Section 3.7
Groundwater and Soils

SECTION SUMMARY

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

Section 3.7, Groundwater and Soils, provides the following:

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

Key Points of Section 3.7:

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

All impacts related to groundwater and soils were determined to result in a less than significant level or no impact, as identified below:
The proposed Project 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. However, the proposed Project would handle, transport, remediate, and/or dispose all contaminated soil in accordance with all applicable federal, state, and local laws and regulations and in accordance with the regulatory lead agency (e.g., State Department of Toxic Substances Control [DTSC], Los Angeles Regional Water Quality Control Board [RWQCB]) and the LAHD’s Site Remediation and Contamination Contingency Plan lease measures as listed below:

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 (in this section) 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.

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

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
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 the site. The LAHD Project Manager overseeing removal actions shall inform the contractor when the removal action is complete.

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.

- Neither the proposed Project nor any of the alternatives would excavate significant quantities of surface soil. Minor excavation activities would be required for the expansion of utilities, footings for structures and buildings, roads and paving, and rail.

- Neither the proposed Project nor any of the alternatives would contribute to groundwater contamination; nor would they reduce groundwater or existing potable water levels.
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 Neogene 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 Pleistocene 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 (hereafter 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.

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

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

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

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

Groundwater beneath the Project site is not considered potable water, and likely would
not be considered a potable or beneficial water source in the future, based on Los Angeles
Regional Water Quality Control Board (Los Angeles RWQCB) Resolution No. 98-018,
dated November 2, 1998, which designated the West Coast Basin groundwater
underlying portions of the Port Complex as non-potable (RWQCB, 1999). There are two
seawater intrusion barriers are located in the West Coast Basin, including the Dominguez
Gap Barrier Project which consists of intrusion injection wells along the Dominguez
Channel to prevent sea water intrusion into the Silverado Aquifer (WRD, 2004). The
proposed Project site is located seaward of the Dominguez Gap. No groundwater wells
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.
Figure 3.7-1

Legend:
- Dry Bulk Handling Facility
- Remote Storage Area
- Waste Disposal Area
- Auto Shredder Waste Disposal Area
- Near Berth Storage Area
- New 41 acres
- New 4 acres
- New 7 acres
- New 2 acres

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

New Booth and Utilities
Expand/Modify Power Shop
Develop Former LAX T Right-of-Way
Modify Earle Street Gate
Develop New Out Gate
Relocate Out Gate
Demo/New Roadability Facility
New Reefer Area

Installation of Rail for Future Automated Landside Transfer Area

12 New Cranes Along Wharf

Wharf Extension (Berth 306)

Develop Existing Land as Backland
Pier 300
Shallow Water Habitat
Pier 300
Terminal Way
N. Seaside Avenue
Earle Street
Barracuda Street
Bass Street
Bass Street
Bass Street
Bass Street
Modified Earle Street Gate
Develop Former LAX T Right-of-Way
Modify Earle Street Gate
New Booth and Utilities
Develop As Backland Former LAX T (behind Berth 304)

Wharf Extension (Berth 306)
Port of Los Angeles
Berths 302 - 306 [APL]
Container Terminal Project
Proposed Project

Figure 3.7-1

Legend:
- Dry Bulk Handling Facility
- Remote Storage Area
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Container Terminal Project
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Relocate Out Gate
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Develop Existing Land as Backland
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Shallow Water Habitat
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Terminal Way
N. Seaside Avenue
Earle Street
Barracuda Street
Bass Street
Bass Street
Bass Street
Modified Earle Street Gate
Develop Former LAX T Right-of-Way
Modify Earle Street Gate
New Booth and Utilities
Develop As Backland Former LAX T (behind Berth 304)

Wharf Extension (Berth 306)
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 (µg/kg) [10 µg/kg], toluene - 3,600 µg/kg [1,000 µg/kg], ethylbenzene - 7,600 µg/kg [6,800 µg/kg], o-Xylene - 20,000 µg/kg [6,200 µg/kg], and p,m-Xylene - 18,000 µg/kg [6,200 µg/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.
The investigation included installation of two monitoring wells (MW-1 and MW-2) to a depth of 21 ft bgs, collection of a total of six soil samples from two borings at depths of 1, 5, and 10 ft bgs, groundwater sampling, and soil classification. The results of the investigation indicated the following:

- TPH was detected in 1 and 5 ft soil samples in the range of 20-100 mg/kg. TPH was not detected in 10 ft samples. The low concentrations likely represent heavier hydrocarbons (i.e., asphalt, waste oil, etc.) and are not perceived to be hazardous or a threat to groundwater. Low concentrations of one organochlorine pesticide (4,4'-DDE [dichlorodiphenyldichloroethylene]) were detected at 2 to 3 µg/kg in three out of six soil samples (in 1 and 5 ft soil samples), which is below the regulatory limit of 0.1 mg/kg (100 µg/kg) and not considered hazardous.

- Total lead concentrations detected in both 5 ft samples exceeded STLC limits and were reanalyzed by WET. The results were less than 0.11 micrograms per liter (µg/L), which is below the regulatory limit of 5.0 mg/L (5,000 µg/L) and not considered hazardous.

- The volatile organic compound (VOC) carbon disulfide was detected in one soil boring (MW-10) at concentrations of 8 and 20 µg/kg (in 1 ft and 5 ft soil samples, respectively). These concentrations were below the regulatory limit of 14.4 mg/kg (14,400 µg/kg) and not considered hazardous.

- Heavy metals were detected in soil samples at concentrations that were within the naturally occurring ranges for the area silts as well as below the TTLC and the STLC.

- Analytical results of two groundwater samples collected from the two groundwater monitoring wells installed at the site did not indicate detectable concentrations of petroleum hydrocarbons, VOCs, SVOCs, PCBs, or pesticides. The results were used to determine if groundwater discharge during dewatering is permissible under the National Pollutant Discharge Elimination System (NPDES) discharge limits.

- Two metals, mercury and selenium were detected above the NPDES limits. Mercury was detected at 0.0005 and 0.0022 mg/L in one of wells. The average value of the mercury from both wells was below the NPDES limit of 0.2 mg/L. Selenium was detected at 0.027 mg/L in MW-1, and at 0.023 mg/L in MW-s. The average value of the selenium was above the NPDES limit of 0.01 mg/L and treatment was recommended.

- Groundwater samples contained high total dissolved solid (TDS) of up to 4,700 mg/L.

- All other tested constituents were below the NPDES limits.

- Groundwater was encountered in the two monitoring wells at a depth of approximately 11 ft bgs.

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

3.7.2.3.3 Pier 300: Dry Bulk Handling Facility

A site characterization was conducted in 1993 within the Dry Bulk Handling Facility area at Pier 300 to determine baseline or background levels of soil and groundwater constituents of concern (SDA, 1993). The study area was composed of two parcels of land: an approximate 110-acre parcel that was referred to in the report as the Remote Storage Area and an approximate 20-acre parcel referred to as the Near Berth Storage.
Area. The Remote Storage Area extended from Terminal Way in the northeastern corner of Pier 300, to farther northeast where the former Reeves Airfield was located. No portion of the Remote Storage Area is within the proposed Project site. The Near Berth Storage Area corresponds to a man-made extension of Terminal Island created by the addition of hydraulic fill in 1969. The area is bounded by Starkist Foods, Inc. and Earle Street to the north, Barracuda Street and the harbor to the west, the harbor on the south, and Pier 300 to the east. This area contains a former LAXT area, and APL Power Shop and Security Office, all of which are part of the proposed Project. The 7-acre southernmost portion of the site (formerly an LAXT area behind Berth 301) is currently partially paved, with stockpiled construction materials, structures, and a stormwater basin. This 7-acre area behind Berth 301 would be developed as backland.

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

The results of the investigation indicated the following:

- Three predominant soil materials occurred in the study area: new fill (dating from mid-1980s) in the raised grade area of the Remote Storage Area; original hydraulic fill at the former airfield base grade; and hydraulic fill in the Near Berth Storage Area. Baseline characterization found that VOCs, TFH, and PCBs were not detected in the soil samples collected from the new fill, however TPH was detected between non-detectable and 270 mg/kg. One sample collected at 5 ft bgs exceed 100 mg/kg (270 mg/kg), however 10 foot sample in the same soil boring showed non detect level of TPH. Total metals and soluble lead concentrations detected in the new fill samples were within regulatory limits. The original fill contained no detectable VOCs or PCBs, and metals are within regulatory limits TPH and TFH are generally non-detectable, but a few samples contained low concentrations (less than 38 mg/kg and 28 mg/kg, respectively).

- The Near Berth Storage Area fill, located above the organic silt, contained no detectable TFH, VOCs, or PCBs, and metals were within regulatory limits. TPH varied between 5.7 and 240 mg/kg (exceeded 100 mg/kg in 10 ft bgs), which was likely impacted by the underlying organic silt.

- No obvious plumes of groundwater contamination were identified. Groundwater sample collected from monitoring well MW-9 installed in the Near Berth Storage Area contained trace amounts (1.7 µg/L) of 1,1,1-trichloroethane (TCA) just above the laboratory detection limit (1.0 µg/L). This value is well below the maximum contaminant level (MCL) of 200 µg/L. The groundwater sample from this monitoring well also contained lead (0.078 mg/L) and mercury (0.0014 mg/L) above the detection limit but below the STLC limit of 5.0 mg/L and 0.2 mg/L respectively. Monitoring well MW-3 also contained Cadmium slightly above the MCL of 0.01 mg/L.
The water table was observed to be between approximately 2.5 to 5 ft above MSL.
The Near Berth Storage Area and southern part of the Remote Storage Area at the
former grade had an approximate water elevation of 5 ft. The northern part of the
Remote Storage Area had a water table at approximately 3.5 ft above MSL.

3.7.2.3.4 Former LAXT Dry Bulk Handling Facilities

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

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

The soil samples were located as follows:

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

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

Composite Soil Samples

- TPH concentrations ranged from 165 mg/kg in LAXT#2 to a high of 738 mg/kg in
  LAXT#9 (collected from the unpaved vacant area adjacent to the stormwater basin
  of the Near Berth Storage Area). The carbon chain distributions were nearly
  identical in all samples, reflecting heavy petroleum hydrocarbon fraction in the C29
to C36 range, typical of asphalt and petroleum oils. These hydrocarbons are
  generally considered non-hazardous and pose minor risks to groundwater due to their
  low mobility and solubility.
- Metal concentrations found in the soil samples appeared to be consistent with the
  regional background concentrations, as established in California Administrative Code
  Title 22, Section 66261.24.
- All three samples contained polynuclear aromatic hydrocarbons (PAHs) that are
  typically found in petroleum coke. In general, the samples from the Near Berth
  Storage Area contained more PAH analytes and higher concentrations than those
  from the Remote Storage Area. Dibenz(a,h)anthracene was the only PAH analyte
  consistently detected in the site soils and at concentrations exceeding the USEPA’s
  preliminary remediation goal (PRG) screening level of 1 mg/kg. However, it was
  reported that the health risk posed by this PAH compound is relatively low due to the
  specific exposure pathway and long exposure duration required to develop such risk.
VOCs were not detected in any of the soil samples tested.

PCBs were not detected.

Sediments

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

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

3.7.2.3.5 Pier 300 Auto Shredder Waste Disposal Area

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

Soil Sampling Results

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

Analytical results for USEPA Method 8260 identified the presence of VOCs in four of the 12 soil samples submitted for analysis. The VOCs detected included benzene, toluene, and naphthalene and ranged in concentration from 0.009 mg/kg to 0.022 mg/kg. Concentrations of toluene ranged from 0.009 mg/kg to 0.022 mg/kg in the soil samples collected from well MW-1 and MW-6. Benzene was detected in the 10-foot bgs sample collected at well MW-6 at a concentration of 0.009 mg/kg. Naphthalene was detected at a concentration of 0.014 mg/kg in the 5-foot sample from well MW-5. SVOCs were not detected in the 12 soil samples submitted for analysis.
Analytical results by USEPA Method 8081 detected 4,4'-DDE in one of the soil samples analyzed. The pesticide 4,4'-DDE was detected in the 5-foot soil sample collected from MW-5 at a concentration of 0.014 mg/kg. No other pesticides or PCBs were detected in the 12 soil samples analyzed.

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

Groundwater Results

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

Groundwater analytical results from three sampling events detected the presence of four VOCs; acetone, benzene, chloroform, and bromodichloromethane, in samples collected from wells MW-2, MW-5, and MW-6. Acetone was detected in three wells, MW-2, MW-5, and MW-6, with concentrations ranging between 34 µg/L and 167 µg/L. Benzene concentrations ranged from 2 to 3 µg/L in the samples collected from MW -2. Bromochloromethane and/or chloroform were detected at concentrations ranging from 1 to 10 µg/L in samples collected from MW-5 and MW-6 during the May 30, 1997 event and were not detected in the two subsequent groundwater sampling events. Concentrations of CCR Title metals were below CCR, Title 22 STLC values. Concentrations of benzene in the samples collected from MW-2 (2 µg/L to 3 µg/L) exceed the established MCL of 1 µg/L for drinking water under CCR, Title 22, Section 64444. However, this groundwater source is not used to supply potable drinking water.

Conclusions

The report concluded with the following recommendations:

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

3.7.2.4 Potential Site Contamination

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

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

### 3.7.3 Applicable Regulations

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

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

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

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

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

In July 2002, USEPA amended the Oil Pollution Prevention regulation at Title 40 of the
Prevention regulation are often referred to as the “SPCC Rule” because they describe the
requirements for certain facilities to prepare, amend, and implement Spill Prevention,
Control, and Countermeasure (SPCC) Plans. These plans ensure that facilities include
containment and other countermeasures that would prevent oil spills that could reach
navigable waters. In addition, oil spill contingency plans are required as part of this
legislation to address spill cleanup measures after a spill has occurred.

### 3.7.4 Impacts and Mitigation Measures

#### 3.7.4.1 Methodology

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

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

- An individual NPDES permit for stormwater discharges or coverage under the
  General Construction Activity Storm Water Permit would be obtained for the
  proposed Project or alternative.
- The contractor would prepare a SPCC Plan and an Oil Spill Contingency Plan
  (OSCP), which would be reviewed and approved by the California Department of
Fish and Game Office of Spill Prevention and Response, in consultation with other responsible agencies. The SPCC Plan would detail and implement spill prevention and control measures to prevent oil spills from reaching navigable waters. The OSCP would identify and plan as necessary for contingency measures that would minimize damage to water quality and provide for restoration to pre-spill conditions.

- All contaminated soil and groundwater encountered during construction of the proposed Project or alternative would be handled, transported, remediated, and/or disposed of in accordance with the LAHD lease conditions and all applicable federal, state, and local laws and regulations.

- In accordance with standard LAHD lease conditions, the terminal operator would implement a source control program, which provides for the inspection, control, and cleanup of leaks from aboveground tank and pipeline sources, as well as requirements related to groundwater and soil remediation.

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

### 3.7.4.1.1 CEQA Baseline

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

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

### 3.7.4.1.2 NEPA Baseline

For purposes of this Draft EIS/EIR, the evaluation of significance under NEPA is defined by comparing the proposed Project or other alternative to the NEPA baseline. The NEPA baseline conditions are described in Section 2.6.2. Briefly, the NEPA baseline condition for determining significance of impacts includes the full range of construction and operational activities the applicant could implement and is likely to implement absent a federal action, in this case the issuance of a USACE permit. The NEPA baseline includes minor terminal improvements in the upland area (i.e., conversion of a portion of the dry container storage unit area to reefers and utility infrastructure), operation of the 291-acre container terminal, and assumes that by 2027, the terminal (Berths 302 to 305) handles up...
to approximately 2.15 million TEUs annually and accommodates 286 annual ships calls and 2,336 on-way rail trips, without any federal action. Because the NEPA baseline is dynamic, it includes different levels of terminal operations at each study year (2012, 2015, 2020, 2025, and 2027).

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

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

### 3.7.4.2 Threshold of Significance

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

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

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

#### GW-3
Change in potable water levels sufficient to:
- Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/winter peaking, or to respond to emergencies and drought;
- Reduce yields of adjacent wells or well fields (public or private); or
- Adversely change the rate or direction of groundwater flow.

#### GW-4
Demonstrable and sustained reduction in groundwater recharge capacity.
3.7 Groundwater and Soils

3.7.1 Violation of regulatory water quality standards at an existing production well, as defined in the CCR, Title 22, Division 4, Chapter 15 and in the Safe Drinking Water Act.

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

3.7.4.3 Impact Determination

3.7.4.3.1 Proposed Project

Impact 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.

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

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

CEQA Impact Determination

Excavations associated with upland improvements could encounter previously unknown soil and/or groundwater contamination. Such discoveries could result in adverse impacts to construction and operations personnel. Development of additional backlands would include asphalt paving at the Project site, or the placement of similar impervious surface material, which would essentially cap contamination in the Near Berth Storage Area and other areas, thereby preventing runoff from leaching through the remaining contaminants. This would reduce the potential for exposure to underlying contaminants. All contaminated soil or groundwater encountered during construction of the proposed Project would be handled, transported, remediated, and/or disposed of in accordance with all applicable federal, state, and local laws and regulations and in accordance with the...
regulatory lead agency (e.g., DTSC, Los Angeles RWQCB) and LAHD lease measures pertaining to site remediation and development of contamination contingency plan. Compliance with lease measures would ensure that should contaminated material during be encountered on-site, personnel on-site would not have short-term and/or long-term exposure to toxic substances or other contaminants associated with historical uses of the Port. Therefore, the impact would be less than significant under CEQA.

**Mitigation Measures**

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

**LM GW-1: Site Remediation Lease Requirement.** 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 OEHHAA 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.

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

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 the site. The LAHD Project Manager overseeing removal actions shall inform the contractor when the removal action is complete.

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 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.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

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

**Mitigation Measures**

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

**Residual Impacts**

Impacts would be less than significant.

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

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

Stormwater currently infiltrates in the undeveloped 41-acre backland area, which was created in 2005. The fill is considered clean and the groundwater beneath the site non-potable due to its proximity to the Harbor. Although construction of the proposed Project would develop the 41 acres, improvements to the area could potentially include infiltration BMPs. The net increase in impermeable surface area by developing the 41-acre backland (beyond the infiltration BMPs) is expected to be minimal in relation to the entire terminal area (for additional details regarding the proposed BMPs, refer to Section 3.14, Water Quality, Sediment, and Oceanography). Because the 41-acre area is comprised of uncontaminated fill and no potable groundwater exists beneath the site, neither paving of the backlands nor installation of infiltration BMPs would adversely affect soils or groundwater. Regarding other portions of the site, although the proposed Project would not change the impermeable surface area where contamination potentially
exists, and runoff would be conveyed to the Pier 300 Channel (in the same way as under
the CEQA baseline), some BMPs may be utilized that will retain and/or treat runoff and
allow it to permeate the soil. In the case of infiltration BMPs, compliance with the LID
ordinance would ensure that existing soil or groundwater contamination would not be
exacerbated.

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

**CEQA Impact Determination**

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

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

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

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.
Impact GW-3: Proposed Project construction and operation would not result in a change to potable water levels.

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

CEQA Impact Determination

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

NEPA Impact Determination

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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).

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

CEQA Impact Determination

Because the water is non-potable, the amount of infiltration to the groundwater beneath the Project site is irrelevant with respect to potential recharge of the groundwater for drinking water storage. Therefore, any temporary increase or decrease in site permeability at the Project site during construction or operational activities would not result in impacts under CEQA.
Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

Impact GW-5: Proposed Project construction and operation would not result in violation of regulatory water quality standards at an existing production well.
Drinking water is provided to the proposed Project area by the LADWP. No potable water production wells are located within a 2-mile radius of the proposed Project. Groundwater in the vicinity of the proposed Project is subject to extensive saltwater intrusion and is not a source of potable water.

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

No mitigation is required.

Residual Impacts

There would be no impacts.

3.7.4.3.2 Alternatives

3.7.4.3.2.1 Alternative 1 – No Project

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

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

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

Impact 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.

CEQA Impact Determination

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

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

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

Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

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

CEQA Impact Determination

As discussed for Impact GW-1 for the proposed Project, 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. Remediation of much of the soil contamination has occurred, but some contamination could remain on-site. However, Alternative 1 would not develop or improve the existing APL Terminal, which would continue to operate as a container terminal through 2027. Because this alternative would not result in land development, it would not directly affect any soils, contaminated or otherwise. As a consequence, Alternative 1 would result in no impact under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

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

Residual Impacts
An impact determination is not applicable.

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

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

Mitigation Measures
Mitigation measures are not applicable.

Residual Impacts
An impact determination is not applicable.

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

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

Residual Impacts
There would be no impacts.

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

Mitigation Measures
Mitigation measures are not applicable.

Residual Impacts
An impact determination is not applicable.

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

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

Mitigation Measures
Mitigation measures are not applicable.

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

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

Residual Impacts
Impacts would be less than significant.

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.

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

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

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

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.

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

CEQA Impact Determination

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

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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.

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

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.
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
exposed areas would be capped (paved), so that future occupants would not be at risk for contact with subsurface contamination.

**CEQA Impact Determination**

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

**Mitigation Measures**

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

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

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

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

There would be no impact.

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

As discussed for Impact GW-1, 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.

Improvements under this alternative would include four new cranes, a new reefer storage area, and utility installation. Construction of Alternative 3 would not affect the overall percentage of permeable surface area, as the total acreage would remain at approximately
291 acres. As a result, runoff would be conveyed in the same way as under the CEQA baseline, and would not create opportunities for runoff to permeate the soil or enter the groundwater. Consequently, this alternative is not expected to change the rate, direction, or extent of existing soil and/or groundwater contamination.

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

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

**CEQA Impact Determination**

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

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

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

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

There would be no impacts.

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

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

**CEQA Impact Determination**

Construction and operation of this alternative would not result in any changes to potable water levels in the vicinity of the site. Therefore, no impacts to potable water levels would occur under CEQA.
Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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).

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

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

NEPA Impact Determination
As discussed above, Alternative 3 would not result in reductions to potable groundwater capacity would occur. Therefore, Alternative 3 would result in no impact under NEPA.
Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impact.

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

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

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

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

**Impact 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.

As discussed in Impact GW-1 under the proposed Project, soil and groundwater 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.

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

Improvements under Alternative 4 that would be located within or in close proximity to these three areas include the modified Earle Street gate, installation of utility infrastructure, new reefer area, and the new roadability facility.

**CEQA Impact Determination**

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

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

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

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

Mitigation Measures

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

Residual Impacts

Impacts would be less than significant.

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

As discussed for Impact GW-1, 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. Stormwater currently infiltrates in the undeveloped 41-acre backland area, which was created in 2005. The fill is considered clean and the groundwater beneath the site non-potable due to its proximity to the Harbor. Although construction of Alternative 4 would develop the 41 acres, improvements to the area could potentially include infiltration BMPs. The net increase in impermeable surface area by developing the 41-acre backland (beyond the infiltration BMPs) is expected to be minimal in relation to the entire terminal area (for additional details regarding the proposed BMPs, refer to Section 3.14, Water Quality, Sediment, and Oceanography). Because the 41-acre area is comprised of uncontaminated
fill and no potable groundwater exists beneath the site, neither paving of the backlands
nor installation of infiltration BMPs would adversely affect soils or groundwater.
Regarding other portions of the site, although Alternative 4 would not change the
impermeable surface area where contamination potentially exists, and runoff would be
cveyed to the Pier 300 Channel (in the same way as under the CEQA baseline), some
BMPs may be utilized that will retain and/or treat runoff and allow it to permeate the soil.
In the case of infiltration BMPs, compliance with the LID ordinance would ensure that
existing soil or groundwater contamination would not be exacerbated.

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

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

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

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

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

Impact GW-3: Alternative 4 construction and operation would not
result in a change to potable water levels.
Drinking water is provided to the Alternative 4 area by the LADWP. Because no potable
water supplies exist beneath the proposed site, construction and operation would result in
no impacts to potable water levels.
CEQA Impact Determination

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

NEPA Impact Determination

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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).

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

CEQA Impact Determination

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

NEPA Impact Determination

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

No mitigation is required.

Residual Impacts

There would be no impacts.

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

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

CEQA Impact Determination

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

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

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

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

3.7.4.3.2.5 Alternative 5 – Reduced Project: No Space Assignment

Alternative 5 would improve the existing terminal, construct a new wharf (1,250 ft) creating Berth 306, add 12 new cranes to Berths 302-306, add 56 acres for backlands, wharfs, and gates improvements, construct electrification infrastructure in the backlands behind Berths 305-306, and relinquish the 30 acres currently on space assignment. This alternative would be the same as the proposed Project, except that EMS would relinquish the 30 acres of backlands under space assignment. As with the proposed Project, the 41-acre backlands and Berth 306 under Alternative 5 could utilize traditional container operations, electric automated operations, or a combination of the two over time. Dredging of the Pier 300 Channel along the new wharf at Berth 306 (approximately 20,000 cy) would occur, with the dredged material beneficially reused, and/or disposed of.
at an approved disposal site (such as the CDF at Berths 243-245 and/or Cabrillo shallow water habitat) or, if needed, disposed of at an ocean disposal site (i.e., LA-2).

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

Impact 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.

As discussed in Impact GW-1 under the proposed Project, soil and groundwater 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.

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

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

CEQA Impact Determination

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

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

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

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

Mitigation Measures

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

Residual Impacts

Impacts would be less than significant.

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

As discussed for Impact GW-1, 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. Stormwater currently infiltrates in the undeveloped 41-acre backland area, which was created in 2005. The fill is considered clean and the groundwater beneath the site non-potable due to its proximity to the Harbor. Although construction of Alternative 5 would develop the 41 acres, improvements to the area could potentially include infiltration BMPs. The net increase in impermeable surface area by developing the 41-acre backland (beyond the infiltration BMPs) is expected to be minimal in relation to the entire terminal area (for additional details regarding the proposed BMPs, refer to Section 3.14, Water Quality, Sediment, and Oceanography). Because the 41-acre area is comprised of uncontaminated fill and no potable groundwater exists beneath the site, neither paving of the backlands nor installation of infiltration BMPs would adversely affect soils or groundwater. Regarding other portions of the site, although Alternative 5 would not change the impermeable surface area where contamination potentially exists, and runoff would be conveyed to the Pier 300 Channel (in the same way as under the CEQA baseline), some BMPs may be utilized that will retain and/or treat the runoff and allow it to permeate the...
soil. In the case of infiltration BMPs, compliance with the LID ordinance would ensure that existing soil or groundwater contamination would not be exacerbated.

**CEQA Impact Determination**

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

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

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

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

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

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.
Impact GW-3: Alternative 5 construction and operation would not result in a change to potable water levels.

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

CEQA Impact Determination

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

NEPA Impact Determination

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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).

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

CEQA Impact Determination

No reductions in potable groundwater capacity would occur during construction or operation of Alternative 5. Therefore, no impacts to potable groundwater recharge would occur under CEQA.
Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

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

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

No mitigation is required.

Residual Impacts

There would be no impacts.

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

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

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

Impact 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.

As discussed in Impact GW-1 under the proposed Project, soil and groundwater 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.

As discussed in Section 3.7.2.3, soil and/or groundwater contamination has been identified during investigations that were conducted at the proposed site. Those results indicated that there are three potential contamination areas within the proposed site, including: 1) the Near Berth Storage Area, which is the location of the proposed 7-acre backland at Berth 301 and adjacent Power Shop parcel; 2) the waste disposal area, which is located in the north-central portion of the proposed site; and, 3) the auto shredder waste disposal area, also located in the north-central portion of the proposed site. Improvements under the proposed Project that would be located within or in close proximity to these three areas include the expanded on-dock railyard, modified Earle Street gate, development of the former LAXT right-of-way, backland development
behind Berth 301, Power Shop, new “meet and greet” booth, installation of utility
infrastructure, new reefer area, and the new roadability facility.

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

CEQA Impact Determination

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

Mitigation Measures

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

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

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

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

Residual Impacts

Impacts would be less than significant.

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

As discussed for Impact GW-1, 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. Stormwater currently infiltrates in the undeveloped 41-acre backland area, which was created in 2005. The fill is considered clean and the groundwater beneath the site non-potable due to its proximity to the Harbor. Although construction of Alternative 6 would develop the 41 acres, improvements to the area could potentially include infiltration BMPs. The net increase in impermeable surface area by developing the 41-acre backland (beyond the infiltration BMPs) is expected to be minimal in relation to the entire terminal area (for additional details regarding the proposed BMPs, refer to Section 3.14, Water Quality, Sediment, and Oceanography). Because the 41-acre area is comprised of uncontaminated fill and no potable groundwater exists beneath the site, neither paving of the backlands nor installation of infiltration BMPs would adversely affect soils or groundwater. Regarding other portions of the site, although Alternative 6 would not change the impermeable surface area where contamination potentially exists, and runoff would be conveyed to the Pier 300 Channel (in the same way as under the CEQA baseline), some BMPs may be utilized that will retain and/or treat the runoff and allow it to permeate the soil. In the case of infiltration BMPs, compliance with the LID ordinance would ensure that existing soil or groundwater contamination would not be exacerbated.

CEQA Impact Determination

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

In addition, operation associated with Alternative 6 improvements would comply with all applicable regulations, which would prevent the alternative from affecting, expanding, or increasing the level of contamination. As a consequence, construction and operation of Alternative 6 would not result in expansion of the existing area affected by contaminants and would not cause significant impacts under CEQA.
Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

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

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

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

Impact GW-3: Alternative 6 construction and operation would not result in a change to potable water levels.
Drinking water is provided to the Alternative 6 area by the LADWP. No potable water supplies exist beneath the proposed site.

CEQA Impact Determination
Construction and operation of Alternative 6 would not result in impacts to potable water levels in the vicinity of the site, as discussed under the proposed Project. Therefore, no impacts to potable water levels would occur under CEQA.
Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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).

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

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impact.

NEPA Impact Determination
No reductions in potable groundwater capacity would occur during construction or operation of Alternative 6. Therefore, no impacts to potable groundwater recharge would occur under NEPA.
Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

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

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

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

For each impact threshold, the table describes the impact, notes the CEQA and NEPA impact determinations, describes any applicable mitigation measures, and notes the residual impacts (i.e.: the impact remaining after mitigation). All impacts, whether significant or not, are included in this table.
Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Environmental Impacts</th>
<th>Impact Determination</th>
<th>Mitigation Measures</th>
<th>Residual Impacts after Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required; however, LM GW-1: Site Remediation and LM GW-2: Contamination Contingency Plan would further reduce any potential for impact.</td>
<td>CEQA: Less than significant</td>
<td></td>
</tr>
<tr>
<td>GW-2: Proposed Project construction and operation would not result in expansion of the area affected by contaminants.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required</td>
<td>CEQA: Less than significant</td>
<td></td>
</tr>
<tr>
<td>GW-3: Proposed Project construction and operation would not result in a change to potable water levels.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
<td></td>
</tr>
<tr>
<td>GW-4: Proposed Project construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
<td></td>
</tr>
<tr>
<td>GW-5: Proposed Project construction and operation would not result in violation of regulatory water quality standards at an existing production well.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
<td></td>
</tr>
</tbody>
</table>
### Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

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</tr>
</thead>
<tbody>
<tr>
<td>Alternative 1 – No Project</td>
<td><strong>GW-1:</strong> 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.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: Not applicable</td>
<td>Mitigation not applicable</td>
<td>NEPA: Not applicable</td>
</tr>
<tr>
<td></td>
<td><strong>GW-2:</strong> Alternative 1 construction and operation would not result in expansion of the area affected by contaminants.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: Not applicable</td>
<td>Mitigation not applicable</td>
<td>NEPA: Not applicable</td>
</tr>
<tr>
<td></td>
<td><strong>GW-3:</strong> Alternative 1 construction and operation would not result in a change to potable water levels.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: Not applicable</td>
<td>Mitigation not applicable</td>
<td>NEPA: Not applicable</td>
</tr>
<tr>
<td></td>
<td><strong>GW-4:</strong> Alternative 1 construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: Not applicable</td>
<td>Mitigation not applicable</td>
<td>NEPA: Not applicable</td>
</tr>
<tr>
<td></td>
<td><strong>GW-5:</strong> Alternative 1 construction and operation would not result in violation of regulatory water quality standards at an existing production well.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: Not applicable</td>
<td>Mitigation not applicable</td>
<td>NEPA: Not applicable</td>
</tr>
</tbody>
</table>
Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

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<tr>
<th>Alternative</th>
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<th>Mitigation Measures</th>
<th>Residual Impacts after Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 2 – No Federal Action</td>
<td>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.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required; however, LM GW-1 and LM GW-2 would further reduce any potential for impact.</td>
<td>CEQA: Less than significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mitigation not required</td>
<td>NEPA: No impact</td>
</tr>
<tr>
<td></td>
<td>GW-2: Alternative 2 construction and operation would not result in expansion of the area affected by contaminants.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required</td>
<td>CEQA: Less than significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: No impact</td>
<td>Mitigation not required</td>
<td>NEPA: No impact</td>
</tr>
<tr>
<td></td>
<td>GW-3: Alternative 2 construction and operation would not result in a change to potable water levels.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: No impact</td>
<td>Mitigation not required</td>
<td>NEPA: No impact</td>
</tr>
<tr>
<td></td>
<td>GW-4: Alternative 2 construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: No impact</td>
<td>Mitigation not required</td>
<td>NEPA: No impact</td>
</tr>
<tr>
<td></td>
<td>GW-5: Alternative 2 construction and operation would not result in violation of regulatory water quality standards at an existing production well.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: No impact</td>
<td>Mitigation not required</td>
<td>NEPA: No impact</td>
</tr>
</tbody>
</table>
### Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

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<th>Residual Impacts after Mitigation</th>
</tr>
</thead>
</table>
| 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
- NEPA: No impact
  - 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

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

- CEQA: Less than significant
- NEPA: No impact
  - Mitigation not required
  - CEQA: Less than significant
  - NEPA: No impact

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

- CEQA: No impact
- NEPA: No impact
  - Mitigation not required
  - CEQA: 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
- NEPA: No impact
  - Mitigation not required
  - CEQA: 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
- NEPA: No impact
  - Mitigation not required
  - CEQA: 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

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<tr>
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<th>Residual Impacts after Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>GW-1:</td>
<td>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.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required; however, LM GW-1 and LM GW-2 would further reduce any potential for impact.</td>
<td>CEQA: Less than significant</td>
</tr>
<tr>
<td>GW-2:</td>
<td>Alternative 4 construction and operation would not potentially result in expansion of the area affected by contaminants.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required</td>
<td>CEQA: Less than significant</td>
</tr>
<tr>
<td>GW-3:</td>
<td>Alternative 4 construction and operation would not result in a change to potable water levels.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td>GW-4:</td>
<td>Alternative 4 construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td>GW-5:</td>
<td>Alternative 4 construction and operation would not result in violation of regulatory water quality standards at an existing production well.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
</tbody>
</table>
Table 3.7-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Environmental Impacts</th>
<th>Impact Determination</th>
<th>Mitigation Measures</th>
<th>Residual Impacts after Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced Project: No Space Assignment</td>
<td>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.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required; however, LM GW-1 and LM GW-2 would further reduce any potential for impact.</td>
<td>CEQA: Less than significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: Less than significant</td>
<td></td>
<td>NEPA: Less than significant</td>
</tr>
<tr>
<td></td>
<td>GW-2: Alternative 5 construction and operation would not potentially result in expansion of the area affected by contaminants.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required</td>
<td>CEQA: Less than significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: Less than significant</td>
<td></td>
<td>NEPA: Less than significant</td>
</tr>
<tr>
<td></td>
<td>GW-3: Alternative 5 construction and operation would not result in a change to potable water levels.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: No impact</td>
<td></td>
<td>NEPA: No impact</td>
</tr>
<tr>
<td></td>
<td>GW-4: Alternative 5 construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: No impact</td>
<td></td>
<td>NEPA: No impact</td>
</tr>
<tr>
<td></td>
<td>GW-5: Alternative 5 construction and operation would not result in violation of regulatory water quality standards at an existing production well.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEPA: No impact</td>
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<td>NEPA: No impact</td>
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<th>Mitigation Measures</th>
<th>Residual Impacts after Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>GW-1: Alternative 6 – Proposed Project with Expanded On-Dock Railyard</td>
<td>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.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required; however, LM GW-1 and LM GW-2 would further reduce any potential for impact.</td>
<td>CEQA: Less than significant</td>
</tr>
<tr>
<td>GW-2: Alternative 6 –</td>
<td>Alternative 6 construction and operation potentially would not result in expansion of the area affected by contaminants.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required</td>
<td>CEQA: Less than significant</td>
</tr>
<tr>
<td>GW-3: Alternative 6 –</td>
<td>Alternative 6 construction and operation would not result in a change to potable water levels.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td>GW-4: Alternative 6 –</td>
<td>Alternative 6 construction and operation would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
<tr>
<td>GW-5: Alternative 6 –</td>
<td>Alternative 6 construction and operation would not result in violation of regulatory water quality standards at an existing production well.</td>
<td>CEQA: No impact</td>
<td>Mitigation not required</td>
<td>CEQA: No impact</td>
</tr>
</tbody>
</table>
3.7.4.5 Mitigation Monitoring

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

<table>
<thead>
<tr>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lease Measures</td>
</tr>
<tr>
<td>LM GW-2: Contamination Contingency Plan. The following contingency plan shall be implemented to address previously unknown contamination during demolition, grading, and construction:</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>b) Excavation of VOC-impacted soil may require obtaining and complying with a South Coast Air Quality Management District Rule 1166 permit.</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>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</td>
</tr>
</tbody>
</table>
the site. The LAHD Project Manager overseeing removal actions shall inform the contractor when the removal action is complete.
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 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.

<table>
<thead>
<tr>
<th>Timing</th>
<th>Prior to and concurrent with proposed Project construction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methodology</td>
<td>LAHD will include these lease measures in the lease agreement with tenant.</td>
</tr>
<tr>
<td>Responsible Parties</td>
<td>APL, LAHD</td>
</tr>
<tr>
<td>Residual Impacts</td>
<td>Less than significant</td>
</tr>
</tbody>
</table>

### 3.7.5 Significant Unavoidable Impacts

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