power Shop parcel; 2) the waste disposal area, which
40 is located in the north-central portion of the proposed site; and, 3) the auto shredder waste
41 disposal area, also located in the north-central portion of the proposed site.
42 Improvements under the proposed Project that would be located within or in close
43 proximity to these three areas include the expanded on-dock railyard, modified Earle
44 Street gate, development of the former LAXT right-of-way, backland development

1 behind Berth 301, Power Shop, new “meet and greet” booth, installation of utility
2 infrastructure, new reefer area, and the new roadability facility.

3 Alternative 6 would include grading, excavation, and other construction-related activities
4 that could disturb native or contaminated soils. Project elements that could result in
5 exposure of soils include: demolition and reconstruction of the roadability facility;
6 modification of terminal entrance lanes and gates; utility and infrastructure installation,
7 including AMP along Berths 302-306; new reefer storage area; new wharf construction at
8 Berth 306; and, expansion of the Power Shop to include tractor bays and marine office
9 facilities.

10 **CEQA Impact Determination**

11 Excavations associated with the new upland improvements described above (including
12 excavations for the on-dock railyard expansion), could encounter previously unknown
13 soil and/or groundwater contamination. As discussed for Impact GW-1 under the
14 proposed Project, all contaminated soil or groundwater encountered during construction
15 of the proposed Project would be handled, transported, remediated, and/or disposed of in
16 accordance with all applicable federal, state, and local laws and regulations and in
17 accordance with the regulatory lead agency (e.g., DTSC, Los Angeles RWQCB) and
18 conditions under LAHD leasing requirements for site remediation and a contamination
19 contingency plan (**LM GW-1** and **LM GW-2**). Thus, personnel on-site would not have
20 short-term and/or long-term exposure to toxic substances or other contaminants
21 associated with historical uses of the Port. The impact would be less than significant
22 under CEQA.

23 *Mitigation Measures*

24 Although significant impacts related to the potential for exposure to underlying
25 contaminants would not occur, lease measures **LM GW-1** and **LM GW-2** would
26 further reduce potential impacts.

27 *Residual Impacts*

28 Impacts would be less than significant.

29 **NEPA Impact Determination**

30 Excavations associated with the upland improvements described above could encounter
31 previously unknown soil and/or groundwater contamination. As discussed for Impact
32 GW-1 under the proposed Project, all contaminated soil or groundwater encountered
33 during construction of the proposed Project would be handled, transported, remediated,
34 and/or disposed of in accordance with all applicable federal, state, and local laws and
35 regulations and in accordance with the regulatory lead agency (e.g., DTSC, Los Angeles
36 RWQCB) and conditions under LAHD leasing requirements for site remediation and a
37 contamination contingency plan (**LM GW-1** and **LM GW-2**). Thus, personnel on-site
38 would not have short-term and/or long-term exposure to toxic substances or other
39 contaminants associated with historical uses of the Port. The impact would be less than
40 significant under NEPA.

1 *Mitigation Measures*

2 Although significant impacts related to the potential for exposure to underlying
3 contaminants would not occur, lease measures **LM GW-1** and **LM GW-2** would
4 further reduce potential impacts.

5 *Residual Impacts*

6 Impacts would be less than significant.

7 **Impact GW-2: Alternative 6 construction and operation potentially**
8 **would not result in expansion of the area affected by contaminants.**

9 As discussed for Impact GW-1, soil and groundwater in limited portions of the proposed
10 site have been affected by hazardous substances, solid waste, and petroleum products as a
11 result of historic terminal and industrial uses at the site. Remediation of much of the soil
12 contamination has occurred, but some contamination could remain on-site. Stormwater
13 currently infiltrates in the undeveloped 41-acre backland area, which was created in 2005.
14 The fill is considered clean and the groundwater beneath the site non-potable due to its
15 proximity to the Harbor. Although construction of Alternative 6 would develop the 41
16 acres, improvements to the area could potentially include infiltration BMPs. The net
17 increase in impermeable surface area by developing the 41-acre backland (beyond the
18 infiltration BMPs) is expected to be minimal in relation to the entire terminal area a (for
19 additional details regarding the proposed BMPs, refer to Section 3.14, Water Quality,
20 Sediment, and Oceanography). Because the 41-acre area is comprised of uncontaminated
21 fill and no potable groundwater exists beneath the site, neither paving of the backlands
22 nor installation of infiltration BMPs would adversely affect soils or groundwater.
23 Regarding other portions of the site, although Alternative 6 would not change the
24 impermeable surface area where contamination potentially exists, and runoff would be
25 conveyed to the Pier 300 Channel (in the same way as under the CEQA baseline), some
26 BMPs may be utilized that will retain and/or treat the runoff and allow it to permeate the
27 soil. In the case of infiltration BMPs, compliance with the LID ordinance would ensure
28 that existing soil or groundwater contamination would not be exacerbated.

29 **CEQA Impact Determination**

30 During construction, contaminated materials could be encountered in soil or groundwater.
31 However, the removal of contaminated soil or dewatering of contaminated groundwater
32 would be localized to the site and not expected to cause remaining contamination to
33 migrate to off-site areas. As discussed above, infiltration BMPs are not expected to result
34 in significant impacts related to soil or groundwater contamination.

35 In addition, operation associated with Alternative 6 improvements would comply with all
36 applicable regulations, which would prevent the alternative from affecting, expanding, or
37 increasing the level of contamination. As a consequence, construction and operation of
38 Alternative 6 would not result in expansion of the existing area affected by contaminants
39 and would not cause significant impacts under CEQA.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 Impacts would be less than significant.

5 **NEPA Impact Determination**

6 During construction, contaminated materials could be encountered in soil or groundwater.
7 However, the removal of contaminated soil or dewatering of contaminated groundwater
8 would be localized to the site and not expected to cause remaining contamination to
9 migrate to off-site areas. Construction of Alternative 6 would increase the impermeable
10 surface area of the site by developing the 41-acre area as backlands, but it would not
11 affect the site's percentage of permeable surface area where contamination is located. As
12 a result, water would have less opportunity to permeate the soil or enter the groundwater.
13 Runoff would be conveyed to the Pier 300 Channel via the site's stormwater system.
14 Consequently, this alternative is not expected to change the rate, direction, or extent of
15 existing soil and/or groundwater contamination.

16 In addition, operations associated with Alternative 6 improvements would comply with
17 all applicable regulations, which would prevent the alternative from affecting, expanding,
18 or increasing the existing level of contamination. As a consequence, construction and
19 operation of Alternative 6 would not result in expansion of the existing area affected by
20 contaminants and would not cause significant impacts under NEPA.

21 *Mitigation Measures*

22 No mitigation is required.

23 *Residual Impacts*

24 Impacts would be less than significant.

25 **Impact GW-3: Alternative 6 construction and operation would not**
26 **result in a change to potable water levels.**

27 Drinking water is provided to the Alternative 6 area by the LADWP. No potable water
28 supplies exist beneath the proposed site.

29 **CEQA Impact Determination**

30 Construction and operation of Alternative 6 would not result in impacts to potable water
31 levels in the vicinity of the site, as discussed under the proposed Project. Therefore, no
32 impacts to potable water levels would occur under CEQA.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

5 **NEPA Impact Determination**

6 Construction and operation of Alternative 6 would not result in any changes to potable
7 water levels in the vicinity of the site, as discussed under the proposed Project. Therefore,
8 no impacts to potable water levels would occur under NEPA.

9 *Mitigation Measures*

10 No mitigation is required.

11 *Residual Impacts*

12 There would be no impacts.

13 **Impact GW-4: Alternative 6 construction and operation would not**
14 **result in a demonstrable and sustained reduction in groundwater**
15 **recharge capacity (for potable water storage).**

16 The proposed site is not used to recharge potable groundwater supplies. Groundwater in
17 the area is saline and non-potable. Groundwater in the vicinity of this alternative is not
18 used as a potable water supply.

19 **CEQA Impact Determination**

20 No reductions in potable groundwater capacity would occur during construction or
21 operation of Alternative 6. Therefore, no impacts to potable groundwater recharge would
22 occur under CEQA.

23 *Mitigation Measures*

24 No mitigation is required.

25 *Residual Impacts*

26 There would be no impact.

27 **NEPA Impact Determination**

28 No reductions in potable groundwater capacity would occur during construction or
29 operation of Alternative 6. Therefore, no impacts to potable groundwater recharge would
30 occur under NEPA.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

5 **Impact GW-5: Alternative 6 construction and operation would not**
6 **result in violation of regulatory water quality standards at an existing**
7 **production well.**

8 Drinking water is provided to the area by the LADWP. No existing production wells are
9 located in the vicinity of the proposed site.

10 **CEQA Impact Determination**

11 Because no existing production wells are located in the vicinity of the proposed site,
12 construction and operational activities would not result in impacts under CEQA.

13 *Mitigation Measures*

14 No mitigation is required.

15 *Residual Impacts*

16 There would be no impacts.

17 **NEPA Impact Determination**

18 Because no existing production wells are located in the vicinity of the proposed site,
19 construction and operational activities would not result in impacts under NEPA.

20 *Mitigation Measures*

21 No mitigation is required.

22 *Residual Impacts*

23 There would be no impacts.

24 **3.7.4.4 Summary of Impact Determinations**

25 Table 3.7-1 summarizes the CEQA and NEPA impact determinations of the proposed
26 Project and alternatives related to Groundwater and Soils, as described in the detailed
27 discussion above. This summary table is intended to facilitate easy comparison between
28 the potential impacts of the proposed Project and the alternatives with respect to these
29 resources. The potential impacts identified may be based on federal, state, or City of Los
30 Angeles significance criteria, Port criteria, and the scientific judgment of the report
31 preparers.

32 For each impact threshold, the table describes the impact, notes the CEQA and NEPA
33 impact determinations, describes any applicable mitigation measures, and notes the
34 residual impacts (i.e.: the impact remaining after mitigation). All impacts, whether
35 significant or not, are included in this table.

36

Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Residual Impacts after Mitigation
Proposed Project	GW-1: Proposed Project construction activities would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants.	CEQA: Less than significant	Mitigation not required; however, LM GW-1: Site Remediation and LM GW-2: Contamination Contingency Plan would further reduce any potential for impact.	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	GW-2: Proposed Project construction and operation would not result in expansion of the area affected by contaminants.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	GW-3: Proposed Project construction and operation would not result in a change to potable water levels.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-4: Proposed Project construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-5: Proposed Project construction and operation would not result in violation of regulatory water quality standards at an existing production well.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact

Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Residual Impacts after Mitigation
Alternative 1 – No Project	<p>GW-1: Alternative 1 construction activities would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants.</p>	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable
	<p>GW-2: Alternative 1 construction and operation would not result in expansion of the area affected by contaminants.</p>	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable
	<p>GW-3: Alternative 1 construction and operation would not result in a change to potable water levels.</p>	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable
	<p>GW-4: Alternative 1 construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).</p>	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable
	<p>GW-5: Alternative 1 construction and operation would not result in violation of regulatory water quality standards at an existing production well.</p>	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: Not applicable	Mitigation not applicable	NEPA: Not applicable

Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Residual Impacts after Mitigation
Alternative 2 – No Federal Action	GW-1: Alternative 2 construction activities would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants.	CEQA: Less than significant	Mitigation not required; however, LM GW-1 and LM GW-2 would further reduce any potential for impact.	CEQA: Less than significant
		NEPA: No impact	Mitigation not required	NEPA: No impact
	GW-2: Alternative 2 construction and operation would not result in expansion of the area affected by contaminants.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: No impact		NEPA: No impact
	GW-3: Alternative 2 construction and operation would not result in a change to potable water levels.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-4: Alternative 2 construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-5: Alternative 2 construction and operation would not result in violation of regulatory water quality standards at an existing production well.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact

Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Residual Impacts after Mitigation
Alternative 3 – Reduced Project: Four New Cranes	GW-1: Alternative 3 construction activities would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants.	CEQA: Less than significant	Mitigation not required; however, LM GW-1 and LM GW-2 would further reduce any potential for impact.	CEQA: Less than significant
		NEPA: No impact	Mitigation not required	NEPA: No impact
	GW-2: Alternative 3 construction and operation would not potentially result in expansion of the area affected by contaminants.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: No impact		NEPA: No impact
	GW-3: Alternative 3 construction and operation would not result in a change to potable water levels.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-4: Alternative 3 construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-5: Alternative 3 construction and operation would not result in violation of regulatory water quality standards at an existing production well.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact

Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Residual Impacts after Mitigation
Alternative 4 – Reduced Project: No New Wharf	GW-1: Alternative 4 construction activities would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants.	CEQA: Less than significant	Mitigation not required; however, LM GW-1 and LM GW-2 would further reduce any potential for impact.	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	GW-2: Alternative 4 construction and operation would not potentially result in expansion of the area affected by contaminants.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	GW-3: Alternative 4 construction and operation would not result in a change to potable water levels.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-4: Alternative 4 construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-5: Alternative 4 construction and operation would not result in violation of regulatory water quality standards at an existing production well.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact

Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Residual Impacts after Mitigation
Alternative 5 – Reduced Project: No Space Assignment	GW-1: Alternative 5 construction activities would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants.	CEQA: Less than significant	Mitigation not required; however, LM GW-1 and LM GW-2 would further reduce any potential for impact.	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	GW-2: Alternative 5 construction and operation would not potentially result in expansion of the area affected by contaminants.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	GW-3: Alternative 5 construction and operation would not result in a change to potable water levels.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-4: Alternative 5 construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-5: Alternative 5 construction and operation would not result in violation of regulatory water quality standards at an existing production well.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact

Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Residual Impacts after Mitigation
Alternative 6 – Proposed Project with Expanded On-Dock Railyard	GW-1: Alternative 6 construction activities would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants.	CEQA: Less than significant	Mitigation not required; however, LM GW-1 and LM GW-2 would further reduce any potential for impact.	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	GW-2: Alternative 6 construction and operation potentially would not result in expansion of the area affected by contaminants.	CEQA: Less than significant	Mitigation not required	CEQA: Less than significant
		NEPA: Less than significant		NEPA: Less than significant
	GW-3: Alternative 6 construction and operation would not result in a change to potable water levels.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-4: Alternative 6 construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact
	GW-5: Alternative 6 construction and operation would not result in violation of regulatory water quality standards at an existing production well.	CEQA: No impact	Mitigation not required	CEQA: No impact
		NEPA: No impact		NEPA: No impact

1 **3.7.4.5 Mitigation Monitoring**

2 In the absence of significant impacts, mitigation measures are not required. Compliance
 3 with existing regulations and implementation of the following lease measures (discussed
 4 under Impact GW-1 in Section 3.7.4.3.1) would contribute to reducing effects of
 5 potentially exposing construction and operations personnel to contaminated soils that
 6 may be uncovered during site grading and excavation:

<p>Impact GW-1: Construction activities may encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants.</p>	
<p>Lease Measures</p>	<p>LM GW-1: Site Remediation. Unless otherwise authorized by the lead regulatory agency for any given site, the Tenant (i.e., APL) shall address all contaminated soils within proposed Project boundaries discovered during demolition and grading activities. Contamination existing at the time of discovery shall be the responsibility of the past and/or current property owner. Contamination as a result of the construction process shall be the responsibility of the Tenant and/or Tenant contractors. Remediation shall occur in compliance with local, state, and federal regulations, as described in Section 3.7.3 (above) and Section 3.8.3 (in Section 3.8, Hazards and Hazardous Materials), and as directed by the lead regulatory agency for the site (such as the Los Angeles RWQCB or DTSC). Soil removal shall be completed such that remaining contamination levels are below risk-based health screening levels for industrial sites established by OEHHA and/or applicable action levels (e.g., Environmental Screening Levels, Preliminary Remediation Goals) established by the lead regulatory agency with jurisdiction over the site. Soil contamination waivers may be acceptable as a result of encapsulation (i.e., paving) and/or risk-based soil assessments for industrial sites, but are subject to the review of the lead regulatory agency and LAHD. Excavated contaminated soil shall be properly disposed of off-site unless use of such material on-site is beneficial to construction and approved by the agency overseeing environmental concerns. All imported soil to be used as backfill in excavated areas shall be sampled to ensure that it is suitable for use as backfill at an industrial site.</p>
	<p>LM GW-2: Contamination Contingency Plan. The following contingency plan shall be implemented to address previously unknown contamination during demolition, grading, and construction:</p> <ul style="list-style-type: none"> a) All trench excavation and filling operations shall be observed for the presence of free petroleum products, chemicals, or contaminated soil. Soil suspected of contamination shall be segregated from other soil. In the event soil suspected of contamination is encountered during construction, the contractor shall notify the LAHD's environmental representative. The LAHD shall confirm the presence of the suspect material and direct the contractor to remove, stockpile or contain, and characterize the suspect material. Continued work at a contaminated site shall require the approval of the LAHD Project Engineer. b) Excavation of VOC-impacted soil may require obtaining and complying with a South Coast Air Quality Management District Rule 1166 permit. c) The remedial option(s) selected shall be dependent upon a suite of criteria (including but not limited to types of chemical constituents, concentration of the chemicals, health and safety issues, time constraints, cost, etc.) and shall be determined on a site-specific basis. Both off-site and on-site remedial options may be evaluated. d) The extent of removal actions shall be determined on a site-specific basis. At a minimum, the impacted area(s) within the boundaries of the construction area shall be remediated to the satisfaction of the LAHD and the lead regulatory agency for

	<p>the site. The LAHD Project Manager overseeing removal actions shall inform the contractor when the removal action is complete.</p> <ul style="list-style-type: none"> e) Copies of hazardous waste manifests or other documents indicating the amount, nature, and disposition of such materials shall be submitted to the LAHD Project Manager within 60 days of project completion. f) In the event that contaminated soil is encountered, all on-site personnel handling or working in the vicinity of the contaminated material must be trained in accordance with USEPA and Occupational Safety and Health and Administration (OSHA) regulations for hazardous waste operations or demonstrate they have completed the appropriate training. Training must provide protective measures and practices to reduce or eliminate hazardous materials/waste hazards at the work place. g) When impacted soil must be excavated, air monitoring will be conducted as appropriate for related emissions adjacent to the excavation. h) All excavations shall be backfilled with structurally suitable fill material that is free from contamination.
Timing	Prior to and concurrent with proposed Project construction.
Methodology	LAHD will include these lease measures in the lease agreement with tenant.
Responsible Parties	APL, LAHD
Residual Impacts	Less than significant

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2

3.7.5 Significant Unavoidable Impacts

3

No significant unavoidable impacts on Groundwater or Soils would occur during construction or operation of the proposed Project or alternatives.

4