Section 3.8
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 an alternative would affect or be affected by them. This section addresses groundwater and soils, including existing groundwater and soils conditions, applicable regulations, and the potential impacts associated with existing groundwater and soils on sensitive receptors associated with the proposed Project. Additionally, this section discusses the potential impacts on groundwater and soils that would be introduced by the proposed Project that could have an adverse effect on public health and safety. The primary features of the proposed Project and alternatives that could affect these resources include the improvement and repair of backlands and the addition of a new rail storage track within the existing TICTF on-dock rail yard.

Potential impacts on surface water and marine water quality (including the potential impacts associated with the excavation of marine sediment during dredging) are addressed in Section 3.15, Water Quality, Sediments, and Oceanography.

Section 3.8, 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 on groundwater or soil resources;
- an impact analysis of the proposed Project and alternatives; and
- a description of any mitigation measures proposed to reduce any potential impacts, as applicable.

Key Points of Section 3.8:

The proposed Project would implement physical improvements at the existing YTI Terminal, and its operations would be consistent with that of other container terminals and other uses in the proposed 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 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(ies) (e.g., U.S. Environmental Protection Agency [EPA], State Department of Toxic Substances Control [DTSC], Los Angeles Regional Water Quality Control Board [RWQCB]) and the mitigation measures listed below:

- **MM GW-1: Soil Sampling, Testing, and Treatment.** Prior to ground-disturbing construction activities, the following actions must be implemented by LAHD or its contractors:

  a) Prior to conducting excavations in the former National Metals and Steel site and the former Al Larson's Boat site, EPA must receive a "Notification of Activity" according to Federal protocol under the Toxic Substances Control Act (TSCA) for former polychlorinated biphenyl (PCB) remediation sites. In place (in-situ) soil sampling for PCBs must be completed prior to excavation and the analytical results provided to the EPA for review, prior to excavation. The sampling, analytical method, extraction, and soil disposal methods must comply with EPA TSCA regulations for PCB remediation sites where the original source of the PCBs was greater than 50 milligrams per kilogram (mg/kg). Sampling frequency and depth must be consistent with established EPA sampling procedures or guidance such as 40 CFR 761, Subpart N (40 CFR 761.260 et al.), or CERCLA site characterization guidance. PCB-containing waste soils must be disposed of and labeled as TSCA waste. EPA written concurrence with the notification is needed before excavation may proceed in former PCB remediation areas. In addition, as lead agency for PCBs, EPA may attach conditions to their concurrence, which must be followed.

  b) In the former National Metals Steel and Al Larson Boat sites, soils must also be tested for total petroleum hydrocarbons (TPH), Title 22 metals, and organochlorine pesticides (OCPs) as a condition of remediation site closure by the Los Angeles County Fire Department, Health and Hazardous Materials Section, and LAHD past practice to provide adequate information for construction waste characterization and/or worker safety hazard evaluations, prior to excavation.

  c) Soils in the former Golden West leasehold must be tested for TPH, benzene, toluene, ethyl benzene and xylenes, and polyaromatic hydrocarbons prior to excavation due to elevated petroleum waste left in backfill soils at this site and for the reason described in (b) above.

  d) Soils in the former Dow Chemical site must be tested for volatile organic compounds prior to excavation because past sampling indicates carbon tetrachloride is present at concentrations above industrial limits and at a level not protective of construction workers. Other lower-level volatile organic compounds (VOCs) were also found.

e) In Waste Discharge Order 90-045, the Los Angeles Regional Water Quality Control Board requires maintenance of the structural integrity of the site cap for the former Golden West site and the National Metals Steel/Al Larson Boat Shop site. The site cap is to be a minimum of a 21-inch layer of clean material, compacted according to civil engineering standards, and the top 7 inches of this layer are to be asphalt concrete pavement. Groundwater monitoring requirements were rescinded for this site due to the presence of this cap and 6 years of monitoring indicating that the cap was protecting the groundwater from remnant contaminants in site soils.

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

  a) All trench excavation and filling operations will be observed for the presence of free petroleum products, chemicals, or contaminated soil. Soil suspected of contamination will be segregated from other soil. In the event soil suspected of contamination is encountered during construction, the contractor will notify LAHD's environmental representative. LAHD will 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 will require the approval of the LAHD Project Engineer.

  b) Excavation of VOC-impacted soil, or soil suspected of being impacted by VOCs based on historical site use, will require obtaining and complying with a South Coast Air Quality Management District Rule 1166 permit.

  c) The remedial option(s) selected will be dependent on a suite of criteria (including but not limited to types of chemical constituents, concentration of the chemicals, health and safety issues, time constraints, and cost) and will be determined on a site-specific basis. Both offsite and onsite remedial options may be evaluated.

  d) The extent of removal actions will be determined on a site-specific basis. At a minimum, the impacted area(s) within the boundaries of the construction area will be remediated to the satisfaction of LAHD and the lead regulatory agency for the site or action. The LAHD Project Manager overseeing removal actions will 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 will be submitted to the LAHD Project Manager within 60 days of project completion.

  f) In the event that contaminated soil is encountered either prior to or during construction, all onsite personnel handling or working in the vicinity of the contaminated material must be trained in accordance with EPA 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 workplace.

g) When impacted soil must be excavated, air monitoring will be conducted as appropriate for related emissions adjacent to the excavation.

h) All excavations will be backfilled with structurally suitable fill material that is free from contamination per LAHD standards.

i) Standard engineering controls and BMPs will be implemented while excavating impacted soils to minimize human exposure to potential contaminants. Engineering controls and construction BMPs will include but not be limited to the following:

- Contractor will water/mist soil as its being excavated and loaded onto transportation trucks.
- Contractor will place any stockpiled soil in areas shielded from prevailing winds.
- Contractor will cover the bottom of excavated areas with sheeting when work is not being performed.

3.8.1 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 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.

3.8.2 Environmental Setting

The proposed project site is located at Berths 212–224 on an area of approximately 185 acres on Terminal Island. Terminal Island is a flat, almost entirely manmade feature that envelopes a naturally occurring sand bar that was called Rattlesnake Island. The land area was increased greatly by placement of fill prior to World War II, as well as smaller increases since, and is predominantly compacted fine-grained sand and silt.

According to the Port of Los Angeles Master Plan Update (August 2013), there are two basic types of sedimentary material found in the harbor: unconsolidated sediments and underlying clay-shale bedrock. The unconsolidated sediments are subdivided into two groups: 1) naturally occurring, which were deposited throughout San Pedro Bay prior to development of the harbor, and 2) surficial sediments, which have been deposited by way of dredging activities conducted throughout the harbor's various channels and basins.

The proposed project area is predominantly underlain by shallow unconfined groundwater that has historically occurred at depths as shallow as 5 feet below ground surface (bgs). This shallow groundwater is underlain by several major water-bearing aquifers. 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.

3.8.2.1 Groundwater

The proposed project site is located within the West Coast Basin of the Los Angeles Coastal Groundwater Basin. Four major aquifers—the Sunnyside, Silverado, Lynwood, and Gage—are present within the West Coast Basin and are used for industrial and municipal water supply outside the harbor area. The West Coast Basin covers approximately 140 square miles and is bound to the north by the Baldwin Hills and Ballona Escarpment, on the east by the Newport-Inglewood Uplift, on the west by the Santa Monica Bay, and on the south by the San Pedro Bay and Palos Verdes Hills. Aquifers in the West Coast Basin are typically confined and receive recharge from the saltwater intrusion barrier injection wells and from adjacent groundwater basins (Water Replenishment District of Southern California 2005). Sediments underlying the West Coast Basin consist primarily of nearshore marine or estuarine sediments, which were deposited in the early San Pedro embayment. In the Port area, these sediments were subsequently dredged and placed at their current location as fill material (LAHD 2011).

The shallowest water-bearing aquifer that occurs near the proposed project site is the Gage aquifer. The Gage aquifer is composed of fine- to medium-grained sand and silty sand. First groundwater beneath the proposed project site is generally present at a depth of 10 to 16 feet bgs and flow directions, gradients, and depth are locally influenced by tidal variations.

The 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) the Chevron El Segundo Refinery. Therefore, the groundwater underlying the proposed project site was included in this de-designation (Los Angeles RWQCB 1999). The shallow groundwater beneath the proposed project site currently is not considered a source of potable water, and it is unlikely to be considered a source in the future.

3.8.2.2 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 imported fill (California Department of Conservation 1998). Therefore, the subsurface soils underlying the surface soils consist of dredged fill material underlain by naturally deposited alluvial soils that overlay the Malaga mudstone of the Miocene Monterey Formation. Dredging and filling operations have modified these native sediments to create extensive land masses of dredged fill material that support numerous harbor facilities. Soil descriptions are derived from geotechnical studies conducted within the proposed project area by various consultants.

Sediments in the 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 feet 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 (LAHD 2011).

3.8.2.3 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 onsite contamination, impacts on soil and groundwater, and remediation activities—are summarized from various environmental assessments and hazardous materials evaluation reports conducted within the proposed project footprint. Site conditions described herein and in the referenced reports are representative of the 2012 CEQA baseline and NEPA baseline conditions for determining the significance of impacts. Figure 3.8-1 illustrates the areas of potential concern within the proposed project site.

Major Past Site Assessment and Remediation Projects (1985–1998)

Substantial site investigations and cleanup activities were conducted from November 1985 to February 1991 for a 75-acre portion of the current YTI Terminal redevelopment area and included Berths 212 through 215 and associated backland areas. These activities were conducted to support the 1991 construction of the NYK Terminal. Research on the assessment and remediation activities included the former leaseholds of National Metals (Berths 212–213), Al Larson Boat Shop (Berth 214), Hiuka America (Hiuka) (a.k.a. Adams Steel and Orange County Steel Salvage) (New Dock Street), Golden West

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Figure 3.8-1
Previous Soil and Groundwater Investigation Locations
Port of Los Angeles Berths 212-224 [YTI] Container Terminal Improvements Project

Refining (Berth 215), and Dow Chemical (Berths 217–218). The following summaries were prepared using information contained in LAHD correspondence files and environmental assessment and cleanup reports on file at LAHD. In some cases, remediation activities based on recommendations found in the various reports reviewed (or most recent site status) could not be confirmed during the preparation of this document and could only be inferred from related or summary documents and correspondence. The analysis in Section 3.8.4.3, Impact Determination, takes this into account.

Former National Metals/Al Larson Boat Shop Sites (Berths 212–214): Initial site characterization of the Nationals Metals site was conducted by Harding Lawson Associates (HLA) between 1985 and 1988. Subsequently, EBASCO conducted a more comprehensive site characterization of the Nationals Metals site in 1989 (EBASCO 1991). EBASCO also conducted a site characterization of the Al Larson Boat Shop in 1987, which was occupied by National Metals Steel Corporation during the 1940s. The EBASCO site characterizations were used as the basis for preparing site restoration plans, which EBASCO submitted for approval to the Los Angeles County Department of Health Services and the Los Angeles RWQCB in 1989. The remedial field efforts were concurrently implemented for these two properties between July 1989 and April 1990.

The 1987 EBASCO site characterization of the approximate 4-acre Al Larson Boat Shop site consisted of collecting 188 samples from 50 borings and analyzing 11 composite surface samples and 28 composite subsurface samples. Maximum concentrations detected for the primary contaminants of concern (COCs) identified during this investigation were arsenic at 196 mg/kg, cadmium at 7.4 mg/kg, copper at 11,600 mg/kg, lead at 1,560 mg/kg, mercury at 8.9 mg/kg, nickel at 161 mg/kg, zinc at 7,100 mg/kg, and TPH at 70,000 mg/kg. OCPs were not detected and PCBs were detected at very low levels (maximum of 0.83 mg/kg) (EBASCO 1988). Based on this data, the Los Angeles RWQCB approved soil cleanup goals for the site COCs. The goals were: arsenic at 50 mg/kg or less, cadmium at 10 mg/kg or less, copper at 250 mg/kg or less, mercury at 2 mg/kg or less, zinc at 2,500 mg/kg or less, and TPH at 1,000 mg/kg or less. The selected remedial alternative was excavation of comingled TPH- and metal-affected soils and offsite disposal at a Class I landfill (Envirosphere Company1989).

The 1989 EBASCO site characterization of the approximate 30-acre National Metals site consisted of 100 borings and collecting and analyzing 136 individual or composite soil samples from four depth horizons. Significant metals contamination was identified across the site, with the most significant detections occurring between the surface and 18 inches bgs. Elevated concentrations of PCBs and TPH were detected in surficial soils. Maximum concentrations detected for the primary COCs identified during this investigation were arsenic at 54.6 mg/kg, cadmium at 52.4 mg/kg, copper at 4,950 mg/kg, lead at 36,400 mg/kg, mercury at 52.4 mg/kg, zinc at 13,000 mg/kg, PCBs at 170 mg/kg, and TPH at 7,700 mg/kg. OCPs were not detected and were not included as COCs. Contaminant concentrations, including organics and mercury in groundwater samples collected from ten monitoring wells installed by EBASCO, were low (EBASCO 1991).

Based on this data, the Los Angeles RWQCB-approved soil cleanup goals for the site soils COCs were: arsenic at 50 mg/kg or less, cadmium at 10 mg/kg or less, copper at 250 mg/kg or less, lead at 50 mg/kg or less, mercury at 2 mg/kg or less, zinc at 2,500 mg/kg or less, PCBs at 50 mg/kg or less, and TPH at 1,000 mg/kg or less. The selected remedial alternatives included the segregation of the most contaminated TPH- and PCB-affected

soils and offsite disposal at a Class I landfill, and onsite ex-situ polysilicate fixation and reuse of heavy metal-affected soil (EBASCO 1991).

The National Metals and Al Larson Site Restoration Plans called for additional delineation soil sampling of "hot spots" and confirmation soil sampling to ensure the removal of soils exceeding cleanup goals. A total of 161 "hot-spot" delineation samples and 96 excavation floor confirmation samples were analyzed for the Al Larson Boat Shop site, and 246 "hot spot" delineation samples and 857 excavation floor and treated soil confirmation samples were analyzed for the National Metals site. For the Al Larson Boat Shop site, maximum concentrations of lead, PCBs, and TPH detected during the delineation and confirmation sampling efforts were 630 mg/kg, 940 mg/kg, and 92,300 mg/kg, respectively. For the National Metals site, the maximum concentrations of lead, PCBs, and TPH were 4,120 mg/kg, 209 mg/kg, and 134,000 mg/kg, respectively. Additional soil was removed when the delineation and confirmation sample COC concentrations exceeded the cleanup goals; however, excavations did not include soils where metals concentrations exceeding cleanup goals extended below the water table, and, in some cases, data for the limits of the hot spot remedial excavations were not available in references researched. The remedial excavations varied in depth from as shallow as six inches to as deep as ten feet, depending on location. Collectively, a total of 3,990.16 tons of PCB-affected soil and 29,073.77 tons of heavy metal-affected were transported and disposed at the Class I Kettleman Hills Landfill. Additionally, 106,701.39 tons of metal-affected soils were treated by polysilicate fixation (EBASCO 1991). Although the ex-situ soil treatment was moderately successful in fixating the heavy metal concentrations to the established cleanup goals, it was not entirely successful. In addition, one point tested had a PCB level of 52 mg/kg; however, since the soluble level was "non-detect" (lower than 5 mg per liter [l]), the Los Angeles RWQCB allowed its use as backfill.

With conditions, the Los Angeles RWQCB allowed the treated soils to be reused as backfill at the National Metals and Al Larson Boat Shop site under WDR Order No. 90-045, issued March 26, 1990 (Los Angeles RWQCB [LARWQCB] 1990). A condition of the WDR was the installation and maintenance of a cap consisting of 14 inches of clean soil, compacted to civil engineering standards, and an additional seven-inch asphaltic/concrete pavement layer on top of that. This 21-inch cap would cover the backfilled area. As part of the WDR permit requirements, subsequent groundwater monitoring was performed in the area. WDR Order 90-045 also covered the onsite reuse of treated soils at the Golden West Refining site (discussed below) and required semi-annual monitoring to evaluate if the reused soils had a detrimental effect on groundwater, with the cap in place. WDR Order 90-045 was rescinded by the Los Angeles RWQCB in 1998 after six years of semi-annual groundwater monitoring of 14 groundwater wells installed across the newly constructed NYK Terminal indicated that groundwater beneath the site had not been affected by the re-used soils, with the addition of a properly maintained cap (LARWQCB 1997).

After two years of groundwater monitoring, the Los Angeles County Fire Department Health and Hazardous Materials Division, in letters dated Mach 25, June 16, and September 21, 1993, to World Port L.A. (LAHD), stated that they had no further requirements or restrictions relating to the National Metals and Al Larson Boat Shop sites and recommended that a method to identify areas of contamination be established and procedures developed in order to protect all workers that may do work below grade (LACFD 1993a, 1993b, 1993c). Subsequently, current LAHD procedures require in-

place soil sampling for COCs (TPH, Metals, PCBs, and OCPs [based on recent sampling by CH2M HILL]) at the National Metals/Al Larson Boat Shop sites if the work involves excavation below the cap (more than 2 feet below grade). This sampling procedure will be used to evaluate potential health risks for construction workers and to characterize the excavation spoils for disposal or reuse.

Former Golden West Refining Site (Berth 215): Several groundwater and soil investigations were conducted in 1987 at the Golden West Refining Company leasehold formerly located at Berth 215 on the northern portion of the YTI Terminal (Engineering Enterprises, Inc. [EEI] 1987a). The approximately five-acre Golden West site was used by various leaseholders for over 60 years for the storage of bulk petroleum products (OHM 1990). The investigations described shallow surface pools of oil and included the installation of 19 groundwater monitoring wells and more than 21 soil borings. The investigations identified petroleum hydrocarbons as the site COC with various concentrations of TPH existing across 75% of the site, along with the accumulation of separate phase petroleum hydrocarbons (SPPH) in 5 groundwater wells. Up to 4.83 feet of SPPH was reported with groundwater occurring between 5 and 7 feet below ground surface. EEI concluded that three separate plumes of SPPH existed on site from three different sources. The composition of the petroleum products was predominantly gas-oil, with lesser percentages of naphtha and kerosene (EEI 1987b); however, it does not appear that soil samples were ever analyzed for polynuclear aromatic hydrocarbons (PAHs), which can be associated with these petroleum products. Maximum concentrations of the VOCs benzene, ethylbenzene, toluene, and xylene (BETX) detected in soil samples were 7.8 mg/kg, 29 mg/kg, 5.4 mg/kg and 57 mg/kg, respectively, and BETX concentrations in groundwater were detected at 44 micrograms per liter (µg/l), 23 µg/l, 7.6 µg/l, and 65 µg/l, respectively. Cleanup goals, developed by LAHD and approved by the Los Angeles RWQCB, required the reduction of TPH levels to below 1,000 mg/kg TPH, the removal of all free product (SPPH), and the reduction of dissolved organic compounds (e.g., BTEX) to levels below those set in the Drinking Water Standard. The selected remedial alternative called for the recovery of free product and in-situ bioremediation of groundwater and TPH-contaminated soil via a system of extraction trenches. Water was pumped to clarifiers to remove SPPH and oxygen, and nutrients were introduced to the recovered groundwater in mixing tanks for the promotion of microbial growth to biodegrade the TPH. This mixture was then surface applied over the remediation area and injected into the subsurface via shallow injection wells. These remedial activities were authorized under WDR Order No. 89-132, issued by the Los Angeles RWQCB on December 4, 1989 (LARWQCB 1989).

The in-situ bioremediation operation was discontinued on June 8, 1990, to meet the berth redevelopment schedule. Approximately 6,000 gallons of SPPH had been recovered and 50 cubic yards of material had been disposed at a Class I disposal facility (OHM 1990). However, the bioremediation of the soil was not complete, and the average TPH concentration in soil was approximately 2,500 mg/kg with a maximum detected concentration of 8,200 mg/kg. Samples were apparently not analyzed for residual concentrations of BTEX. It appears that a tentative Order on June 3, 1991, rescinded WDR Order 89-132 and allowed for the disposal of the partially treated 50,000 cubic yards of soil as fill material for the wharf and backlands improvement project (LARWQCB 1994). The potential deleterious effect of this soil reuse on groundwater was monitored under WDR Order 90-045 (discussed under the National Metals/Al Larson Boat Shop site). After eight years of monitoring, no deleterious effect was found on the groundwater with the minimum 21-inch cap in place and WDR Order 90-045 was

rescinded (LARWQCB 1997). Due to the past history at this site, currently LAHD requires that Rule 1166 monitoring occur in this area during construction to ensure that any elevated TPH soil encountered is handled appropriately. In addition, and as an added safety measure and to characterize the waste to be encountered, in-situ monitoring for TPH, VOC (BTEX), and PAHs are performed prior to excavation.

Former Dow Chemical Site (Berths 217–218): Based on an LAHD file review search for "Dow" and "Dow Chemical," no early site investigations were identified at this site; however, a later study (discussed below) was performed at this site in 2002 by CH2M HILL for infrastructure development.

Former Hiuka America Site (Orange County Steel Salvage/Adams Steel) (New Dock Street): In 1989, EBASCO completed an environmental characterization of the approximate 5.5-acre Hiuka America site, which prior to 1987 had been consecutively operated by Hiuka, Orange County Steel Salvage, and Adams Steel. From 1987 to 1990, Hiuka was the sole operator of the site (Mittelhauser 1990). This site appears to be south of the current location of New Dock Street, but New Dock Street was relocated to the south in the late 1980s, and thus the former Hiuka America site is actually within the YTI terminal footprint. This was confirmed via inspection of historical aerial photos from 1972, 1980, and 2011, as available online at http://www.historicaerials.com/. The western half of the site was paved by a 150,000-square-foot, 12-inch-thick concrete pad, and contamination was limited to a veneer of soil that had accumulated above this pad. The eastern half of the site was generally comprised of native soils and construction debris. EBASCO utilized a non-uniform sampling approach that focused on visual "hot spots." Samples were collected from depths of 1, 5, and 10 feet bgs from 33 soil borings that were advanced in the eastern half of the site. These samples were composited into 73 samples for analysis. Additionally, 44 surface soil samples were collected at a depth of 1 to 3 inches from the veneer of soil overlying the concrete pad in the western half of the site and were composited for analysis. The samples collected were analyzed for TPH, pH, metals, VOCs, semi-volatile organic compounds (SVOCs), PCBs, and OCPs. In the eastern portion of the site, the elevated concentrations of metals and TPH appeared to be concentrated in the upper 18 inches native site soil (Mittelhauser 1990).

The Hiuka site was further characterized by Mittelhauser in November 1998. Mittelhauser analyzed samples that were composited from 161 samples collected under a uniform grid-based sampling approach to more accurately define the limits of contamination. Results of this investigation confirmed the findings of the earlier investigation conducted by EBASCO. The primary COCs were determined to be TPH, cadmium, and lead. Maximum COC concentrations detected at this site were: arsenic at 84 mg/kg, cadmium at 14.8 mg/kg, copper at 4,710 mg/kg, lead at 754 mg/kg, mercury at 4.56 mg/kg, zinc at 4,420 mg/kg, PCBs (Aroclor 1242) at 0.21 mg/kg (detected in one sample only), and TPH at 120,000 mg/kg. Low-level concentrations of some VOCs and SVOCs were detected and determined to present an insignificant health risk. Based on the results of the site investigations, the Los Angeles RWQCB–approved cleanup goals for the adjacent National Steel site were adopted for the Hiuka site. The selected remedial alternatives included excavation and segregation of site soils for offsite disposal at a Class I landfill and onsite reuse of soils that passed reuse criteria that were developed for the site (Mittelhuaser 1990).

Systematic confirmation sampling of the excavation floors was conducted to confirm that the site cleanup goals were met. Soils that were reused on site as backfill material were

subject to a rigorous confirmation sampling and analysis process to confirm that the chemical constituents were below the site cleanup criteria and below the Total Threshold Limit Concentrations (TTLC) and Soluble Threshold Limit Concentrations (STLC) criteria for classification as hazardous waste. Site remediation was completed in 1991. Approximately 4,950 cubic yards (i.e., approximately 7,500 tons) of excavated clean soil were reused as backfill and 2,450 cubic yards (i.e., approximately 3,700 tons) of metal- and TPH-contaminated soil were transported for disposal at a Class I landfill (EBASCO 1991). The concrete pad was cleaned and sampled for TPH as gasoline, lead, and cadmium before being demolished, and the approximate 5,300 cubic yards of broken concrete were transported to a backfill area designated by LAHD (Mittelhauser 1990).

Infrastructure Improvement Site Investigations (2002–2013)

Subsequent to the major site assessment and cleanup activities described in the preceding paragraphs, smaller scale environmental investigations and remediation activities have been conducted to support various improvements to site infrastructure. These studies were performed over the period from 2002 through 2013.

In 2002, CH2M HILL conducted investigations of the former National Metals/Al Larson Boat Shop sites, Golden West Refining, and Dow leaseholds to evaluate whether construction workers would be exposed to contamination during planned trenching activities for the installation of light poles and fire hydrants and to identify the type of wastes to be handled in these areas. The investigation consisted of soil sample collection during the advancement of 72 soil borings and subsequent analysis of 108 samples for COCs that previously had been identified at these properties: TPH, VOCs, PCBs/pesticides, and metals. The results of the investigations were used to evaluate health risks for site workers and to characterize the soils for appropriate disposal. Some of the soils planned for excavation at the National Metals/Al Larson Boat Shop sites met the California hazardous waste classification criteria. Six samples contained total metal detections exceeding the total threshold limit concentration criteria (chromium, nickel, lead, arsenic, and copper). Additionally, several samples contained copper, lead, mercury, and cadmium above the 10X soluble threshold limit concentration criteria, identifying the soil as California hazardous waste if excavated. Arsenic concentrations at the National Metals/Al Larson Boat Shop sites and carbon tetrachloride concentrations at the Dow site exceeded industrial soil preliminary remediation goals (PRGs). Although arsenic concentrations exceeded the industrial PRG value of 2.7 mg/kg in several samples, they were less than the California background concentrations of arsenic at 12 mg/kg. TPH, other VOCs, PCBs, and pesticide detections were detected above reporting limits in several samples; however, they were not determined to present a risk to construction workers (CH2M HILL 2002). Lead at the National Metals/Al Larson sites was at a level that could potentially be harmful to construction workers, as was the carbon tetrachloride concentration at the former Dow Chemical site.

CH2M HILL in 2005 and 2010, and Leighton Consulting, Inc. in 2012, advanced borings and collected soil samples for environmental analysis in support of various aspects of the Alternative Maritime Power (AMP) retrofit program, which included construction of a new electrical substation concrete pad and trenching for installation of new electrical conduits. Collectively, 54 borings were advanced and 84 soil samples collected and variously analyzed for TPH, VOCs, SVOCs, PCBs, and metals, depending on location and previously identified historical site-use related contaminants. As with the 2002 investigation, the results of the sampling were used to evaluate health risks for site

workers and for characterization of soils for appropriate disposal. Additionally, EPA was consulted by the Construction Division regarding guidance on appropriate disposal of the PCB-affected soil under TSCA regulations. In-situ trench samples were recollected, based on discussions with the EPA, and analyzed for PCBs using EPA Method 8082A and ultrasonic extraction method 3550B. The analytical results determined that the trench spoils were non-hazardous in regards to PCBs for disposal classification purposes. Any waste soil showing the presence of PCBs was disposed of as TSCA waste. Although regulations allow disposal of low level TSCA waste less than 50 mg/kg at properly permitted municipal landfills, no such landfill could be identified that would accept such waste, so the soil was shipped to a TSCA-permitted landfill.

3.8.2.4 Potential Site Contamination

Readily available and reasonably ascertainable federal, state, tribal, and local government agency records were reviewed using a regulatory records database report provided by Environmental Data Resources, Inc. (Environmental Data Resources, Inc. 2013). A copy of the database report is included in Appendix I. The database report identified sixteen sites in various environmental databases within the search radius of one mile. Of the sixteen sites identified, one was determined to be of potential environmental concern to the proposed project site. The other sites were determined to represent a lesser potential environmental concern due to the distance from the proposed project area, the nature of the database they were listed in, site status, etc. In addition to the sites discussed under the Soil and Groundwater Investigations section, one potential environmental site of concern (discovered during the Environmental Data Resources, Inc. review) to the proposed project site is described below:

SA Recycling: The site is located east of the proposed project site at 901 New Dock Street. The site is a Cleanup Program Site under the oversight of the RWQCB and is listed as open and undergoing remediation. Impacted media includes groundwater and soil, and contaminants of concern include benzene, toluene, xylenes, PCBs, metals, gasoline, diesel, methyl tertiary butyl ether, tertiary butyl alcohol, fuel oxygenates, and polycyclic aromatic hydrocarbons. The site has and currently operates as a scrap metal recycling facility and has been the subject of extensive studies, site assessments, and remedial activities dating back to the mid-1980s. SA Recycling currently operates on the site, which was previously occupied by the Hugo Neu Proler Corporation (HNPC).

Previous Onsite Investigations

In July and August of 1990, a site assessment was conducted in the Hugo Neu Proler parcel by Environmental Audit, Inc. (EAI) as part of a 75-acre development project in the area of Berths 212–215. The purpose of the investigation was to examine the possible presence of soil and/or groundwater contamination on site. As part of the assessment, seven exploratory borings were advanced and a monitoring well was installed. The borings and monitoring well were sampled. Sampling parameters included PCBs, TPH, metals, and organics.

Various metals were detected in soil samples taken: two contained soluble concentrations of lead, and one contained soluble concentrations of cadmium above Title 22 standards. As a result, remediation of metal contamination in soil was recommended. Additionally, TPH concentrations in soil ranged from 10 parts per million (ppm) to 16,800 ppm; thus, it was also determined that remediation of hydrocarbon impacted soil would be warranted. Groundwater samples did not reveal detectable concentrations of TPH or PCBs.

Selenium was the only metal detected, at a concentration of 0.1 ppm. Groundwater remediation was not deemed to be necessary at the time.

Excavation, removal, and disposal of contaminated soil was conducted by HNPC in January 1991. Excavation activities were supervised by HPNC and EAI staff. Upon completion of the excavation activities, a total of 33 soil verification samples were collected to determine whether the impacted soil had been removed. Elevated TPH and metal concentrations were detected in some of the samples taken.

In response to a WDR permit issued by the LARWQCB for remediation of metals-impacted soil at the HPNC site, CH2M HILL conducted oversight of soil sampling activities in May and June of 2000. The sampling activities were being conducted as part of a Final Sampling and Analysis Plan (FSAP) approved by the LARWQCB, in which the HNPC site was divided into 30 parcels and sampled according to procedures specified in the FSAP. A total of 9 soil borings were advanced via direct-push geoprobe drill rig, and samples were collected in 3 distinct parcels; parcels 14, 18, and 19. Samples collected revealed lead and selenium concentrations above screening levels but below the STLC. Additionally, low concentrations (below WDR limits) of PAHs were detected in one of the samples collected. Samples collection in other parcels had occurred dating back to October 1997. Results were not available during the completion of this document.

3.8.3 Applicable 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 City or County 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. For former or ongoing PCB remediation sites, the EPA is the lead agency, under the Toxic Substances Control Act.

As detailed in Section 3.9, 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. The following is a list of applicable laws:

3.8.3.1 Resource Conservation and Recovery Act of 1976 (42 USC Sections 6901–6987)

The goal of the Resource Conservation and Recovery Act of 1976 (RCRA) is the protection of human health and the environment, the reduction of waste, the conservation of energy and natural resources, and the elimination of the generation of hazardous waste

as expeditiously as possible. The Hazardous and Solid Waste Amendments of 1984 significantly expanded the scope of RCRA by adding new corrective action requirements, land disposal restrictions, and technical requirements. The corresponding regulations in 40 CFR 260–299 provide the general framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste.

3.8.3.2 Comprehensive Environmental Response, Compensation, and Liability Act of 1980

Proper site characterization and site remediation of hazardous materials is regulated by the federal 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.). Additional requirements for hazardous materials are specified under Health and Safety Code Section 25501, hazardous substances under 40 CFR 116, and priority toxic pollutants under 40 CFR 122.

CERCLA, commonly known as Superfund, authorizes EPA to respond to releases, or threatened releases, of hazardous substances that may endanger public health, welfare, or the environment. CERCLA also enables EPA to force parties responsible for environmental contamination to clean it up or to reimburse the Superfund for response or remediation costs incurred by EPA. The Superfund Amendments and Reauthorization Act of 1986 revised various sections of CERCLA, extended the taxing authority for the Superfund and created a free-standing law, Superfund Amendments and Reauthorization Act Title III, also known as the Emergency Planning and Community Right-to-Know Act.

3.8.3.3 Department of Transportation Hazardous Materials Regulations (49 CFR 100–185)

USDOT Hazardous Materials Regulations cover all aspects of hazardous materials packaging, handling, and transportation. Parts 107 (Hazard Materials Program), 130 (Oil Spill Prevention and Response), 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance) would all apply to the proposed Project and/or surrounding uses.

Spill Prevention Control and Countermeasure Plans (40 CFR 112.7)

Spill Prevention Control and Countermeasure (SPCC) plans are required for facilities in which construction and removal operations involve oil near navigable waters or shorelines. SPCC plans ensure that facilities implement containment and other countermeasures that would prevent oil spills from reaching navigable waters. SPCC plans are regulations administered by EPA. Preparation of an SPCC plan is required for projects that meet three criteria: (1) the facility must be non-transportation-related, or, for construction, the construction operations involve storing, using, transferring, or otherwise handling oil; (2) the project must have an aggregate aboveground storage capacity greater than 1,320 gallons or completely buried storage capacity greater than 42,000 gallons; and (3) there must be a reasonable expectation of a discharge into or upon navigable waters of the United States or adjoining shorelines. For construction projects, for criteria (1),

40 CFR 112 describes the requirements for implementing SPCC plans. The following three areas should clearly be addressed in a SPCC plan:

- operating procedures that prevent oil spills;
- control measures installed to prevent a spill from reaching navigable waters; and
- countermeasures to contain, clean up, and mitigate the effects of an oil spill that reaches navigable waters

3.8.3.4 California Code of Regulations, Title 22, Chapter 11, Section 66261 et seq.

CCR Title 22, Chapter 11, Article 2, Section 66261 defines a hazardous material as a substance or combination of substances that, 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 CCR Title 22 (Chapter 11, Article 3), substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous.

3.8.3.5 California Code of Regulations, Title 8—Industrial Relations

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal OSHA) and the federal OSHA are the agencies responsible for assuring worker safety in the workplace. Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. These standards would be applicable to construction activities of the proposed Project

3.8.3.6 Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5)

DTSC is authorized by EPA to enforce and implement federal hazardous materials laws and regulations. Most state hazardous materials regulations are contained in Title 22 of the CCR. DTSC provides cleanup and action levels for subsurface contamination; these levels are equal to, or more restrictive than, federal levels. DTSC acts as the lead agency for some soil and groundwater cleanup projects and has developed land disposal restrictions and treatment standards for hazardous waste disposal in California.

DTSC is responsible for the enforcement of the Hazardous Waste Control Law, which implements the federal RCRA cradle-to-grave waste management system in California. California hazardous waste regulations can be found in Title 22, Division 4.5, "Environmental Health Standards for the Management of Hazardous Wastes."

3.8.3.7 Porter-Cologne Water Quality Control Act

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 CWA, including permitting and possibly pretreatment requirements. An NPDES permit is required to discharge pumped groundwater to surface waters, including local storm drains, in accordance with California Water Code Section 13260. Additional restrictions may be imposed upon discharges to waterbodies that are listed as impaired under Section 303(d) of the CWA, including San Pedro Bay.

3.8.3.8 Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) (California Health and Safety Code, Chapter 6.11, Sections 25404–25404.9)

This program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the environmental and emergency response programs and provides authority to the Certified Unified Program Agency (CUPA). The CUPA for the City of Los Angeles is the City of Los Angeles Fire Department (LAFD), Bureau of Fire Prevention and Public Safety. The LAFD has entered into an agreement with the Los Angeles County Fire Department (LACFD) to perform the hazardous waste component of the Unified Program. Specifically, this is the LACFD Health Hazardous Materials Division. The CUPA has the responsibility and authority to implement and enforce the requirements listed in Chapter 6.5 (commencing with Section 25100), Chapter 6.67 (commencing with Section 25270), Chapter 6.7 (commencing with Section 25280), Chapter 6.95 (commencing with Section 25500), and Sections 25404.1 and 25404.2., including the following:

- **Aboveground Petroleum Storage Act Requirements for SPCC Plans.** Facilities with a single tank or cumulative aboveground storage capacities of 1,320 gallons or greater of petroleum-based liquid product (gasoline, diesel, lubricants, etc.) must develop an SPCC plan. An SPCC plan must be prepared in accordance with the oil pollution prevention guidelines in 40 CFR 112. This plan must include procedures, methods, and equipment at the facility to prevent discharges of petroleum from reaching navigable waters. A Registered Professional Engineer must certify an SPCC plan, and a complete copy of the plan must be maintained on site.
- **California Accidental Release Prevention (Cal ARP) Program.** This program requires any business that handles more than threshold quantities of an extremely hazardous substance to develop a Risk Management Plan (RMP). The RMP is implemented by the business to prevent or mitigate releases of regulated substances that could have offsite consequences through hazard identification, planning, source reduction, maintenance, training, and engineering controls.
- **Hazardous Materials Business Plans (HMBP)/Hazardous Materials Inventory Statements (HMIS).** HMBPs contain basic information on the location, type, quantity, and health risks of hazardous materials and/or waste. Each business must prepare a HMBP if that business uses, handles, or stores a

hazardous material and/or waste or an extremely hazardous material in quantities greater than or equal to the following:

- 55 gallons for a liquid,
- 500 pounds of a solid,
- 200 cubic feet for any compressed gas, or
- threshold planning quantities of an extremely hazardous substance.

HMIS is a hazardous materials chemical inventory that contains the following information pertaining to hazardous materials handled:

- Manufacturer's name,
- Chemical name, trade names, hazardous ingredients,
- Hazard classification,
- Material Safety Data Sheets (MSDS),
- Identification numbers,
- Maximum quantity stored, and
- Storage conditions related to storage type, temperature, and pressure.

- **Hazardous Waste Generator Program**. This program regulates businesses that generate any amount of a hazardous waste. Proper handling, recycling, treating, storing, and disposing of hazardous waste are key elements to this program. This element is handled by the LACFD Health and Hazardous Materials Division.
- **Tiered Permitting Program**. This program regulates the onsite treatment of hazardous waste.
- **Underground Storage Tank (UST) Program.** This program regulates the construction, operation, repair, and removal of UST systems used to store hazardous materials and/or waste.

3.8.3.9 Toxic Substances Control Act (40 CFR 761.61)

The former National Metals/Al Larson Boat Shop site is considered a TSCA-regulated site for PCBs. Specific requirements as a TSCA-regulated site include prior EPA notification of intended subsurface construction activities, in-situ soil sampling for PCBs with sample extraction using EPA Method 3540C or 3550B and analysis by EPA Method 8082A, and disposal of soils as a TSCA labeled waste, if PCBs are detected. EPA must concur with information in the Notification in writing before excavation occurs. Sometimes EPA will attach further conditions to their concurrence, which would have to be followed.

Regulations pursuant to the TSCA govern the management of PCB waste generated as the result of PCB spill and associated cleanup activities and require compliance with the requirements for PCB remediation waste as specified in 40 CFR 761.61.

40 CFR 761.61(a) establishes requirements for self-implementing cleanups and disposal, 40 CFR 761.61(b) establishes requirements of performance-based disposal, and 40 CFR 761.6l(c) establishes a procedure for applying for a risk-based cleanup or disposal approval where an individual wishes to conduct PCB cleanup or disposal in a manner

other than prescribed in either 40 CFR 761.61(a) or (b). Section 761.6l(c) requires individuals to submit to the Regional Administrator an application that provides a risk-based demonstration that other procedures or cleanup standards will result in a commensurate level of protection for human health and the environment.

There are four types of PCB remediation waste: *bulk PCB remediation waste* includes existing piles of soil, in-situ soil, sediments, dredged materials, muds, and sludge; *porous surfaces* include structural surfaces such as floors, walls, and ceilings made of concrete, brick, wood, plaster, and plasterboard that have been contaminated by PCB liquids; *non-porous surfaces* include smooth, unpainted solid surfaces that limit penetration of liquid PCBs beyond the immediate surface; and *liquid PCBs* include homogenous flowable materials containing PCBs and no more than 0.5% by weight non-dissolved material. The type of PCB remediation waste at the project site is "bulk PCB remediation waste."

Established EPA sampling procedures or guidance such as 40 CFR 761, Subpart N (40 CFR 761.260 et al.), or CERCLA site characterization guidance should be used to determine the appropriate number and location of samples in characterizing the property. PCB remediation waste verification sampling must be based on in-situ characterization data (i.e., "as found" per 40 CFR 761.61) rather than post-excavation or demolition composite samples collected from waste piles and roll-off containers. Guidance on sampling and disposing of existing piles or containers is provided in 40 CFR Part 761, Subpart R.

Cleanup levels for an area contaminated with PCBs depend upon the degree of exposure to an area with residual contamination. Exposure is measured by occupancy and the type of PCB contamination that will remain in place after remediation. Areas in continuous or semi-continuous use, such as residences or schools, are generally classified as "high occupancy areas," while areas used to a limited extent, such as an electrical substation, are considered to be "low occupancy areas." Residual PCB concentrations are based on total PCBs, rather than individual PCB Aroclors.

PCB remediation wastes must be disposed of using approved disposal options. Non-liquid cleanup waste at any concentration and bulk PCB remediation wastes at concentrations of less than 50 ppm may be disposed of at an approved PCB disposal facility; or, when disposed pursuant to Sec. 761.61(a) or (c), a permitted municipal solid waste or non-municipal non-hazardous waste facility; or a RCRA Section 3004 or Section 3006 permitted hazardous waste landfill. Bulk PCB remediation waste at concentrations of 50 ppm or greater must be disposed of in a RCRA Section 3004 or Section 3006 permitted hazardous waste landfill or an approved PCB disposal facility (e.g., incinerator, chemical waste landfill, via an approved alternate disposal method or coordinated approval [40 CFR 761.61(a)(5)(i)(B)(2)(iii)]).

3.8.4 Impacts and Mitigation Measures

3.8.4.1 Methodology

Groundwater and surface soil 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 alternatives.
- The contractor would prepare a SPCC Plan and an Oil Spill Contingency Plan (OSCP), which would be reviewed and approved by the CDFW 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 or prior to construction of the proposed Project or alternative would be handled, transported, remediated, and/or disposed of in accordance with the LAHD protocols 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 on surface water and marine water quality are addressed in Section 3.15, Water Quality, Sediments, and Oceanography.

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. The NOP for the proposed Project was published in April 2013. For purposes of this Draft EIS/EIR, the CEQA baseline takes into account the throughput for the 12-month calendar year preceding NOP publication (January through December 2012) in order to provide a representative characterization of activity levels throughout the complete calendar year preceding release of the NOP. In 2012, the YTI Terminal encompassed approximately 185 acres under its long-term lease, supported 14 cranes (10 operating), and handled approximately 996,109 TEUs and 162 vessel calls. The CEQA baseline conditions are also described in Section 2.7.1 and summarized in Table 2-1.

The CEQA baseline represents the setting at a fixed point in time. The CEQA baseline 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.

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 2.7.2 and summarized in Table 2-1. 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.

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. Instead, the NEPA baseline is dynamic and includes increases in operations for each study year (2015, 2016, 2017, 2020, and 2026), which are projected to occur absent a federal permit. Federal permit decisions 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 the alternatives under NEPA is defined by comparing the proposed Project or the alternatives to the NEPA baseline.

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 (Alternative 2), no dredging, dredged material disposal, in-water pile installation, or crane installation/extension would occur. Expansion of the TICTF and extension of the crane rail would also not occur. The No Federal Action Alternative includes only backlands improvements consisting of slurry sealing, deep cold planning, asphalt concrete overlay, restriping, and removal, relocation, or modification of any underground conduits and pipes necessary to complete repairs. These activities do not change the physical or operational capacity of the existing terminal.

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

3.8.4.2 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, and therefore the CEQA criteria have been adopted by NEPA for this project. The effects of a project or alternative on groundwater and soil resources are considered to be significant if the proposed 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 agencies 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.

GW-5: 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.

3.8.4.3 Impact Determination

Proposed Project

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

Because of the YTI Terminal's historical activities related to various hazardous materials, the site has been subject of several environmental studies and cleanup efforts. As such, soil and/or groundwater contamination has been identified during these investigations, as mentioned above in Section 3.8.2.3, Soil and Groundwater Investigations. Upon review of the available environmental studies, results indicated that there are four potential contamination areas within the proposed project area and one potential source outside the proposed project footprint:

- Former National Metals Site/Al Larson Boat Shop Property, which was previously located in Berths 212–214 in the northeast portion of the proposed project site;
- Golden West Refining Company, which was located in Berth 215, also in the northeast portion of the proposed project site;
- Former Dow Property, located in central portion of the proposed project site just south of Berths 217 and 218; and
- Orange County Steel Salvage/Adams Steel, which was located south of New Dock Street and outside the YTI Terminal footprint.

It is expected that improvements under the proposed Project would be located within or near these areas.

Additionally, the proximity of the SA Recycling site to the proposed project area's eastern boundary may expose construction personnel to residual contamination during disturbance of soil and/or contact with groundwater in that area.

The proposed Project would include grading, excavation, and other construction-related activities that could disturb or expose contaminated soils. Specifically, backland improvements, crane rail extension, and TICTF improvements could result in exposure of soils.

- Backland improvements would occur on approximately 160 acres of the 185-acre terminal and would consist of ground repairs and maintenance activities involving slurry sealing, deep cold planing, asphalt concrete overlay, construction of approximately 5,600 linear feet of concrete runways for RTG cranes, restriping, and possible removal, relocation, modification of underground conduits and pipes.
- Crane rail extension would include extension of the 100-foot gauge crane rail to Berths 217–220.
- TICTF Improvements would include the addition of a single 3,200-linear-foot operational rail loading track, including two turnouts, and reconstruction of a portion of the container terminal backlands to accommodate the rail expansion.

  These improvements would involve grading, paving, lighting, drainage, utility relocation/modifications, striping, relocation of an existing fence, and third-party utility modifications, relocations, or removals, as needed.

CEQA Impact Determination

Excavations associated with backland, crane rail, and TICTF improvements could encounter previously unknown soil and/or groundwater contamination. Such discoveries could result in adverse impacts on construction and operations personnel. As mentioned in the project description, improvements would include asphalt re-paving at the proposed project site, which would cap any possible contamination in those areas, thereby preventing runoff from leaching through the remaining contaminants. As such, this process 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, or disposed of in accordance with all applicable federal, state, and local laws and regulations and in accordance with the regulatory lead agencies' (e.g., EPA, DTSC, Los Angeles RWQCB, and LACFD) mitigation measures pertaining to site investigation, testing, and treatment, and adherence to a contamination contingency plan. Compliance with MM GW-1 and MM GW-2 would ensure that should contaminated material 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. Furthermore, MM GW-1 contains specific conditions that apply to development in areas where former industrial sites (described in Section 3.8.2.3) were located. These conditions are discussed in more detail below.

Adherence to all applicable federal, state, and local laws and regulations, as well as implementation of MM GW-1 and MM GW-2, would reduce impacts to less than significant under CEQA.

Mitigation Measures

Implementation of MM GW-1 and MM GW-2 would reduce potential impacts to a less-than-significant level.

MM GW-1: Soil Sampling, Testing, and Treatment. Prior to ground-disturbing construction activities, the following actions must be implemented by LAHD or its contractors:

a) Prior to conducting excavations in the former National Metals and Steel site and the former Al Larson's Boat site, EPA must receive a "Notification of Activity" according to Federal protocol under the Toxic Substances Control Act (TSCA) for former polychlorinated biphenyl (PCB) remediation sites. In place (in-situ) soil sampling for PCBs must be completed prior to excavation and the analytical results provided to the EPA for review, prior to excavation. The sampling, analytical method, extraction, and soil disposal methods must comply with EPA TSCA regulations for PCB remediation sites where the original source of the PCBs was greater than 50 milligrams per kilogram (mg/kg). Sampling frequency and depth must be consistent with established EPA sampling procedures or guidance such as 40 CFR 761, Subpart N (40 CFR 761.260 et al.), or CERCLA site characterization guidance. PCB-containing waste soils must be disposed of and labeled as TSCA waste. EPA written concurrence with the notification is needed before excavation may proceed in former PCB remediation areas. In addition, as lead agency for PCBs, EPA may attach conditions to their concurrence, which must be followed.

b) In the former National Metals Steel and Al Larson Boat sites, soils must also be tested for total petroleum hydrocarbons (TPH), Title 22 metals, and organochlorine pesticides (OCPs) as a condition of remediation site closure by the Los Angeles County Fire Department, Health and Hazardous Materials Section, and LAHD past practice to provide adequate information for construction waste characterization and/or worker safety hazard evaluations, prior to excavation.

c) Soils in the former Golden West leasehold must be tested for TPH, benzene, toluene, ethyl benzene and xylenes, and polyaromatic hydrocarbons prior to excavation due to elevated petroleum waste left in backfill soils at this site and for the reason described in (b) above.

d) Soils in the former Dow Chemical site must be tested for volatile organic compounds prior to excavation because past sampling indicates carbon tetrachloride is present at concentrations above industrial limits and at a level not protective of construction workers. Other lower-level volatile organic compounds (VOCs) were also found.

e) In Waste Discharge Order 90-045, the Los Angeles Regional Water Quality Control Board requires maintenance of the structural integrity of the site cap for the former Golden West site and the National Metals Steel/Al Larson Boat Shop site. The site cap is to be a minimum of a 21-inch layer of clean material, compacted according to civil engineering standards, and the top 7 inches of this layer are to be asphalt concrete pavement. Groundwater monitoring

requirements were rescinded for this site due to the presence of this cap and 6 years of monitoring indicating that the cap was protecting the groundwater from remnant contaminants in site soils.

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

a) All trench excavation and filling operations will be observed for the presence of free petroleum products, chemicals, or contaminated soil. Soil suspected of contamination will be segregated from other soil. In the event soil suspected of contamination is encountered during construction, the contractor will notify LAHD's environmental representative. LAHD will 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 will require the approval of the LAHD Project Engineer.

b) Excavation of VOC-impacted soil, or soil suspected of being impacted by VOCs based on historical site use, will require obtaining and complying with a South Coast Air Quality Management District Rule 1166 permit.

c) The remedial option(s) selected will be dependent on a suite of criteria (including but not limited to types of chemical constituents, concentration of the chemicals, health and safety issues, time constraints, and cost) and will be determined on a site-specific basis. Both offsite and onsite remedial options may be evaluated.

d) The extent of removal actions will be determined on a site-specific basis. At a minimum, the impacted area(s) within the boundaries of the construction area will be remediated to the satisfaction of LAHD and the lead regulatory agency for the site or action. The LAHD Project Manager overseeing removal actions will 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 will be submitted to the LAHD Project Manager within 60 days of project completion.

f) In the event that contaminated soil is encountered either prior to or during construction, all onsite personnel handling or working in the vicinity of the contaminated material must be trained in accordance with EPA 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 workplace.

g) When impacted soil must be excavated, air monitoring will be conducted as appropriate for related emissions adjacent to the excavation.

h) All excavations will be backfilled with structurally suitable fill material that is free from contamination per LAHD standards.

i) Standard engineering controls and BMPs will be implemented while excavating impacted soils to minimize human exposure to potential contaminants. Engineering controls and construction BMPs will include but not be limited to the following:

- Contractor will water/mist soil as its being excavated and loaded onto transportation trucks.
- Contractor will place any stockpiled soil in areas shielded from prevailing winds.
- Contractor will cover the bottom of excavated areas with sheeting when work is not being performed.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Under this alternative, the proposed project elements to be analyzed under NEPA include the extension of the existing wharf crane rail, extension and replacement of onsite cranes, and improvements to Berths 214–216 and 217–220, including dredging and pile driving. Onsite soil disturbance is expected to occur during installation of the crane rail and to run electricity for the new cranes. These improvements would involve grading and excavating for the installation of electrical infrastructure and support structures. Contaminated soils and groundwater encountered during construction would be remediated in compliance with applicable requirements. Proposed project operations would comply with all applicable regulations governing use and handling of hazardous materials. Additionally, compliance with MM GW-1 and MM GW-2 would minimize exposure to toxic substances and other contaminants associated with historical uses at the Port, thus reducing potential impacts to less than significant under NEPA.

Mitigation Measures

Implementation of MM GW-1 and MM GW-2 would reduce potential impacts to a less-than-significant level.

Residual Impacts

Impacts would be less than significant.

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

As discussed under Impact GW-1, soil and groundwater in portions of the proposed project site have been affected by contaminants as a result of historic uses within the footprint of the YTI terminal. Although much of the YTI Terminal site has been remediated in accordance with the requirements of state and local governments, it is possible that pockets of contamination still exist. Excavation and grading activities in these areas, and potentially other 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 offsite areas.

Since the area that would be improved as part of the proposed Project is currently paved and would be paved after construction, it is expected that the proposed Project would not change the impermeable surface area where contamination potentially exists. Although this is the case, some BMPs may be used that would retain and/or treat runoff and allow it to permeate the soil. In the case of infiltration BMPs, compliance with the Low Impact Development ordinance would ensure that existing soil or groundwater contamination would not be exacerbated. In addition, any requirements or BMP restrictions identified by EPA or any other lead agency would have to be followed.

Operation of the proposed Project would comply with all applicable existing regulations, which would prevent the proposed Project from affecting or expanding any potential areas affected by contamination, or 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 during construction, it would be remediated in compliance with federal, state, and local requirements. In addition, 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. Additionally, no permanent dewatering systems are anticipated with the implementation of the proposed Project. Therefore, construction and operation of the proposed Project would not result in expansion of the existing area affected by contaminants, and impacts under CEQA would be less than significant.

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. Operations would comply with all applicable regulations governing use and handling of hazardous materials. Therefore, construction and operation of the proposed Project would not result in expansion of the existing area affected by contaminants, and impacts under NEPA would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact GW-3: Construction and operation of the proposed Project would not result in a change to potable water levels.

Although shallow groundwater may be locally extracted during construction dewatering operations (e.g., during placement of utility lines), groundwater beneath the Port is classified as nonpotable. Drinking water is provided to the proposed project area by the Los Angeles Department of Water and Power (LADWP). Thus, localized groundwater withdrawal would have no impact on potential potable water supplies.

CEQA Impact Determination

Drinking water is provided to the proposed project area by the LADWP since no potable groundwater exists beneath the YTI Terminal. Therefore, construction and operation of the proposed Project would result in no impacts on potable water levels under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

No potable groundwater exists beneath the YTI Terminal. Drinking water is provided to the proposed project area by the LADWP. Therefore, no impacts on potable water levels would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact GW-4: Construction and operation of the proposed Project would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).

No potable groundwater exists beneath the YTI Terminal, and the site is paved with impervious surface. Changes to the permeability of the site would temporarily occur during the resurfacing of the backlands. However, after construction, the permeability of the site would be similar to existing conditions. As such, any changes in site permeability will not affect potable groundwater recharge capacity.

CEQA Impact Determination

Because water beneath the YTI Terminal is nonpotable, the amount of infiltration to the groundwater beneath the proposed project site does not affect groundwater recharge

capacity for potable water storage. Any increase or decrease in site permeability at the proposed project site would result in no impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

The proposed project area does not contribute to the recharge of potable groundwater supplies because none exists at this site. Therefore, no reductions in potable groundwater capacity would occur during construction or operation of the proposed Project. No impacts on potable groundwater recharge would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact GW-5: Construction and operation of the proposed Project 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. Additionally, no production wells are located near the proposed project site, as groundwater in the area is subject to extensive saltwater intrusion.

CEQA Impact Determination

No production wells are located in the vicinity of the proposed project site. As such, proposed project construction and operation would result in no impacts on water quality at production wells under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

No production wells are located in the vicinity of the proposed project site. As such, construction and operation would result in no impacts on water quality at production wells under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Alternative 1 – No Project

Under Alternative 1, none of the proposed construction activities would occur in water or in water-side or backland areas. LAHD would not implement any terminal improvements. No new cranes would be added, and no dredging would occur. The No Project Alternative would not include the 100-foot gauge crane rail extension, expansion of the TICTF on-dock railyard, or backland repairs.

The No Project Alternative would not preclude future improvements to the YTI Terminal; however, any change in use or new improvements with the potential to result in significant impacts on the environment would need to be analyzed in a separate environmental document in accordance with CEQA and/or NEPA.

Under the No Project Alternative, the existing YTI Terminal would continue to operate as an approximately 185-acre container terminal. Based on the Port's throughput projections, the YTI Terminal is expected to operate at its existing capacity of approximately 1,692,000 TEUs in 2026.

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

Terminal operations would increase under this alternative and would be greater than the existing conditions. As a result, the terminal would have a greater number of employees and stored containers in the future. Soil and groundwater within the proposed project site have been affected by contaminants as a result of the terminal's historic uses. According to environmental documents reviewed, remediation of contaminated soil has occurred and it is possible that pockets of contamination still exist. However, this alternative would not result in construction activities; therefore, contaminated soils or groundwater would not be disturbed.

CEQA Impact Determination

While terminal operations would increase under this alternative and would be greater than the CEQA baseline conditions, this alternative would not result in construction activities that could disturb contaminated soils or groundwater. 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: Construction and operation of Alternative 1 would not result in expansion of the area affected by contaminants.

As mentioned under Impact GW-1, soil and groundwater within the proposed project site footprint have been affected by contaminants as a result of the terminal's historic uses. Soil remediation has occurred throughout the site, but it is possible that pockets of contamination still exist. However, because this alternative would not result in construction activities, contaminated soils or groundwater would not be disturbed and would not migrate into other areas.

CEQA Impact Determination

Because Alternative 1 would not result in construction activities, contaminated soils or groundwater would not be disturbed and would not migrate into other areas. 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-3: Construction and operation of Alternative 1 would not result in a change to potable water levels.

Drinking water is provided to the proposed site by the LADWP. There is no potable water supply beneath the proposed project area. Furthermore, Alternative 1 does not involve any physical changes to the site or groundwater levels.

CEQA Impact Determination

Alternative 1 would not disturb the site or otherwise result in physical changes that would change potable water levels. 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: Construction and operation of Alternative 1 would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).

Groundwater beneath the YTI Terminal is nonpotable, and the amount of infiltration to the groundwater beneath the proposed project site does not affect groundwater recharge capacity for potable water storage. Furthermore, Alternative 1 would not result in any physical changes to the existing YTI Terminal.

CEQA Impact Determination

Water beneath the YTI Terminal is nonpotable, and this alternative would not result in any physical changes to the site, rendering it impermeable as it is under existing conditions. 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: Construction and operation of Alternative 1 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 production wells are located near the proposed project site, as groundwater in the area is subject to extensive saltwater intrusion. Therefore, this alternative would not have any effects that would violate regulatory water quality standards at an existing well.

CEQA Impact Determination

As no production wells are located near the proposed project site and no physical changes would occur at the YTI Terminal under Alternative 1, no impact would occur 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.

Alternative 2 – No Federal Action

Alternative 2 is a NEPA required no action alternative. This alternative includes the activities that would occur absent a USACE permit and could include improvements that require a local permit. Absent a USACE permit, no dredging, dredged material disposal, in-water pile installation, or crane installation/extension would occur. Expansion of the TICTF and extension of the crane rail also would not occur. The No Federal Action Alternative includes only backlands improvements consisting of slurry sealing, deep cold planing, asphalt concrete overlay, restriping, and removal, relocation, or modification of any underground conduits and pipes necessary to complete the repairs. These activities do not change the capacity of the existing terminal.

The site would continue to operate as an approximately 185-acre container terminal where cargo containers are loaded to/from vessels, temporarily stored on backlands, and transferred to/from trucks or on-dock rail. Similar to Alternative 1, the YTI Terminal is expected to operate at its existing capacity of approximately 1,692,000 TEUs by 2026.

Impact GW-1: Construction of Alternative 2 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 within the proposed project footprint have been affected by contaminants as a result of the YTI Terminal's historic uses. Soil remediation has occurred throughout the site, but it is possible that pockets of contamination still exist.

Alternative 2 would include backland improvements consisting of slurry sealing, deep cold planning, asphalt concrete overlay, restriping, and removal, and relocation or modification of underground conduits and pipes necessary to complete repairs. 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.

CEQA Impact Determination

Backland improvements under Alternative 2 could result in the potential to encounter contaminated material during construction activities, which could expose onsite 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). Additionally, MM GW-1 and MM GW-2 would be implemented to include site sampling, testing, and treatment, as well as implementation of contingency measures should contamination be encountered during construction. As such, 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

MM GW-1 and MM GW-2 would reduce impacts to a less-than-significant level.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

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

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

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

Soil and groundwater within the proposed project footprint have been affected by contaminants as a result of the terminal's historic uses. Soil remediation has occurred throughout the site, but it is possible that pockets of contamination still exist. Backland 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. Additionally, contaminated soil or groundwater encountered during construction of Alternative 2 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 a contamination contingency plan.

CEQA Impact Determination

Construction and operation of Alternative 2 would not result in expansion of the existing area affected by contaminants. Therefore, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

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

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

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

Although shallow groundwater may be locally extracted during construction dewatering operations (during placement of utility lines), groundwater beneath the Port is classified as nonpotable. Drinking water is provided to the proposed project area by the LADWP. Thus, localized groundwater withdrawal would have no impact on potential potable water.

CEQA Impact Determination

As the shallow groundwater beneath the Port is classified as nonpotable, any potential groundwater withdrawal during construction would not result in impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

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

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

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

No potable groundwater exists beneath the YTI Terminal, and the site is paved with impervious surface. Changes to the permeability of the site would temporarily occur during the resurfacing of the backlands. However, after construction, the permeability of the site will be similar to existing conditions. As such, any changes in site permeability will not affect potable groundwater recharge capacity.

CEQA Impact Determination

Because water beneath the YTI Terminal is nonpotable, the amount of infiltration to the groundwater beneath the proposed project site does not affect groundwater recharge capacity for potable water storage. Any increase or decrease in site permeability at the proposed project site would result in no impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

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

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact GW-5: Construction and operation of Alternative 2 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 production wells are located near the proposed project site, as groundwater in the area is subject to

extensive saltwater intrusion. Therefore, construction or operation of Alternative 2 would not result in the violation of water quality standards at existing production wells.

CEQA Impact Determination

Because no production wells are located near the proposed project site, Alternative 2 would result in no impacts under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

NEPA Impact Determination

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

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

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

This alternative includes all components of the proposed Project except dredging and pile driving at Berths 214–216. The following components of the proposed Project are unchanged under the Reduced Project Alternative:

- modifying up to six existing cranes;
- replacing up to four existing non-operating cranes;
- dredging 6,000 cy from a depth of -45 to -47 feet MLLW (with an additional 2 feet of overdredge depth, for a total depth of -49 feet MLLW), and installing 1,200 linear feet of sheet piles and king piles to support and stabilize the existing wharf structure at Berths 217–220;
- disposing of dredged material at LA-2, the Berths 243–245 CDF, or another approved upland location;
- extending the existing 100-foot gauge landside crane rail through Berths 217–220;
- performing ground repairs and maintenance activities in the backlands area; and

- expanding the TICTF on-dock rail by adding a single rail loading track.

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

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

Alternative 3 contains the same features as the proposed Project, with the exception of Berths 214–216 remaining at their existing depth. As such, this alternative would require less dredging (by approximately 21,000 cubic yards) and pile driving. As mentioned previously, soil and groundwater within the proposed project footprint have been affected by contaminants as a result of the historic uses at the project site. Soil remediation has occurred throughout the site, but it is possible that pockets of contamination still exist. Alternative 3 would include grading, excavation, and other construction-related activities during backland, crane rail, and TICTF improvements that could disturb or expose contaminated soils.

CEQA Impact Determination

Excavations associated with backland, crane rail, and TICTF improvements could encounter previously unknown soil and/or groundwater contamination. Such discoveries could result in adverse impacts on construction and operations personnel. As mentioned in the project description, implementation of these improvements would include asphalt repaving at the proposed project site, which would cap any possible contamination in those areas, thereby preventing runoff from leaching through the remaining contaminants. As such, this process would reduce the potential for exposure to underlying contaminants. All contaminated soil or groundwater encountered during construction of Alternative 3 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 the mitigation measures pertaining to site sampling, testing, and treatment, and compliance with MM GW-1 and MM GW-2. Compliance with the mitigation measure would ensure that should contaminated material 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.

Mitigation Measures

Implementation of MM GW-1 and MM GW-2 would reduce potential impacts to a less-than-significant level.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Under this alternative, the project elements to be analyzed under NEPA include the extension of the existing wharf crane rail, extension and replacement of other onsite cranes, improvements to Berths 217–220, including dredging and pile driving. Onsite soil disturbance is expected to occur during crane extension. These improvements would involve grading and excavating for the installation of electrical infrastructure and support structures. Contaminated soils and groundwater encountered during construction would be remediated in compliance with applicable requirements. Alternative 3 operations would comply with all applicable regulations governing use and handling of hazardous materials. Additionally, compliance with MM GW-1 and MM GW-2 would minimize exposure to toxic substances and other contaminants associated with historical uses at the Port, thus reducing potential impacts to less than significant under NEPA.

Mitigation Measures

Implementation of MM GW-1 and MM GW-2 would reduce potential impacts to less than significant.

Residual Impacts

Impacts would be less than significant.

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

Soil and groundwater in portions of the proposed project site have been affected by contaminants as a result of historic uses at the project site. Although much of the YTI Terminal site has been remediated in accordance with the requirements of state and local governments, it is possible that pockets of contamination still exist. 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 would not be expected to cause remaining contamination to migrate to offsite areas.

Since the areas that will be improved as part of Alternative 3 are currently paved, it is expected that Alternative 3 would not change the impermeable surface area where contamination potentially exists. Although this is the case, some BMPs may be used that will retain and/or treat runoff and allow it to permeate the soil. In the case of infiltration BMPs, compliance with the Low Impact Development ordinance would ensure that existing soil or groundwater contamination would not be exacerbated.

Operation of Alternative 3 would comply with all applicable existing regulations, which would prevent the alternative from affecting or expanding any potential areas affected by contamination, or increasing the level of contamination.

CEQA Impact Determination

Alternative 3 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 Alternative 3 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. Additionally, no permanent dewatering systems are anticipated with the implementation of Alternative 3 and, as such, no significant impact is anticipated to the rate or direction of movement of any existing contaminants beneath the site or the area affected by or the level of groundwater contaminants. Thus, construction and operation of Alternative 3 would not result in expansion of the existing area affected by contaminants and impacts would be less than significant 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 Alternative 3 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: Construction and operation of Alternative 3 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 on 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 because no potable water exists in the vicinity of the proposed project site. Therefore, no impacts on 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 because no potable water exists in the vicinity of the proposed project site. Therefore, no impacts on potable water levels would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact GW-4: Construction and operation of Alternative 3 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 nonpotable.

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 on 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 recharge groundwater capacity. 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: Construction and operation of Alternative 3 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 result in no impact on 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 on existing water production wells would occur under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

3.8.4.4 Summary of Impact Determinations

Table 3.8-1 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. Identified potential impacts may be based on federal, state, or City significance criteria; LAHD 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. All impacts, whether significant or not, are included in this table.

Table 3.8-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Residual Impacts after Mitigation
Proposed Project	**GW-1:** Construction of the proposed Project would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure to construction/operations personnel and/or long-term exposure to future site occupants.	CEQA: Significant NEPA: Significant	**MM GW-1:** Soil Sampling, Testing, and Treatment **MM GW-2:** Contamination Contingency Plan	CEQA: Less than significant NEPA: Less than significant
	GW-2: Construction and operation of the proposed Project would not result in expansion of the area affected by contaminants.	CEQA: Less than significant NEPA: Less than significant	No mitigation is required.	CEQA: Less than significant NEPA: Less than significant
	GW-3: Construction and operation of the proposed Project would not result in a change to potable water levels.	CEQA: No impact NEPA: No impact	No mitigation is required.	CEQA: No impact NEPA: No impact
	GW-4: Construction and operation of the proposed Project would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).	CEQA: No impact NEPA: No impact	No mitigation is required.	CEQA: No impact NEPA: No impact
	GW-5: Construction and operation of the proposed Project would not result in violation of regulatory water quality standards at an existing production well.	CEQA: No impact NEPA: No impact	No mitigation is required.	CEQA: No impact NEPA: No impact
Alternative 1 – No Project	**GW-1:** Construction of Alternative 1 would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure to construction/operations personnel and/or long-term exposure to future site occupants.	CEQA: No impact NEPA: Not applicable	No mitigation is required. Mitigation not applicable	CEQA: No impact NEPA: Not applicable
	GW-2: Construction and operation of Alternative 1 would not result in expansion of the area affected by contaminants.	CEQA: No impact NEPA: Not applicable	No mitigation is required. Mitigation not applicable	CEQA: No impact NEPA: Not applicable

Table 3.8-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Residual Impacts after Mitigation
	GW-3: Construction and operation of Alternative 1 would not result in a change to potable water levels.	CEQA: No impact NEPA: Not applicable	No mitigation is required. Mitigation not applicable	CEQA: No impact NEPA: Not applicable
	GW-4: Construction and operation of Alternative 1 would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).	CEQA: No impact NEPA: Not applicable	No mitigation is required. Mitigation not applicable	CEQA: No impact NEPA: Not applicable
	GW-5: Construction and operation of Alternative 1 would not result in violation of regulatory water quality standards at an existing production well.	CEQA: No impact NEPA: Not applicable	No mitigation is required. Mitigation not applicable	CEQA: No impact NEPA: Not applicable
Alternative 2 – No Federal Action	**GW-1:** Construction of Alternative 2 construction activities would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure to construction/operations personnel and/or long-term exposure to future site occupants.	CEQA: Significant NEPA: No impact	**MM GW-1:** Site Sampling, Testing, and Treatment **MM GW-2:** Contamination Contingency Plan	CEQA: Less than significant NEPA: No impact
	GW-2: Construction and operation of Alternative 2 would not result in expansion of the area affected by contaminants.	CEQA: Less than significant NEPA: No impact	No mitigation is required.	CEQA: Less than significant NEPA: No impact
	GW-3: Construction and operation of Alternative 2 would not result in a change to potable water levels.	CEQA: No impact NEPA: No impact	No mitigation is required.	CEQA: No impact NEPA: No impact
	GW-4: Construction and operation of Alternative 2 would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).	CEQA: No impact NEPA: No impact	No mitigation is required.	CEQA: No impact NEPA: No impact
	GW-5: Construction and operation of Alternative 2 would not result in violation of regulatory water quality standards at an existing production well.	CEQA: No impact NEPA: No impact	No mitigation is required.	CEQA: No impact NEPA: No impact

Table 3.8-1: Summary Matrix of Potential Impacts and Mitigation Measures for Groundwater and Soils Associated with the Proposed Project and Alternatives

Alternative	Environmental Impacts	Impact Determination	Mitigation Measures	Residual Impacts after Mitigation
Alternative 3 – Reduced Project; Improve Berths 217–220 Only	**GW-1:** Construction of Alternative 3 construction activities would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure to construction/operations personnel and/or long-term exposure to future site occupants.	CEQA: Significant NEPA: Significant	**MM GW-1:** Site Sampling, Testing, and Treatment **MM GW-2:** Contamination Contingency Plan	CEQA: Less than significant NEPA: Less than significant
	GW-2: Construction and operation of Alternative 3 would not potentially result in expansion of the area affected by contaminants.	CEQA: Less than significant NEPA: Less than significant	No mitigation is required.	CEQA: Less than significant NEPA: Less than significant
	GW-3: Construction and operation of Alternative 3 would not result in a change to potable water levels.	CEQA: No impact NEPA: No impact	No mitigation is required.	CEQA: No impact NEPA: No impact
	GW-4: Construction and operation of Alternative 3 would not result in a demonstrable and sustained reduction in groundwater recharge capacity (for potable water storage).	CEQA: No impact NEPA: No impact	No mitigation is required.	CEQA: No impact NEPA: No impact
	GW-5: Construction and operation of Alternative 3 would not result in violation of regulatory water quality standards at an existing production well.	CEQA: No impact NEPA: No impact	No mitigation is required.	CEQA: No impact NEPA: No impact

3.8.4.5 Mitigation Monitoring

In the absence of significant impacts, mitigation measures are not required. However, compliance with existing regulations and implementation of the following mitigation measures (discussed under Impact GW-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:

Impact GW-1: Construction of the proposed Project would not encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure to construction/operations personnel and/or long-term exposure to future site occupants.	
Mitigation Measure	**MM GW-1: Soil Sampling, Testing, and Treatment.** Prior to ground-disturbing construction activities, the following actions must be implemented by LAHD or its contractors: a) Prior to conducting excavations in the former National Metals and Steel site and the former Al Larson's Boat site, EPA must receive a "Notification of Activity" according to Federal protocol under the Toxic Substances Control Act (TSCA) for former polychlorinated biphenyl (PCB) remediation sites. In place (in-situ) soil sampling for PCBs must be completed prior to excavation and the analytical results provided to the EPA for review, prior to excavation. The sampling, analytical method, extraction, and soil disposal methods must comply with EPA TSCA regulations for PCB remediation sites where the original source of the PCBs was greater than 50 milligrams per kilogram (mg/kg). Sampling frequency and depth must be consistent with established EPA sampling procedures or guidance such as 40 CFR 761, Subpart N (40 CFR 761.260 et al.), or CERCLA site characterization guidance. PCB-containing waste soils must be disposed of and labeled as TSCA waste. EPA written concurrence with the notification is needed before excavation may proceed in former PCB remediation areas. In addition, as lead agency for PCBs, EPA may attach conditions to their concurrence, which must be followed. b) In the former National Metals Steel and Al Larson Boat sites, soils must also be tested for total petroleum hydrocarbons (TPH), Title 22 metals, and organochlorine pesticides (OCPs) as a condition of remediation site closure by the Los Angeles County Fire Department, Health and Hazardous Materials Section, and LAHD past practice to provide adequate information for construction waste characterization and/or worker safety hazard evaluations, prior to excavation. c) Soils in the former Golden West leasehold must be tested for TPH, benzene, toluene, ethyl benzene and xylenes, and polyaromatic hydrocarbons prior to excavation due to elevated petroleum waste left in backfill soils at this site and for the reason described in (b) above. d) Soils in the former Dow Chemical site must be tested for volatile organic compounds prior to excavation because past sampling indicates carbon tetrachloride is present at concentrations above industrial limits and at a level not protective of construction workers. Other lower-level volatile organic compounds (VOCs) were also found. e) In Waste Discharge Order 90-045, the Los Angeles Regional Water Quality Control Board requires maintenance of the structural integrity of the site cap for the former Golden West site and the National Metals Steel/Al Larson Boat Shop site. The site cap is to be a minimum of a 21-inch layer of clean material, compacted according to civil engineering standards, and the top 7 inches of this layer are to be asphalt concrete pavement. Groundwater monitoring requirements were rescinded for this site due to the presence of this cap and 6 years of monitoring indicating that the cap was protecting the groundwater from remnant contaminants in site soils.

Timing	Prior to and concurrent with proposed project construction.
Methodology	LAHD will include these mitigation measures in the bid specification for construction of the proposed Project or an alternative.
Responsible Parties	LAHD through construction contractor.
Residual Impacts	Less than significant
Mitigation Measure	**MM GW-2: Contamination Contingency Plan**. The following contingency plan will be implemented to address contamination discovered during demolition, grading, and construction: a) All trench excavation and filling operations will be observed for the presence of free petroleum products, chemicals, or contaminated soil. Soil suspected of contamination will be segregated from other soil. In the event soil suspected of contamination is encountered during construction, the contractor will notify LAHD's environmental representative. LAHD will 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 will require the approval of the LAHD Project Engineer. b) Excavation of VOC-impacted soil, or soil suspected of being impacted by VOCs based on historical site use, will require obtaining and complying with a South Coast Air Quality Management District Rule 1166 permit. c) The remedial option(s) selected will be dependent on a suite of criteria (including but not limited to types of chemical constituents, concentration of the chemicals, health and safety issues, time constraints, and cost) and will be determined on a site-specific basis. Both offsite and onsite remedial options may be evaluated. d) The extent of removal actions will be determined on a site-specific basis. At a minimum, the impacted area(s) within the boundaries of the construction area will be remediated to the satisfaction of LAHD and the lead regulatory agency for the site or action. The LAHD Project Manager overseeing removal actions will 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 will be submitted to the LAHD Project Manager within 60 days of project completion. f) In the event that contaminated soil is encountered either prior to or during construction, all onsite personnel handling or working in the vicinity of the contaminated material must be trained in accordance with EPA 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 workplace. g) When impacted soil must be excavated, air monitoring will be conducted as appropriate for related emissions adjacent to the excavation. h) All excavations will be backfilled with structurally suitable fill material that is free from contamination per LAHD standards. i) Standard engineering controls and BMPs will be implemented while excavating impacted soils to minimize human exposure to potential contaminants. Engineering controls and construction BMPs will include but not be limited to the following: ▪ Contractor will water/mist soil as its being excavated and loaded onto transportation trucks. ▪ Contractor will place any stockpiled soil in areas shielded from prevailing winds. ▪ Contractor will cover the bottom of excavated areas with sheeting when work is not being performed.

Timing	Concurrent with proposed project construction.
Methodology	LAHD will include these mitigation measures in the bid specification for construction of the proposed Project or an alternative.
Responsible Parties	LAHD through construction contractor.
Residual Impacts	Less than significant

3.8.5 Significant Unavoidable Impacts

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