

## CALIFORNIA ENVIRONMENTAL QUALITY ACT INITIAL STUDY

The Department of Toxic Substances Control (DTSC) has completed the following document for this project in accordance with the California Environmental Quality Act (CEQA) [Pub. Resources Code, div. 13, § 21000 et seq] and accompanying Guidelines [Cal. Code Regs., tit. 14, § 15000 et seq].

PROJECT TITLE: Former San Pedro Boat Works Miner Street, Berth44		CALSTARS CODING:
PROJECT ADDRESS: Miner Street, Berth44	CITY: San Pedro	COUNTY: Los Angeles
PROJECT SPONSOR: Los Angeles Harbor Department	CONTACT: Lisa Ochsner	PHONE: (310) 732-3412

APPROVAL ACTION UNDER CONSIDERATION BY DTSC:

<input type="checkbox"/> Initial Permit Issuance	<input type="checkbox"/> Permit Renewal	<input type="checkbox"/> Permit Modification	<input type="checkbox"/> Closure Plan
<input checked="" type="checkbox"/> Removal Action Workplan	<input type="checkbox"/> Remedial Action Plan	<input type="checkbox"/> Interim Removal	<input type="checkbox"/> Regulations
<input type="checkbox"/> Other (specify):			

STATUTORY AUTHORITY:

California H&SC, Chap. 6.5     California H&SC, Chap. 6.8     Other (specify):

DTSC PROGRAM/ADDRESS: 5796 Corporate Avenue Cypress, California 90630	CONTACT: Joseph Cully	PHONE: (714) 484-5473
---	--------------------------	--------------------------

**PROJECT DESCRIPTION:**

The California Department of Toxic Substances Control (DTSC), pursuant to the authority granted under Chapter 6.8, Division 20, California Health and Safety Code (H&SC) is proposing approval of the Proposed Plan (PP)/ draft Removal Action Workplan (RAW) for the former San Pedro Boat Works site (SPBW or the "Site") located at Berth 44 in the Port of Los Angeles in San Pedro, California. The Los Angeles Harbor Department (LAHD) derives authority to undertake this cleanup action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) under 42 United States Code U.S.C. Section 9604, 10 U.S.C. Section 2705.

SPBW is located at the mouth of Watchorn Basin, adjacent to the Outer Harbor of the Port of Los Angeles. The construction of the Outer Harbor Dock and Wharf Company facilities on Miner Fill, created a separate and new body of water known as Watchorn Basin.

The RAW includes excavation at the Site and offsite disposal to achieve cleanup goals for unrestricted site use. The Site consists of approximately 3.07 acres and is bound to the north by Miner Street and the Cabrillo Marina, to the east by Berth 46 (asphalt covered open lot), and to the south and west by the Los Angeles Harbor. The Site is currently vacant with the majority of the former buildings in place and includes the remnants of a 25-slip turntable yard. The Site is considered an Outer Harbor Berth within the Port of Los Angeles. Figure 1.1 presents the general project location and project Site. The Los Angeles Harbor Department owns the Site and it is currently inactive. Figure 1.2 presents the historical layout of the project Site.

The RAW recommends excavation of approximately 939 cubic yards spanning a total surface area of approximately 6,010 square feet (sf) to reduce the affected media (soil) of the contaminants of concern (COCs) including metals (antimony, arsenic, copper, lead, mercury, and zinc), polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCBs) and total petroleum hydrocarbons (TPH). Impacts are estimated based on excavation of 940 cubic yards.

A maximum of 60 discrete locations will be remediated. Excavations range from 1.9 cubic yards to 162 cubic yards and consist of mainly nine larger excavations (combining more than one sample location) ranging from 25 sf to 1,096 sf. Project activities would be limited to the following upland excavation remediation activities and are estimated to take approximately six months to complete:

- Soil excavation
- Demolition and removal of electrical shop, paint shop, and storage shed
- Off-site disposal
- Import of clean fill material
- Grading and leveling

There would be no additional construction, such as site redevelopment, once remediation is complete. Proposed excavation volumes under the RAW are presented in Table 1.1 (see Appendix B Removal Action Workplan, Figure 9 from the RAW for reference to specific sites). The largest area of excavation to achieve unrestricted land use is located at the electrical shop and east to the electrical shop, at the southern end of the Site. Remediation at the identified locations would achieve site-wide compliance with the selected cleanup goals. All metals will be reduced to reasonable maximum exposure values lower than the Site cleanup goal, which reduces Site toxicity. In addition to source removal, backfilling with clean imported soil will create a barrier between the channel water and the Site groundwater, especially in locations directly adjacent to the West Channel. Three existing structures (i.e. electrical shop, paint shop and storage shed) that are non-contributing elements to the historic district would be demolished and the soil underneath included in the proposed excavation volume. No excavations will be conducted within the Machine Shop located in the northwestern corner of the Site and between the Site fence and Equipment Storage Building located in the southern corner of the Site since these structures are contributing elements to the historic district. In addition, any removal areas immediately adjacent to any onsite structures will be carefully conducted and will be halted if the structural integrity is compromised. The excavations adjacent to these structures will be initially excavated to 2 feet bgs and continued upon evaluation of structural integrity as well as worker safety.

Since the 1920s, Berth 44 was operated as a commercial boat yard by various entities and by SPBW since 1932. The Site was primarily used for refurbishing commercial, private, and government vessels and contained a marine railway haul and launch system, supported by a 25-slip turntable yard, as well as buildings used for carpentry, welding, machining, and fiberglass work. Other services provided at the Site included sandblasting, painting, and electrical repairs. SPBW abandoned the facility and filed for bankruptcy in December 2002. The Bankruptcy Court returned "access control" of the facility to LAHD in June 2003. In September 2003, LAHD conducted hazardous waste removal under the enforcement action of the LA County Fire Department.

LAHD has performed multiple investigations from 1994 to 2016. A soil assessment conducted in 2001 identified elevated copper, lead and mercury in shallow soil borings and elevated concentrations of metals and total recoverable petroleum hydrocarbons (TRPH) were found in the paint shop and winch house areas, respectively. A Preliminary Environmental Assessment (PEA) using updated regulatory screening criteria was conducted in 2006. Soil, soil gas, groundwater, ambient air, and surface water samples were collected to evaluate and establish the nature and quantity of hazardous substances on Site.

Figure 1.1: Project Location Map

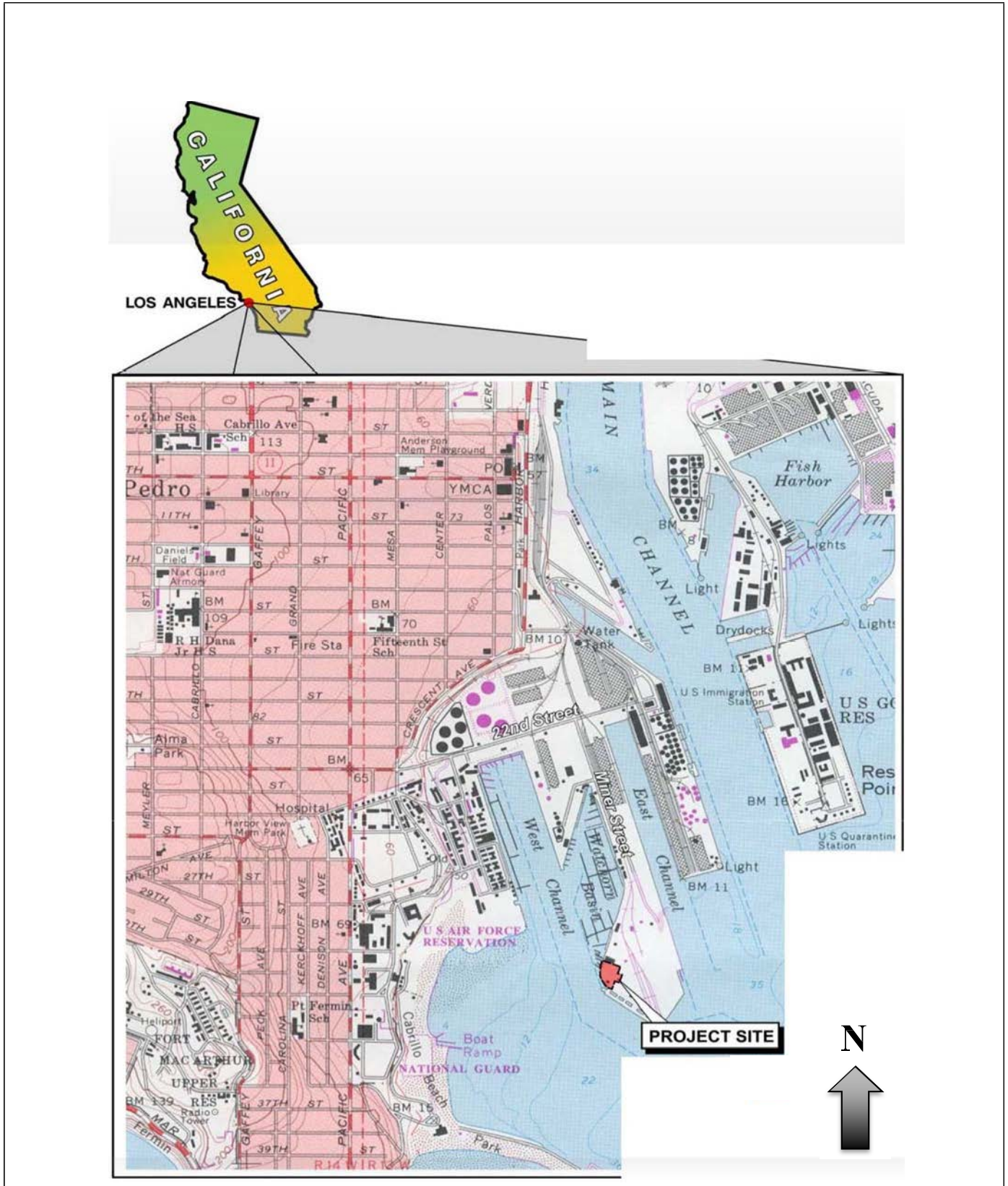


Figure 1.2: Site Layout

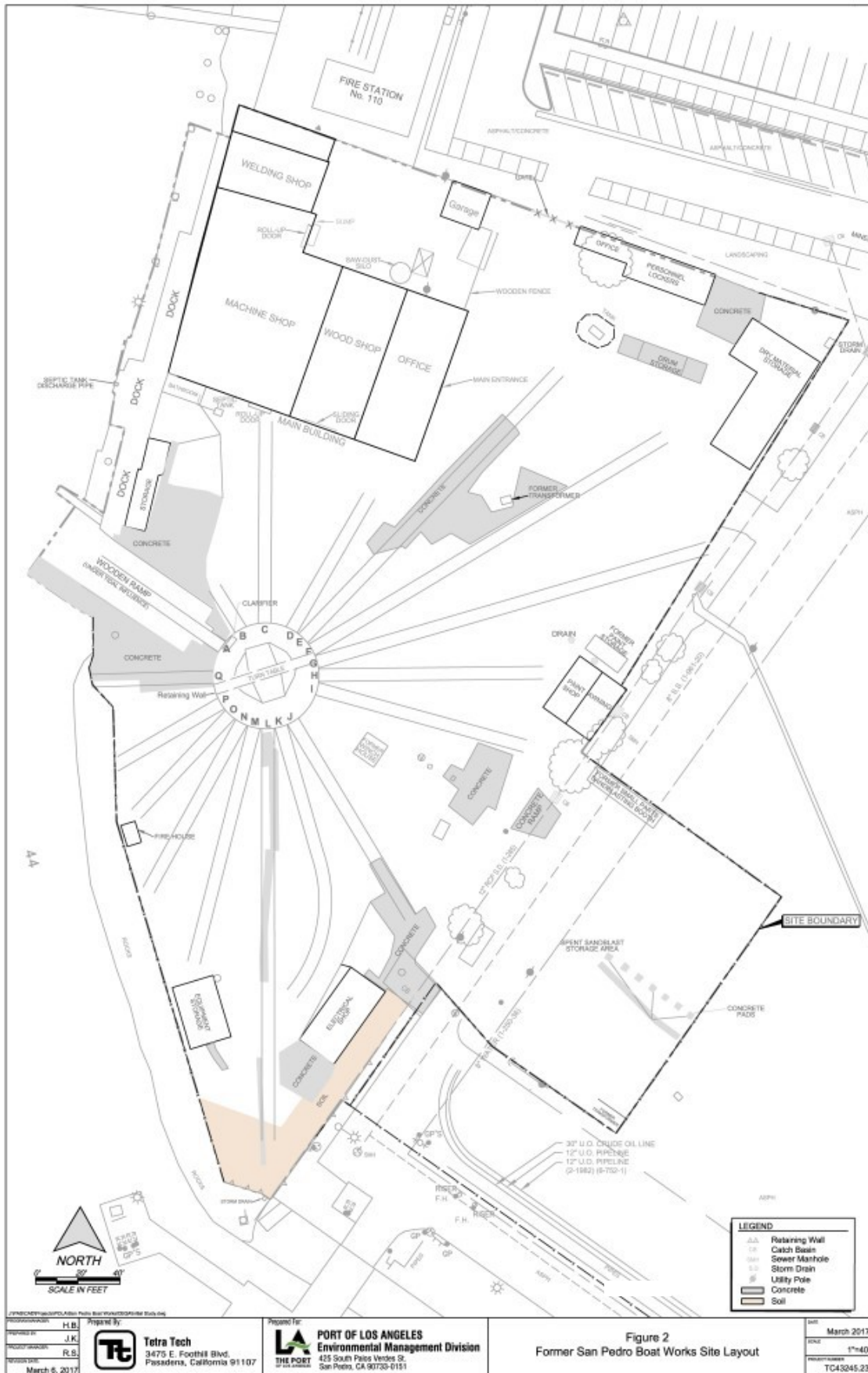


Table 1.1 Soil Removal Locations, Volume and COCs

Soil Boring	Depth (ft bgs)	Surface Area (sq. ft.)	Volume (CY)
TtSPBW-8, TtSPBW-8A	6.5	38.65	9.30
TtSPBW-11	2	25.00	1.85
TtSPBW-3	10	50.00	18.52
SPBW-RI-S2	10	25.00	9.26
TtSPBW-7	4	25.00	3.70
TtSPBW-13	4	25.00	3.70
TtSPBW-E2	4	25.00	3.70
TtSPBW-17	2	25.00	1.85
TtSPBW-18	4	25.00	3.70
Tt-SPBW-C4	2	25.00	1.85
Tt-SPBW-C4-S	2	25.00	1.85
Tt-SPBW-E3	6.5	25.00	6.02
Tt-SPBW-E3-E	2	25.00	1.85
TtSPBW-14	2	75.00	5.56
SPBW-RI-S7	2	150.00	11.11
TtSPBW-15, SPBW-RI-S6, TtSPBW-23	6.5	309.05	74.40
TtSPBW-19	4	25.00	3.70
TtSPBW-21	4	25.00	3.70
TtSPBW-26, TtSPBW-25, TtSPBW-25A	4	835.00	123.70
TtSPBW-27, SPBW-RI-S13	2	861.00	63.78
SPBW-RI-S10	6.5	25.00	6.02
SPBW-RI-S12	9.5	25.00	8.80
TtSPBW-28	4	25.00	3.70
TtSPBW-24	4	18.93	2.80
SPBW-RI-S14	4	75.00	11.11
Tt-SBPW-34 and TtSPBW-35	4	111.24	16.48
TtSPBW-29, TtSPBW-36	4	130.00	19.26
TtSPBW-30	2	25.00	1.85
SPBW-RI-S16	10	25.00	9.26
TtSPBW-38	2	112.31	8.32
SPBW-RI-S19	2	25.00	1.85
Tt-SPBW-F6	4	25.00	3.70
TtSPBW-F6-S	2	25.00	1.85
TtSPBW-31	2	25.00	1.85
TtSPBW-53	2	25.00	1.85
Tt-SPBW-C8	2	25.00	1.85
TtSPBW-39	8	25.00	7.41

<b>Soil Boring</b>	<b>Depth (ft bgs)</b>	<b>Surface Area (sq. ft.)</b>	<b>Volume (CY)</b>
TtSPBW-48	2	25.00	1.85
Tt-SPBW-D8	4	25.00	3.70
SPBW-RI-S24	6.5	25.00	6.02
TtSPBW-49	6.5	25.00	6.02
TtSPBW-45, TtSPBW-46	4	175.00	25.93
TtSPBW-50	6.5	25.00	6.02
Tt-SPBW-D9, SPBW-RI-S25	2	75.00	5.56
Tt-SPBW-D9-E, Tt-SPBW-E9	2	428.00	31.70
Tt-SPBW-E9-N, SPBW-RI-S26	6.5	50.00	12.04
TtSPBW-47, TtSPBW-47-N, Tt-SPBW-47-S	4	1,096.00	162.37
SPBW-RI-S28, SPBW-RI-S27	6.5	347.09	83.56
TtSPBW-52, TtSPBW-AS3-S, TtSPBW-AS3-SE	4	322.59	47.79
	<b>Total</b>	<b>6,009.85</b>	<b>853.66</b>
		<b>10% for potential step outs:</b>	<b>85.37</b>
		<b>Total with set outs:</b>	<b>939.02</b>

**Notes:**

Certain locations are grouped based on their proximity to each other and removal depths.

ft bgs = feet below ground surface

sq. ft. = square feet

cu. ft. = cubic feet

PEA results indicated that the concentrations of several constituents in surface and subsurface soils (metals, organics, polynuclear aromatic hydrocarbons [PAHs] and polychlorinated biphenyl [PCBs]), ambient air (PCBs) and groundwater (metals) beneath the Site exceeded regulatory screening criteria. Several metals including arsenic, chromium, copper, lead, mercury, nickel and zinc were detected in filtered groundwater at concentrations above the screening criteria. Only three metals (chromium, vanadium, and zinc) were detected in harbor water samples collected near the Site and at least one measured value of each detected metal exceeded screening criteria protective of aquatic biota. As a result, a remedial investigation (RI) was conducted in 2007 to further delineate soil contamination, confirm the presence or absence of groundwater contaminants, and determine the tidal influence on groundwater at the Site.

The RI confirmed seven metals (antimony, arsenic, cadmium, copper, lead, mercury, and thallium), two PCBs and one PAH exceeded regulatory screening criteria in soil. Seven metals (dissolved concentrations including arsenic, beryllium, copper, mercury, nickel, thallium, and zinc) were detected in Site groundwater at levels exceeding the water quality criteria.

In 2009, LAHD prepared an RI Addendum based on comments from DTSC to determine background threshold values (BTVs) for metals in soils and a comparison of the BTVs to concentrations measured at the Site. The results indicated surficial and shallow soils at the Site are impacted by metals.

Additional PCB sampling was conducted from January 2016 to April 2016 to further delineate PCB contamination in soil and concrete and identify PCBs in building materials (paint and caulk). Three areas were identified to have PCB soil concentrations above the unrestricted soil use cleanup goal of 220 µg/kg. The first area is in the southernmost section of the Site along the perimeter of the electrical shop, the second area is south of the paint shop, and the third area is in the eastern area between the office/lockers and paint shop. Results of the exterior paint sampling show that all buildings, with exception of the garage, have painted exterior surfaces containing PCBs. The 2015-2016 soil metal and total petroleum hydrocarbons (TPH) data were incorporated into the Site data and the reasonable maximum exposure (RME) concentrations were recalculated and compared to the Site cleanup goals to identify areas for removal. Additionally, based on the PCB concentrations detected in the concrete, the concrete pads associated with the soil removal areas will need to be demolished, removed, and disposed offsite.

Based on the soil data collected at the Site, metals (antimony, arsenic, copper, lead, mercury, and zinc), PCBs, benzo(a)pyrene (BaP), and TPH were identified to be the chemicals of potential concern (COPCs). The lateral and vertical extent of the metals, PCBs, and benzo(a)pyrene exceeding the cleanup goals show that the highest concentrations of most of these constituents occur in surface soils (0 to 3 feet below ground surface (bgs)), with most concentrations decreasing with depth. A number of the higher concentrations of all of the metals listed above were detected in surface or shallow soils.

Analytical results from groundwater sampling in the PEA and RI indicate that the Site activities have had limited, if any, impact on groundwater. Remedial activities are not recommended for groundwater at the Site. Groundwater monitoring may be conducted after soil remediation is complete to determine whether groundwater quality has improved or degraded and if the latter, whether additional action would be warranted to prevent further degradation of groundwater. However, there are no current plans to monitor groundwater.

A Human Health Risk Assessment (HHRA) and Screening Ecological Risk Assessment (SERA) was conducted in 2011 to evaluate the potential health risks for future receptors at the Site. Three groups of human receptors were evaluated in the HHRA: commercial/industrial workers, construction workers, and residents. Estimated risks and hazards from potential exposures to soil or groundwater for the potential receptors were evaluated. The vast majority of the sampling locations with elevated concentrations are located within the southern half of the Site within the top 2.5 feet of soil.

A SERA was conducted to evaluate ecological hazards at the Site. Chemicals of potential ecological concern (COPECs) potentially related to past Site operations were identified in environmental media (i.e., seawater, groundwater, and soil) that may be accessible to biota of concern, the ecological receptors. Since birds and marine mammals are likely to spend a limited portion of their time in the vicinity of the Site, exposures to Site-related constituents are likely to be minor. Although the screening evaluation of seawater, groundwater and soil COPECs (i.e. copper, lead, mercury, and zinc) indicates concentrations that exceed protective goals, these exceedances are not considered to indicate significant hazards to marine biota due to the likely significant dilution of COPECs by groundwater and seawater entering the harbor.

Utilizing the Remedial Action Objectives, the Site cleanup goals were derived and described in detail in the Feasibility Study. Final cleanup goals for arsenic, lead, mercury, and TPH will meet the requirements for unrestricted Site use. As noted, there are no goals for groundwater. The draft RAW evaluated five remedial alternatives. The alternative recommended by the RAW includes excavation and transportation of contaminated soil to an appropriate landfill or treatment facility for treatment and disposal which can be performed with conventional earth-moving and construction equipment.



**ENVIRONMENTAL IMPACT ANALYSIS:****1. Aesthetics****Project Activities Likely to Create an Impact:**

- Demolition and removal of electrical shop, paint shop, and three attached buildings/sheds
- Mobilization of excavation equipment
- Movement of trucks to transport materials, including soil, to and from the Site during remediation
- Movement of vehicles to bring personnel and supplies to the Site during remediation
- Excavation will total approximately 4,600 square feet and consists mainly of nine larger excavation areas ranging from 40 square feet to 835 square feet

**Description of Baseline Environmental Conditions:**

The project Site is located in a highly industrialized area of the former San Pedro Boat Works (SPBW) located at Berth 44 in the Port of Los Angeles in San Pedro, California. The SPBW complex comprises cleared areas that were previously used for industrial activities, as well as a group of older, industrial buildings scattered on a large triangular Site. The garage and main building (which housed company offices, parts, a wood shop, a machine shop, and a loft) is located in the northwest corner of the yard. The main building is the only building in the yard that is two stories in height. Portions of the site are covered with plastic sheets that are held in place by sand bags and cinder blocks to prevent stormwater infiltration into the soil. Adjacent properties include Fire Station 110 and Outer Harbor Cruise Terminal. SPBW is located at the mouth of Watchorn Basin of the West Channel in the Outer Harbor. The surrounding area is used for both recreational and commercial boating and the aesthetic context reflects these uses. The Los Angeles Harbor Department owns the Site and it is currently inactive.

The following photographs were taken in 2014 during a field survey:

Photo 1: View looking northwest with Main Building in the background



Photo 2: View looking west with turntable in the foreground



Photo 3: View looking west with turntable in the foreground (left of turntable)



Photo 4: View looking west with turntable in the foreground and Main Building to the right



Photo 5: View of overall excavation locations/areas



Analysis as to whether or not project activities would:

a. Have a substantial adverse effect on a scenic vista.

Impact Analysis: There are no scenic resources located on the Project Site. Although the site is adjacent to the Cabrillo Marina for recreational boats, Cabrillo Beach Park, and the marine waters of Watchorn Basin, the scenic resources in the project vicinity are limited by the industrial nature of the Port of Los Angeles that dominates the project vicinity. Currently the site is occupied by several decrepit buildings and an aged marine railway and a partially removed turntable. Portions of the site are covered with plastic sheets held in place by sand bags and cinder blocks. The cleanup actions include removal of the plastic sheets from the site to access the soil. In addition to source removal, all of the excavations will be backfilled with clean excavated soil and/or clean imported fill. Three vacant existing structures would be demolished, and the soil underneath remediated. No structures would be constructed as part of this project. The proposed Project would not block views of the Port of Los Angeles available from public and private vantage points, including panoramic views from the hillside residential areas of San Pedro or nearby recreational areas. Any potential impacts from demolition and excavation activities are considered temporary and short-term and would be less than significant.

Construction is not anticipated to result in any structures or activities that may obstruct views to or from a scenic vista. As such, construction impacts would be minor and temporary. The existing visual context of the site is of an industrial area covered with plastic sheeting. Following project construction, plastic sheeting would be removed, and the Site would be restored to improved conditions. Potential impacts to the existing visual character or quality of a scenic vista are expected to be less than significant from the proposed Project and mitigation is not required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.

Impact Analysis: Per the California Department of Transportation (Caltrans), the nearest officially designated state scenic highway is located approximately 36 miles north of the proposed project (State Highway 2, from approximately 3 miles north of Interstate 210 in La Cañada to the San Bernardino County Line) (Caltrans 2011). The nearest eligible state scenic highway is approximately 12 miles northeast of the proposed project site (State Highway 1, from State Highway 19 near Long Beach to Interstate 5 south of San Juan Capistrano) Caltrans 2011). There are no designated state scenic highways on or in the vicinity of the Site, based on the California Department of Transportation's Scenic Highway Programs officially designated state scenic highways list.<sup>1</sup>

In addition to Caltrans' officially designated and eligible state scenic highways, the City of Los Angeles has city-designated scenic highways that are considered for local planning and development decisions (City of Los Angeles 1998). These include several streets in San Pedro that are in the vicinity of the proposed project site. John S. Gibson Boulevard, Pacific Avenue, Front Street, and Harbor Boulevard are city-designated scenic highways because they afford views of the Port and the Vincent Thomas Bridge. The proposed project site is approximately 0.6 mile south of the Vincent Thomas Bridge and is not visible from any city-designated scenic highways.

No impacts to scenic resources, such as trees, rock outcroppings or historic buildings within a state scenic highway would occur and mitigation is not required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Substantially degrade the existing visual character or quality of the site and its surroundings.

Impact Analysis: See 1a above.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Impact Analysis: It is possible that remediation activities could create minor new sources of light or glare due to the presence of cleanup equipment (i.e., headlights on vehicles, reflection of sunlight). However, project activities would primarily be implemented during daylight hours and are not anticipated to require the use of additional lighting. Based on the short duration of remediation activities (approximately six months), any light or glare effects would be temporary and less than significant. The project does not involve the construction of buildings/structures that would create new, long-term sources of lighting or glare. Potential impacts are therefore expected to be less than significant, and mitigation is not required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

California Department of Transportation, Scenic Highway Program. Officially Designated State Scenic Highways.

Updated October 2013. Available at:

<[http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/scenic\\_hwy.htm](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm)>. Accessed September 26, 2016.

Tetra Tech, Inc. 2016. Removal Action Workplan, Former San Pedro Boat Works, Miner Street, Berth 44, San Pedro, California. June 30.

---

<sup>1</sup> California Department of Transportation, Scenic Highway Program. Officially Designated State Scenic Highways. Updated October 2013. Available at: <[http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/scenic\\_hwy.htm](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm)>. Accessed September 26, 2016.

## 2. Agricultural Resources

Project Activities Likely to Create an Impact: None

Description of Baseline Environmental Conditions: The project Site is located in a highly industrialized area of the former San Pedro Boat Works (SPBW) located at Berth 44 in the Port of Los Angeles in San Pedro, California. San Pedro Boat Works was built on fill material at a site known as Miner Fills sometime after 1910. The property is designated as “Urban and Built-Up Land”<sup>2</sup> and not under a Williamson Act contract. Project construction would have no impact on aquaculture, or any harvest or use of any marine resource.

Analysis as to whether or not project activities would:

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Impact Analysis: The project Site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Natural Resources Agency.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Conflict with existing zoning or agriculture use, or Williamson Act contract.

Impact Analysis: The project Site is not zoned for agricultural use, or Williamson Act contract.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses.

Impact Analysis: The project Site is not located near any Farmland and is surrounded by areas designated as Urban and Built-Up Land.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. 2015. Los Angeles County Important Farmland Map 2014. September 2016.

California Department of Conservation, Division of Land Resource Protection. 2014. Los Angeles County Williamson Act FY 2014/2015

<sup>2</sup> California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. 2015. *Los Angeles County Important Farmland Map 2014*. September 2016

### 3. Air Quality

#### Project Activities Likely to Create an Impact:

- Mobilization of excavation equipment (e.g. backhoe, excavator, or loader)
- Demolition and removal of electrical shop, paint shop, and three attached buildings/sheds
- Movement of trucks to transport materials, including soil, to and from the Site during remediation
- Movement of vehicles to bring personnel and supplies to the Site during remediation
- Excavation will total approximately 6,010 square feet and consists mainly of nine larger excavation areas ranging from 25 square feet to 1,096 square feet

The RAW recommends excavation of approximately 939 cubic yards spanning a total surface area of approximately 6,010 sf. Air emissions have been conservatively calculated based on excavation of 760 cubic yards. Soil contaminants of concern (COCs) include metals, PCBs, PAHs and TPH. A maximum of 60 locations will be remediated. Excavations will range from approximately 1.9 cubic yards to 162 cubic yards and consist mainly of nine larger excavations (combining more than one sample location) ranging from 25 square feet to 1,096 square feet. Proposed excavation volumes under the RAW are presented above in Table 1.1. The largest area of excavation to achieve unrestricted land use is located in the turntable, northwest of the former paint shop building, and in the southern PCB- impacted area of the Site. In addition to source removal, all excavations will be backfilled with clean soil and/or clean imported fill. Project activities will include project controls to minimize dust emissions and soil/chemical releases.

Soils will be stockpiled or directly loaded in the Department of Transportation-approved end dump trucks or equivalent under uniform hazardous waste manifests for transportation to the designated disposal facilities. If the soil is stockpiled (remediation activities expected to last approximately six months), it will be placed on plastic sheeting and covered with plastic sheeting and anchored to the ground by sand bags or similar material to prevent runoff and control dust.

Description of Baseline Environmental Conditions: The project Site is located in a highly industrialized area of the former San Pedro Boat Works (SPBW) located at Berth 44 in the Port of Los Angeles in San Pedro, California. The site is currently unused and there are no activities that generate air emissions. SPBW is located at the mouth of Watchorn Basin of the West Channel, in the Outer Harbor.

Analysis as to whether or not project activities would:

- a. Conflict with or obstruct implementation of the applicable air quality plan.

Impact Analysis: The South Coast Air Quality Management District (SCAQMD) monitors air quality within the proposed Project Site and the South Coast Air Basin (SCAB), which includes Orange County and portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAB is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east; and the San Diego County line to the south.

Due to the combined air pollution sources within the Basin and meteorological and geographical effects that limit dispersion of air pollution, the Basin can experience high air pollutant concentrations. The Basin is currently classified as an extreme nonattainment area for the 8-hour national ambient air quality standard (NAAQS) for ozone (O<sub>3</sub>), and a nonattainment area for the NAAQS for particulate matter less than 2.5 microns (PM<sub>2.5</sub>). On June 12, 2013, the U.S. Environmental Protection Agency (USEPA) redesignated the Basin as a maintenance area for the NAAQS for particulate matter less than 10 microns (PM<sub>10</sub>). The Basin is classified as a maintenance area for the NAAQS for carbon monoxide (CO). The Basin is also classified as a nonattainment area for the California ambient air quality standards (CAAQS) for O<sub>3</sub>, PM<sub>2.5</sub>, and PM<sub>10</sub>.

For regions that do not attain the NAAQS, the Clean Air Act (CAA) requires the preparation of a State Implementation Plan (SIP), detailing how the state will attain the NAAQS within mandated timeframes. In response to this requirement, SCAQMD develops an Air Quality Management Plan (AQMP), which is incorporated by the California Air Resources Board (CARB) into the SIP. The AQMP is updated every few years in response to NAAQS revisions, EPA SIP disapprovals, and attainment demonstration changes. The AQMP is a collaborative effort between the SCAQMD, CARB, and the Southern California Association of Governments (SCAG).

The most recent AQMP is the 2016 AQMP released in draft form in June 2016 and finalized in March 2017. The 2016 AQMP focuses on attainment of the ozone and PM<sub>2.5</sub> NAAQS through the reduction of nitrogen oxides (NO<sub>x</sub>) and PM<sub>2.5</sub> emissions. The 2016 AQMP also identifies control measures and strategies to demonstrate the region's attainment of the revoked 1997 8-hour ozone NAAQS (80 parts per million) by 2024, the 2008 8-hour ozone standard (75 parts per million) by 2031, the 2012 annual PM<sub>2.5</sub> standard (12 micrograms per cubic meter) by 2025, the 2006 24-hour PM<sub>2.5</sub> standard (35 micrograms per cubic meter) by 2019, and the revoked 1979 1-hour ozone standard (120 parts per million) by 2023.

The 2016 AQMP reported that although the population in the SCAG region has increased by more than 20% since 1990, air quality has improved due to air quality control programs at the local, state, and federal levels. In particular, 8-hour ozone levels have been reduced by more than 40%, 1-hour ozone levels by nearly 60%, and annual PM<sub>2.5</sub> levels by close to 55% since 1990 (SCAQMD 2016). The EPA often approves portions and disapproves other portions of each SIP. The 2016 AQMP contains a detailed description of which portions of past AQMPs have been approved by the EPA.

The AQMP proposes emission-reduction measures that are designed to bring the SCAB into attainment with the national and state AAQS. SCAQMD ultimately adopts AQMP control measures as rules and regulations. Compliance with these requirements would ensure that the proposed Project's activities would not obstruct implementation of the AQMP. Therefore, the proposed Project would not conflict with or obstruct implementation of the AQMP, the SIP, and the CAA. Impacts would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Analysis: SCAQMD, the local air quality regulatory agency, developed significance thresholds for use in CEQA documents (SCAQMD 1993). The SCAQMD updated its thresholds of significance for potential air quality impacts in 2015 (SCAQMD 2015). Table 3.1 presents the SCAQMD thresholds of significance for potential air quality impacts.

Table 3.2 shows that emissions from this remediation project are not anticipated to exceed any of SCAQMD's daily thresholds of significance. Best management practices will also be observed during project activities to further reduce air emissions and control dust:

- Water excavation areas to minimize fugitive dust as needed
- Cover all trucks hauling soil, sand, and other loose materials for offsite disposal or require trucks to maintain at least 2 feet of freeboard
- Apply water on unpaved access roads, parking areas and staging areas within the remediation area
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at the Site if visible soil material is observed.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets
- If soil is stockpiled, the excavated soil will be placed on plastic sheeting and covered with plastic sheeting and anchored to the ground by sand bags or similar material.



**Table 3.1 - SCAQMD's CEQA Air Quality Significance Thresholds**

<b>Regional – Daily Emission Thresholds</b>	
<b>Pollutant</b>	<b>Construction (lbs/day)</b>
NO <sub>x</sub>	100
VOC	75
PM <sub>10</sub>	150
PM <sub>2.5</sub>	55
SO <sub>x</sub>	150
CO	550
<b>Localized – Ambient Pollutant Concentration Thresholds</b>	
<b>Air Pollutant</b>	<b>Ambient Concentration Threshold</b>
<b>NO<sub>2</sub></b> 1-hour average Annual average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (339 µg/m <sup>3</sup> ) (state) & 0.100 ppm (188 µg/m <sup>3</sup> ) <sup>b</sup> (federal) 0.03 ppm (57 µg/m <sup>3</sup> ) (state)
<b>PM<sub>10</sub></b> 24-hour average Annual average	10.4 µg/m <sup>3</sup> (construction) & 2.5 µg/m <sup>3</sup> (operation) 1.0 µg/m <sup>3</sup>
<b>PM<sub>2.5</sub></b> 24-hour average	10.4 µg/m <sup>3</sup> (construction) 2.5 µg/m <sup>3</sup> (operation)
<b>SO<sub>2</sub></b> 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)
<b>CO</b> 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (23,000 µg/m <sup>3</sup> ) (state) and 35 ppm (federal) 9.0 ppm (10,000 µg/m <sup>3</sup> ) (state/federal)
<b>TAC and Odor Thresholds</b>	
<b>TACs</b> (including carcinogens and non-carcinogens)	Maximum Incremental Risk ≥ 10 in 1 million Hazard Index ≥ 1.0 (project increment)
<b>Odor</b>	Project creates an odor nuisance pursuant to SCAQMD Rule 402
<b>GHG</b>	10,000 MT/yr CO <sub>2</sub> eq for industrial facilities

Notes: µg/m<sup>3</sup> = micrograms per cubic meter; CO = carbon monoxide; lb/day = pounds per day; MT/yr CO<sub>2</sub>eq = metric tons per year of CO<sub>2</sub> equivalents; NO<sub>2</sub> = nitrogen oxide; NO<sub>x</sub> = nitrogen oxide; PM<sub>10</sub> = directly emitted particulate matter less than 10 microns; PM<sub>2.5</sub> = directly emitted particulate matter less than 2.5 microns; ppm = parts per million; SCAQMD = South Coast Air Quality Management District; SO<sub>2</sub> = sulfur dioxide; SO<sub>x</sub> = sulfur oxides; TAC = toxic air contaminant; VOC = volatile organic compound

**Table 3.2 Maximum Daily Construction Emissions**

	Peak Daily Emissions, lbs/day					
	ROG	NOx	CO	SOx	PM10	PM2.5
Construction Activities	3.2	45.6	16.5	0.1	5.0	2.4
SCAQMD Daily CEQA Significance Threshold	75	100	550	150	150	55
<b>Significance Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

The SCAQMD has also developed Localized Significance Thresholds (LSTs) to assist CEQA lead agencies in analyzing localized air quality impacts from proposed projects (SCAQMD 2008a). LSTs were developed based on a calculation of the maximum emissions from a project that would not cause or contribute to a violation of the most stringent applicable federal or state ambient air quality standard. Accordingly, the LSTs were derived based on the ambient concentration of pollutant versus distance to receptor for each source receptor area within the Basin. LSTs have been developed for NOx, CO, and particulate matter (PM10 and PM2.5). The SCAQMD has developed LST look-up tables that apply to projects with an area of 5 acres or less.

The proposed project lies within Source Receptor Area #3. Table 3.3 provides a summary of the proposed Project emissions when compared to the applicable LSTs. Maximum daily emissions from the Project would not exceed any of the applicable SCAQMD LST standards.

**Table 3.3 - Maximum Daily Construction Emissions Compared to SCAQMD Localized Significance Thresholds\***

	Peak Daily Emissions, lbs/day					
	ROG	NOx	CO	SOx	PM10	PM2.5
Construction Activity Emissions	3.2	45.6	16.5	0.1	5.0	2.4
SCAQMD LST standards for SRA #3	N/A	165	2,783	N/A	65	25
<b>Significance Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

\*SRA #3 – 2-acre site with residential receptors < 200 m away.

Accordingly, the proposed Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Impacts would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact Analysis: Federal and state AAQS have been established for the following criteria pollutants: CO, ozone, sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), PM<sub>10</sub>, PM<sub>2.5</sub>, and lead. Areas are classified under the federal CAA areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the national AAQS have been achieved. Attainment relative to the California CAA and state AAQS is determined by CARB. The proposed Project Site is located in the Los Angeles County (County) portion of the SCAB. The County is designated as a federal nonattainment area for ozone and PM<sub>2.5</sub> and state nonattainment area for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>.<sup>3</sup>

Air quality in the SCAB has improved over the last several decades. The improvement in air quality is attributed to emissions reduction from industrial sources, introduction of low emission fuels used in on-road motor vehicles (e.g., low-sulfur fuels, reformulated gasoline, and low-carbon fuel standards), and implementation of the AQMPs, which identify emissions reduction strategies, and which are subsequently promulgated as enforceable regulations.

Cumulative impacts may result from individually minor but collectively significant projects. CEQA Guidelines Section 15355 define cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” CEQA Guidelines Section 15064(h)(4) also state that “the mere existence of cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed Project’s incremental effects are cumulatively considerable.”

SCAQMD has developed a policy to address the cumulative impacts of CEQA projects (SCAQMD 2003). The policy identifies the cumulative threshold to be the same as the project-level threshold and indicates that project impacts are cumulatively considerable if they exceed the project-specific air quality significance thresholds.

## Remediation

Tables 3.2 and 3.3 show that remediation activities would not exceed SCAQMD project-specific significance thresholds and emissions would be temporary and short-term in nature. Therefore, remediation activities would not result in a cumulatively considerable contribution to the existing pollution burden in the SCAB and cumulative impacts would be less than significant and no mitigation is required.

### Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

#### d. Expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis: Sensitive receptors include residences, hospitals, schools and convalescent facilities. The nearest sensitive receptors would be live-aboard boat tenants at the Cabrillo Marina, located approximately 500 feet north of the proposed Project Site. These receptors represent the nearest land uses with the potential to be impacted as a result of the proposed Project.

The project is not expected to expose these sensitive receptors to substantial pollutant concentrations for the following reasons:

- A limited number of construction vehicles or equipment would operate simultaneously.
- Standard construction practices, such as using a water truck and covering stockpiles, would be used for dust suppression.

---

<sup>3</sup> The Los Angeles area is in nonattainment for the lead AAQS, mainly due to two lead-acid battery recyclers. Lead would not be expected to result from anticipated proposed Project activities and is not considered to be a pollutant of concern for this proposed Project.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

## e. Create objectionable odors affecting a substantial number of people.

Impact Analysis: Remediation activities of the proposed Project would increase air pollutants primarily due to the combustion of diesel fuel in trucks and construction equipment. Some individuals might find diesel combustion emissions to be objectionable in nature, although quantifying the odorous impacts of these emissions to the public is difficult due to the complex mixture of chemicals in diesel exhaust and the differing odor thresholds of these constituent species. There is also the difficulty of quantifying the potential for changes in perceived odors even when air contaminant concentrations are known.

The mobile nature of most proposed Project emission sources during remediation would serve to disperse proposed Project emissions. Furthermore, the existing industrial setting of the proposed Project represents an already complex odor environment. For example, existing nearby container terminals include freight and goods movement activities that use diesel trucks and diesel cargo-handling equipment that generate similar diesel exhaust odors as would the proposed Project. Within this context, the proposed Project would not likely result in changes to the overall odor environment in the vicinity. Therefore, the proposed Project would not create objectionable odors affecting a substantial number of people. Impacts would be less than significant, and no mitigation is required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

## f. Result in human exposure to Naturally Occurring Asbestos.

Impact Analysis: The Site is located upon a portion of Miner's Fill which was constructed from dredged sediments. No rocks likely to contain naturally occurring asbestos (NOA) are present in the project area, as illustrated on the map entitled "Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California" (United States Geological Survey [USGS] 2011). The Site is located near sea-level on the southeastern flank of the Palos Verdes Hills, with underlying lithology consisting of an uplifted fault block, composed of Miocene marine sediments, middle Miocene Volcanic rocks, and Late Pleistocene Terrace deposits. In general, surficial sediments in the area consist of Holocene or recent age marine and non-marine, gravel, sand, silt, and clay (CADWR, 1961). Exposure of Site workers or the surrounding community to NOA is not considered to be a potential hazard.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

SCAQMD. 2016. 2016 Air Quality Management Plan. Accessed March 2017. <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan>.

SCAQMD (South Coast Air Quality Management District). 2003. "Appendix D: Cumulative Impact Analysis Requirements Pursuant to CEQA." In Potential Control Strategies to Address Cumulative Impacts from Air Pollution: Appendix D. August 2003.

Tetra Tech, Inc. 2016. Removal Action Workplan, Former San Pedro Boat Works, Miner Street, Berth 44, San Pedro, California. June 30.

United States Geological Survey (USGS). 2011. "Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California." Open File Report 2011-1188.

#### 4. Biological Resources

##### Project Activities Likely to Create an Impact:

- Excavation/removal and stockpiling of concrete and contaminated soil using appropriate construction equipment in select areas (may include excavator, backhoe and loader); loading the contaminated media onto dump trucks.
- Offsite transport and disposal of excavated soil, concrete, waste water and/or miscellaneous debris to appropriate facilities based on waste characterization and importation of clean soil.
- Site restoration including backfill of all excavated areas.

##### Description of Baseline Environmental Conditions:

The ports of Long Beach and Los Angeles (Ports) are located in San Pedro Bay, which is bounded by the City of Los Angeles communities of San Pedro, on the west, and Wilmington, on the north, and by the City of Long Beach on the north and east. Over the years, LAHD, in conjunction with the Port of Long Beach have worked with the state and federal resource agencies to conduct periodic evaluations of the biological resources within the Port Complex to assess biological conditions of the various harbor habitats; the most recent evaluation was conducted in 2013-2014 (MBC 2016).

Based on these assessments, the resource agencies and the Ports determine marine habitat values and evaluate the potential impacts of Port projects on marine resources. The periodic surveys have documented an increase in habitat value over time. According to the most recent survey conducted in 2013-2014, several candidate, sensitive, or special-status species have been identified in the Port area, which include adult and juvenile fish, ichthyoplankton, benthic invertebrates, riprap-associated organisms, kelp and macroalgae surface canopy, eelgrass, birds, and various exotic species. Two state and federally listed endangered species, the California least tern (*Sterna antillarum browni*) and the state-listed endangered American peregrine falcon (*Falco peregrinus anatum*) regularly use the harbor area (U.S. FWS, 2013). The California least tern are a migratory species that nest at Pier 400 between April and September and forage within the shallow waters of the Port. Peregrine falcons have been known to nest on bridges within the Port. Additionally, several other migratory birds protected by the Migratory Bird Treaty Act (MBTA) are known to use the harbor area.

The project Site is located in a highly industrialized area of the former SPBW at Berth 44 and is currently inactive. The SPBW complex comprises cleared areas that were previously used for industrial activities. The Site is mostly paved, graveled, or consists of hard-packed soil. An ecological site survey was conducted which concluded that there is no terrestrial habitat on the Site that would be suitable to support a functional natural community (Tetra Tech, 2011). The proposed project is a remediation project that does not include any in-water work and would be limited to upland excavation of the immediate Project Site.

##### Analysis as to whether or not project activities would:

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis: As discussed within the Port Master Plan (Port of Los Angeles (POLA) 2014), most of the terrestrial area within the Port contains facilities and infrastructure such as buildings, roads, and paved container storage areas with limited vegetated habitats. Wildlife use of developed and most undeveloped areas within the area is limited.

The majority of species that are known or have the potential to occur are adapted to human-disturbed landscapes. Biologically sensitive areas within the Port are summarized in the Port Master Plan (POLA 2014). These include wetlands, marine habitats of particular concern (eelgrass (*Zostera ssp.*), kelp (*Laminariales ssp.*), and the designated California least tern (*Sternula antillarum browni*) nesting site. None of these biologically sensitive areas or resources are identified within the proposed Project Site. Eelgrass beds, which are considered a special aquatic site (vegetated shallows) pursuant to the Clean Water Act and a habitat area of particular concern, are located approximately 0.5 miles west of the proposed Project Site in the shallows off Cabrillo Beach (Port of Long Beach and POLA 2016).

The proposed Project is a remediation project which is limited to upland excavation and there are no waterside improvements associated with the project and therefore would not affect biologically sensitive areas. Excavation would extend to within 10 to 12 feet of the shore line and surface water runoff would be controlled during construction through implementation of Best Management Practices (BMPs) including silt fences, straw bales and fiber wattles, sand bags, and plastic sheeting. Additionally, an approximate 1-foot high sand bag berm will be constructed along the perimeter of the Site that is adjacent to the harbor. Movement of terrestrial species is limited because the Site is fenced on three sides with a sea wall on the fourth side adjacent to the West Channel.

The proposed project site is located in a highly industrialized area and is currently inactive. The site does not contain riparian habitat and the proposed project is unlikely to directly affect candidate, sensitive or special status species or through habitat modification. No critical habitat for any federally listed species is present at the site. Construction activities would be temporary (approximately six months) and any special status species would not be significantly affected by short-term construction activities.

There are several ornamental cypress trees (non-protected species) along the front of the main building and some ruderal vegetation scattered through the proposed Project Site. Although unlikely, because of the disturbed nature of the proposed Project Site and lack of activity, these trees could potentially provide nesting opportunities for bird species protected under the California Fish and Game Code and the Migratory Bird Treaty Act of 1918. If tree removal occurs during the nesting season (March through September), pre-construction surveys would be required as a standard condition.

Therefore, impacts associated with candidate, sensitive, or special-status species as identified in local or regional plans, policies, or regulations or by the CDFW or the USFWS would be considered less than significant and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis: Refer to 4(a). The proposed Project Site is currently designated as Limited Industrial Zone and Recreation and Commercial (City of Los Angeles 2016a). The Site is currently unused with the majority of the former buildings in place. No riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or the USFWS are known to exist on the proposed Project Site because of the disturbed and urban nature of the proposed Project Site.

There is no riparian habitat located with the Port of Los Angeles (USFWS, 2016). The proposed Project is a remediation project which is limited to upland excavation and would not affect marine biological resources.

The nearest excavation would be immediately adjacent to the sea wall on the southern portion of the Site which is approximately 10 to 12 ft. from the riprap/harbor interface. At high tide, the Channel water is directly in connection with the sea wall which is higher than the channel water.

All onsite project activities would be conducted on developed areas with historic industrial uses. Project controls (i.e. placing soil on plastic sheeting and covering with plastic sheeting and anchoring to the ground with sand bags or similar material to prevent runoff) will be implemented to prevent the migration of contaminated soils into the harbor during the implementation of remediation and thus limit exposure of sensitive habitat.

If the soil is stockpiled, the excavated soil will be placed on plastic sheeting to protect against cross-contamination of soils beneath the stockpile. Secondary containment berms will be constructed using the same liner material to prevent storm water runoff from entering the stockpiles. The soil stockpiles will be covered with plastic sheeting and anchored to the ground by sand bags or similar material to prevent storm water runoff from the stockpiles leaving the bermed area.

Standard Best Management Practices will be implemented to prevent erosion or loss of topsoil from entering the harbor which include: installation of berms, soil stockpile management including covers for soil stockpiles, sandbags and storm drain protection. If the soil is stockpiled, the excavated soil will be placed on plastic sheeting to protect against cross-contamination of soils beneath the stockpile. Remediation activity impacts associated with soil erosion and topsoil loss would be less than significant, and no mitigation is required

Currently, the Site is bound along the harbor by a sea wall that extends from ground surface (8 ft above MLLW) to 6 feet bgs (2 ft above MLLW). Additionally, an approximate 1-foot high sand bag berm will be constructed along the perimeter of the Site that is adjacent to the harbor. Exposed soil on site will be covered by tarps and sandbags. These measures are currently in-place and the berms will be inspected prior to the implementation of the RAW. Additional sand bags and plastic sheeting will be installed as needed to prevent potential migration of contaminated soils into the harbor during remediation. Additionally, all removals will be performed in dry conditions (above groundwater) and near or at MLLW. It should be noted that any removals immediately adjacent to the sea wall will only be excavated to a depth of 6 ft bgs.

Therefore, impacts associated with riparian habitat or any other sensitive natural community would be considered less than significant from implementation of the proposed Project, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact Analysis: Refer to 4(b). The proposed Project Site is currently designated as Limited Industrial Zone and Recreation and Commercial ([Q]M2-1) (City of Los Angeles 2016a). The Site is currently unused with the majority of the former buildings in place. As discussed in the Port Master Plan (POLA 2014), the nearest wetland to the proposed Project Site is the Salinas de San Pedro (also referred to as Cabrillo Marsh). It is a 3.3-acre salt marsh located near Cabrillo Beach in the Outer Harbor and is approximately 0.5 miles west of the proposed Project Site. A small freshwater marsh has been restored near 22<sup>nd</sup> Street and is located approximately 1.0 miles northwest of the proposed Project Site (POLA 2014).

Soil excavation would occur within 10 to 12 ft from the riprap/harbor interface. The riprap barrier is an armored surface that does not provide any type of wetland habitat. Surface water runoff would be controlled and not allowed to overtop the riprap wall or enter the harbor.

The proposed project is a remediation project and would be confined to the immediate Project Site and no in- or over-water construction is proposed. No activities would occur within or near wetlands. Therefore, impacts associated with federally protected wetlands as defined by Section 404 of the CWA would not occur and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.



Impact Analysis: The only defined migratory species in the Port are birds and the Los Angeles and Long Beach Harbors provide valuable habitat for foraging, resting, and breeding by numerous species of birds. Per the baseline surveys, over 100 avian species use the various habitats within the Ports seasonally, year-round, or during migration. A total of 96 species representing 30 families were observed within the Ports during the 2013-2014 biological baseline study. Of these species, 52% are dependent on marine habitats.

Species numbers varied seasonally, with a greater variety of birds present in fall and winter and fewer species during summer, consistent with largescale migratory patterns. Bird abundance was more variable and was attributed to differences in bird migratory patterns and nesting activities. The highest numbers of birds were noted in the Long Beach West Basin and main shipping channel of the Los Angeles Harbor, with counts being approximately an order of magnitude lower at small basin and channel zones at inner harbor locations.

Most of the terrestrial area within the Port contains facilities and infrastructure such as buildings, roads, and paved container storage areas with limited vegetated habitats. Wildlife use of developed and most undeveloped areas within the area is limited. The majority of species that are known or have the potential to occur are adapted to human-disturbed landscapes. The port complex occurs between dense, urban development and ocean waters; therefore, natural corridors (topographic or habitat pathways) supporting terrestrial wildlife movement do not occur (POLA 2014).

The proposed Project site is an existing industrially developed area within a large industrial Port complex, so it does not contain habitat suitable for wildlife species and is not used by native resident or migratory species for movement or nursery purposes. Onsite movement of terrestrial species is limited because the Site is fenced on three sides with a sea wall on the fourth side adjacent to the West Channel. There are no waterside improvements associated with the project. The only defined migratory species in the Port are birds, which would not be adversely impacted by short-term construction (approximately six months). No migratory birds, fish or wildlife species would be impacted by the remediation at the site.

Project impacts associated with the movement of any native resident, migratory fish, or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites would be considered less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact Analysis: The only biological resources protected by the City ordinance (Ordinance No. 177404) pertain to certain tree species. A permit is required for removal or relocations (City of Los Angeles 2016b). The protected trees are the following (City of Los Angeles 2016b):

- Oak tree, including valley oak (*Quercus lobata*) and California live oak (*Quercus agrifolia*)
- Any other tree of the oak genus indigenous to California, excluding the scrub oak (*Quercus dumosa*)
- Southern California black walnut (*Juglans californica* var. *californica*)
- Western sycamore (*Platanus racemosa*)
- California bay (*Umbellularia californica*)

As discussed in 4(a), there are several ornamental trees (non-protected species) located on the proposed Project Site which may require removal for remediation activities. Therefore, no conflict with the City's native tree protection and relocation ordinance would occur. No impacts would occur to protected biological resources and no mitigation is required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact Analysis: No adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan overlay the proposed Project Site. The nearest conservation plan area is the Rancho Palos Verdes Natural Community Conservation Plan, which is located more than 5.0 miles west of the proposed Project Site (City of Rancho Palos Verdes 2016). The County of Los Angeles (County) has established officially designated areas, referred to as significant ecological areas (SEAs), within the County that contain rare or unique biological resources. The Terminal Island (Pier 400) California least tern nesting site is the only SEA in the Port. The proposed Project is located 1.5 miles west of the SEA (County of Los Angeles 2015). Since the proposed Project is a remediation project and not located in the vicinity of the SEA, no impact would occur, and no mitigation is required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

- City of Rancho Palos Verdes. 2016. "NCCP Reserve Boundary Parcels [map]." Accessed September 2016. <http://www.rpvca.gov/DocumentCenter/View/3396>.
- County of Los Angeles. 2015. "Figure 9.3: Significant Ecological Areas and Coastal Resource Areas Policy Map [map]." February 2015. Accessed September 2016. [http://planning.lacounty.gov/assets/upl/project/gp\\_2035\\_2014-FIG\\_9-3\\_significant\\_ecological\\_areas.pdf](http://planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-3_significant_ecological_areas.pdf).
- POLA. 2014. Port Master Plan – Port of Los Angeles. February 2014. Accessed September 2016. <https://www.portoflosangeles.org/planning/pmp/Amendment%2028.pdf>.
- Port of Long Beach and POLA. 2016. 2013–2014 Biological Surveys of Long Beach and Los Angeles Harbors. June 1, 2016.
- Tetra Tech, Inc., 2011. Ecological Site Survey of the Former San Pedro Boat Works Facility. March 24.
- United States Fish and Wildlife Service (USFW), 2016. Accessed January 2017. National Wetland Inventory. <https://www.fws.gov/wetlands/Data/Mapper.html>

## 5. Cultural Resources

### Project Activities Likely to Create an Impact:

- Excavation/removal and stockpiling of concrete and contaminated soil using appropriate construction equipment in select areas (may include excavator, backhoe and loader); loading the contaminated media onto dump trucks.
- Offsite transport and disposal of excavated soil, concrete, waste water and/or miscellaneous debris to appropriate facilities based on waste characterization and importation of clean soil.
- Site restoration including backfill of all excavated areas.

Description of Baseline Environmental Conditions: Prior to 1915, the site was open water and part of San Pedro Bay. The current site was created by placement of dredge marine sediment in 1915. Since the 1920s, Berth 44 was operated as a commercial boat yard by various entities and by SPBW since 1932. The Site was primarily used for refurbishing commercial, private, and government vessels and contained a marine railway haul and launch system, supported by a 25-slip turntable yard, as well as buildings used for carpentry, welding, machining, and fiberglass work. Other services provided at the Site included sandblasting, painting, and electrical repairs.

The San Pedro Boat Works complex comprises a group of buildings scattered on a large triangular Site in Watchorn Basin. The first buildings were built in 1932 by the H-10 Water Taxi Company. The site was used for construction of small, swift launches designed to avoid police boats during prohibition and water taxis to ferry passengers to gambling boats operating outside the three-mile prohibition zone. After Prohibition, the boatyard expanded to include a two-story office building and sheds for specialized activities including painting, hull repair, carpentry, wooden boatbuilding, metal work and engine repair for building military boats, purse seiners, yachts, fireboats and lifeboats.

The San Pedro Boat Works became renowned in the 1960s and 1970s for its ability to service racing boats, particularly those competing in the Trans-Pacific Yacht race. Programs such as "Mannix", "Cannon" and "The FBI" made the Site familiar to television viewers and the boatyard was favored by motion picture stars who brought their luxury yachts for repair and maintenance.

Several boatyard buildings were damaged by an explosion on the oil tanker Sansinena in December 1976, which sent large steel shards into several of the buildings, blew out windows and damaged the turntable. The damage was repaired, and the original configuration of buildings was maintained. Much of the machinery remains in place, including the original marine railway and turntable (see Photo 6). While structures on the Site have deteriorated from disuse, the boatyard retains integrity of location, design, setting and workmanship, defined as the physical evidence of the craft of boatbuilding during a given period of history. SPBW abandoned the facility and filed for bankruptcy in December 2002. The Bankruptcy Court returned "access control" of the facility to LAHD in June 2003. The Site is currently unused with the majority of the former buildings still in place.

The San Pedro Boat Works qualifies for listing in the California Register of Historical Resources (CRHR) under California Register Criterion 1 as a resource associated with events that have made a significant contribution to the broad patterns of local or regional history. Under Criterion 1, the San Pedro Boat Works meets the criteria for eligibility to the CRHR as the last building and Site (historic district) remaining at the Port associated with the repair, maintenance, and construction of small craft, principally wood boats, for recreation and small-scale commercial fishing during the 1930's and the years before World War II.

**Photo 6 View Looking West with Turntable in the Foreground and Main Building to the Right**

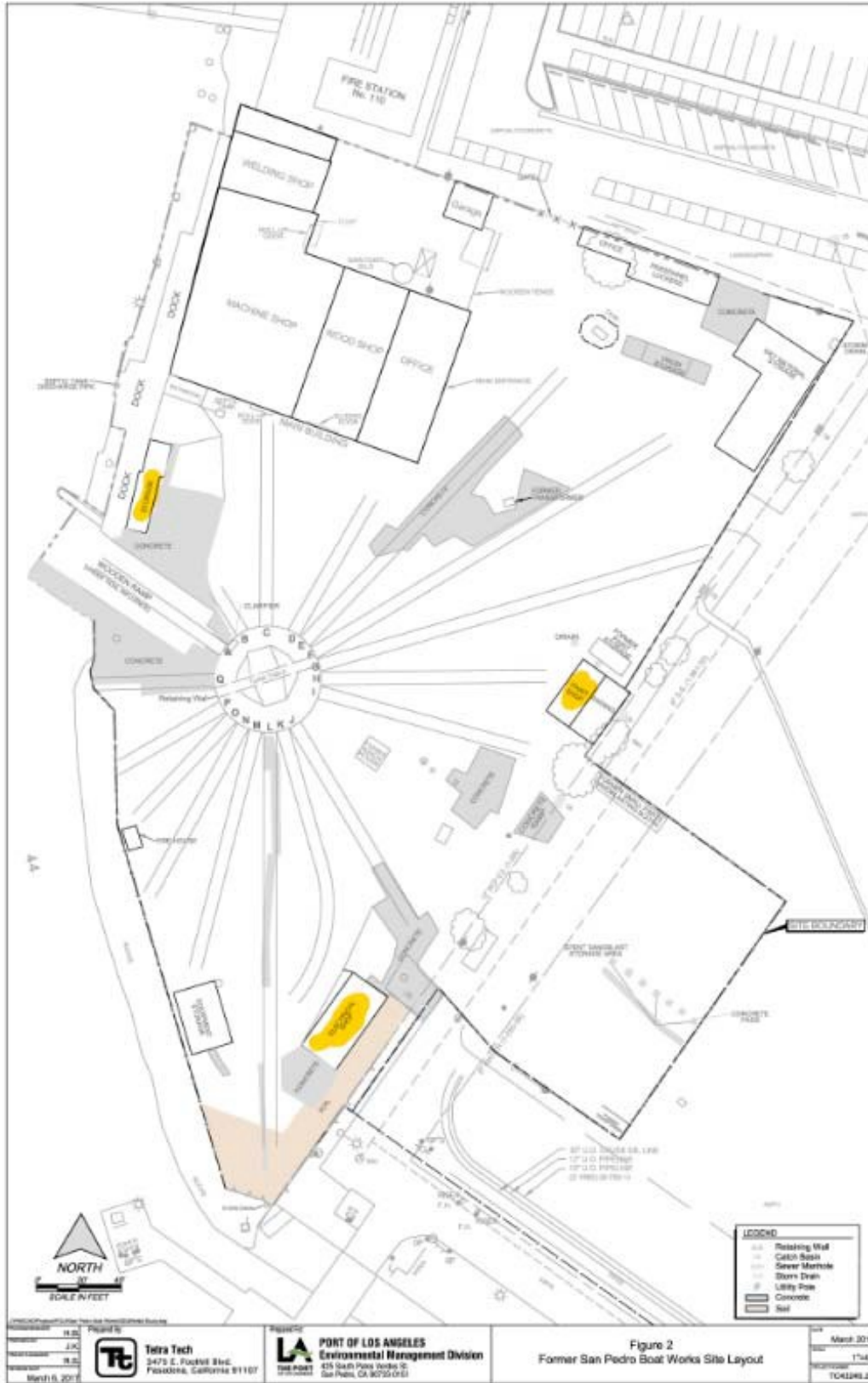


Of the twelve buildings, structures, and landscape features, six of them appear to be contributors to a potential San Pedro Boat Works Historic District consisting of various workshops and offices constructed between 1929 and 1967 (see Table 5.1). The potential district includes an additional six secondary features. Together, the twelve buildings, structures, and landscape features constitute a significant concentration of associated historical resources that appear to qualify as a viable historic district within the Port of Los Angeles. The remaining buildings, paint shop, electrical shop, and storage sheds, are not contributors to the San Pedro Boat Works Historic District (see Figure 5.1).

**Table 5.1: Existing Buildings, Structures, and Landscape Features**

<b>Feature</b>	<b>Contributing Status</b>
Security Building	Contributor (#1)
Storage Building	Contributor (#2)
Machine Shop	Contributor (#3)
Caulkers Shop	Contributor (#4)
Ways and Turntable	Contributor (#5)
Main Building (Shops & Office)	Contributor (#6)
Entry Gate	Secondary Contributor
Radiating Rail Spurs	Secondary Contributor
Board Fences (west & north boundaries)	Secondary Contributor
Dock	Secondary Contributor
Silo	Secondary Contributor
Band Saw	Secondary Contributor
Paint Shop	Non-contributor
Electrical Shop	Non-contributor
3 attached buildings/sheds of unknown purpose	Non-contributor

**Figure 5.1: Non-contributing structures to be demolished**



No recorded areas where archaeological resources have been identified are located near the proposed Project Site. Excavation boundaries for the RAW would stop at the edge of the buildings that are considered contributing elements to the historic district and soil contamination beneath these buildings, if any, would be addressed during future redevelopment. The largest area of excavation is located within the turntable which will require removing portions of the remaining turntable and metal tracks. No structures would be constructed as part of this project.

The three non-contributing features situated within the district's boundaries have a construction date outside the district's 1928-1967 period of significance. The three non-contributors consist of the paint shop (1977), the electrical shop (1977) and three attached buildings/sheds of unknown purpose (Post-1976) located within the San Pedro Boat Works complex would be demolished and the areas underneath these buildings are included as part of the remediation. The electrical shop (848.8 sq. feet) is located in the southeast corner of the Site and is a metal building (see Photo 7). The paint shop (395.5 sq. feet - excludes awning area and 421.7 sq. feet includes the awning area (nowalls for the awning area)) is located on the eastern edge of the Site and is a concrete building (see Photo 8). The three attached buildings/sheds of unknown purpose (446.2 sq. feet) is located on the western edge of the Site and is wood- framed (see Photo 9).

Photo 7. Electrical Shop - the building in the middle with the flat rooftop



Photo 8. Paint Shop



Photo 9. Three Attached buildings/sheds



No excavations will be conducted within the Machine Shop located in the northwestern corner of the Site and between the Site fence and Equipment Storage Building located in the southern corner of the Site which are considered contributing elements to the historic district. In addition, any removal areas immediately adjacent to any onsite structures will be carefully conducted and will be halted if the structural integrity is compromised. The excavations adjacent to these structures will be initially excavated to 2 ft bgs and continued upon evaluation of structural integrity as well as worker safety.

Analysis as to whether or not project activities would:

- a. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5.

Impact Analysis: Project activities do not involve modifications to structures identified to be historically significant. As discussed above, three existing features that are non-contributing elements to the historic district would be demolished. No structures would be constructed as part of this project. No excavations will be conducted within the Machine Shop located in the northwestern corner of the Site and between the Site fence and Equipment Storage Building located in the southwest corner of the Site. Remediation activities that disturb surface and subsurface soils have the potential to impact historic resources. Any removal areas immediately adjacent to any onsite structures that are contributing elements to the historic district will be carefully conducted and will be halted if the structural integrity is compromised. The excavations adjacent to these structures will be initially excavated to 2 ft bgs and continued upon evaluation of structural integrity as well as worker safety.

Proposed remediation activities would require removing portions of the remaining turntable and metal tracks. The turntable is a component of the historic district; however, it is not individually eligible for listing in the California Register of Historical Resources (CRHR) and has been modified by the removal of portions of the turntable. The minor removal of portions of the remaining turntable for remediation would not significantly affect the remainder of the site to convey its historical use. The LAHD Environmental Management Division has determined that while partial removal of the turntable would have an impact on the integrity of the historic district, the bulk of the site and buildings would remain unaffected by the Project (LAHD 2017). The remediation would not adversely affect the critical elements of the property's location, association, feeling, and setting as expressed through its associations with important events and its engineering and character-defining features.

Since the proposed Project is a remediation project, impacts associated with a change in the significance of a historical resource would be considered less than significant, and no mitigation is required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Cause a substantial adverse change in the significance of an archeological resource pursuant to 15064.5.

Impact Analysis: Previous records search indicates no known archaeological sites are located in the proposed project area. Sixteen archaeological sites have been previously identified within 1 mile of the proposed project area. The site is constructed upon dredged sediment placed in 1915. While waste pits from the last 100 years have been found in the Port that are unique archaeological resources, the probability of encountering unique archaeological resources, is minimal. If such resources or features are identified during project activities, work in the immediate vicinity would stop and archaeological experts will be consulted to determine whether the find constitutes a unique archaeological resource. If so, a data recovery effort is to be undertaken. The cleanup activities are not likely to cause a substantial adverse impact to a unique archaeologically significant resource.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact Analysis: The proposed Project is located on the eastern side of the Palos Verdes Hills in the southwestern portion of the Los Angeles Basin. The proposed project area is located along the central coastal margin of the Los Angeles Basin just east of the Palos Verdes Hills. The Palos Verdes Peninsula is composed primarily of marine sedimentary rocks that have been uplifted about 1,300 feet in the past 1 million years. The San Pedro area is known to contain fossil bearing formations, San Pedro Sand and Timms Point Sands, from the late Pleistocene era and the Miocene era Malaga. The site was originally open to the San Pedro Bay and was created by placement of approximately 15 feet of dredged sediment. No fossils of scientific interest are located in the artificial fill materials. Any contained organic remains have lost their original stratigraphic/geologic context due to the disturbed nature of the artificial fill materials. Quaternary alluvium underlies the artificial fill and primarily consists of silt, sand, and gravel transported and deposited by the Los Angeles River (Woodring et al., 1946). Because of the recent age of the Quaternary alluvial deposits and their close association with modern drainages, any contained organic remains (e.g., sub-fossil) are too young to be considered paleontological resources. Furthermore, this site is not located within areas known to contain paleontological resources or unique geologic features (ICF Jones and Stokes 2008). Given the depth of artificial fill, plus the underlying Quaternary alluvium none of the fossil bearing formations, if present, are readily accessible. Impacts to any unique paleontological resource or unique geologic feature are not likely to occur.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Disturb any human remains, including those interred outside of formal cemeteries.

Impact Analysis: Remediation activities associated with this project are located in an area of artificial fill and outside areas where human remains have been previously identified. There are no human remains known to exist within the Port boundary.



Discovery of human remains is governed by the California Health and Safety Code, and PRC Sections 5097.94 and 5097.98, and can fall within the jurisdiction of the Native American Heritage Commission (NAHC). Section 7052 of the Health and Safety Code establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives. Under Section 7050.5 of the Health and Safety Code, if human remains are discovered no further excavation or disturbance at the Site shall stop and the county coroner contacted. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Disruption of human remains as a result of the proposed Project is not likely to occur and any discovery would be handled in accordance with regulations. No mitigation is required.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

*References Used:*

- Hagner, Dennis. 2017. Supervisor Cultural Resources, Los Angeles Harbor Department. Personal Communication.
- ICF International. 2011. San Pedro Boat Works Historic Documentation, Port of Los Angeles. December.
- ICF Jones and Stokes. 2008. Cultural Resources Technical Report for San Pedro Waterfront Redevelopment Project. August.
- SWCA. 2017. DPR Update, San Pedro Boat Works, Port of Los Angeles. May.
- Woodring, W.P., Bramlette, M.N., Kew, W.S. 1946. Geology and Paleontology of Palos Verdes Hills, California. United States Geological Survey Professional Paper 207.

## 6. Geology and Soils

### Project Activities Likely to Create an Impact:

- Excavation/removal and stockpiling of concrete and contaminated soil using appropriate construction equipment in select areas (may include excavator, backhoe and loader).
- Offsite transport and disposal of excavated soil, concrete, waste water and/or miscellaneous debris to appropriate facilities based on waste characterization and importation of clean soil.
- Site restoration including backfill of all excavated areas.

Description of Baseline Environmental Conditions: The project area is located along the central coastal margin of the Los Angeles Basin just east of the Palos Verdes Hills. The Palos Verdes Peninsula is composed primarily of Miocene-age marine sedimentary rocks that have been uplifted about 1,300 feet within the past 1 million years. The Miocene rocks (light-colored, well-bedded mudstones, siltstones, and shales) are underlain by older metamorphic rocks of the Catalina Schist. These rocks extend under the Los Angeles Harbor and form the base under the marine sediments. The bedrock formations throughout the Palos Verdes Peninsula are overlain in various localities by Late Pleistocene marine and continental terrace deposits. The terrace deposits are primarily erosional debris deposited on ancient wave-cut platforms that formed near sea level. During the Late Pleistocene, these deposits were uplifted and now form the relatively flat beaches around the Palos Verdes Hills (Tetra Tech 2016).

The Southwestern Structural Block is the seaward-most block located within Los Angeles Basin. The Site is regionally bounded to the north by the northwest trending Palos Verdes Fault Zone and bounded to the west, south, and east by the Pacific Ocean. The southwestern block is juxtaposed to the offshore Continental Borderland geomorphic province. The Site is located near sea-level on the southeastern flank of the Palos Verdes Hills, with underlying lithology consisting of an uplifted fault block, composed of Miocene marine sediments, middle Miocene Volcanic rocks, and Late Pleistocene Terrace deposits, as a result of the eustatic sea-level changes and recent tectonic activity in the region (Tetra Tech 2016).

The Site vicinity is bounded 1.5 miles to the southwest by the northwest striking Cabrillo Fault, 3 miles to the northwest by the Gaffey Anticline-Syncline fold, to the west by the Palos Verdes Hills, 1.5 to 2 miles to the north and east by the Palos Verdes fault, and to the south by the Pacific Ocean. In general, surficial sediments in the area consist of Holocene or recent age marine and non-marine, gravel, sand, silt, and clay (Tetra Tech 2016).

Subsurface investigations have been conducted and were used to identify the Site geology and hydrogeology. Results indicated the top 3 to 5 feet of the subsurface soils at the Site consist of silt, silty sands, and sands underlain by a 2 to 8-foot-thick finer grained layer of clayey silt or clay. The fine-grained section of silty clay and clay layers are underlain by 2 to 4-foot-thick alternating layers of silt, silty sand, and sand to a maximum depth of 20 or 21.5 feet below ground surface (bgs). In monitoring well locations located in the northern section of the Site, these alternating layers are underlain by a plastic clay layer. San Pedro Boat Works was built on fill material at a site known as Miner Fill. This land was not created until sometime after 1910 from dredged sediments. Fill material (wood debris) was encountered in the top 1 to 8 feet in boreholes near the turntable electrical shop. Construction debris was encountered in the top 2 to 8 feet in boreholes near the machine shop. Shell fragments were observed in the majority of the boring locations in the subsurface soil below 2.5 feet bgs (Tetra Tech 2016).

Analysis as to whether or not project activities would:

- a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42).

The proposed Project Site is located in a region with several active fault lines. The Palos Verdes Fault Zone traverses the Port in a general northwest to southeast manner from the West Turning Basin to Pier 400 and beyond and is located approximately 1 mile east of the proposed Project Site. No faults underlie the proposed Project Site. Thus, although the proposed Project could experience strong seismic ground shaking, the proposed Project Site is not susceptible to surface rupture. In addition, the proposed Project is a remediation project and would not include the construction of any new habitable structures that would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving the rupture of a known earthquake fault. A site-specific Health and Safety Plan (HASP) will be prepared and all excavation activities will be conducted in accordance with the HASP to minimize any potential risks from excavation activities.

The proposed Project Site is located approximately 0.6 km from the Palos Verdes fault zone and is not located within the Alquist-Priolo Earthquake Fault Zone. Therefore, impacts associated with the risk of surface rupture due to faulting would be less than significant, and no mitigation is required.

ii. Strong seismic ground shaking.

As discussed previously, the proposed Project Site is located in a region with several active fault lines, which upon rupture could result in strong seismic ground shaking. The Palos Verdes Fault Zone traverses the Port in a general northwest to southeast manner from the West Turning Basin to Pier 400 and beyond and is located approximately 1 mile east of the proposed Project Site. However, the proposed Project is a remediation project and would not include the construction of any new habitable structures. The HASP as described above would also reduce the potential impacts associated with seismic ground shaking in the excavation areas. Therefore, impacts associated with the risk of strong seismic ground shaking would be less than significant, and no mitigation is required.

iii. Seismic-related ground failure, including liquefaction

Liquefaction is the loss of soils strength or stiffness due to a buildup of pore-water pressure during strong ground-shaking activity and is typically associated with loose, granular, and saturated soils. According to Exhibit B of the City of Los Angeles General Plan Safety Element, the proposed Project is located in a liquefiable area (City of Los Angeles 1996).

However, the proposed Project is a remediation project and would not include the construction of any new habitable structures that would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Therefore, impacts associated with the risk of seismic-related ground failure, including liquefaction would be less than significant, and no mitigation is required.

iv. Landslides.

Landslides occur when masses of rock, earth, or debris move down a slope. Landslides are caused by disturbances in the natural stability of a slope. They can accompany heavy rains or follow droughts, earthquakes, or volcanic eruptions. Construction activities, such as grading, can accelerate landslide activity.

The proposed Project Site is relatively flat with no significant natural or graded slopes. Based on a visual assessment of the Site, the surrounding area does not contain geographic features (e.g., hills) that would encourage landslides to occur. In addition, Exhibit C of the City of Los Angeles General Plan Safety Element does not identify the proposed Project Site as a location that is subject to landslide (City of Los Angeles 1996). In addition, the proposed Project is a remediation project and would not include the construction of any new habitable structures. Therefore, impacts associated with landslides would be less than significant and no mitigation is required.

b. Result in substantial soil erosion or the loss of topsoil.

Impact Analysis: Proposed remediation activities involve disturbance and emplacement of soils, which could affect soil conditions. However, the project area is relatively flat and small; therefore, there would not be a significant threat of soil erosion during cleanup activities. Excavated areas would be backfilled and compacted to pre-excavation grade.

Standard Best Management Practices will be implemented to prevent erosion or loss of topsoil which include: installation of berms, soil stockpile management including covers for soil stockpiles, sandbags and storm drain protection. If the soil is stockpiled, the excavated soil will be placed on plastic sheeting to protect against cross-contamination of soils beneath the stockpile. Secondary containment berms will be constructed using the same liner material to prevent storm water runoff from entering the stockpiles. The soil stockpiles will be covered with plastic sheeting and anchored to the ground by sand bags or similar material to prevent storm water runoff from the stockpiles leaving the bermed area. Currently, the Site is bound along the harbor by a sea wall that extends from ground surface (8 ft above MLLW) to 6 feet bgs (2 ft above MLLW). Additionally, an approximate 1-foot high sand bag berm will be constructed along the perimeter of the Site that is adjacent to the harbor. Exposed soil on Site will be covered by tarps and sandbags. These measures are currently in-place and the berms will be inspected prior to the implementation of the RAW. Additional sand bags and plastic sheeting will be installed as needed to prevent potential migration of contaminated soils into the harbor during remediation. Additionally, all removals will be performed in dry conditions (above groundwater) and near or at MLLW. It should be noted that any removals immediately adjacent to the sea wall will only be excavated to a depth of 6 ft bgs. Remediation activity impacts associated with soil erosion and topsoil loss would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Impact Analysis: As addressed above, the proposed Project Site is located within an area susceptible to landslides or a liquefiable area because the upland area is constructed of fill material. However, the proposed Project is a remediation project and would not include the construction of any new habitable structures that would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving a geologic unit or soil that is unstable. Therefore, impacts associated with the risk of unstable geologic unit or soil would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Impact Analysis: Expansive soils are characterized by their potential shrink-swell behavior. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in certain fine-grained clay sediments from the process of wetting and drying. Clay minerals, such as smectite, bentonite, montmorillonite, beidellite, and vermiculite, are known to expand with changes in moisture content. The higher the percentage of expansive minerals present in near surface soils, the higher the potential for substantial expansion. The hazard associated with expansive soils lies in the structural damage that may occur when buildings are placed on these soils. Expansive soils are often present in liquefaction zones due to the high level of groundwater typically associated with liquefiable soils.

As previously discussed in 6(a)(iii), the proposed Project Site is in an area identified as susceptible to liquefaction. However, the proposed Project is a remediation project and there would be no construction of any new habitable structures that would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving expansive soils. Therefore, impacts associated with the risk of expansive soil would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Impact Analysis: The proposed Project would not require a septic or alternative wastewater disposal system. Therefore, no impacts associated with the ability of soils to support septic tanks would occur, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

- City of Los Angeles, General Plan Safety Element - <http://cityplanning.lacity.org/cwd/gnlpln/SaftyElt.pdf>, accessed October 24, 2016.  
 ICF Jones and Stokes. 2008. Cultural Resources Technical Report for San Pedro Waterfront Redevelopment Project. August.  
 Tetra Tech, Inc. 2016. Removal Action Workplan, Former San Pedro Boat Works, Miner Street, Berth 44, San Pedro, California. June 30.

## 7. Greenhouse Gas Emissions

This section includes a description of the potential effects of greenhouse gases (GHGs) and analyses of potential GHG emissions and impacts of the proposed Project. The methods of analysis for construction emissions are consistent with the guidelines of the SCAQMD and LAHD's standard protocols.

Project Activities Likely to Create an Impact:

- Excavation/removal and stockpiling contaminated soil using appropriate construction equipment in select areas (may include excavator, backhoe and loader) and loading the contaminated media onto dump trucks.
- Demolition and removal of electrical shop, paint shop, and three attached buildings/sheds
- Offsite transport and disposal of excavated soil and/or miscellaneous debris to appropriate facilities based on waste characterization and importation of clean soil.
- Site restoration including backfill of all excavated areas.

Description of Baseline Environmental Conditions: Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. A portion of the solar radiation that enters the atmosphere is absorbed by the surface of the earth and a portion of this energy is reflected toward space as infrared radiation. This infrared radiation released from the earth that otherwise would escape back into space is instead absorbed or "trapped" by GHGs, resulting in a warming of the atmosphere.

GHGs occur in the atmosphere naturally or are emitted by human sources or formed by secondary reactions in the atmosphere. The most common GHGs emitted from natural processes and human activities include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). Examples of GHGs created and emitted primarily through human activities include fluorinated gases (hydro fluorocarbons and per fluorocarbons) and sulfur hexafluoride. Each GHG is assigned a global warming potential (GWP), which is the ability of a gas or aerosol to trap heat in the atmosphere. The GWP rating system is standardized to CO<sub>2</sub>, which has a value of one. For example, CH<sub>4</sub> has a GWP of 21, which means that it has a global warming effect 21 times greater than CO<sub>2</sub> on an equal-mass basis.

Total GHG emissions from a source are often reported as a CO<sub>2</sub> equivalent (CO<sub>2</sub>e). The CO<sub>2</sub>e is calculated by multiplying the emissions of each GHG by its GWP and adding the results together to produce a single, combined emission rate representing all GHGs.

Analysis as to whether or not project activities would:

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact Analysis: As discussed in Section 3, construction emissions are associated with the remediation activities at Berth 44. Remediation activities are anticipated to take approximately six months. As such, only construction-related emission calculations were conducted.

Construction GHG emissions were calculated with Project-specific equipment usage and CARB emission factors (please see Appendix A). Table 7.1 presents a summary of the GHG emissions (including offsite transport and disposal of excavated soil and import of clean fill material) estimated for the proposed Project. As shown in Table 7.1, GHG emissions from the proposed Project are below SCAQMD significance thresholds. Therefore, impacts from the proposed Project are less than significant and no mitigation is required.

**Table 7.1 Annual GHG Emissions**

<b>Construction Activity</b>	<b>CO<sub>2</sub>E (mty)</b>
Total Construction Related Emissions	130.0
Amortized construction emissions*	4.33
Significance threshold	10,000
<b>Exceed Significance Threshold</b>	<b>No</b>

**Notes:** CEQA = California Environmental Quality Act; CO<sub>2</sub>E = carbon dioxide equivalent; GHG = greenhouse gas; mty = metric tonnes per year, One metric ton equals 1,000 kilograms, 2,205 lbs, or 1.1 U.S. (short) tons.

Emissions might not add precisely due to rounding.

\*SCAQMD amortization / 30 years

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Impact Analysis: Impacts are evaluated by considering proposed Project activities, features, mitigations, and conditions of approval in light of applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions.

The State of California, the City of Los Angeles, and LAHD have adopted regulations, plans, laws, and policies to regulate and reduce GHG emissions. Table 7.2 presents an evaluation of regulations, plans, and policies that are directly or indirectly applicable to the proposed Project and that were adopted for the purpose of reducing GHG emissions. The table below shows that the proposed Project would be consistent with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Impacts would be less than significant, and no mitigation is required.

**Table 7.2 - Evaluation of Applicable Regulations, Plans, and Policies**

<b>Plan or Policy</b>	<b>Plan/Policy Measure</b>	<b>Evaluation</b>
<b>EO S-3-05 (2005)</b> established the following GHG emissions-reduction targets for State agencies: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80% below 1990 levels by 2050.	Not directly applicable to project-level analysis.	EO S-3-05 established state targets and directed state legislature to develop legislation to address those targets. The proposed Project is a remediation project and does not include operational activities. Therefore, the proposed Project would not conflict with EO S-3-05.

Plan or Policy	Plan/Policy Measure	Evaluation
<p><b>AB 32: California Global Warming Solutions Act (2006)</b> codified the following S-3-05 targets: (1) year 2000 levels by 2010, and (2) year 1990 levels by 2020.</p>	<p>Not directly applicable to project-level analysis.</p>	<p>AB 32 codified S-3-05 targets through 2020 and directed state regulatory agencies to develop rules and regulations to meet the 2020 state targets, but it did not identify project-level measures. The proposed Project is a remediation project and does not include operational activities. Therefore, the proposed Project would not conflict with AB 32.</p>
<p><b>CARB's AB 32 Scoping Plan (2008)</b> set a statewide roadmap for achieving the following AB 32 state targets: (1) year 2000 levels by 2010, and (2) year 1990 levels by 2020.</p>	<p>Not directly applicable to project-level analysis.</p>	<p>AB 32 Scoping Plan describes the state's approach to achieve the GHG emissions reduction goal to 1990 levels by 2020. The proposed Project is a remediation project and does not include operational activities. The proposed Project would, therefore, not conflict with the AB 32 Scoping Plan.</p>
<p><b>AB 32 Scoping Plan Update (2014)</b> builds upon the 2008 Scoping Plan with new strategies to achieve the following AB 32 state target: year 1990 levels by 2020. CARB released a draft 2030 Target Scoping Plan in April 2016 and is expecting a final version to go to its board in late 2016.</p>	<p>Not directly applicable to project-level analysis.</p>	<p>AB 32 Scoping Plan Update highlights the state's progress toward meeting the 2020 GHG emissions reduction goal, identifies funding opportunities to reduce GHG emissions through state planning and low carbon investments, identifies climate change priorities for 5 years, and sets the groundwork to reach long-term goals of EO S-3-05. The proposed Project is a remediation project and does not include operational activities. The proposed Project would, therefore, not conflict with the AB 32 Scoping Plan Update.</p>
<p><b>EO B-30-15</b> established a statewide GHG emissions-reduction target of 40% below 1990 levels by 2030.</p>	<p>Not applicable to the proposed Project.</p>	<p>EO B-30-15 established a state target of 40% below 1990 levels by 2030 and directed state legislature to develop legislation to address that state target. This target was established in order to ensure the state meets the EO S-3-05 target of reducing GHG emissions to 80% below 1990 levels by 2050. The proposed Project is a remediation project and does not include operational activities. Therefore, the proposed Project would not conflict with EO B-30-15.</p>
<p><b>SB 32 (2016)</b> codified the B-30-15 target of 40% reduction below 1990 levels by 2030.</p>	<p>Not applicable to the proposed Project.</p>	<p>SB 32 codified EO B-30-15 target through 2030 and directed state regulatory agencies to develop rules and regulations to meet the 2030 state target but did not identify project-level measures. The proposed Project is a remediation project and does not include operational activities. Therefore, the proposed Project would not conflict with SB 32.</p>



Plan or Policy	Plan/Policy Measure	Evaluation
<p><b>SCAG’s 2012–2035 RTP/(SCS (2012)</b> provides for development of a sustainable communities strategy in the context of the existing regional transportation planning process.</p>	<p>Not applicable to the proposed Project.</p>	<p>SCAG developed the 2012–2035 RTP/SCS with the primary goal of increasing mobility for the region’s residents and visitors but also, with an emphasis on sustainability, per SB 375.<sup>4</sup> Although SB 375 focuses on light-duty vehicle emissions, SCAG’s RTP/SCS includes additional regional strategies directed at goods movement.</p> <p>The proposed Project is a remediation project and does not include operational activities. Therefore, the proposed Project would not conflict with SCAG’s RTP/SCS.</p>
<p><b>California Sustainable Freight Action Plan (Final, July 2016).</b> Pursuant to EO B-32-15 (2015), the plan establishes targets to improve freight efficiency, transition to zero-emission technologies, and make California’s freight system more competitive.</p>	<p>Not applicable.</p>	<p>Pursuant to EO B-32-15 (2015), the Sustainable Freight Action Plan established targets to improve freight efficiency, transition to zero-emission technologies, and make California’s freight system more competitive. The targets are not mandates but are aspirational measures of progress. Plan measures are conceptual and rely on the future development of regulations to implement the strategies. Plan strategies include on-dock and near-dock strategies to shift goods movement from truck to rail (California Sustainable Freight Action Plan, Appendix C, State Agency Actions, Action 3, Focus Freight Infrastructure Planning and Investments on Providing Modern Freight Corridors, Section H, Elements 1 and 2; Appendix E, Discussion Concepts for Potential Future Action, Section H, Infrastructure Projects, Element 3).</p> <p>The proposed Project is a remediation project and does not include operational activities. Therefore, the proposed Project would not conflict with the California Sustainable Freight Action Plan.</p>
<p><b>Southern California Air Quality Management District GHG Emissions Reduction Thresholds and Guidance</b></p>	<p>Applicable.</p>	<p>Refer to GHG-1 impact evaluation.</p>
<p><b>California Code of Regulations, Title 24, Part 6 (Energy Conservation Building Standards)</b></p>	<p>Not Applicable to the proposed Project.</p>	<p>Title 24, Part 6, requires the design of buildings and building components to conserve energy.</p> <p>The proposed Project is a remediation project and does not include design or construction of any buildings. Therefore, the proposed Project would not conflict with Title 24, Part 6.</p>
<p><b>Green LA: An Action Plan (2007)</b></p>	<p>Not applicable to the proposed Project.</p>	<p>The Green LA Plan is a voluntary plan that sets a goal of reducing City of Los Angeles GHG emissions to 35% below 1990 levels by 2030. This is a less ambitious goal than the 40% reduction below 1990 levels (EO B-30-15).</p> <p>The proposed Project is a remediation project and does not include operational activities. Therefore, the proposed Project would not conflict with the Green LA Plan.</p>

<sup>4</sup> SB 375, Sustainable Communities and Climate Protection Act of 2008, set regional targets for GHG emissions reductions from passenger vehicle use for 2020 and 2035 for each region covered by one of the state’s metropolitan planning organizations. SB 375 further required that SCAG include an SCS in the RTP that reduces GHG emissions from passenger vehicles.

Plan or Policy	Plan/Policy Measure	Evaluation
<b><i>The Sustainable City pLAN (2015)</i></b>	Not applicable to the proposed Project.	<p>The Sustainable City pLAN contains strategies to address current and future climate change impacts and to reduce air quality emissions. The pLAN sets aspirations for 14 target areas. Of these, the following are applicable to port activities: energy-efficient buildings, carbon and climate leadership, mobility and transit.</p> <p>The proposed Project is a remediation project and does not include operational activities. Therefore, the proposed Project would not conflict with the Sustainable City pLAN.</p>
<b><i>Port of Los Angeles Green Building Policy (2007)</i></b>	Not Applicable to the proposed project.	<p>The Port Green Building Policy requires LEED Gold Rating as the standard for new construction of most buildings of at least 7,500 square feet, as well as the incorporation of solar power and best available technology for energy and water efficiency for all new Port buildings.</p> <p>The proposed Project is a remediation project and does not include operational activities. No buildings or structures would be constructed. Therefore, the proposed Project would not conflict with the Port of Los Angeles Green Building Policy.</p>
<b><i>Port of Los Angeles Climate Action Plan (2007)</i></b>	Not applicable to the proposed Project.	<p>The 2007 Green LA Plan directed the Port to develop an individual Climate Action Plan, consistent with the goals of Green LA, to explore opportunities to reduce GHG emissions from municipal operations. GHG reduction needs from Port’s tenant activities are recognized in the Climate Action Plan but are deferred to the CAAP, which addresses tenant operations.</p> <p>The proposed Project is a remediation project and does not include operational activities. Therefore, the proposed Project would not conflict with the Port of Los Angeles Climate Action Plan.</p>
<b><i>San Pedro Ports CAAP (2007) and CAAP Update (2010)</i></b>	Applicable.	<p>Although the CAAP and Update are primarily designed to reduce criteria pollutants and air toxics, the following strategies also reduce GHG emissions:</p> <ul style="list-style-type: none"> <li>OGV1: Vessel Speed Reduction (VSR)</li> <li>Program OGV2: Reduction of At-Berth OGV Emissions</li> <li>HC1: Performance Standards for Harbor Craft</li> <li>HDV1: Performance Standards for On-Road Heavy-Duty Vehicles</li> <li>HDV2: Alternative Fuel Infrastructure for Heavy-Duty Natural Gas Vehicles</li> <li>RL1: PHL Rail Switch Engine Modification</li> <li>RL2: Existing Class I Railroad Operations</li> <li>RL3: New and Redeveloped Rail Yards</li> </ul> <p>The proposed Project is a remediation project and does not include operational activities. Therefore, the proposed Project would not conflict with the CAAP and CAAP Update.</p>

Plan or Policy	Plan/Policy Measure	Evaluation
<p><b>Port of Los Angeles “Actions to Reduce Greenhouse Gas Emissions by 2050” (Submitted to City of Los Angeles, 2014)</b></p>	<p>Not applicable to the proposed Project.</p>	<p>The document outlines actions/strategies that are being implemented or evaluated to continue the reduction of GHG emissions and meet a target of 35% below 1990 levels by 2035 and 80% below 1990 levels by 2050. Table 3 of the document lists GHG emissions reduction strategies for Port operations and the applicable implementing programs. The document does not identify new programs or measures; it lists existing initiatives and reiterates the Port’s commitment to continued collaboration with the international maritime community and between all stakeholders and regulators.</p> <p>The proposed Project is a remediation project and does not include operational activities. Therefore, the proposed Project would not conflict with the Port of Los Angeles Actions to Reduce GHG Emissions by 2050.</p>

AB = Assembly Bill; CAAP = Clean Air Action Plan; CARB = California Air Resources Board; EIR = environmental impact report; EO = Executive Order; GHG = greenhouse gas; LEED = Leadership in Energy and Environmental Design; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SCAG = Southern California Association of Governments

**Conclusion:**

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

**References Used:**

CAPCOA (California Air Pollution Control Officers Association). 2008. CEQA & Climate Change: CAPCOA Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. January 2008.

Climate Registry. 2016. 2016 Climate Registry Default Emission Factors. April 19, 2016.

SCAQMD. 2008. Attachment E: Draft Guidance Document, Interim CEQA Greenhouse Gas Significance Threshold. October 2008. Accessed September 2016.  
[http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2)

## 8. Hazards and Hazardous Materials

### Project Activities Likely to Create an Impact:

- Excavation/removal and stockpiling of concrete and contaminated soil using appropriate construction equipment in select areas (may include excavator, backhoe and loader); loading the contaminated media onto dump trucks.
- Offsite transport and disposal of excavated soil, concrete, waste water and/or miscellaneous debris to appropriate facilities based on waste characterization and importation of clean soil.
- Site restoration including backfill of all excavated areas.

Description of Baseline Environmental Conditions: The Site consists of approximately 3.07 acres and is bound to the north by Miner Street and the Cabrillo Marina, to the east by Berth 46 (asphalt covered open lot), and to the south and west by the Los Angeles Harbor. The Site is currently vacant with the majority of the former buildings in place and includes a 25-slip turntable yard. Metals (antimony, arsenic, copper, lead, mercury, and zinc), PCBs, benzo(a)pyrene (BaP), and total petroleum hydrocarbons (TPH) were identified to be the chemicals of potential concern (COPCs). The Site is considered an Outer Harbor Berth within the Port of Los Angeles. The Los Angeles Harbor Department owns the Site and it is currently inactive.

Analysis as to whether or not project activities would:

- a. Create a significant hazard to the public or the environment throughout the routine transport, use or disposal of hazardous materials.

Impact Analysis: The project would involve the excavation/removal, stockpiling, and offsite treatment and disposal of excavated soil. Based on the soil data collected at the Site, metals (antimony, arsenic, copper, lead, mercury, and zinc), PCBs, benzo(a)pyrene (BaP), and total petroleum hydrocarbons (TPH) were identified to be the chemicals of potential concern (COPCs). At concentrations in excess of regulatory criteria, these materials constitute hazardous waste. Excavated materials would be managed as potentially hazardous waste until characterization is completed. If waste characterization results indicate that excavated materials are hazardous waste, these materials would be managed and disposed of as described below. As would be specified in the site-specific Health and Safety Plan (HASP) developed for the project, applicable site controls would be implemented to protect worker health during these activities. Site controls would also be consistent with best management practices, hazardous waste regulations, and other applicable regulations and permits. Prior to loading for transport, the excavated/removed materials would be stockpiled and chemically analyzed to determine appropriate treatment requirements. Excavated/removed materials would be transported by truck to a permitted landfill for treatment (if required) and disposal. All trucks would be covered and would follow a designated route and procedures according to the traffic plan to limit impacts to residents and businesses. Potential treatment options, if necessary, would be performed at the disposal facility and may include solidification/stabilization for metals and petroleum hydrocarbon-contaminated soil and incineration for PCB and VOC-contaminated soil.

Excavated/removed materials would be covered while being stockpiled, and air monitoring will be performed using direct read instrumentation within and adjacent to the work immediately before and during remediation to detect possible offsite impacts. BMPs to control dust and erosion will also be adhered to including: water for dust suppression, street sweeping, perimeter silt fence, fiber rolls, sandbags and storm drain protection.

Should excavated/removed materials from the Site meet the classification of hazardous waste, they would be transported under hazardous waste manifests by registered hazardous waste haulers holding a currently valid registration issued by DTSC and meeting federal requirements imposed by the Department of Transportation and USEPA under the Resource Conservation and Recovery Act. Haulers are also subject to California hazardous waste law requirements pertaining to hauling hazardous wastes (Health and Safety Code §25100 et seq. and §25163 et seq.; 22 CCR §66263.10 et seq.; 13 CCR §1160 et seq.; California Vehicle Code §12804 et seq. and §31300 et seq.), which are implemented and enforced by DTSC, as well as the California Highway Patrol, Department of Motor Vehicles, local sheriff, and police agencies who have general responsibilities for the transportation of hazardous waste on state and local roadways.

Additional hazardous materials involved in the project include fuels and lubricants brought on the Site periodically following standard construction practices and safety standards. Transport of fuel and lubricants would conform to state and federal requirements for hazardous materials transportation. Site activities would be consistent with a site-specific HASP.

The management of potentially contaminated waste and adherence to Site controls and plans reduce the potential for significant hazard to the public or the environment to result from the project. As such, impacts would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Impact Analysis: Project activities would be conducted in accordance with the site-specific HASP and project activity hazard analysis, including emergency response procedures, which would minimize the potential for hazardous releases. All truck drivers would be registered hazardous waste haulers licensed by the State of California and trained to deal with emergencies.

All storage, handling, and disposal of these materials are regulated by the Department of Toxic Substances Control, USEPA, Occupational Safety and Health Administration, and the Los Angeles City and County Fire Departments. Potential upset conditions that could occur during cleanup activities include fire, fuel spills, hydraulic fluid leaks, as well as accidents and incidents commonly associated with remediation-related activities. The potential for these conditions or situations would be mitigated through proper maintenance and operation of the machinery and vehicles, proper storage of fuels, shoring/sloping of excavations more than 5 feet deep that are accessed by workers, marking of underground utilities, worker training, and enforcement of safe work practices and other safety provisions as specified in the HASP.

Impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable accident conditions involving the release of hazardous materials into the environment during remediation would be less than significant with adherence to required regulations and standards and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

Impact Analysis: The closest school is Point Fermin Elementary School which is located approximately 4,000 feet away from project activities. As discussed in responses to Items 8(a) and 8(b), hazardous emissions from project activities would be controlled, and hazardous materials would be managed to minimize the potential for hazardous emissions to schools from project activities. Therefore, no impact would occur, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to public or the environment.

Impact Analysis: The proposed project is identified as an active Site (San Pedro Boat Works (70000023) on DTSC's Cal Sites list of cleanup sites compiled pursuant to Government Code Section 65962.5. However, the proposed removal and remediation activities are not expected to create a significant hazard to the public or the environment and the proposed remediation would remove contaminated material from the Site to achieve the cleanup goals for unrestricted site use (Tetra Tech, 2016).

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- e. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Impact Analysis: The remediation site is not located along a major roadway. Project activities would be conducted in a manner that does not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

DTSC (Department of Toxic Substances Control). 2016. "DTSC's EnviroStor Home (Clean Up Sites)." Accessed October 2016. <http://www.envirostor.dtsc.ca.gov/public>.

Tetra Tech, Inc. 2016. Removal Action Workplan, Former San Pedro Boat Works, Miner Street, Berth 44, San Pedro, California. June 30.

## 9. Hydrology and Water Quality

### Project Activities Likely to Create an Impact:

- Excavation/removal and stockpiling of concrete and contaminated soil using appropriate construction equipment in select areas (may include excavator, backhoe and loader).
- Offsite transport and disposal of excavated soil, concrete, waste water and/or miscellaneous debris to appropriate facilities based on waste characterization and importation of clean soil.
- Site restoration including backfill of all excavated areas.

Description of Baseline Environmental Conditions: The Site is located in the extreme southerly edge of the West Coast Basin on the southeast flank of the Palos Verdes Hills. The West Coast Basin, which is the seaward-most groundwater basin, is located within the Coastal Plain of Los Angeles County, and is approximately 25 miles long and 7.5 miles wide, encompassing an area of approximately 140 square miles, including 20 incorporated cities. The West Coast Basin is bounded by the Pacific Ocean on its southern and western boundaries, the Baldwin Hills and Ballona Escarpment to the north, and the Newport-Inglewood Uplift providing separation from the Central Basin to the east.

The proposed project area is in the Dominguez watershed, in and adjacent to the Los Angeles Harbor. The Dominguez watershed (SWRCB Hydrologic Unit 405.12) has an area of 133 square miles (approximately 345 square kilometers) and is roughly bordered by Inglewood (on the north), Compton (on the east), Torrance (on the west), and, on the south, the federal breakwaters of Los Angeles and Long Beach Harbors (LA/LB Harbors) (POLA 2009). Most land in the watershed is developed (93%), and 62% of stormwater runoff from these lands drains to the Dominguez Channel, which drains to the Los Angeles Harbor. The remaining runoff drains to retention basins; into Wilmington Drain, which in turn drains to Machado Lake; or directly into the Los Angeles/Long Beach Harbors. The proposed project area occurs within the Harbors subwatershed which is comprised of portions of the cities of Los Angeles, Long Beach, Rancho Palos Verdes, and Rolling Hills, has an area of 36.7 square miles (95 square kilometers) and drains directly into the LA/LB Harbors (POLA 2009).

The proposed project area is predominantly underlain by a shallow unconfined aquifer, which is present at a depth ranging from 8 to 16 feet below ground surface (bgs). Except for the semi-perched Gaspar aquifer, all other identified aquifers in the West Coast Basin are confined systems and receive the majority of their natural recharge from groundwater underflow from adjacent basins and from continued seawater intrusion in portions of the Basin. Due to historic demand on the groundwater system, the lateral encroachment of seawater has been observed in the aquifers identified in the West Coast Basin. The greatest impact to groundwater quality in the West Coast Basin is, and has been, the encroachment of seawater in response to the extraction of groundwater in excess of the natural recharge (POLA 2009).

In the West Coast Basin, the dominant groundwater flow direction is controlled by the location of the Charnock Fault and groundwater withdrawal. The direction of flow in the Basin is influenced by the operation of two Los Angeles County Department of Public Works (LACDPW) seawater barrier projects (West Coast and Dominguez Gap). These seawater barrier projects are used to combat the lateral movement of seawater landward by the creation of high-pressure ridges emplaced through the injection of fresh water. Since groundwater in this portion of Los Angeles County is seaward of the LACDPW seawater intrusion barrier and is saline, it is not suitable for municipal purposes. Furthermore, the groundwater in the Site and vicinity has been de-designated from beneficial use as a drinking water source by the Los Angeles Regional Water Quality Control Board (LARWQCB Order 98- 018, November 1998) (Tetra Tech 2016).

Analysis as to whether or not project activities would:

- a. Violate any water quality standards or waste discharge requirements.

Impact Analysis: Analytical results from groundwater sampling (Tetra Tech 2016) indicate that historic Site activities have had limited, if any, impact on groundwater. Remedial activities are not recommended for groundwater at the Site. Groundwater contains metals at concentrations within the same magnitude of applicable regulatory criteria. Excavation of the source of metals (i.e. in soil) will prevent future impacts from the Site to groundwater and the Project would comply with Applicable or Relevant and Appropriate Requirements (ARARs) for federal and state environmental statutes, regulations, and standards (Tetra Tech 2016).

No project activities requiring discharge of treated groundwater are proposed and mitigation is not required, however, standard best management practices for storm drain protection will be implemented.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

Impact Analysis: Drinking water is provided to the proposed project area by LADWP. No existing production wells are located in the vicinity of the proposed project site; therefore, impacts would not occur to groundwater supplies or interfere with groundwater recharge. Impacts would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site.

Impact Analysis: There are no streams or rivers on or adjacent to the project Site; surface water from the Site drains directly into marine waters. Proposed cleanup activities would involve excavation of soils, which could affect local site topography/drainage patterns while the excavations remain open. However, excavated areas would be relatively small (approximately 4,600 square feet), affected for a relatively short term, and scheduled for a time of the year when rainfall is unlikely. Furthermore, following excavation activities, the Site would be restored and returned to pre-existing conditions (topography and elevation); therefore, the existing drainage pattern in the area (surface runoff to the storm water system) would not be substantially altered, reducing the potential for substantial erosion or siltation on or offsite. Impacts would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site.

Impact Analysis: As discussed above, other than temporary, limited topographic changes during excavation activities, the existing drainage pattern in the area (surface runoff to the stormwater system) would not be altered by cleanup activities. Therefore, the project would not substantially increase the rate or amount of surface water runoff or result in flooding on or offsite. Impacts would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact



- e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

Impact Analysis: Project activities would not involve the use and handling of substantial quantities of liquids that could enter the stormwater drainage system in the case of an inadvertent spill. Any wastewater generated will be containerized and appropriately disposed of offsite. Project activities would take place during dry conditions, to the extent practicable, and soil stockpiles would be covered to prevent runoff. The project area would be restored to pre-existing conditions and will not result in a permanent change that will result in substantial additional sources of polluted runoff. Impacts would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- f. Otherwise substantially degrade water quality.

Impact Analysis: Project activities are being proposed to remove contaminated soils and this would ultimately improve water quality. Excavation activities are not expected to substantially degrade surface or ground water quality due to implementation of BMPs and project controls discussed above. Impacts would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- g. Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

Impact Analysis: The proposed Project would not construct any structures within the 100-year flood hazard area. Construction equipment such as an excavator, backhoe and loader would be at the Site during project activities; however, it is not anticipated that this equipment would impede or redirect flood flows. Impacts would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Impact Analysis: There are no levees or dams within the project area and the proposed project would not construct any structures that would expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure or a levee or dam. There would be no impact and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

## i. Inundation by seiche, tsunami or mudflow.

Impact Analysis: Seiches are oscillations generated in enclosed bodies of water usually as a result of earthquake related ground shaking. Due to the lack of an adjacent lake or other enclosed water body, the proposed Project Site would not be susceptible to seiche. The lack of nearby topographical features typically associated with mudflow (e.g., hillside, riverbanks) would result in a very low probability for mudflow to affect the proposed Project Site. According to the Los Angeles General Plan Safety Element, the proposed Project Site is within a potential tsunami impact area (City of Los Angeles 1996). However, the proposed Project is a remediation project and would not construct any structures that would contribute or exacerbate risk associated with inundation by seiche, tsunami or mudflow. Therefore, there would be a less-than-significant impact associated with inundation by seiche, tsunami, or mudflow, and no mitigation is required.

## Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

*References Used:*

- City of Los Angeles. 1996. Safety Element of the City of Los Angeles General Plan. Approved August 8, 1996. Adopted November 26, 1996. Accessed October 2016. <http://planning.lacity.org/cwd/gnlpln/saftyelt.pdf>.
- POLA. 2009. San Pedro Waterfront Project Final EIS/EIR – Port of Los Angeles. September 2009. Accessed October 2016. [https://www.portoflosangeles.org/EIR/SPWaterfront/FEIR/feir\\_spwaterfront.asp](https://www.portoflosangeles.org/EIR/SPWaterfront/FEIR/feir_spwaterfront.asp)
- Tetra Tech, Inc. 2016. Removal Action Workplan, Former San Pedro Boat Works, Miner Street, Berth 44, San Pedro, California. June 30.

## 10. Land Use and Planning

Project Activities Likely to Create an Impact: None

Description of Baseline Environmental Conditions: The Site is zoned as Limited Industrial Zone and Recreation and Commercial ([Q]M2-1) under the Port Master Plan, amended March 2014. The Site consists of approximately 3.07 acres and is bound to the north by Miner Street and the Cabrillo Marina, to the east by Berth 46 (asphalt covered open lot), and to the south and west by the Los Angeles Harbor. The Site is currently unused with the majority of the former buildings in place and includes a 25-slip turntable yard and land use to the south includes cruise operations and open space to the east. The Site is considered an Outer Harbor Berth within the Port of Los Angeles. The Los Angeles Harbor Department owns the Site. The remediation goal is for unrestricted site use, which meets the standards of the current zoning designation.

Analysis as to whether or not project activities would:

- a. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Analysis: The Proposed Project location is zoned Limited Industrial Zone and Recreation and Commercial ([Q]M2-1) under the Port Master Plan. The Proposed Project involves the remediation of soil contamination with the goal of unrestricted site use, which meets the standards of the current zoning designation. The Proposed Project would not change the land use at the site and thus would not conflict with a specific plan, general plan or zoning ordinance. Therefore, there would be no impact to any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance).

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Conflict with any applicable habitat conservation plan or natural community conservation plan.

Impact Analysis: No adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan overlay the proposed Project Site. The nearest conservation plan area is the Rancho Palos Verdes Natural Community Conservation Plan, which is located more than 5.0 miles west of the proposed Project Site (City of Rancho Palos Verdes 2016).

The County of Los Angeles (County) has established officially designated areas, referred to as significant ecological areas (SEAs), within the County that contain rare or unique biological resources. The Terminal Island (Pier 400) California least tern nesting site is the only SEA in the Port. The proposed Project is located 1.5 miles west of the SEA (County of Los Angeles 2015). Since the proposed Project is a remediation project and not located in the vicinity of the SEA, there would be no impact to any applicable habitat conservation plan or natural community conservation plan.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

County of Los Angeles. 2015. "Figure 9.3: Significant Ecological Areas and Coastal Resource Areas Policy Map [map]." February 2015. Accessed September 2016. [http://planning.lacounty.gov/assets/upl/project/gp\\_2035\\_2014-FIG\\_9-3\\_significant\\_ecological\\_areas.pdf](http://planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-3_significant_ecological_areas.pdf).

*City of Los Angeles. 1980. Port Master Plan. Amended March 2014.*  
<https://www.portoflosangeles.org/planning/pmp/Amendment%2028.pdf>

City of Rancho Palos Verdes. 2016. "NCCP Reserve Boundary Parcels [map]." Accessed September 2016. <http://www.rpvca.gov/DocumentCenter/View/3396>.

## 11. Mineral Resources

Project Activities Likely to Create an Impact: None

Description of Baseline Environmental Conditions: The project area is located along the central coastal margin of the Los Angeles Basin just east of the Palos Verdes Hills. The Palos Verdes Peninsula is composed primarily of Miocene- age marine sedimentary rocks that have been uplifted about 1,300 feet within the past 1 million years. The Miocene rocks (light-colored, well-bedded mudstones, siltstones, and shales) are underlain by older metamorphic rocks of the Catalina Schist. These rocks extend under the Los Angeles Harbor and form the base under the marine sediments (Tetra Tech 2016). No known mineral resources exist, and project activities would not affect recovery of mineral resources at offsite locations.

Analysis as to whether or not project activities would:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

Impact Analysis: The project area is not in an aggregate resource zone or oil field drilling area. The majority of the site is in a mineral resource zone area classified as MRZ-1, which is defined as areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence (California Department of Conservation, Division of Mines and Geology 1994). The remaining portion of the project site is classified as MRZ-3, which is defined as areas containing mineral deposits, the significance of which cannot be evaluated from available data (California Department of Conservation, Division of Mines and Geology 1994). The project site is not near an active oil field. The nearest oil field and drilling areas include the Torrance Oil Field, located north of Pacific Coast Highway, and the Wilmington Oil Field, located in the northern portion of the Port (City of Los Angeles 1994d). Therefore, no impacts to mineral resources would occur and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Impact Analysis: As discussed in Question 4.11(a), the proposed Project site is not located within a mineral resource recovery site delineated in the Port of Los Angeles Master Plan (POLA, 2014). As such, no loss of availability to mineral resources would occur and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

California Department of Conservation, Division of Mines and Geology. 1994. Update of mineral land classification of Portland cement concrete aggregate in Ventura, Los Angeles, and Orange Counties, CA: Part II – Los Angeles County. Open File Report 94–14. Sacramento, CA.

POLA. 2009. San Pedro Waterfront Project Final EIS/EIR – Port of Los Angeles. September 2009. Accessed October 2016. [https://www.portoflosangeles.org/EIR/SPWaterfront/FEIR/feir\\_spwaterfront.asp](https://www.portoflosangeles.org/EIR/SPWaterfront/FEIR/feir_spwaterfront.asp)

Tetra Tech, Inc. 2016. Removal Action Workplan, Former San Pedro Boat Works, Miner Street, Berth 44, San Pedro, California. June 30.

## 12. Noise

### Project Activities Likely to Create an Impact:

- Excavation/removal and stockpiling of concrete and contaminated soil using appropriate construction equipment in select areas (may include excavator, backhoe and loader); loading the contaminated media onto dump trucks.
- Offsite transport and disposal of excavated soil, concrete, waste water and/or miscellaneous debris to appropriate facilities based on waste characterization and importation of clean soil.
- Site restoration including backfill of all excavated areas.

Description of Baseline Environmental Conditions: The Site is zoned as Limited Industrial and Recreation and Commercial use under Planning Area 1 – San Pedro in the Port Master Plan amended March 2014 and is in close proximity to recreational marinas. The Site consists of approximately 3.07 acres and is bound to the north by Miner Street and the Cabrillo Marina, to the east by Berth 46 (asphalt covered open lot), and to the south and west by the Los Angeles Harbor. The Site is considered an Outer Harbor Berth within the Port of Los Angeles. The Los Angeles Harbor Department (LAHD) owns the Site and it is currently vacant.

Existing noise in the proposed Project vicinity is attributable to several different sources including vehicle traffic from nearby streets (Miner Street and 22<sup>nd</sup> Street) and short-term or infrequent noise sources include emergency vehicles and special events at the Outer Cruise Terminal. The Site is currently vacant and land use to the south includes cruise operations and open space to the east.

Noise-sensitive receptors are defined as locations where people reside or where the presences of unwanted sound may adversely affect the use of land. Noise-sensitive land uses are categorized as residences, schools, libraries, churches, hospitals, nursing homes and miscellaneous passive recreational uses. The nearest sensitive receptors are residents of a neighboring marina north of the project site located approximately 500 feet away.

Analysis as to whether or not project activities would result in:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact Analysis: The proposed project would involve short-term remediation related activities that are expected to last approximately six months. The primary sources of noise during remediation activities would be from the operation of equipment such as excavators, backhoes and loaders. Equipment and vehicles for project activities will result in a temporary increase in the ambient noise levels in the project vicinity.

Regarding construction, Section 112.05 of the Los Angeles Municipal Code specifies the maximum noise level for powered equipment or powered hand tools. The City of Los Angeles' Municipal Code permissible ambient noise levels within areas zoned [Q] M2-1 are 65 A-weighted decibels (dBA) during daytime and nighttime due to light and heavy industrial uses. Any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA in any residential zone or within 500 feet of a residential zone, when measured at a distance of 50 feet from the source, is prohibited.

Chapter 11 of the Municipal Code sets forth noise regulations, including regulations applicable to construction noise impacts, within 500 feet of a residence. Section 112.05 establishes maximum noise levels for powered equipment or powered hand tools. The marina identified as the nearest sensitive receptor is approximately 500 feet from the project site. Since the proposed Project Site is located in the City of Los Angeles, the established construction noise guidelines of the City's Municipal Code apply to the proposed Project. The City's Municipal Code permits construction activities between 7 a.m. and 9 p.m., Monday through Friday, and 8:00 a.m. to 6:00 p.m. on any Saturday or national holiday. No construction activity is allowed on Sundays (City of Los Angeles 2016c).

Project activities would not occur outside the established construction noise guidelines of the City's Municipal Code between 7a.m. and 9 p.m., Monday through Friday, and 8:00 a.m. to 6:00 p.m. on any Saturday or national holiday. The range of maximum noise levels for types of construction equipment to be used for the project at a distance of 50 feet is depicted in Table 12.1.

**Table 12.1 Typical Noise Levels for Construction Equipment**

<b>Construction Equipment Type</b>	<b>Typical Noise Level (dBA) 50 feet from Source</b>
Excavator	77
Backhoe	80
Loader	75
Trucks	72

Source: Federal Highway Administration 2006

As stated previously, the proposed Project is surrounded by recreational boating uses. It is important to note that these decibel ratings are associated with a sensitive receptor located approximately 50 feet from the activity and the nearest receptor is over 500 feet away.

The closest sensitive receptors are residents of recreational vessels (liveaboards) docked at a marina approximately 500 feet north of the proposed Project. However, implementation of the proposed Project would comply with established City construction noise guidelines for noise levels as well as construction hours. Noise impacts would be considered temporary and result in a less-than-significant noise impact. Therefore, no additional mitigation is required.

For onsite cleanup workers, hearing protection would be used, consistent with the site-specific HASP, to reduce the potential impacts for workers at the project Site. Workers would wear hearing protection, including earplugs and/or earmuffs while working on and around heavy equipment. If necessary, engineering controls could be implemented, including replacing defective equipment parts, tightening loose or vibrating equipment parts, and placing “noisy” equipment as far away as possible from site workers and sensitive receptors. Should engineering controls prove infeasible, administrative controls would be implemented, including adjusting employee work assignments to limit their noise exposure. With appropriate hearing protection, operation of the equipment is not expected to result in noise exposure to employees exceeding the Occupational Safety and Health Administration (OSHA) level of 90 dBA (8-hour time weighted average).

As discussed previously, the project would comply with the City of Los Angeles construction noise guidelines and Municipal Code. Therefore, there would be a less-than-significant impact associated with exposure of persons to or generation of noise levels in excess of standards established in the City’s Municipal Code and no mitigation is required.

**Conclusion:**

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

**b. Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels.**

Impact Analysis: The Project involves temporary remediation activities which would not include any type of equipment that will result in groundborne vibration or groundborne noise levels. Impacts would be less than significant, and no mitigation is required.

**Conclusion:**

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

**c. A substantial permanent increase in ambient noise levels in the vicinity above levels existing without the project.**

Impact Analysis: The Project involves short-term (six months) construction activities and would not result in a substantial permanent increase in existing ambient noise levels in the vicinity. Impacts would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Analysis: The project would create a temporary or periodic increase in ambient noise levels in the vicinity of the project sites. As discussed in 12(a) above, workers would wear hearing protection consistent with the HASP and OSHA guidelines. The distances to the nearest sensitive receptors are liveboards approximately 500 feet north and are at a great enough distance that additional mitigation is not necessary. The proposed project activities will not result in a significant change in temporary or permanent noise levels in the project vicinity. Short-term remediation activities would be performed consistent with the City's Municipal Code and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

- City of Los Angeles. 2016c. "Chapter: IV Public Welfare; Article 1: Disorderly Conduct; Section 41.40: Noise Due to Construction, Excavation Work – When Prohibited." In City of Los Angeles Municipal Code. Effective November 12, 1936. Amended June 30, 2016. Accessed September 2016. [http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:losangeles\\_ca\\_mc](http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc).
- City of Los Angeles. 2016d. "Chapter XI: Noise Regulation." In City of Los Angeles Municipal Code. Effective November 12, 1936. Amended June 30, 2016. [http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:losangeles\\_ca\\_mc](http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc).
- U.S. Department of Transportation, Transit Noise and Vibration Impact Assessment, May 2006.



### 13. Population and Housing

Project Activities Likely to Create an Impact: None

Description of Baseline Environmental Conditions: The City of Los Angeles General Plan, Community Plan Area - Port of Los Angeles identifies the Project area as Limited Industrial and Recreation and Commercial. The Site is zoned as Limited Industrial Zone and Recreation and Commercial ([Q] M2-1) and is designated as recreational boating use under Planning Area 1 – San Pedro in the Port Master Plan (amended March 2014). No residential uses are proposed for the Project Site. Project activities would be performed by a small (7 workers), temporary, locally available, labor pool, and would not induce growth in the Site area, nor would the project affect existing housing or necessitate any construction of replacement housing.

Analysis as to whether or not project activities would:

- a. Induce substantial population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Impact Analysis: The proposed Project is a short-term soil remediation project and does not include on-going operational activities. Therefore, it is not anticipated that the proposed Project would induce substantial population growth either directly or indirectly. No impacts would occur, and no mitigation is required.

Conclusion:

- Potentially Significant Impact Potentially  
 Significant Unless Mitigated Less Than  
 Significant Impact  
 No Impact

- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Impact Analysis: The proposed Project is a short-term remediation project and does not include operational activities. Therefore, it is not anticipated that the proposed Project would displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. No impacts would occur, and no mitigation is required.

Conclusion:

- Potentially Significant Impact Potentially  
 Significant Unless Mitigated Less Than  
 Significant Impact  
 No Impact

- c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impact Analysis: The proposed Project would not reduce any housing units or displace any residents. The Project would not require construction of replacement housing elsewhere. No impacts would occur, and no mitigation is required.

Conclusion:

- Potentially Significant Impact Potentially  
 Significant Unless Mitigated Less Than  
 Significant Impact  
 No Impact

*References Used:*

*City of Los Angeles. 1980. Port Master Plan. Amended March 2014.*

<https://www.portoflosangeles.org/planning/pmp/Amendment%2028.pdf>

*City of Los Angeles. 2016a. "ZIMAS – City of Los Angeles Zoning Property Information." Accessed October 2016.*

<http://zimas.lacity.org/>.

*City of Los Angeles. 2016b. "Chapter I: General Provisions and Zoning." In City of Los Angeles Municipal Code.*

*Effective November 12, 1936. Amended June 30, 2016. [http://library.amlegal.com/nxt/](http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc)*

*[gateway.dll/California/lamc/municipalcode?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal: losangeles\\_ca\\_mc](http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc).*

## 14. Public Services

### Project Activities Likely to Create an Impact:

- Excavation/removal and stockpiling of concrete and contaminated soil using appropriate construction equipment in select areas (may include excavator, backhoe and loader); loading the contaminated media onto dump trucks.
- Offsite transport and disposal of excavated soil, concrete, waste water and/or miscellaneous debris to appropriate facilities based on waste characterization and importation of clean soil.
- Site restoration including backfill of all excavated areas.

Description of Baseline Environmental Conditions: The Los Angeles Fire Department (LAFD) provides fire protection and emergency medical response services to the proposed Project Site. The LAFD operates 114 stations located throughout the City (LAFD 2016). The closest station is Fire Station No. 110 (2945 Miner Street, Berth 44- A, San Pedro, CA 90731), which is located at the north border of the proposed Project Site boundary. The nearest land-based company is at Station 112, which is located at 444 S. Harbor Blvd., approximately 1.6 miles from the proposed project Site.

In the City, police protection services are provided by the Los Angeles Police Department (LAPD). The proposed Project Site is located within the LAPD Harbor Division Area, which includes a 27.5-square-mile area including Harbor City, Harbor Gateway, San Pedro, Wilmington, and Terminal Island. The LAPD Harbor Community Police Station is located at 2175 John S. Gibson Boulevard, which is approximately 3 miles north of the proposed Project Site. The Los Angeles Port Police (Port Police) is the primary law enforcement agency within the Port of Los Angeles. The Port Police are responsible for patrol and surveillance of Port property including 12 square miles of landside property and 43 miles of waterfront. Port Police headquarters are located at 330 S. Centre Street approximately 2 miles north of the Proposed Project site.

The Port Police do not estimate the number of employed officers based on proposed development or anticipated population for a given area. Their staff/sworn officer totals are based on current Homeland Security data and levels of security at other ports of corresponding size and activity.

Public kindergarten through high school education in the City is provided by the Los Angeles Unified School District. As previously discussed in 13(a), the proposed Project would not directly or indirectly induce population growth in the City.

No residential uses or other land uses typically associated with directly inducing population growth are included as part of the proposed Project. The employees hired for operation of the proposed Project would come from the region and it is not expected that people would relocate as a result of the proposed Project. As such, a substantial increase in patronage at libraries, community centers, or other public facilities is not expected. Therefore, no impacts associated with the construction or expansion of public facilities would occur, and no mitigation is required.

Analysis as to whether or not project activities would:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- ❖ Fire protection
- ❖ Police protection
- ❖ Schools
- ❖ Parks
- ❖ Other public facilities

Impact Analysis: The proposed Project Site is within the service area of the LAFD, Port Police and LAPD. As previously discussed in 13(a), the proposed Project would not directly or indirectly induce population growth in the City. Project activities as planned would not cause an increased need in public services such that alterations to existing facilities or new facilities would be required. The Site is currently vacant and the need for fire and police protection services would be similar to the need under current conditions since this is a short term (completed over a period of six months) remediation project that would employ 7 workers on-site. Existing public services would be sufficient, and the proposed project would not increase the need for schools, parks or other public facilities. Therefore, impacts associated with the construction or expansion of government facilities and/or public services would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

*References Used:*

LAFD (Los Angeles Fire Department). 2016. "Station List." Accessed September 2016. <http://www.lafd.org/fire-stations/find-your-station>.

## 15. Recreation

Project Activities Likely to Create an Impact: None

Description of Baseline Environmental Conditions: The project does not entail activities associated with recreation or movement of people towards recreational facilities. No zoning or land use changes are being proposed as a result of project implementation (Tetra Tech 2016).

Analysis as to whether or not project activities would:

- a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Impact Analysis: The proposed Project is a short-term remediation project and does not include operational activities. Therefore, it not anticipated that the proposed Project would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The proposed project would not restrict the movement of recreational boaters or substantially affect the recreational boating experience. No impacts would occur, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact Analysis: The proposed Project is a short-term remediation project and does not include operational activities. Therefore, it not anticipated that the proposed Project would include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment. No impacts would occur, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

Tetra Tech, Inc. 2016. Removal Action Workplan, Former San Pedro Boat Works, Miner Street, Berth 44, San Pedro, California. June30.

## 16. Transportation and Traffic

### Project Activities Likely to Create an Impact:

- Excavation/removal and stockpiling of concrete and contaminated soil using appropriate construction equipment in select areas (may include excavator, backhoe and loader); loading the contaminated media onto dump trucks.
- Offsite transport and disposal of excavated soil, concrete, waste water and/or miscellaneous debris to appropriate facilities based on waste characterization and importation of clean soil.
- Site restoration including backfill of all excavated areas.
- Vehicular traffic from workers involved with Site cleanup
- Transport of equipment and supplies.

Description of Baseline Environmental Conditions: Primary regional access to the study area is provided by the Harbor Freeway (I-110) northwest of the proposed project Site and by the Vincent Thomas Bridge and Seaside Avenue (State Route [SR] (SR-47) northeast of the proposed project Site. Access to the Site from I-110 is provided via the freeway terminus at Gaffey Street or ramps at Harbor Boulevard. From SR-47, the proposed project site can be accessed via ramps on Harbor Boulevard. Local access to the proposed project Site is provided by a well-defined grid of arterial and collector roads. The primary roadway facilities in the proposed project study area are as follows:

- **Gaffey Street** is classified by the City of Los Angeles as a Major Class II Highway that runs north-south in the study area. This arterial provides a connection for local and regional travel from San Pedro to other parts of Los Angeles and the South Bay region. Gaffey Street is a major commercial corridor within San Pedro.
- **Pacific Avenue** is classified as a Secondary Highway that provides north-south access within San Pedro. It is a major commercial corridor within San Pedro consisting of strip commercial, auto repair, and restaurants. The four-lane roadway's northern terminus is at Channel Street, where the roadway continues as John S. Gibson Boulevard. Its southern terminus is at the Pacific Ocean where it intersects with Shepard Street and Bluff Place.
- **Harbor Boulevard** is classified as a Major Class II Highway and provides north-south access along the eastern side of the community of San Pedro. Harbor Boulevard forms the western edge of the proposed project Site. It continues as Front Street north of Regan Street, as John S. Gibson Boulevard north of Pacific Avenue, and as Miner Street south of Crescent Avenue.

Analysis as to whether or not project activities would:

- a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Impact Analysis: The proposed Project is limited to remediation activities and is estimated to take approximately six months to complete. Approximately seven workers at a time would be associated with remediation activities related to the proposed Project and there would be no additional construction once remediation is complete. After the project is complete, activity at the Project Site would be very similar to existing conditions and there would be no increase in traffic or any substantial new impact to traffic volumes or the transportation grid.

According to the City of Los Angeles Department of Transportation (LADOT) Traffic Study Guidelines (LADOT 2013), a Technical Memorandum is required when the project is likely to add 25 to 42 AM or PM peak hour trips, and the adjacent intersection(s) are presently estimated to be operating at Level of Service (LOS) E or F. A traffic study is required when the project is likely to add 500 or more daily trips, or likely to add 43 or more AM or PM peak hour trips. There are approximately 60 total haul trips spread out over a six-month period which is associated with importing clean fill material and hauling excavated material from the Project Site. When combined with an estimated seven workers per day, project-related vehicle trips are estimated to be less than 15 trips per day. Per the screening criteria contained in the LADOT Traffic Study Guidelines, the anticipated Project-related traffic is well below the threshold for requiring a more detailed traffic analysis.

Trip generation during remediation would be related to construction workers commuting to the Site and truck trips associated with bringing in equipment and hauling approximately 674 cubic yards of excavated material and importing a comparable amount of clean fill material. Truck trips are short-term in nature, with an estimated total of 60 trips at 10 cubic yards per load over the course of the entire remediation process of six months. The proposed Project will not result in roadway closures. There would be no temporary loss of pedestrian access, bus stops, rerouting of transit service, or loss of on-street parking, because none of these elements are currently present at the Project Site. Operation of nearby arterial routes would be preserved during remediation. With less than 15 vehicle trips generated daily, the proposed Project would not result in traffic impacts and would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Impacts would be less than significant, and no mitigation is required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Impact Analysis: The proposed Project is expected to generate an average of 15 trips per day and does not meet the minimum geographic study requirements for the LA County Metropolitan Transportation Authority Congestion Management Program as described in Appendix D of the Congestion Management Program guidelines (Metro 2010). The proposed Project does not generate more than 50 trips during the AM or PM peak hours on a Congestion Management Program arterial monitoring intersection or segment. The proposed Project will not add 150 or more trips in either direction during either the AM or PM weekday peak hours. Therefore, the proposed project does not conflict with any Congestion Management Program or level of service standard. No impacts would occur, and no mitigation is required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Impact Analysis: The proposed Project Site is not located within 2 miles of a public airport or within an airport land use plan. The nearest airports are the Long Beach Airport, which is more than 6 miles northeast of the proposed Project; the Compton/Woodley Airport, which is located approximately 10 miles north of the proposed Project; and the Torrance Municipal Airport – Zamperini Field, which is located approximately 6 miles northwest of the proposed Project (County of Los Angeles 2016a). The nearest helipads are located at 1175 Queens Freeway located 3.3 miles east of the proposed Project and the Catalina Air and Sea Terminal helipad located 1.5 miles west of the proposed Project. Therefore, given the distance from the nearest airports and helipads, as well as the limited size and scope of the activity, the proposed Project would not result in a change in air traffic patterns that could increase traffic levels or result in substantial safety risks. No impacts would occur, and no mitigation is required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Analysis: The proposed Project would not create a transportation hazard such as a sharp turn in roadway or dangerous intersection, or increase incompatible uses because the proposed Project only involves soil remediation within the proposed Project Site. Therefore, the proposed Project would not have an impact associated with an increase in transportation hazards due to a design feature or incompatible uses and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

e. Result in inadequate emergency access.

Impact Analysis: The County of Los Angeles has designated disaster routes throughout the County. Disaster routes are freeway, highway, or arterial routes pre-identified for use during times of crisis. These routes are used to bring in emergency personnel, equipment, and supplies to impacted areas in order to save lives, protect property, and minimize impact to the environment (County of Los Angeles 2013). During a disaster, these routes have priority for clearing, repairing, and restoration over all other roads. The nearest disaster routes to the proposed Project Site include Harbor Freeway (I-110), Terminal Island Freeway (SR-103), Seaside Avenue/Ocean Boulevard (CA-47), Harry Bridges Boulevard, Henry Ford Avenue, and Ocean Boulevard.

Local access to the proposed project Site is provided by a well-defined grid of arterial and collector roads. Harbor Boulevard is classified as a Major Class II Highway and provides north-south access along the eastern side of the community of San Pedro. Harbor Boulevard forms the western edge of the proposed project Site. It continues as Front Street north of Regan Street, as John S. Gibson Boulevard north of Pacific Avenue, and as Miner Street south of Crescent Avenue.

The proposed Project would not block any roadways or access points or change existing emergency access; therefore, the proposed Project would not affect emergency access or result in inadequate emergency access. No impacts would occur, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Impact Analysis: The proposed Project would not modify any existing roadways that support current or future public transit, bicycle or pedestrian facilities. The proposed Project itself would not include visitor-serving uses that would benefit from alternative modes of transportation. Therefore, the proposed Project would not conflict with policies, plans, or programs supporting alternative transportation (e.g. public transit, bicycles, pedestrian facilities, etc.). No impacts would occur, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

County of Los Angeles. 2016. "Los Angeles County Airport Land Use Commission – Airports: Los Angeles County." Accessed October 2016. <http://planning.lacounty.gov/aluc/airports>

County of Los Angeles, 2013. "Disaster Routes Los Angeles County Operational Area – Department of Public Works." Accessed October 2016. <http://dpw.lacounty.gov/dsg/disasterRoutes/>



LADOT (Los Angeles Department of Transportation). 2014. Traffic Study Policies and Procedures. August 2014. Accessed September 2016. [http://ladot.lacity.org/sites/g/files/wph266/f/lacityp\\_029521.pdf](http://ladot.lacity.org/sites/g/files/wph266/f/lacityp_029521.pdf)

Metro (Los Angeles County Metropolitan Transportation Authority). 2010. 2010 Congestion Management Program. Accessed October 2016. [http://media.metro.net/projects\\_studies/cmp/images/CMP\\_Final\\_2010.pdf](http://media.metro.net/projects_studies/cmp/images/CMP_Final_2010.pdf).

POLA. 2009. San Pedro Waterfront Project Final EIS/EIR – Port of Los Angeles. September 2009. Accessed October 2016. [https://www.portoflosangeles.org/EIR/SPWaterfront/FEIR/feir\\_spwaterfront.asp](https://www.portoflosangeles.org/EIR/SPWaterfront/FEIR/feir_spwaterfront.asp)

## 17. Tribal Cultural Resources

### Project Activities Likely to Create an Impact:

- Excavation/removal and stockpiling of concrete and contaminated soil using appropriate construction equipment in select areas (may include excavator, backhoe and loader); loading the contaminated media onto dump trucks.
- Offsite transport and disposal of excavated soil, concrete, waste water and/or miscellaneous debris to appropriate facilities based on waste characterization and importation of clean soil.
- Site restoration including backfill of all excavated areas.
- Vehicular traffic from workers involved with Site cleanup
- Transport of equipment and supplies.

### Description of Baseline Environmental Conditions:

Consultation with Native American Heritage Commission (NAHC) and Tribal governments identified no known tribal cultural resources on or near the site. An evaluation of cultural and historical resources at the Site and within a half-mile radius of the Site boundary was conducted in 2004 (Garcia and Associates 2004). This evaluation was based on a records search, a Native American consultation, and a field survey. No cultural or historical resources were identified within the Site. An updated search of cultural and historical resources at the Site and within a half-mile radius of the Site boundary (NWIC CHRIS 2016) identified no additional resources.

### Analysis as to whether or not project activities would:

- a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - i.) Listed or eligible for listing in the California Register of Historic Resources, or in a local register of historical resources as defined in Public Resources Code Section 502.01(k), or
  - ii.) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.

### Impact Analysis:

On October 3, 2016, DTSC received a response letter from NAHC stating a records search of their Sacred Land Files "was completed for the project with negative results." No project activities are planned in the vicinity of any identified resources. Therefore, no identified tribal cultural resources will be disturbed or otherwise affected by project activities.

In order to ensure that no currently unknown Tribal Cultural Resources could be significantly affected by the proposed project, DTSC consulted with all Tribes identified by the NAHC. On November 29, 2016 DTSC sent Tribal engagement/coordination/consultation letters to the six Tribal governments on the Native American Los Angeles County Contact List received from NAHC. Follow-up telephone calls were made to each Tribal government, but only no Tribal government expressed an interest in being consulted about the proposed project. Additionally, no information or evidence has been presented that there might be Tribal Cultural Resources located in the area to be disturbed.

In the event of accidental discovery or recognition of any Native American cultural resources during ground disturbing activities, work in the area will be temporarily suspended and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) will be contacted immediately to assess the discovery. DTSC staff (the DTSC Project Manager and representative from the Office of Tribal Liaison) will also be notified and informed of the situation who will in turn notify any interested affiliated Tribal government. The qualified archaeologist will investigate the significance of the find and in collaboration with DTSC and the Tribal government identify and implement any mitigation measures deemed necessary to record and/or protect the cultural resources.

If a potentially significant Tribal Cultural Resource is located, Chemours has agreed to fund a Tribal monitor to be present during excavation of the area in which the item was found. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner determines origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the construction Project Manager will notify the county coroner immediately. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

*References Used:*

*Lewis, Stephanie. DTSC Office of Environmental Justice and Tribal Affairs. Personal Communication with Chairperson Katherine Erolinda Perez/ Andrew Galvan. May 2017.*

*Native American Heritage Commission, Letter on a Sacred Lands file search and Native American Contacts List for the Chemours Remediation Project, October 3, 2016.*

## 18. Utilities and Service Systems

### Project Activities Likely to Create an Impact:

- Excavation/removal and stockpiling of concrete and contaminated soil using appropriate construction equipment in select areas (may include excavator, backhoe and loader); loading the contaminated media onto dump trucks.
- Offsite transport and disposal of excavated soil, concrete, waste water and/or miscellaneous debris to appropriate facilities based on waste characterization and importation of clean soil.
- Site restoration including backfill of all excavated areas.

Description of Baseline Environmental Conditions: The City of LA Bureau of Sanitation operates more than 6,700 miles of public sewers that convey about 400 million gallons per day of flow from residences and businesses to the City's four wastewater treatment and water reclamation plants (City of Los Angeles 2016e).

The public utilities for these areas and communities are provided by the Bureau of Sanitation, Los Angeles County Sanitation Districts and Browning Ferris Industries, Los Angeles Department of Water and Power, and the Southern California Gas Company.

Water supply and conveyance structures comprise a series of reservoirs and a network of pipelines, including reservoir outlets, major trunk lines, and other delivery lines. Distribution water mains are located throughout the proposed project area including the Outer Harbor Terminal.

Analysis as to whether or not project activities would:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Impact Analysis: The proposed Project is served by the Terminal Island Water Reclamation Plant. The proposed Project would involve remediation work. No additional wastewater would be generated by the proposed Project. Additionally, as previously discussed in Section 13(a), the proposed Project would not directly or indirectly induce population growth. Therefore, impacts associated with wastewater treatment requirements are less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis: As discussed in 17(a), wastewater treatment for the proposed Project Site is served by the Terminal Island Water Reclamation Plant. The Site is currently vacant and inactive. The proposed Project would not involve the development of any habitable structures, and therefore, would not result in the generation of wastewater or consumption of potable water. Additionally, as previously discussed in Section 13(a), the proposed Project would not directly or indirectly induce population growth. Therefore, impacts associated with the construction of new water and wastewater facilities would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis: The proposed Project Site is vacant and inactive and would not involve the development of on-site structures. As discussed in Section 9 (Hydrology and Water Quality), the project would not substantially alter the existing drainage pattern of the Site. In addition, the project would not involve discharges to storm drains. Therefore, impacts related to construction of new stormwater drainage facilities or expansion of existing facilities would not occur, and no mitigation is required

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Impact Analysis: The proposed Project Site is vacant and inactive and would not involve the development of on-site structures. The proposed Project would not involve the development of any habitable structures or other uses that would result in an increase in the consumption of potable water. Additionally, as previously discussed in Section 13(a), the proposed Project would not directly or indirectly induce population growth. Therefore, impacts associated with water supply demand would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- e. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.

Impact Analysis: As discussed in 17(b), wastewater treatment for the proposed Project Site is served by the Terminal Island Water Reclamation Plant. The proposed Project would not involve the development of any habitable structures, and therefore, would not result in the generation of wastewater. Additionally, as previously discussed in Section 13(a), the proposed Project would not directly or indirectly induce population growth. Therefore, impacts associated with wastewater treatment capacity would be less than significant, and no mitigation is required.

Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- f. Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs.

Impact Analysis: Implementation of the proposed Project would include remediation activities that would require approximately 674 cubic yards of existing landfill capacity, and once completed, the proposed Project would not require solid waste material disposal. Waste generated during remediation would be disposed of offsite in accordance with federal, state, and local statutes and regulations related to solid waste. In addition, prior to loading for transport, the excavated/removed materials would be stockpiled and chemically analyzed to determine appropriate treatment requirements. Excavated/removed materials would be transported by truck to a permitted landfill for treatment (if required) and disposal. Therefore, this impact would be less than significant, and no mitigation is required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

- g. Comply with federal, state, and local statutes and regulations related to solid waste.

Impact Analysis: As discussed in 17(f), waste generated during remediation would be disposed of offsite in accordance with federal, state, and local statutes and regulations related to solid waste. Impacts would be less than significant, and no mitigation is required.

## Conclusion:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

*References Used:*

- City of Los Angeles. 2016e. "Sewers." Accessed October 2016. [https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-s?\\_adf.ctrl-state=wh0wm0dl6\\_202&\\_afLoop=21046735822750736&\\_afWindowMode=0&\\_afWindowId=wh0wm0dl6\\_199#!](https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-s?_adf.ctrl-state=wh0wm0dl6_202&_afLoop=21046735822750736&_afWindowMode=0&_afWindowId=wh0wm0dl6_199#!).
- POLA. 2009. San Pedro Waterfront Project Final EIS/EIR – Port of Los Angeles. September 2009. Accessed October 2016. [https://www.portoflosangeles.org/EIR/SPWaterfront/FEIR/feir\\_spwaterfront.asp](https://www.portoflosangeles.org/EIR/SPWaterfront/FEIR/feir_spwaterfront.asp)

## 18. Mandatory Findings of Significance

Based on evidence provided in this Initial Study, DTSC makes the following findings:

- a. The project  ~~has~~  does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

The project would have a beneficial impact on the environment by removing potential sources of contamination in soil, which could also reduce potential impacts to surface water and groundwater quality. Project controls would ensure that the project area temporarily disturbed by the cleanup activities would not impact the adjacent habitat of endangered species or offshore habitats. There are no identified endangered species in the project area. Based on the evaluation presented in Section 4 (Biological Resources), the proposed Project would be limited to upland excavation with no in-water work and would have a less than significant impact related to degradation of the quality of the environment, reduction of habitat of a fish or wildlife species, causing a fish or wildlife population to drop below self-sustaining levels, threat of elimination of a plant or animal community, and reduction in the number or restriction of the range of a rare or endangered plant or animal.

Based on the evaluation presented in Section 5 (Cultural Resources), there are no recorded areas where archaeological resources have been identified near the project Site. The San Pedro Boat Works meets the qualification for listing in the California Register of Historical Resources (CRHR) and project remediation activities would require removing portions of the remaining turntable and metal tracks. The turntable is a component of the historic district; however, it is not individually eligible for listing in the California Register of Historical Resources (CRHR). The minor removal of portions of the remaining turntable for remediation would not rise to the level of constituting an adverse effect. The remediation would not adversely affect the critical elements of the property's location, association, feeling, and setting as expressed through its associations with important events and its engineering and character-defining features. Since the proposed Project is a remediation project and three existing structures that are non-contributing elements would be demolished and no structures would be constructed, there would be a less than significant impact to potentially eliminate important examples of the major periods of California history or prehistory.

- b. The project  ~~has~~  does not have impacts that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

The project activities are limited in extent and duration, would result in the construction of no new structures/buildings, and would return the ground surface to pre-project conditions. Therefore, cumulative impacts from project activities is not considerable.

- c. The project  ~~has~~  does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

When considering this Initial Study and the administrative record, there is no evidence before DTSC that the proposed project would have a significant adverse effect on human beings, either directly or indirectly.

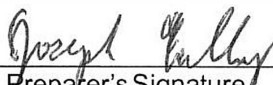

Determination of Appropriate Environmental Document:

Based on evidence provided in this Initial Study, DTSC makes the following determination:

- The proposed project COULD NOT HAVE a significant effect on the environment. A **Negative Declaration** will be prepared.
- The proposed project COULD HAVE a significant effect on the environment. However, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **Mitigated Negative Declaration** will be prepared.
- The proposed project MAY HAVE a significant effect on the environment. An **Environmental Impact Report** is required.
- The proposed project MAY HAVE a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only the effects that remain to be addressed.
- The proposed project COULD HAVE a significant effect on the environment. However, all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier Environmental Impact Report or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project. Therefore, nothing further is required.

**Certification:**

I hereby certify that the statements furnished above and in the attached exhibits, present the data and information required for this initial study evaluation to the best of my ability and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

 _____ Preparer's Signature	6/26/2019 _____ Date	
Joseph Gully _____ Preparer's Name	Environmental Scientist _____ Preparer's Title	(714) 484-5473 _____ Phone #
 _____ Branch or Unit Chief Signature	6/26/2019 _____ Date	
Patrick Hsieh _____ Branch or Unit Chief Name	Senior Environmental Scientist (Sup) _____ Branch or Unit Chief Title	714-484-5442 _____ Phone #



## ATTACHMENT

## A

## REFERENCES

- CAPCOA (California Air Pollution Control Officers Association). 2008. CEQA & Climate Change: CAPCOA Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. January 2008.
- California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. 2015. Los Angeles County Important Farmland Map 2014. September 2016.
- California Department of Conservation, Division of Land Resource Protection. 2014. Los Angeles County Williamson Act FY 2014/2015.
- California Department of Transportation, Scenic Highway Program. Officially Designated State Scenic Highways. Updated October 2013. Available at:  
<[http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/scenic\\_hwy.htm](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm)>.  
Accessed September 26, 2016.
- City of Los Angeles, General Plan Safety Element - <http://cityplanning.lacity.org/cwd/gnlpln/SaftyElt.pdf>, accessed October 24, 2016.
- City of Los Angeles. 2016c. "Chapter: IV Public Welfare; Article 1: Disorderly Conduct; Section 41.40: Noise Due to Construction, Excavation Work – When Prohibited." In City of Los Angeles Municipal Code. Effective November 12, 1936. Amended June 30, 2016. Accessed September 2016. [http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:losangeles\\_ca\\_mc](http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc).
- City of Los Angeles. 2016d. "Chapter XI: Noise Regulation." In City of Los Angeles Municipal Code. Effective November 12, 1936. Amended June 30, 2016. [http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:losangeles\\_ca\\_mc](http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc).
- City of Los Angeles. 2016e. "Sewers." Accessed October 2016. [https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-s?\\_adf.ctrl-state=wh0wm0dl6\\_202&\\_afLoop=21046735822750736&\\_afWindowMode=0&\\_afWindowId=wh0wm0dl6\\_199#!](https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-s?_adf.ctrl-state=wh0wm0dl6_202&_afLoop=21046735822750736&_afWindowMode=0&_afWindowId=wh0wm0dl6_199#!).
- City of Los Angeles, Zone Information and Map Access System (ZIMAS). Accessed October 2016. <http://cityplanning.lacity.org/>
- City of Los Angeles. 2016a. "ZIMAS – City of Los Angeles Zoning Property Information." Accessed September 2016. <http://zimas.lacity.org/>.
- City of Los Angeles. 2016b. "Chapter I: General Provisions and Zoning." In City of Los Angeles Municipal Code. Effective November 12, 1936. Amended June 30, 2016. [http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:losangeles\\_ca\\_mc](http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc).
- City of Rancho Palos Verdes. 2016. "NCCP Reserve Boundary Parcels [map]." Accessed September 2016. <http://www.rpvca.gov/DocumentCenter/View/3396>.
- Climate Registry. 2016. 2016 Climate Registry Default Emission Factors. April 19, 2016.
- County of Los Angeles. 2016. "Los Angeles County Airport Land Use Commission – Airports: Los Angeles County." Accessed October 2016. <http://planning.lacounty.gov/aluc/airports>

- County of Los Angeles, 2016. "Disaster Routes Los Angeles County Operational Area – Department of Public Works." Accessed October 2016. <http://dpw.lacounty.gov/dsg/disasterRoutes/>
- County of Los Angeles. 2015. "Figure 9.3: Significant Ecological Areas and Coastal Resource Areas Policy Map [map]." February 2015. Accessed September 2016. [http://planning.lacounty.gov/assets/upl/project/gp\\_2035\\_2014-FIG\\_9-3\\_significant\\_ecological\\_areas.pdf](http://planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-3_significant_ecological_areas.pdf).
- DTSC (Department of Toxic Substances Control). 2016. "DTSC's EnviroStor Home (Clean Up Sites)." Accessed October 2016. <http://www.envirostor.dtsc.ca.gov/public>.
- Hagner, Dennis. 2017. Supervisor Cultural Resources, Los Angeles Harbor Department. Personal Communication.
- ICF International. 2011. San Pedro Boat Works Historic Documentation, Port of Los Angeles. December.
- ICF Jones and Stokes. 2008. Cultural Resources Technical Report for San Pedro Waterfront Redevelopment Project. August.
- LADOT (Los Angeles Department of Transportation). 2014. Traffic Study Policies and Procedures. August 2014. Accessed September 2016. [http://ladot.lacity.org/sites/g/files/wph266/f/lacityp\\_029521.pdf](http://ladot.lacity.org/sites/g/files/wph266/f/lacityp_029521.pdf)
- LAFD (Los Angeles Fire Department). 2016. "Station List." Accessed September 2016. <http://www.lafd.org/fire-stations/find-your-station>.
- Metro (Los Angeles County Metropolitan Transportation Authority). 2010. 2010 Congestion Management Program. Accessed October 2016. [http://media.metro.net/projects\\_studies/cmp/images/CMP\\_Final\\_2010.pdf](http://media.metro.net/projects_studies/cmp/images/CMP_Final_2010.pdf).
- POLA. 2009. San Pedro Waterfront Project Final EIS/EIR – Port of Los Angeles. September 2009. Accessed October 2016. [https://www.portoflosangeles.org/EIR/SPWaterfront/FEIR/feir\\_spwaterfront.asp](https://www.portoflosangeles.org/EIR/SPWaterfront/FEIR/feir_spwaterfront.asp)
- POLA. 2014. Port Master Plan – Port of Los Angeles. February 2014. Accessed September 2016. <https://www.portoflosangeles.org/planning/pmp/Amendment%2028.pdf>.
- Port of Long Beach and POLA. 2016. 2013–2014 Biological Surveys of Long Beach and Los Angeles Harbors. June 1, 2016.
- SCAQMD. 2008. Attachment E: Draft Guidance Document, Interim CEQA Greenhouse Gas Significance Threshold. October 2008. Accessed September 2016. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2)
- SCAQMD. 2016. 2016 Air Quality Management Plan. March 2017. <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan>.
- SCAQMD (South Coast Air Quality Management District). 2003. "Appendix D: Cumulative Impact Analysis Requirements Pursuant to CEQA." In Potential Control Strategies to Address Cumulative Impacts from Air Pollution: Appendix D. August 2003.
- SWCA. 2017. DPR Update, San Pedro Boat Works, Port of Los Angeles. May
- Tetra Tech, Inc. 2011. Ecological Site Survey of the Former San Pedro Boat Works Facility. March 24.
- Tetra Tech, Inc. 2016. Removal Action Workplan, Former San Pedro Boat Works, Miner Street, Berth 44, San Pedro, California. June 30.
- U.S. Department of Transportation, Transit Noise and Vibration Impact Assessment, May 2006.

United States Fish and Wildlife Service (USFW), 2016. Accessed January 2017. National Wetland Inventory.  
<https://www.fws.gov/wetlands/Data/Mapper.html>

United States Geological Survey (USGS). 2011. "Reported Historic Asbestos Mines, Historic Asbestos Prospects,  
and Other Natural Occurrences of Asbestos in California." Open File Report 2011-1188.

Woodring, W.P., Bramlette, M.N., Kew, W.S. 1946. Geology and Paleontology of Palos Verdes Hills, California.  
United States Geological Survey Professional Paper 207.

## **Appendix A – Air Quality Calculations**

## San Pedro Boatworks

### Construction Air Emission Estimates - Totals

12/14/2017 - DRAFT - Attorney Client Privilege

#### Daily Emissions

	Daily Construction Emissions (lb/day)							
	NOx	VOC	CO	PM10	PM2.5	SO2	CO2	CO2e
San Pedro Boat Works Remediation	45.6	3.2	16.5	5.0	2.4	0.1	6,773	6,834
SCAQMD Significance Threshold	100	75	550	150	55	150	-	-
Significant?	No	No	No	No	No	No	-	-

Significance thresholds from <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2> (3/2015 revision)

#### Annual Emissions

	Annual Construction Emissions (ton/yr)							
	NOx	VOC	CO	PM10	PM2.5	SO2	CO2	CO2e (metric tons)
San Pedro Boat Works Remediation	0.95	0.07	0.40	0.07	0.04	0.00	142.0	130.0
SCAQMD Significance Threshold	-	-	-	-	-	-	-	10,000
Significant?	No	No	No	No	No	No	-	No

Significance thresholds from <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2> (3/2015 revision)

"Annual" means project total (project duration is less than 1 year)

CO2e includes estimated CH4 and N2O greenhouse gases.

**San Pedro Boatworks**

**Construction Air Emission Estimates - Subtotals**

12/14/2017 - DRAFT - Attorney Client Privilege

**Daily Emissions**

	Daily Construction Emissions (lb/day)							
	NOx	VOC	CO	PM10	PM2.5	SO2	CO2	CO2e
<b>Offroad Diesel Equipment Exhaust</b>	19.3	2.0	11.0	1.1	1.1	0.0	2,040	2,058
<b>Onroad Equipment Exhaust</b>	26.2	1.2	4.5	0.6	0.6	0.0	4,472	4,512
<b>Worker Commute Exhaust</b>	0.1	0.0	1.0	0.0	0.0	0.0	261	264
<b>Fugitive Dust</b>	-	-	-	3.3	0.8	-	-	-
<b>Total Emissions</b>	<b>45.6</b>	<b>3.2</b>	<b>16.5</b>	<b>5.0</b>	<b>2.4</b>	<b>0.1</b>	<b>6,773</b>	<b>6,834</b>
<b>SCAQMD Significance Threshold</b>	100	75	550	150	55	150	-	-
<b>Significant?</b>	No	No	No	No	No	No	-	-

Significance thresholds from <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2> (3/2015 revision)

**Annual Emissions**

	Annual Construction Emissions (ton/yr)							
	NOx	VOC	CO	PM10	PM2.5	SO2	CO2	CO2e (metric tons)
<b>Offroad Diesel Equipment Exhaust</b>	0.61	0.05	0.28	0.03	0.03	0.00	68.0	62.2
<b>Onroad Equipment Exhaust</b>	0.33	0.02	0.06	0.01	0.01	0.00	57.0	52.2
<b>Worker Commute Exhaust</b>	0.01	0.00	0.06	0.00	0.00	0.00	17.0	15.5
<b>Fugitive Dust</b>	-	-	-	0.03	0.01	-	-	-
<b>Total Emissions</b>	<b>0.95</b>	<b>0.07</b>	<b>0.40</b>	<b>0.07</b>	<b>0.04</b>	<b>0.00</b>	<b>142.0</b>	<b>130.0</b>
<b>SCAQMD Significance Threshold</b>	-	-	-	-	-	-	-	10,000
<b>Significant?</b>	No	No	No	No	No	No	-	No

Significance thresholds from <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2> (3/2015 revision)

CO2e includes estimated CH4 and N2O greenhouse gases.

**San Pedro Boat Works**  
**Construction Air Emission Estimates - Offroad Equipment**  
12/14/2017 - DRAFT - Attorney Client Privilege

Daily and Annual Emissions

Equipment Description	CARB Off-Road Category	Fuel	Engine Rating (hp)	Qty	hr/day	day/yr	Load Factor	Exhaust Emission Factor (g/hp-hr)							Daily Emissions (lb/day)							Annual Emissions (ton/yr)						
								NOx	VOC	CO	PM10	PM2.5	SO2	CO2	NOx	VOC	CO	PM10	PM2.5	SO2	CO2	NOx	VOC	CO	PM10	PM2.5	SO2	CO2
Excavator	Excavators	Diesel	200	1	8	130	0.3819	4.182	0.289	1.331	0.133	0.122	4.9E-03	512	5.6	0.4	1.8	0.2	0.2	0.0	690	0.37	0.03	0.12	0.01	0.01	0.00	44.8
Backhoe	Tractors/Loaders/Backhoes	Diesel	80	1	8	130	0.3685	5.422	0.569	3.832	0.424	0.390	4.9E-03	517	2.8	0.3	2.0	0.2	0.2	0.0	269	0.18	0.02	0.13	0.01	0.01	0.00	17.5
Saw	Concrete/Industrial Saws	Diesel	81	1	8	6	0.73	4.789	0.683	3.647	0.372	0.372	6.0E-03	568	5.0	0.7	3.8	0.4	0.4	0.0	593	0.01	0.00	0.01	0.00	0.00	1.8	
Loader	Rubber Tired Loaders	Diesel	150	1	8	16	0.3618	6.097	0.595	3.588	0.341	0.313	4.9E-03	510	5.8	0.6	3.4	0.3	0.3	0.0	489	0.05	0.00	0.03	0.00	0.00	3.9	

Notes:  
Quantity (Qty), daily operation (hr/day), and annual operation (day/yr) based on project description.  
Emission factors from CalEEMod/CARB OFFROAD2011, Scenario Year: 2015  
Load factors from CARB OFFROAD2011.  
Operating days for loader estimated based on total excavated soil hauled offsite.

**San Pedro Boatworks**  
**Construction Air Emission Estimates - Onroad Equipment**  
**12/14/2017 - DRAFT - Attorney Client Privilege**

**Daily and Annual Emissions**

Equipment Category	Avg Engine Model Year	EMFAC Vehicle Class	Fuel Type	Exhaust Emission Factor (grams/vehicle-mile)							Daily Emissions (lb/day)							Annual Emissions (ton/yr)						
				NOx	VOC	CO	PM10	PM2.5	SO2	CO2	NOx	VOC	CO	PM10	PM2.5	SO2	CO2	NOx	VOC	CO	PM10	PM2.5	SO2	CO2
Haul truck	Aggregated	T7 tractor construction	Diesel	9.918	0.461	1.692	0.222	0.213	0.016	1690	26.24	1.22	4.48	0.59	0.56	0.043	4472	0.33	0.02	0.06	0.01	0.01	0.00	57.02

Notes:

Emission factors from CARB's EMFAC2014 emissions database, <http://www.arb.ca.gov/emfac/>  
Road dust, brake wear, and tire wear PM10 and PM2.5 emissions included in Fugitive Particulate Matter estimates.  
Max daily emissions based on hauling of excavated soil. Mileage on days hauling clean fill or demolition waste will be less.

Haul trucks - Soil (Excavated)

Number	<b>2</b> trucks/day	Project description
	<b>3</b> roundtrips/day/truck	Project description
	<b>200</b> miles roundtrip/truck	Project description
Daily mileage per truck	600 mi/day/truck	Calc
Total soil hauled for project:	<b>940</b> cubic yards	Project description
Soil per truck:	<b>10</b> cubic yards/truck	Estimate
Total haul truck work days	16 days total	Calculated based on total soil hauled and soil hauled per truck

Haul trucks - Soil (Clean Fill)

Number	<b>2</b> trucks/day	Project description
	<b>3</b> roundtrips/day/truck	Project description
	<b>100</b> miles roundtrip/truck	Nearest Landfill
Daily mileage per truck	300 mi/day/truck	Calc
Total soil hauled for project:	<b>940</b> cubic yards	Project description
Soil per truck:	<b>10</b> cubic yards/truck	Estimate
Total haul truck work days	16 days total	Calculated based on total soil hauled and soil hauled per truck

Haul trucks - Demolition

Number	<b>2</b> trucks/day	Project description
	<b>3</b> roundtrips/day/truck	Project description
	<b>100</b> miles roundtrip/truck	Nearest Landfill
Daily mileage per truck	300 mi/day/truck	Calc
Electrical Shop	848.8 sq ft	Building Footprint
Paint Shop	395.5 sq ft	Building Footprint
Paint Shop Awning Area	105.43 sq ft	Building Footprint x 25% (open on sides)
Storage Shed	446.2 sq ft	Building Footprint
Demolition Area	1795.9 sq ft	Building Footprint
Demolition Waste Vol	<b>166.3</b> cubic yards	CalEEMod Users Guide App A defaults (10 ft3 vol/ft2 footprint, 0.25 ft3 waste/ft3 vol)
Waste per truck:	<b>10</b> cubic yards/truck	Estimate
Total haul truck work days	3 days total	Calculated based on total demolition waste hauled and waste hauled per truck



**San Pedro Boatworks**

**Construction Air Emission Estimates - Worker Commuting**

12/14/2017 - DRAFT - Attorney Client Privilege

**Daily and Annual Emissions**

Description	Engine Model Year	EMFAC Vehicle Class	Fuel	Exhaust Emission Factor (grams/mile)							Daily Emissions (lb/day)							Annual Emissions (ton/yr)						
				NOx	VOC	CO	PM10	PM2.5	SO2	CO2	NOx	VOC	CO	PM10	PM2.5	SO2	CO2	NOx	VOC	CO	PM10	PM2.5	SO2	CO2
Worker commuting	All	LDA	Gas	0.11	0.036	1.25	0.002	0.0019	0.0034	338.5	0.1	0.0	1.0	0.0	0.0	0.0	261.2	0.01	0.00	0.06	0.00	0.00	0.00	17.0

Notes:

Emission factors from CARB's EMFAC2014 model for calendar year 2015, and assume aggregated speeds and vehicle model years.

Fugitive dust estimate includes brake wear, tire wear, and travel on paved roads.

Assumptions:

Parameter	Value	Basis
Equipment workers	7 worker trips/day	Estimated based on project description
Trip VMT:	50 miles roundtrip/work	Estimated
Daily VMT:	350 VMT/day	Calc
Working days	130 days	Project description (5 days/week, 6 months total duration)
Total VMT during project:	45,500 VMT	Calc

VMT = vehicle miles traveled

## San Pedro Boatworks

### Construction Air Emission Estimates - Fugitive Particulate Matter

12/14/2017 - DRAFT - Attorney Client Privilege

#### Daily and Annual Emissions

Description	Average Vehicle Weight (lb)	PM10 EF (lb/ VMT)	PM2.5 EF (lb/ VMT)	Daily Emissions		Annual Emissions	
				PM10 (lb/ day)	PM2.5 (lb/day)	PM10 (ton/yr)	PM2.5 (ton/yr)
Haul truck on paved roads	47000	2.54E-03	6.47E-04	3.04	0.78	2.4E-02	6.2E-03
Commute vehicle on paved roads	3500	3.08E-04	9.04E-05	0.11	0.03	7.0E-03	2.1E-03
Demolition				0.03	0.00	4.6E-05	7.1E-06
Demolition Waste Handling				0.06	0.01	9.1E-05	1.4E-05
Soil loading/unloading	-	-	-	0.02	0.00	2.0E-04	3.0E-05

#### Notes:

VMT = vehicle miles travelled

Daily and annual vehicle fugitive emissions estimates include road dust, brake wear, and tire wear.

#### Paved Roads

Empirical formula from AP42, Section 13.2.1 (Paved Roads, 1/11):

$$\text{PM10 Emissions (lb/VMT)} = k * [(sL)^{(0.91)}] * [(W)^{(1.02)}]$$

PM10 particle size multiplier (k): 0.0022 (AP42, Table 13.2.1-1, Particle Size Multipliers for Paved Road Equation)

PM2.5 particle size multiplier (k): 0.00054 (AP42, Table 13.2.1-1, Particle Size Multipliers for Paved Road Equation)

Haul truck road surface silt loading (sL): 0.0308 grams/m2. Blended value of Local road (10%), Major/Collector (10%), and Freeway (80%) sL factors.

Local Road = 0.135 g/m2 (LA County), Major/Collector = 0.013 g/m2 (LA County), Freeway = 0.02 g/m2 (EPA default value)

Ref: CARB Miscellaneous Process Methodology 7.9 (April 2014), Table 3 (California Statewide and Local Default Silt Loading Values), [http://www.arb.ca.gov/ei/areasrc/fullpdf/full7-9\\_2014.pdf](http://www.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2014.pdf)

Commute vehicle road surface silt loading (sL): 0.0402 grams/m2. Blended value of Local road (20%), Major/Collector (40%), and Freeway (40%) sL factors.

Local Road = 0.135 g/m2 (LA County), Major/Collector = 0.013 g/m2 (LA County), Freeway = 0.02 g/m2 (EPA default value)

Ref: CARB Miscellaneous Process Methodology 7.9 (April 2014), Table 3 (California Statewide and Local Default Silt Loading Values), [http://www.arb.ca.gov/ei/areasrc/fullpdf/full7-9\\_2014.pdf](http://www.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2014.pdf)

Average weight of vehicle (W): See above tons.

#### Soil handling (loading/unloading)

Empirical formula from CalEEMod Appendix A/ AP42, Section 13.2.4, Equation 1 (Miscellaneous Sources - Aggregate Handling and Storage Piles, 11/06):

$$\text{Fugitive PM Emissions (lb/ton)} = k * (0.0032) * [(U / 5)^{(1.3)}] / [(M / 2)^{(1.4)}]$$

PM10 particle size multiplier (k): 0.35 (AP42, 13.2.4-4, "Aerodynamic Particle Size Multiplier (k) for Equation 1")

PM2.5 particle size multiplier (k): 0.053 (AP42, 13.2.4-4, "Aerodynamic Particle Size Multiplier (k) for Equation 1")

Mean wind speed (U): 6.2 mph. Los Angeles City average annual wind speed, from AP42, Table 7.1-9 (Liquid Storage Tanks, 11/06)

Material moisture content (M): 12 %. Estimate for excavated soil. CalEEMod default moisture content of cover is 12%.

PM10 emission factor 1.21E-04 lb/ton.

PM2.5 emission factor 1.83E-05 lb/ton.

Soil bulk density: 1.7 tons/yd3. Estimate.

Total Daily soil handling: 204 tons/day. Includes loading (onsite) and unloading (offsite).

## San Pedro Boatworks

### Construction Air Emission Estimates - Fugitive Particulate Matter

12/14/2017 - DRAFT - Attorney Client Privilege

#### Daily and Annual Emissions

Total Annual soil handling:	3196 tons. Project description (760.2 yd3 total excavated). Includes loading (onsite) and unloading (offsite).
Uncontrolled PM10 emissions:	0.0246 lb/day
Uncontrolled PM2.5 emissions:	0.0037 lb/day

#### Demolition

PM10 emission factor	1.10E-03 lb/ton. (CalEEMod User's Guide App A default)
PM2.5 emission factor	1.70E-04 lb/ton. (CalEEMod User's Guide App A default)
Debris density:	0.5 ton/cubic yard. (CalEEMod User's Guide App A default)
Total Daily demo:	55.4 cubic yard/day
Total Annual demo:	166 cubic yard/year (see OnRoad Calculations for demo volume)
Total Daily demo:	27.7 ton/day
Total Annual demo:	83.1 ton/day
Uncontrolled PM10 emissions:	0.0305 lb/day
Uncontrolled PM2.5 emissions:	0.0047 lb/day

#### Demolition Waste Handling

PM10 emission factor	1.10E-03 lb/ton. (CalEEMod User's Guide App A default)
PM2.5 emission factor	1.70E-04 lb/ton. (CalEEMod User's Guide App A default)
Debris density:	0.5 ton/cubic yard. (CalEEMod User's Guide App A default)
Total Daily demo waste:	110.9 cubic yard/day. Includes loading and unloading (offsite)
Total Annual demo waste:	333 cubic yard/year. Includes loading and unloading (offsite)
Total Daily demo waste:	55.4 ton/day
Total Annual demo waste:	166.3 ton/day
Uncontrolled PM10 emissions:	0.0610 lb/day
Uncontrolled PM2.5 emissions:	0.0094 lb/day

## Load Factors for Offroad Equipment

Source: CARB OFFROAD2011 Model

EquipmentTypeID	Adj ARB LF
A/C Tug Narrow Body	0.536
A/C Tug Wide Body	0.536
Baggage Tug	0.3685
Belt Loader	0.335
Bobtail	0.3685
Cargo Loader	0.335
Cargo Tractor	0.3618
Forklift (GSE)	0.201
Lift (GSE)	0.335
Other GSE	0.335
Bore/Drill Rigs	0.5025
Cranes	0.2881
Crawler Tractors	0.4288
Excavators	0.3819
Graders	0.4087
Off-Highway Tractors	0.4355
Off-Highway Trucks	0.3819
Other Construction Equipment	0.4154
Pavers	0.4154
Paving Equipment	0.3551
Rollers	0.3752
Rough Terrain Forklifts	0.402
Rubber Tired Dozers	0.3953
Rubber Tired Loaders	0.3618
Scrapers	0.4824
Skid Steer Loaders	0.3685
Surfacing Equipment	0.3015
Tractors/Loaders/Backhoes	0.3685
Trenchers	0.5025
Aerial Lifts	0.3082
Forklifts	0.201
Other General Industrial Equipment	0.3417
Other Material Handling Equipment	0.3953
Drill Rig (Mobile)	0.5025
Workover Rig (Mobile)	0.5025
Sweepers/Scrubbers	0.4556
Passenger Stand	0.3953
Concrete/Industrial Saws	0.73

**CalEEMod OFFROAD Equipment Emission Factors (g/bhp-hr)**

Source: Table 3.4, CalEEMod Appendix D

Equipment Type	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4
Aerial Lifts	2016	6	15	0.271111	0.2278	3.19737	3.67571	0.0054	0.1046	0.0963	562.9964	0.1698
Aerial Lifts	2016	16	25	0.271111	0.2278	3.19737	3.67571	0.0054	0.1046	0.0963	562.9964	0.1698
Aerial Lifts	2016	26	50	0.271111	0.2278	3.19737	3.67571	0.0054	0.1046	0.0963	562.9964	0.1698
Aerial Lifts	2016	51	120	0.196986	0.1655	3.20103	2.72218	0.0049	0.1119	0.103	506.2113	0.1527
Aerial Lifts	2016	251	500	0.288656	0.2426	0.99238	4.63924	0.0049	0.1034	0.0952	506.1474	0.1527
Aerial Lifts	2016	501	750	34.529	0.257	1.089	3.015	0.005	0.088	0.088	568.299	0.023
Air Compressors	2016	6	15	2.109	0.809	3.622	5.023	0.008	0.289	0.289	568.299	0.073
Air Compressors	2016	16	25	4.462	0.855	2.604	4.803	0.007	0.255	0.255	568.299	0.077
Air Compressors	2016	26	50	13.429	1.67	5.779	5.042	0.007	0.415	0.415	568.299	0.15
Air Compressors	2016	51	120	12.618	0.744	3.804	4.79	0.006	0.397	0.397	568.299	0.067
Air Compressors	2016	121	175	16.69	0.522	3.211	4.052	0.006	0.219	0.219	568.299	0.047
Air Compressors	2016	176	250	17.023	0.359	1.182	3.553	0.006	0.109	0.109	568.299	0.032
Air Compressors	2016	251	500	28.188	0.337	1.155	3.08	0.005	0.102	0.102	568.299	0.03
Air Compressors	2016	501	750	43.972	0.34	1.155	3.201	0.005	0.104	0.104	568.299	0.03
Air Compressors	2016	751	1000	67.278	0.383	1.295	4.854	0.005	0.131	0.131	568.299	0.034
Bore/Drill Rigs	2016	6	15	1.034535	0.8693	4.79659	5.29821	0.0056	0.3826	0.352	579.3262	0.1747
Bore/Drill Rigs	2016	16	25	1.034535	0.8693	4.79659	5.29821	0.0056	0.3826	0.352	579.3262	0.1747
Bore/Drill Rigs	2016	26	50	1.034535	0.8693	4.79659	5.29821	0.0056	0.3826	0.352	579.3262	0.1747
Bore/Drill Rigs	2016	51	120	0.365397	0.307	3.32648	3.82088	0.0047	0.2214	0.2037	491.6548	0.1483
Bore/Drill Rigs	2016	121	175	0.33987	0.2856	3.02337	3.61582	0.0049	0.1619	0.1489	511.4327	0.1543
Bore/Drill Rigs	2016	176	250	0.229144	0.1925	1.13299	2.9021	0.0048	0.0852	0.0784	502.128	0.1515
Bore/Drill Rigs	2016	251	500	0.203588	0.1711	1.13338	2.50955	0.0048	0.0774	0.0713	494.7606	0.1492
Bore/Drill Rigs	2016	501	750	0.182018	0.1529	1.11952	2.16636	0.005	0.0719	0.0661	514.8829	0.1553
Bore/Drill Rigs	2016	751	1000	0.137307	0.1154	0.96409	3.00833	0.0049	0.0593	0.0545	505.9997	0.1526
Cement and Mortar Mixers	2016	6	15	1.076	0.662	3.469	4.153	0.008	0.167	0.167	568.3	0.059
Cement and Mortar Mixers	2016	16	25	3.558	0.788	2.496	4.636	0.007	0.227	0.227	568.299	0.071
Concrete/Industrial Saws	2016	16	25	1.532	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061
Concrete/Industrial Saws	2016	26	50	5.419	1.322	5.029	4.818	0.007	0.35	0.35	568.3	0.119
Concrete/Industrial Saws	2016	51	120	6.237	0.62	3.62	4.432	0.006	0.333	0.333	568.3	0.055
Concrete/Industrial Saws	2016	121	175	9.455	0.435	3.074	3.708	0.006	0.186	0.186	568.299	0.039
Cranes	2016	26	50	2.535089	2.1302	7.2684	6.11027	0.0053	0.6102	0.5614	555.4414	0.1675
Cranes	2016	51	120	1.373103	1.1538	4.79702	9.60772	0.0048	0.7095	0.6527	503.5992	0.1519
Cranes	2016	121	175	0.884915	0.7436	3.86156	7.88718	0.0049	0.4273	0.3931	508.9515	0.1535
Cranes	2016	176	250	0.741297	0.6229	2.5822	7.38068	0.0049	0.3349	0.3081	507.1552	0.153
Cranes	2016	251	500	0.527153	0.443	3.83445	5.64865	0.0049	0.2332	0.2145	506.0882	0.1527
Cranes	2016	501	750	0.347738	0.2922	1.65024	4.31387	0.0049	0.1529	0.1406	505.0695	0.1523
Cranes	2016	1001	9999	0.168646	0.1417	0.96562	2.30856	0.0049	0.0565	0.0519	506.1474	0.1527
Crawler Tractors	2016	26	50	2.99791	2.5191	8.10441	6.31718	0.0053	0.7329	0.6742	553.214	0.1669

Crawler Tractors	2016	51	120	1.034441	0.8692	4.18548	7.34589	0.0049	0.619	0.5695	511.268	0.1542
Crawler Tractors	2016	121	175	0.743125	0.6244	3.48211	6.7205	0.0049	0.3705	0.3409	506.0335	0.1526
Crawler Tractors	2016	176	250	0.534039	0.4487	1.80295	6.04745	0.0049	0.2332	0.2145	507.355	0.153
Crawler Tractors	2016	251	500	0.473782	0.3981	2.74397	5.27907	0.0049	0.2045	0.1882	510.3385	0.1539
Crawler Tractors	2016	501	750	0.41158	0.3458	1.6206	4.7238	0.0049	0.1738	0.1599	507.2527	0.153
Crawler Tractors	2016	751	1000	0.57429	0.4826	2.09448	7.4988	0.0049	0.2217	0.204	509.6671	0.1537
Crushing/Proc. Equipment	2016	26	50	4.186	1.593	5.801	5.006	0.007	0.399	0.399	568.299	0.143
Crushing/Proc. Equipment	2016	51	120	3.576	0.72	3.823	4.631	0.006	0.379	0.379	568.299	0.065
Crushing/Proc. Equipment	2016	121	175	5.132	0.513	3.241	3.883	0.006	0.21	0.21	568.299	0.046
Crushing/Proc. Equipment	2016	176	250	5.267	0.36	1.178	3.381	0.006	0.105	0.105	568.299	0.032
Crushing/Proc. Equipment	2016	251	500	7.601	0.34	1.146	2.928	0.005	0.098	0.098	568.299	0.03
Crushing/Proc. Equipment	2016	501	750	11.944	0.339	1.14	3.021	0.005	0.099	0.099	568.299	0.03
Crushing/Proc. Equipment	2016	1001	9999	31.036	0.397	1.274	4.7	0.005	0.127	0.127	568.299	0.035
Dumpers/Tenders	2016	16	25	0.825	0.69	2.342	4.378	0.007	0.175	0.175	568.299	0.062
Excavators	2016	16	25	0.970016	0.8151	4.94198	4.82432	0.0054	0.3586	0.3299	563.8026	0.1701
Excavators	2016	26	50	0.970016	0.8151	4.94198	4.82432	0.0054	0.3586	0.3299	563.8026	0.1701
Excavators	2016	51	120	0.566011	0.4756	3.66066	4.70806	0.0048	0.3441	0.3166	500.9659	0.1511
Excavators	2016	121	175	0.425494	0.3575	3.15771	4.08095	0.0049	0.2008	0.1847	506.495	0.1528
Excavators	2016	176	250	0.312033	0.2622	1.27749	3.66736	0.0049	0.1158	0.1065	506.544	0.1528
Excavators	2016	251	500	0.253752	0.2132	1.23344	2.81451	0.0049	0.0906	0.0834	504.2899	0.1521
Excavators	2016	501	750	0.287698	0.2417	1.34881	3.35762	0.0048	0.1102	0.1014	501.6596	0.1513
Forklifts	2016	26	50	2.217878	1.8636	6.93473	5.66211	0.0054	0.5832	0.5365	563.4349	0.17
Forklifts	2016	51	120	0.860278	0.7229	4.02311	6.22192	0.0049	0.5203	0.4786	505.5833	0.1525
Forklifts	2016	121	175	0.630613	0.5299	3.47253	5.67466	0.0049	0.3101	0.2853	506.2028	0.1527
Forklifts	2016	176	250	0.641979	0.5394	2.22626	6.35303	0.0049	0.2799	0.2575	507.5101	0.1531
Forklifts	2016	251	500	0.419581	0.3526	2.57209	4.04212	0.0049	0.1737	0.1598	507.8206	0.1532
Generator Sets	2016	6	15	1.914	0.72	3.622	4.978	0.008	0.264	0.264	568.299	0.065
Generator Sets	2016	16	25	3.548	0.773	2.604	4.803	0.007	0.244	0.244	568.299	0.069
Generator Sets	2016	26	50	9.132	1.146	4.41	4.685	0.007	0.318	0.318	568.299	0.103
Generator Sets	2016	51	120	11.84	0.583	3.469	4.41	0.006	0.309	0.309	568.299	0.052
Generator Sets	2016	121	175	14.658	0.396	2.934	3.731	0.006	0.17	0.17	568.299	0.035
Generator Sets	2016	176	250	14.652	0.265	1.081	3.259	0.006	0.09	0.09	568.299	0.023
Generator Sets	2016	251	500	21.002	0.239	1.077	2.882	0.005	0.084	0.084	568.299	0.021
Generator Sets	2016	501	750	35.041	0.247	1.077	2.989	0.005	0.086	0.086	568.3	0.022
Generator Sets	2016	1001	9999	88.441	0.324	1.204	4.542	0.005	0.113	0.113	568.299	0.029
Graders	2016	26	50	3.670899	3.0846	9.10623	6.51973	0.005	0.8644	0.7952	528.2444	0.1593
Graders	2016	51	120	1.419659	1.1929	4.82948	9.41488	0.0048	0.7799	0.7175	503.1614	0.1518
Graders	2016	121	175	0.963567	0.8097	3.91624	8.24966	0.005	0.4635	0.4264	516.1305	0.1557
Graders	2016	176	250	0.473996	0.3983	1.45911	5.6628	0.0049	0.184	0.1692	511.6959	0.1543
Graders	2016	251	500	0.397787	0.3343	1.77374	3.6858	0.0049	0.144	0.1325	506.5064	0.1528
Graders	2016	501	750	15.959	0.393	1.367	3.154	0.005	0.112	0.112	568.299	0.035

Off-Highway Tractors	2016	51	120	0.743357	0.6246	3.92464	5.6465	0.0049	0.4538	0.4175	509.4472	0.1537
Off-Highway Tractors	2016	121	175	0.465284	0.391	3.27806	4.51093	0.0049	0.229	0.2106	507.6294	0.1531
Off-Highway Tractors	2016	176	250	0.426838	0.3587	1.47177	4.92994	0.0049	0.1709	0.1572	504.1229	0.1521
Off-Highway Tractors	2016	501	750	0.299821	0.2519	1.14348	3.57265	0.0049	0.1171	0.1077	505.762	0.1526
Off-Highway Tractors	2016	751	1000	0.127675	0.1073	0.97285	2.31987	0.0049	0.0573	0.0527	506.1474	0.1527
Off-Highway Trucks	2016	121	175	0.562854	0.473	3.45883	4.64707	0.0048	0.2577	0.237	503.5515	0.1519
Off-Highway Trucks	2016	176	250	0.530487	0.4458	1.82377	4.82646	0.0048	0.2077	0.1911	502.4732	0.1516
Off-Highway Trucks	2016	251	500	0.418147	0.3514	1.88523	4.04798	0.0049	0.1527	0.1405	509.8604	0.1538
Off-Highway Trucks	2016	501	750	0.497396	0.418	2.43646	4.64247	0.0049	0.1866	0.1717	508.3916	0.1533
Off-Highway Trucks	2016	751	1000	0.467579	0.3929	1.70739	6.0352	0.0049	0.1754	0.1614	505.7218	0.1525
Other Construction Equipment	2016	6	15	1.524032	1.2806	5.67687	5.49921	0.0054	0.492	0.4526	566.9782	0.171
Other Construction Equipment	2016	16	25	1.524032	1.2806	5.67687	5.49921	0.0054	0.492	0.4526	566.9782	0.171
Other Construction Equipment	2016	26	50	1.524032	1.2806	5.67687	5.49921	0.0054	0.492	0.4526	566.9782	0.171
Other Construction Equipment	2016	51	120	0.837049	0.7034	3.90894	6.32533	0.0049	0.4957	0.456	505.349	0.1524
Other Construction Equipment	2016	121	175	0.62413	0.5244	3.35672	5.81763	0.0048	0.3059	0.2815	503.9641	0.152
Other Construction Equipment	2016	251	500	0.366005	0.3075	2.28488	4.08972	0.0049	0.1507	0.1386	509.7062	0.1537
Other General Industrial Equipment	2016	6	15	1.690474	1.4205	6.25866	5.40705	0.0054	0.5065	0.466	564.1777	0.1702
Other General Industrial Equipment	2016	16	25	1.690474	1.4205	6.25866	5.40705	0.0054	0.5065	0.466	564.1777	0.1702
Other General Industrial Equipment	2016	26	50	1.690474	1.4205	6.25866	5.40705	0.0054	0.5065	0.466	564.1777	0.1702
Other General Industrial Equipment	2016	51	120	0.851445	0.7155	4.04541	6.14411	0.0048	0.5178	0.4764	503.9442	0.152
Other General Industrial Equipment	2016	121	175	0.559455	0.4701	3.43665	5.05466	0.0049	0.2758	0.2537	505.9282	0.1526
Other General Industrial Equipment	2016	176	250	0.519923	0.4369	1.8667	5.40733	0.0049	0.2173	0.1999	507.4004	0.153
Other General Industrial Equipment	2016	251	500	0.407021	0.342	2.36652	4.14966	0.0049	0.1589	0.1462	507.085	0.153
Other General Industrial Equipment	2016	501	750	0.289084	0.2429	1.49061	3.10202	0.0049	0.1004	0.0924	507.6584	0.1531
Other General Industrial Equipment	2016	751	1000	0.288345	0.2423	1.04483	4.7462	0.0049	0.112	0.103	506.1474	0.1527
Other Material Handling Equipment	2016	26	50	2.100647	1.7651	6.89161	5.80157	0.0054	0.5934	0.5459	561.5322	0.1694
Other Material Handling Equipment	2016	51	120	0.611519	0.5138	3.76606	4.79843	0.0049	0.367	0.3377	507.792	0.1532
Other Material Handling Equipment	2016	121	175	0.581687	0.4888	3.41823	5.21152	0.0049	0.2795	0.2571	506.324	0.1527
Other Material Handling Equipment	2016	176	250	0.474176	0.3984	1.64277	5.19629	0.0049	0.1889	0.1738	505.5335	0.1525
Other Material Handling Equipment	2016	251	500	0.384009	0.3227	1.87077	4.05322	0.0049	0.1557	0.1433	504.2631	0.1521
Other Material Handling Equipment	2016	1001	9999	0.188654	0.1585	0.99739	3.48884	0.0049	0.0702	0.0646	506.1474	0.1527
Pavers	2016	16	25	2.174792	1.8274	6.33993	5.57882	0.0054	0.5688	0.5233	565.2336	0.1705
Pavers	2016	26	50	2.174792	1.8274	6.33993	5.57882	0.0054	0.5688	0.5233	565.2336	0.1705
Pavers	2016	51	120	0.773362	0.6498	3.76854	5.88646	0.0048	0.4566	0.42	503.7795	0.152
Pavers	2016	121	175	0.515586	0.4332	3.08023	4.87397	0.0049	0.2422	0.2228	506.5401	0.1528
Pavers	2016	176	250	0.254126	0.2135	1.03591	4.02384	0.0049	0.1041	0.0958	508.0698	0.1533
Pavers	2016	251	500	0.214564	0.1803	0.9829	2.88492	0.0048	0.0962	0.0885	500.9364	0.1511
Paving Equipment	2016	16	25	1.178909	0.9906	4.93662	4.98487	0.0054	0.4035	0.3712	557.7058	0.1682
Paving Equipment	2016	26	50	1.178909	0.9906	4.93662	4.98487	0.0054	0.4035	0.3712	557.7058	0.1682
Paving Equipment	2016	51	120	0.741701	0.6232	3.79639	5.7333	0.0049	0.4383	0.4033	507.9102	0.1532
Paving Equipment	2016	121	175	0.442497	0.3718	3.08114	4.3217	0.0049	0.2145	0.1973	504.8201	0.1523

Paving Equipment	2016	176	250	0.353542	0.2971	1.33145	4.42821	0.0049	0.1477	0.1359	506.1965	0.1527
Plate Compactors	2016	6	15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
Pressure Washers	2016	6	15	1.986	0.72	3.622	4.978	0.008	0.264	0.264	568.299	0.065
Pressure Washers	2016	16	25	3.116	0.773	2.604	4.803	0.007	0.244	0.244	568.299	0.069
Pressure Washers	2016	26	50	6.97	0.865	3.729	4.515	0.007	0.269	0.269	568.299	0.078
Pressure Washers	2016	51	120	6.839	0.504	3.308	4.209	0.006	0.264	0.264	568.299	0.045
Pressure Washers	2016	121	175	24.906	0.386	2.913	3.726	0.006	0.168	0.168	568.299	0.034
Pressure Washers	2016	176	250	8.667	0.107	0.986	0.399	0.006	0.009	0.009	568.299	0.009
Pumps	2016	6	15	1.762	0.809	3.622	5.023	0.008	0.289	0.289	568.299	0.073
Pumps	2016	16	25	4.893	0.855	2.604	4.803	0.007	0.255	0.255	568.299	0.077
Pumps	2016	26	50	12.497	1.24	4.64	4.742	0.007	0.335	0.335	568.299	0.111
Pumps	2016	51	120	13.964	0.61	3.523	4.478	0.006	0.325	0.325	568.299	0.055
Pumps	2016	121	175	17.155	0.417	2.978	3.789	0.006	0.179	0.179	568.299	0.037
Pumps	2016	176	250	16.558	0.28	1.099	3.313	0.006	0.094	0.094	568.299	0.025
Pumps	2016	251	500	25.804	0.254	1.093	2.919	0.005	0.088	0.088	568.299	0.022
Pumps	2016	501	750	43.884	0.262	1.093	3.028	0.005	0.089	0.089	568.299	0.023
Pumps	2016	1001	9999	133.448	0.335	1.223	4.596	0.005	0.116	0.116	568.3	0.03
Rollers	2016	6	15	1.498736	1.2594	5.23066	5.2356	0.0054	0.4594	0.4226	563.9722	0.1701
Rollers	2016	16	25	1.498736	1.2594	5.23066	5.2356	0.0054	0.4594	0.4226	563.9722	0.1701
Rollers	2016	26	50	1.498736	1.2594	5.23066	5.2356	0.0054	0.4594	0.4226	563.9722	0.1701
Rollers	2016	51	120	0.747631	0.6282	3.75537	5.80563	0.0049	0.4275	0.3933	508.1987	0.1533
Rollers	2016	121	175	0.402004	0.3378	2.99334	4.23872	0.0049	0.197	0.1812	505.9041	0.1526
Rollers	2016	176	250	0.366563	0.308	1.50673	4.39492	0.0049	0.15	0.138	507.6939	0.1531
Rollers	2016	251	500	0.397483	0.334	2.95647	4.45617	0.0049	0.1731	0.1592	513.4154	0.1549
Rough Terrain Forklifts	2016	26	50	1.378654	1.1585	4.91773	5.09924	0.0054	0.4149	0.3817	563.3598	0.1699
Rough Terrain Forklifts	2016	51	120	0.358928	0.3016	3.34169	3.84005	0.0049	0.2131	0.1961	507.0659	0.1529
Rough Terrain Forklifts	2016	121	175	0.248476	0.2088	2.865	3.2087	0.0049	0.1244	0.1145	505.596	0.1525
Rough Terrain Forklifts	2016	176	250	0.171278	0.1439	1.0177	2.46843	0.0049	0.0587	0.054	506.8956	0.1529
Rough Terrain Forklifts	2016	251	500	0.211667	0.1779	0.96236	3.54169	0.0048	0.0781	0.0718	501.2134	0.1512
Rubber Tired Dozers	2016	121	175	1.152013	0.968	4.24901	9.85328	0.0049	0.5657	0.5205	507.7744	0.1532
Rubber Tired Dozers	2016	176	250	0.875531	0.7357	2.72943	7.99508	0.0049	0.3953	0.3637	509.4615	0.1537
Rubber Tired Dozers	2016	251	500	0.819146	0.6883	5.82829	7.71034	0.0049	0.3588	0.3301	513.3109	0.1548
Rubber Tired Dozers	2016	501	750	0.622662	0.5232	2.7651	7.16821	0.0049	0.2597	0.2389	507.2601	0.153
Rubber Tired Dozers	2016	751	1000	9.45	0.631	2.723	6.277	0.005	0.208	0.208	568.3	0.057
Rubber Tired Loaders	2016	16	25	2.445921	2.0553	7.79111	6.05258	0.0054	0.6597	0.6069	561.9032	0.1695
Rubber Tired Loaders	2016	26	50	2.445921	2.0553	7.79111	6.05258	0.0054	0.6597	0.6069	561.9032	0.1695
Rubber Tired Loaders	2016	51	120	0.955142	0.8026	4.21236	6.58334	0.0048	0.5651	0.5199	499.5935	0.1507
Rubber Tired Loaders	2016	121	175	0.67267	0.5652	3.56236	5.72558	0.0049	0.3193	0.2938	505.1308	0.1524
Rubber Tired Loaders	2016	176	250	0.468005	0.3933	1.45212	5.1151	0.0048	0.1745	0.1605	503.6542	0.1519
Rubber Tired Loaders	2016	251	500	0.465473	0.3911	2.15506	4.62743	0.0048	0.1738	0.1599	500.4314	0.1509
Rubber Tired Loaders	2016	501	750	0.443728	0.3729	1.70263	4.17165	0.0047	0.164	0.1509	491.9183	0.1484



Rubber Tired Loaders	2016	751	1000	0.505153	0.4245	1.46404	6.72411	0.0049	0.1978	0.182	504.7801	0.1523
Scrapers	2016	51	120	0.883537	0.7424	4.17273	7.14312	0.005	0.5431	0.4996	519.1668	0.1566
Scrapers	2016	121	175	0.818244	0.6876	3.78062	7.3844	0.0049	0.3967	0.365	513.4363	0.1549
Scrapers	2016	176	250	0.814194	0.6841	2.8398	8.10864	0.0048	0.3669	0.3376	502.255	0.1515
Scrapers	2016	251	500	0.538344	0.4524	3.60633	5.75749	0.0049	0.2321	0.2135	506.3503	0.1527
Scrapers	2016	501	750	0.404454	0.3399	2.48181	4.48425	0.0049	0.1675	0.1541	506.6381	0.1528
Signal Boards	2016	6	15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
Signal Boards	2016	26	50	12.061	1.306	4.921	4.761	0.007	0.343	0.343	568.299	0.117
Signal Boards	2016	51	120	12.653	0.618	3.594	4.414	0.006	0.33	0.33	568.299	0.055
Signal Boards	2016	121	175	16.949	0.43	3.047	3.708	0.006	0.183	0.183	568.299	0.038
Signal Boards	2016	176	250	19.106	0.354	1.344	3.894	0.007	0.114	0.114	686.695	0.031
Skid Steer Loaders	2016	16	25	0.713135	0.5992	3.95661	4.26784	0.0054	0.2406	0.2213	565.2281	0.1705
Skid Steer Loaders	2016	26	50	0.713135	0.5992	3.95661	4.26784	0.0054	0.2406	0.2213	565.2281	0.1705
Skid Steer Loaders	2016	51	120	0.325064	0.2731	3.32767	3.53439	0.0049	0.1974	0.1816	506.2971	0.1527
Surfacing Equipment	2016	26	50	1.243319	1.0447	4.7626	5.27275	0.0055	0.4061	0.3736	570.8145	0.1722
Surfacing Equipment	2016	51	120	0.621267	0.522	3.54977	5.05142	0.0049	0.3486	0.3207	505.0873	0.1524
Surfacing Equipment	2016	121	175	0.544572	0.4576	3.00649	5.45794	0.0049	0.2651	0.2439	504.5576	0.1522
Surfacing Equipment	2016	176	250	0.365495	0.3071	1.42946	5.04791	0.0049	0.1483	0.1365	510.7058	0.154
Surfacing Equipment	2016	251	500	0.258417	0.2171	1.42484	3.46816	0.0048	0.1111	0.1022	502.4709	0.1516
Surfacing Equipment	2016	501	750	0.192579	0.1618	0.99966	2.87955	0.0049	0.0926	0.0852	506.967	0.1529
Sweepers/Scrubbers	2016	6	15	2.119969	1.7814	6.78514	5.72609	0.0054	0.6029	0.5547	563.2688	0.1699
Sweepers/Scrubbers	2016	16	25	2.119969	1.7814	6.78514	5.72609	0.0054	0.6029	0.5547	563.2688	0.1699
Sweepers/Scrubbers	2016	26	50	2.119969	1.7814	6.78514	5.72609	0.0054	0.6029	0.5547	563.2688	0.1699
Sweepers/Scrubbers	2016	51	120	0.931404	0.7826	4.05916	6.45405	0.0049	0.5707	0.525	508.3574	0.1533
Sweepers/Scrubbers	2016	121	175	0.887319	0.7456	3.83865	7.78746	0.0049	0.4188	0.3853	507.292	0.153
Sweepers/Scrubbers	2016	176	250	0.61965	0.5207	2.08905	6.78244	0.0048	0.2698	0.2483	504.0799	0.152
Tractors/Loaders/Backhoes	2016	16	25	1.488115	1.2504	5.74113	5.21373	0.0053	0.4547	0.4183	553.3996	0.1669
Tractors/Loaders/Backhoes	2016	26	50	1.488115	1.2504	5.74113	5.21373	0.0053	0.4547	0.4183	553.3996	0.1669
Tractors/Loaders/Backhoes	2016	51	120	0.640315	0.538	3.81146	5.14235	0.0049	0.3959	0.3643	511.3456	0.1542
Tractors/Loaders/Backhoes	2016	121	175	0.46319	0.3892	3.23229	4.37945	0.0048	0.222	0.2042	502.6294	0.1516
Tractors/Loaders/Backhoes	2016	176	250	0.369743	0.3107	1.34719	4.42611	0.0049	0.1449	0.1333	504.4014	0.1521
Tractors/Loaders/Backhoes	2016	251	500	0.337794	0.2838	1.78642	3.7866	0.0049	0.131	0.1206	505.2698	0.1524
Tractors/Loaders/Backhoes	2016	501	750	0.357237	0.3002	1.67424	4.0216	0.0048	0.1444	0.1328	500.955	0.1511
Trenchers	2016	6	15	1.450442	1.2188	5.28497	5.29818	0.0054	0.4747	0.4368	565.9942	0.1707
Trenchers	2016	16	25	1.450442	1.2188	5.28497	5.29818	0.0054	0.4747	0.4368	565.9942	0.1707
Trenchers	2016	26	50	1.450442	1.2188	5.28497	5.29818	0.0054	0.4747	0.4368	565.9942	0.1707
Trenchers	2016	51	120	0.937737	0.788	3.98822	6.90219	0.0049	0.5413	0.498	509.9027	0.1538
Trenchers	2016	121	175	0.693219	0.5825	3.50717	6.50303	0.0048	0.3277	0.3015	501.7809	0.1514
Trenchers	2016	176	250	0.58008	0.4874	2.03007	6.31168	0.0049	0.2514	0.2313	507.1448	0.153
Trenchers	2016	251	500	0.351818	0.2956	1.96649	4.09912	0.0049	0.1497	0.1377	504.4103	0.1521
Trenchers	2016	501	750	0.142468	0.1197	0.97148	1.63008	0.0049	0.0539	0.0495	509.1433	0.1536

Welders	2016	6	15	2.03	0.809	3.622	5.023	0.008	0.289	0.289	568.299	0.073
Welders	2016	16	25	3.903	0.855	2.604	4.803	0.007	0.255	0.255	568.299	0.077
Welders	2016	26	50	16.155	1.54	5.395	4.936	0.007	0.389	0.389	568.299	0.138
Welders	2016	51	120	11.165	0.699	3.705	4.692	0.006	0.375	0.375	568.3	0.063
Welders	2016	121	175	19.285	0.486	3.128	3.973	0.006	0.206	0.206	568.299	0.043
Welders	2016	176	250	15.901	0.33	1.153	3.481	0.006	0.104	0.104	568.299	0.029
Welders	2016	251	500	20.731	0.306	1.134	3.032	0.005	0.097	0.097	568.299	0.027

EMFAC2014 (v1.0.7) Emission Rates

Region Type: Air District
Region: South Coast AQMD

Calendar Year: 2035

Season: Annual

Vehicle Classification: EMFAC2014 Categories

Units: miles/day for VMT, trips/day for Trips, PWB and PM10, g/mile for HX,HTX and RUMX, g/grip for DI,ELX,RESTL and DIURN

Table with columns: Region, City, VMT, Class, Motor, Fuel, Emission, VMT, Type, ROG, ROG\_ND, ROG\_DLEK, ROG\_STREX, ROG\_HD, ROG\_ND, ROG\_RSTC, ROG\_DLEK, ROG\_DIURN, ROG\_HD, ROG\_ND, ROG\_RSTC, ROG\_DIURN, CO, CO2, CO2\_HD, CO2\_ND, CO2\_RSTC, CO2\_DIURN, PM10, PM10\_HD, PM10\_ND, PM10\_RSTC, PM10\_DIURN, PM2.5, PM2.5\_HD, PM2.5\_ND, PM2.5\_RSTC, PM2.5\_DIURN, SOx, SOx\_HD, SOx\_ND, SOx\_RSTC, SOx\_DIURN