

DRAFT
INITIAL STUDY AND MITIGATED NEGATIVE
DECLARATION

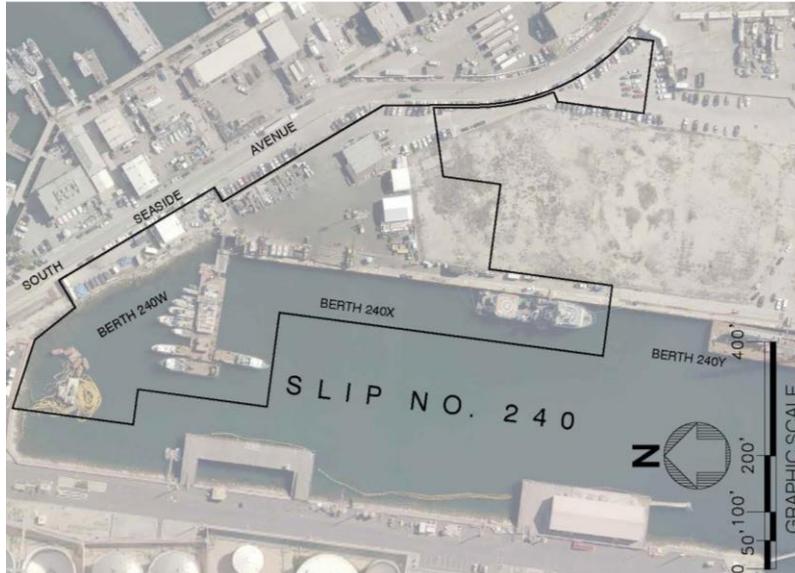
Permit Renewal for So. Cal. Ship Services

971 South Seaside Avenue

Port of Los Angeles

APP No. 161003-143

SCH No. [TBD]



June 2018



Permit Renewal for So. Cal. Ship Services
971 South Seaside Avenue, Port of Los Angeles
Draft Initial Study and Mitigated Negative Declaration

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Los Angeles City Harbor Department
Environmental Management Division
425 S. Palos Verdes St.
San Pedro, California 90731

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1. INTRODUCTION

The City of Los Angeles Harbor Department (LAHD) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to address potential environmental effects associated with the proposed Project for So. Cal. Ship Services at 971 South Seaside Avenue on Terminal Island. This project includes a proposed 10-year lease extension, with two additional optional five-year extensions. Additional project elements include an approximate one-acre parcel, trenching and installation of utilities, installation of security fencing and lighting, replacement of an existing utility cover, and continual maintenance and repair of the site. This IS/MND will also assess the potential installation of a pedestal crane along the northern portion of the wharf and shore power along the southern portion of the wharf, which could occur during the term of this permit.

1.1 CEQA PROCESS

This document has been prepared in accordance with California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et seq.* and the State CEQA Guidelines, California Code of Regulations (CCR) Section 15000 *et seq.* Under CEQA, the lead agency is the public agency with primary responsibility over approval of a proposed Project. Pursuant to Section 15367, the CEQA lead agency for the proposed Project is the LAHD. The LAHD will consider the information in this document when determining whether to approve and issue appropriate permits for the proposed Project.

One of the main objectives of CEQA is to disclose to the public and decision-makers potential environmental effects of proposed activities. CEQA requires that the potential environmental effects of a project be evaluated prior to implementation. Preparation of an IS is guided by Section 15063 of the CEQA Guidelines, whereas Sections 15070–15075 guide the process for the preparation of a Negative Declaration or Mitigated Negative Declaration. Where appropriate and supportive to an understanding of the issues, reference will be made to the statute, the CEQA Guidelines, or appropriate case law. This IS/MND includes a discussion of the proposed Project's potential impact on the existing environment. The LAHD has determined that an IS/MND is the appropriate level of CEQA document for the proposed Project because potential environmental impacts resulting from proposed Project implementation would be below significance thresholds with mitigation.

In accordance with the CEQA statutes and Guidelines, this IS/MND will be circulated for a period of 30 days for public review and comment. The public review period is scheduled to begin on June 25, 2018, and end on July 24, 2018. This Draft IS/MND will be distributed to Responsible public agencies, other interested or involved agencies, organizations, and private individuals for review and will be made available for general public review online at the Port of Los Angeles website at <http://www.portoflosangeles.org> and in hardcopy at the LAHD Environmental Management Division at 222 W 6th Street, Suite 900, San Pedro; the Los Angeles City Library San Pedro Branch at 931 Gaffey Street, San Pedro; and at the Los Angeles City Library Wilmington Branch at 1300 North Avalon, Wilmington.

In reviewing the IS/MND, affected public agencies and interested members of the public should focus on the sufficiency of the document in identifying and analyzing potential project impacts on the environment. Comments on the IS/MND should be submitted in writing either through mail or email prior to the end of the 30-day public review period on July 24, 2018. All correspondence, through mail or email, should include the project title "Permit Renewal at So. Cal. Ship Services" in the subject line. For additional information, please contact the LAHD Environmental Management Division at (310) 732-3675.

Written comments submitted by mail must be postmarked on or before July 24, 2018 and addressed to:

Christopher Cannon, Director
City of Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes St.
San Pedro, California 90731

Written comments sent via email on or before July 24, 2018 should be addressed to ceqacomment@portla.org.

Responses to all public comments on the Draft IS/MND will be included in the Final IS/MND and considered by the LAHD prior to making a decision as to whether necessary approvals should be granted for the proposed Project. The project IS/MND will only be approved when the LAHD "finds that there is no substantial evidence that the project will have a significant effect on the environment and that the IS/MND reflects the lead agency's independent judgment and analysis."

1.2 DOCUMENT FORMAT

This IS/MND contains eight sections.

Section 1. Introduction. This section provides an overview of the proposed Project and the CEQA environmental documentation process.

Section 2. Project Description. This section provides a detailed description of the proposed Project objectives and components.

Section 3. Initial Study Checklist. This section presents the CEQA checklist for all impact areas and mandatory findings of significance.

Section 4. Potential Impacts and Mitigation Measures. This section presents the environmental analysis for each issue area identified on the environmental checklist form. If the proposed Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected.

Section 5. Proposed Finding. This section presents the proposed finding regarding environmental impacts.

Section 6. References. This section provides a list of reference materials used during the preparation of the IS/MND.

Section 7. Preparers and Contributors. This section provides a list of key personnel involved in the preparation of the IS/MND.

Section 8. Acronyms and Abbreviations. This section provides a list of acronyms and abbreviations used throughout the IS/MND.

The environmental analyses included in Section 4 are consistent with the CEQA IS/MND format presented in Section 3. Impacts are separated into the following categories:

Potentially Significant Impact. This category is only applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. Upon completion of the IS, no impacts were identified that fall into this category.

Less than Significant After Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a “Potentially Significant Impact” to a “Less than Significant Impact.” The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less than Significant Impact. This category is identified when the proposed Project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a proposed project would not create an impact in the specific environmental issue area. “No Impact” answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency.

2. PROJECT DESCRIPTION

This IS/MND has been prepared to evaluate the potential environmental impacts associated with the proposed issuance of a 10-year lease, with two, five-year extension options to allow So. Cal. Ship Services to remain within the Port of Los Angeles and continue their maritime support activities. Since 1990, So. Cal. Ships has been serving both Ports in the San Pedro Bay Complex with water transport of material, supplies and personnel, land-based logistical support of offshore oil platforms, and tank vessels. In addition, So. Cal. Ship Services is also a State and Federal Oil Spill Response Organization, which assists with emergency oil spill containment.

Additional project elements include paving an approximate one-acre parcel, trenching and installation of utilities, installation of security fencing and lighting, replacement of an existing utility cover, and continual maintenance and repair of the site. This one-acre parcel replaces So. Cal. Ship Services' current parking lot just south this parcel. This IS/MND will also assess the potential installation of a pedestal crane along the northern portion of the wharf and shore power along the southern portion of the wharf, which could occur during the term of this permit.

2.1 PROJECT LOCATION

Regional Location

The Port of Los Angeles (POLA) is located at the southernmost portion of the City of Los Angeles and encompasses approximately 7,500 acres of land and water along 43 miles of waterfront, with approximately 270 commercial berths and 27 passenger and cargo terminals. It is located approximately 23 miles south of Downtown Los Angeles and is surrounded by the community of San Pedro to the west, the community of Wilmington to the north, the Port of Long Beach to the east, and the Pacific Ocean to the south (Figure 1).

POLA operations are predominately centered on shipping activities, cruise ships, and commercial fishing; however, the POLA is an area of mixed uses, supporting various maritime-based activities. The POLA has retail shops and restaurants, primarily located along the west side of the Main Channel. The POLA also includes recreation, community, and educational facilities, such as a public swimming beach, Cabrillo Beach Youth Waterfront Sports Center, the Cabrillo Marine Aquarium, the Los Angeles Maritime Museum, 22nd Street Park, and the Wilmington Waterfront Park.

Project Setting

So. Cal. Ship Services is located on the south-western portion of Terminal Island. Tenants and operations in this area include maritime support, manufacturing of aerospace vessels, and marine oil terminals. So. Cal. Ships currently operates on an approximately 4 acre site on Berth 240 (Figure 2).

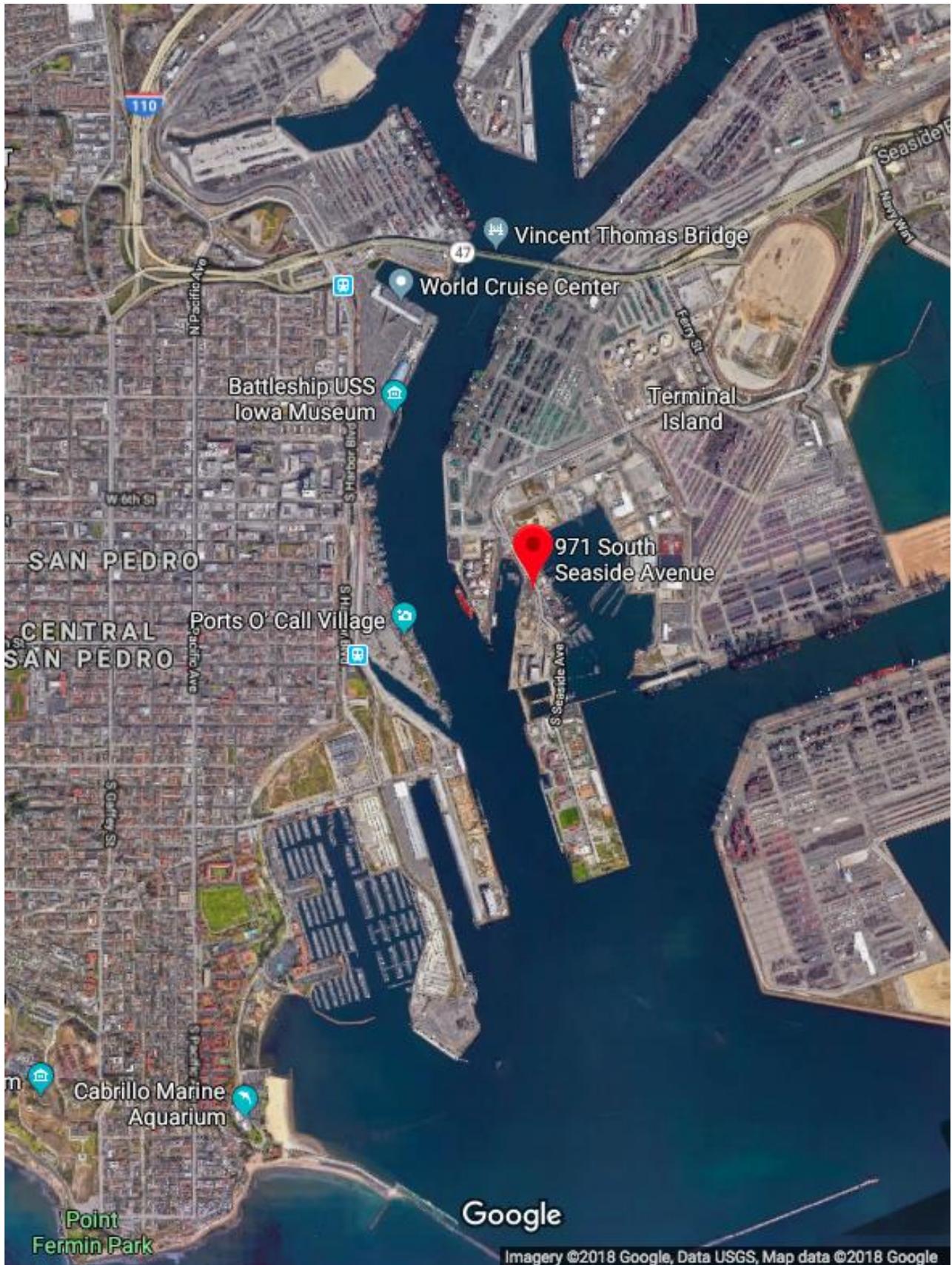


Figure 1 Regional Location

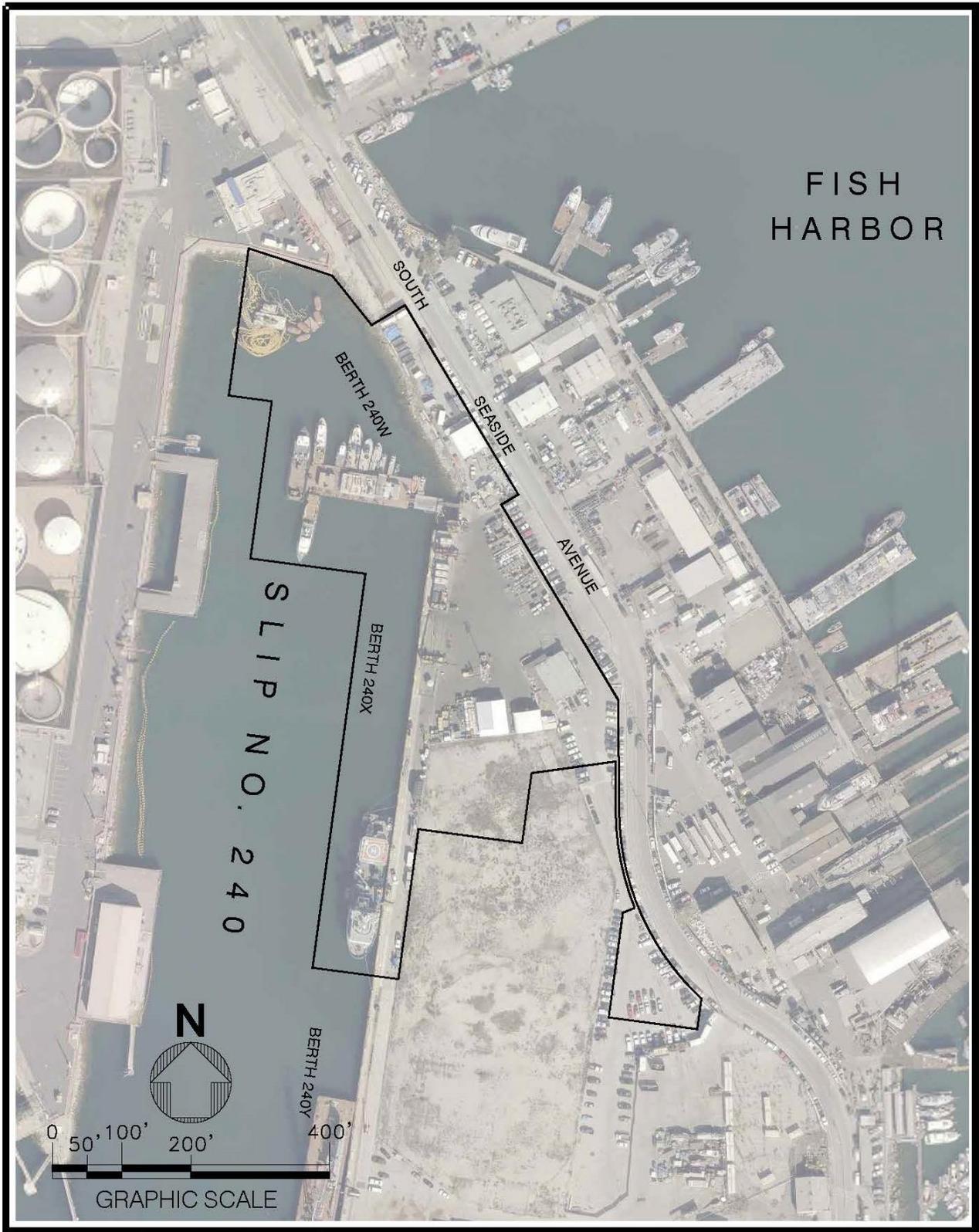


Figure 2 Project Site

Land Use and Zoning

The project site is located within Planning Area 4 of the Port of Los Angeles Master Plan (Figure 3), which includes Fish Harbor and focuses on commercial fishing and maritime support uses (LAHD 2014). The project site is identified as Assessor’s Parcel Number (APN) 7440030904 and is designated as General/Bulk Cargo (Non Hazardous Industrial and Commercial) under the City of Los Angeles General Plan and is zoned quasi-heavy industrial ([Q]M3-1) under the City of Los Angeles Zoning Ordinance (City of Los Angeles 2018).

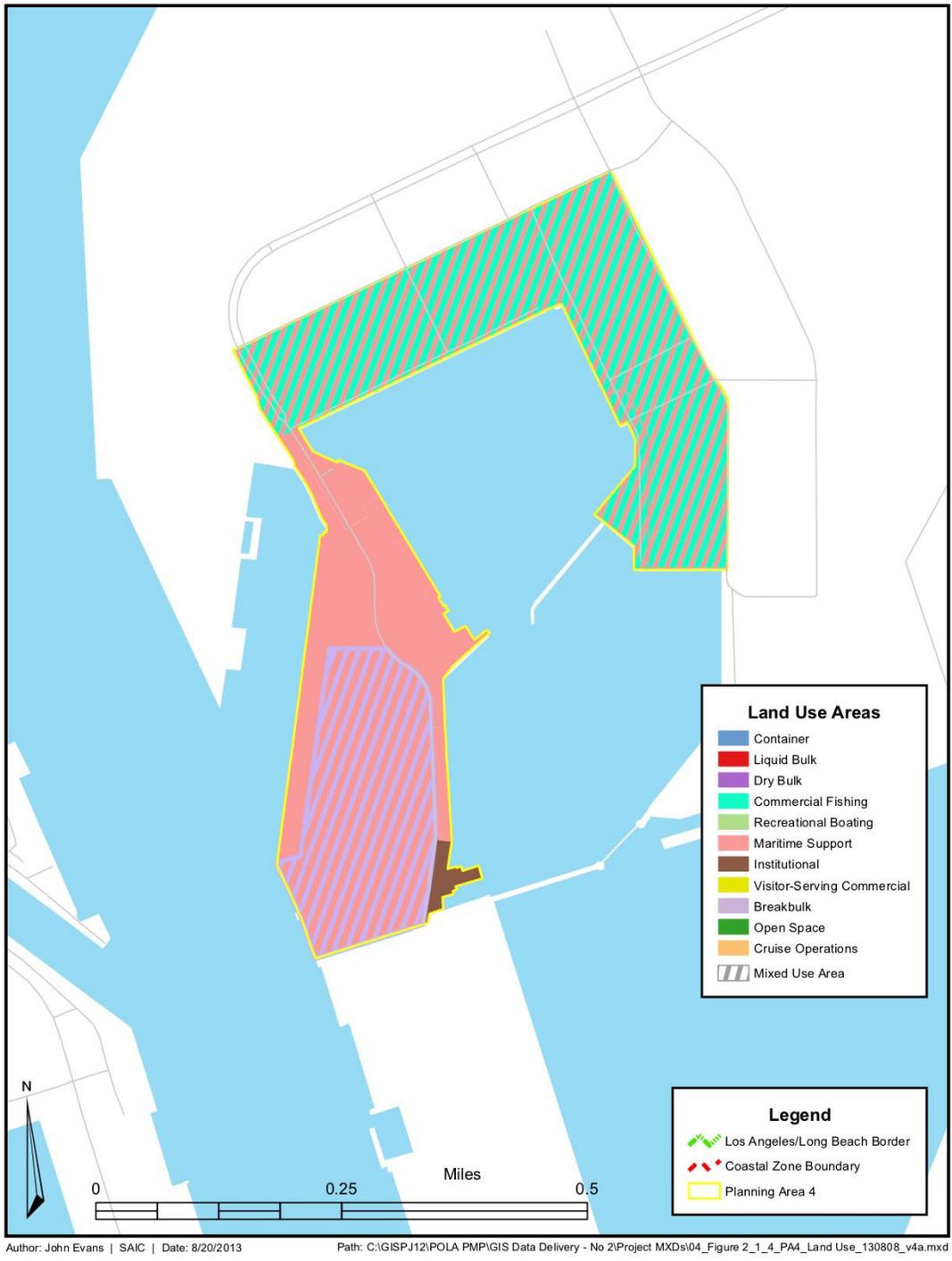


Figure 3 Port Master Plan - Planning Area 4

2.2 PROJECT BACKGROUND AND OBJECTIVES

Project Background

The project includes a site that is identified on the State of California Hazardous Waste and Substances Site List (also known as the Cortese List, compiled pursuant to California Government Code 65962.5). This facility is located on the site of the Former Southwest Marine facility. The Site has been investigated and evaluated under the oversight of the Department of Toxic Substances Control (DTSC) in accordance with a Unilateral Order dated November 11, 2008 and under a soil and groundwater remedial action plan (RAP) (The Source Group, Inc. 2016). Under this plan, the area has been subject to site management conditions, which are included in the Hazards and Hazardous Materials Section (LAHD 2016). This area has been mitigated by engineering controls (i.e., plastic vapor barrier and asphalt cap) and institutional controls (LAHD 2016).

Project Objective

The objective of this project is to allow the Tenant to remain within the Port of Los Angeles and continue to serve the both Ports within the San Pedro Bay Complex with water transport of material, supplies and personnel, and land-based logistical support of offshore oil platforms and tank vessels. This objective would be met through the issuance of a 10-year lease, with two, five-year extension options. In addition, minor modifications to the site and continual maintenance, listed below, would allow the tenant to perform their maritime service tasks.

2.3 PROPOSED PROJECT CONSTRUCTION ACTIVITIES

Construction Activities

Upgrades proposed for the site include the following:

- Paving and striping of a new, one-acre parking lot
- Minor trenching for installation of utilities to the new parking lot
- Installation of security fencing along the property line
- Installation of security lighting
- Replacement of a utility cover on wharf

Ongoing maintenance occurring on the site during the duration of the lease may include:

- Installation and repair to fencing;
- Repair of cracks and potholes in asphalt;
- Installation of lighting fixtures; and
- Other maintenance and repair to site as required.

In accordance with the RAP, all maintenance and repairs desired by So. Cal. Ships during the lifetime of their lease will be subject to approval through the APP process.

This IS/MND will also assess the potential installation of a pedestal crane along the northern portion of the wharf and shore power along the southern portion of the wharf, which could occur during the term of this permit. The installation of the pedestal crane may require stabilization of the wharf, which would require pile driving.

2.4 PROJECT PERMITS AND APPROVALS

Under CEQA, the lead agency is the public agency with primary responsibility over approval of a proposed Project. Pursuant to Section 15367, the CEQA lead agency for the Project is the LAHD. Anticipated permits and approvals issued by the lead agency that would be required to implement the proposed Project are listed below. Other permits and approvals required to implement the proposed Project that are issued by other responsible agencies are listed in Section 3, Paragraph 9.

- LAHD Coastal Development Permit(s)
- LAHD Harbor Engineer Permit(s)
- LAHD Revocable Permit

3. INITIAL STUDY CHECKLIST

This Initial Study is prepared in accordance with CEQA Guidelines Section 15063 and CEQA Guidelines Appendix G.

1. **Project Title:** Permit Renewal at So. Cal. Ship Services, 971 South Seaside Avenue, Port of Los Angeles
2. **Lead Agency:** City of Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes Street
San Pedro, CA 90731
3. **Contact Person:** Nicole Enciso
Project Manager, Environmental Management Division
4. **Project Location:** The Project site is located at 971 South Seaside Avenue, San Pedro within the Port of Los Angeles. This area is designated as Planning Area 4 in the *Port Master Plan* (LAHD 2014), which is the approximately 92 acres for commercial fishing and maritime support uses.
5. **General Plan Designation:** Port of Los Angeles – General/Bulk Cargo
6. **Zoning:** (Q)M3-1 – Quasi Heavy Industrial; APN #7440030904
7. **Description of Project:** The Project is necessary to continue maritime support operations at this site. The current tenant has been working out of this site since 1990. This tenant is an environmental asset to the Port of Los Angeles, as they assist with spill response and ship husbandry. The Applicant would continue operations for the duration of their twenty-year lease, perform ongoing maintenance and repairs, perform utility connections, install fencing and security measures, and pave a 1-acre parking lot. Other potential components include the installation of a pedestal crane and shore power to the wharf.
8. **Surrounding Land Uses/Setting:** The Project site is surrounded by the Main Channel and PBF Energy, LLC to the east (across submerged lands) and adjacent industrial service tenants to the west, north, and south. Landside access to and from the proposed Project site is provided by a network of freeways and arterial routes. The freeway network

consists of the Harbor Freeway (I-110), the Long Beach Freeway (I-710), the San Diego Freeway (I-405), and the Seaside Freeway (SR-47).

9. Other Public Agencies Whose Approval is Required:

- City of Los Angeles, Department of Building and Safety Permits
- Department of Toxic Substances Control (Potentially)
- United States Environmental Protection Agency (Potentially)
- U.S. Army Corps of Engineers (Potentially)

3.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation and Traffic | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

3.2 DETERMINATION

Based on this initial evaluation:

I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed Project could have a significant effect on the environment, 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.

I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that 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.

I find that although the proposed Project could have a significant effect on the environment, because 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, nothing further is required.



Signature
Christopher Cannon, Director
Environmental Management Division
City of Los Angeles Harbor Department

06-22-18

Date

	Potentially Significant Impact	Less-than-Significant Impact After Mitigation	Less-than-Significant Impact	No Impact
1. AESTHETICS. Would the project:				
a. Have a substantial adverse effect on a scenic vista?				x
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				x
c. Substantially degrade the existing visual character or quality of the site and its surroundings?				x
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				x
e. Create a new source of substantial shade or shadow that would adversely affect daytime views in the area?			x	
2. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
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?				x
b. Conflict with existing zoning for agricultural use, or a Williamson act contract?				x
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				x

	Potentially Significant Impact	Less-than-Significant Impact After Mitigation	Less-than-Significant Impact	No Impact
d. Result in the loss of forest land or conversion of forest land to non-forest use?				x
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				x
3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan or clean air programs?			x	
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			x	
c. Result in a 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)?			x	
d. Expose sensitive receptors to substantial pollutant concentrations?			x	
e. Create objectionable odors affecting a substantial number of people?			x	
4. BIOLOGICAL RESOURCES. Would the project:				
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, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		x		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				x

	<i>Potentially Significant Impact</i>	<i>Less-than-Significant Impact After Mitigation</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>
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?				x
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?				x
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				x
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?				x
5. CULTURAL RESOURCES. Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?			x	
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?			x	
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			x	
d. Disturb any human remains, including those interred outside of dedicated cemeteries?			x	
6. ENERGY. Would the project:				
a. Conflict with adopted energy conservation plans?			x	
b. Use non-renewable resources in a wasteful and inefficient manner?			x	
c. Result in a need for new systems, or substantial alterations to power or natural gas?				x

	Potentially Significant Impact	Less-than-Significant Impact After Mitigation	Less-than-Significant Impact	No Impact
7. GEOLOGY AND SOILS. Would the project:				
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.				x
ii) Strong seismic ground shaking?				x
iii) Seismic-related ground failure, including liquefaction?				x
iv) Landslides?				x
b. Result in substantial soil erosion or the loss of topsoil?			x	
c. Be located on a geological 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?			x	
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?				x
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				x
8. GREENHOUSE GAS EMISSIONS: Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			x	
9. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			x	

	<i>Potentially Significant Impact</i>	<i>Less-than-Significant Impact After Mitigation</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>
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?			x	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				x
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 the public or the environment?			x	
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				x
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				x
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				x
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				x
10. HYDROLOGY AND WATER QUALITY. Would the project:				
a. Violate any water quality standards or waste discharge requirements?			x	

	<i>Potentially Significant Impact</i>	<i>Less-than-Significant Impact After Mitigation</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>
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)?				x
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				x
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?			x	
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			x	
f. Otherwise substantially degrade water quality?			x	
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				x
h. Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				x
i. 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?				x
j. Inundation by seiche, tsunami, or mudflow?				x
k. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of Sea Level Rise?			x	

	Potentially Significant Impact	Less-than-Significant Impact After Mitigation	Less-than-Significant Impact	No Impact
11. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?				x
b. 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?				x
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				x
12. MINERAL RESOURCES. Would the project:				
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?				x
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?				x
13. NOISE. Would the project 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?			x	
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			x	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				x
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			x	

	Potentially Significant Impact	Less-than-Significant Impact After Mitigation	Less-than-Significant Impact	No Impact
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				x
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				x
14. POPULATION AND HOUSING. Would the project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				x
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				x
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				x
15. PUBLIC SERVICES.				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental 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 public services:				
i) Fire protection?				x
ii) Police protection?				x
iii) Schools?				x
iv) Parks?				x
v) Other public facilities?				x

	Potentially Significant Impact	Less-than-Significant Impact After Mitigation	Less-than-Significant Impact	No Impact
16. RECREATION.				
a. Would the project 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?				x
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				x
17. TRANSPORTATION AND TRAFFIC. Would the project:				
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?			x	
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?			x	
c. Result in a change in marine traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				x
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				x
e. Result in inadequate emergency access?			x	
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?				x

	Potentially Significant Impact	Less-than-Significant Impact After Mitigation	Less-than-Significant Impact	No Impact
18. TRIBAL CULTURAL RESOURCES. Would the project 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, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or			x	
b. 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 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				x
19. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				x
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?				x
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?				x
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			x	
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				x

	<i>Potentially Significant Impact</i>	<i>Less-than-Significant Impact After Mitigation</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?			x	
g. Comply with federal, state, and local statutes and regulations related to solid waste?			x	
20. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project 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?		x		
b. Does the project have impacts that are individually limited, but cumulatively considerable? “Cumulatively considerable” means that the incremental effects of a 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.			x	
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			x	

4. IMPACTS AND MITIGATION MEASURES

4.1 AESTHETICS

Would the Project:

- a) Have a substantial adverse effect on a scenic vista?

No Impact. There are no protected or designated scenic vistas in the Project vicinity. Construction activities associated with the adjacent parking lot and fencing would be short-term and temporary. No long-term effects on the appearance of the Project site or the overall character of Terminal Island would occur.

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

No Impact. The Project site is not visible from any eligible or designated state scenic highway. The nearest designated state scenic highway is located approximately 40 miles north of the proposed Project (Route 2, from La Cañada-Flintridge to the San Bernardino County Line). The nearest eligible state scenic highway (i.e., State Highway 1, from State Highway 19 near Long Beach to I-5 south of San Juan Capistrano) is approximately 10 miles northeast of the proposed Project site (California Department of Transportation [Caltrans] 2011). In addition to Caltrans state scenic highways, the City of Los Angeles has city-designated scenic highways. However, the proposed Project site is not visible from any city-designated scenic highways. As such, there are no scenic resources, such as trees, rock outcroppings, or historic buildings, within a scenic highway that could be affected by the proposed Project. No impacts related to scenic resources within a state scenic highway would occur with the implementation of the proposed Project.

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

No Impact. While there will be the potential addition of a pedestal crane, this installation would not be out of character for the site and would be consistent with maritime support infrastructure. As such, implementation of the proposed Project would not degrade the existing visual character of the site or its surroundings.

- d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

No Impact. Installation of lighting and security measures along the adjacent parking lot would not cause substantial light or glare, nor affect day or nighttime views in the area as lighting and fencing is already present at the Project site and surrounding facilities. Consequently, there would be no impacts associated with light and glare as a result of the proposed Project.

- e) Create a new source of substantial shade or shadow that would adversely affect daytime views in the area?

Less than Significant Impact. While there will be the potential addition of a pedestal crane, this installation would not generate large shadows and would be consistent with maritime support infrastructure. As such, the proposed Project would have a less than significant impact related to the creation of shade or shadows and no mitigation is required.

4.2 AGRICULTURE AND FORESTRY RESOURCES

Would the Project:

- 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?

No Impact. The proposed Project would not involve the conversion of farmland to non-agricultural use. The California Department of Conservation's Farmland Mapping and Monitoring Program identifies categories of agricultural resources that are significant and require special consideration (Department of Conservation 2016a). According to the Farmland Map, the Project site is not located in an area designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance. Therefore, there would be no impact to farmland associated with the implementation of the proposed Project.

- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project site is neither zoned for agricultural uses nor under a Williamson Act contract (Department of Conservation 2016b). No lands zoned for agriculture are present in the Project vicinity. Therefore, the proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.

- c) Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned timberland production?

No Impact. The Project site is located on fully developed industrial area and no agricultural land, forest land, or timberland zoning is present in the Project vicinity. Further, the proposed Project would not result in a change in use of the existing site or surrounding area. Therefore, the proposed Project would not conflict with existing zoning or cause rezoning of forest or timberland. No impact would occur with the implementation of the proposed Project.

- d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project site is not designated as forest land and no loss or conversion of forest land would result from the implementation of the proposed Project.

- e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

No Impact. No farmlands exist near the Project site and as a result the proposed Project would have no effect on farmlands.

4.3 AIR QUALITY

Would the Project:

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

Less-than-Significant Impact.

Air Quality Management Plan

The federal Clean Air Act (CAA) of 1969 and its significant amendments (1990) form the basis for the nation's air pollution control effort. The United States Environmental Protection Agency (USEPA) is responsible for implementing most aspects of the CAA. A key element of the CAA is the national ambient air quality standards (NAAQS) for major air pollutants. The CAA delegates enforcement of the NAAQS in California to the California Air Resources Board (CARB). CARB, in turn, delegates to local air agencies the responsibility of regulating stationary emission sources. The South Coast Air Quality Management District (SCAQMD) is responsible for attainment of the clean air standards within the South Coast Air Basin (Basin), which includes Orange County and portions of Los Angeles, Riverside, and San Bernardino Counties. All Port of Los Angeles projects are located within the Basin. Areas not in attainment with the ambient air quality standards must prepare Air Quality Management Plans which includes proposed measures designed to bring the region into compliance.

The 2016 Air Quality Management Plan (AQMP) (adopted March 2017) proposes emission-reduction measures that are designed to bring the Basin into attainment of the national and state air quality standards. AQMP attainment strategies include mobile source control measures and clean fuel programs that are enforced at the state and federal levels on engine manufacturers and petroleum refiners and retailers. As a result, the proposed Project construction activities would be required to comply with any and all applicable regulations currently in existence or promulgated as a result of this most current AQMP. Compliance with AQMP requirements would further ensure that the proposed Project's activities would not obstruct with the plan's implementation. Therefore, the proposed Project would not conflict with or obstruct implementation of the AQMP, the State Implementation Plan, and the CAA. Impacts would be less than significant and no mitigation is required.

Clean Air Action Plan

The most recent version of the Clean Air Action Plan for the San Pedro Bay Complex was approved by the Boards of Harbor Commissioners for both the Port of Long Beach and the Port of Los Angeles on November 2, 2017 (Port of Los Angeles and Port of Long Beach 2017). The CAAP is a plan designed to reduce the health risks posed by air pollution from all port-related emissions sources, including ships, trains, trucks, terminal equipment, and harbor craft.

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

Less-than-Significant Impact. Table 4.3- 1 presents SCAQMD's CEQA significance thresholds for assessing potential air quality impacts.

**Table 4.3- 1
SCAQMD Significance Thresholds
for Daily Emissions and Ambient Pollutant Concentrations**

Daily Emission Thresholds		
Air Pollutant	Construction Threshold (lbs/day)	Operation Threshold (lbs/day)
NO _x	100	55
VOC	75	55
PM ₁₀	150	150
PM _{2.5}	55	55
SO _x	150	150
CO	550	550
Ambient Pollutant Concentration Thresholds		
Air Pollutant	Ambient Concentration Thresholds	
Nitrogen dioxide (NO ₂) ^a		
1-hour average	0.18 ppm (339 µg/m ³) (State)	
1-hour average	0.100 ppm (188 µg/m ³) ^b (Federal)	
Annual average	0.03 ppm (57 µg/m ³) (State)	
Particulate matter (PM ₁₀) ^b		
24-hour average	10.4 µg/m ³ (construction)	
24-hour average	2.5 µg/m ³ (operation)	
Annual average	1.0 µg/m ³	
Particulate matter (PM _{2.5}) ^b		
24-hour average	10.4 µg/m ³ (construction)	
24-hour average	2.5 µg/m ³ (operation)	
Sulfur Oxide (SO _x)		
1-hour average	0.25 ppm (state) & 0.075 ppm (Federal – 99th percentile)	
24-hour average	0.04 ppm (State)	
Carbon monoxide (CO) ^a		
1-hour average	20 ppm (23,000 µg/m ³) (State)	
8-hour average	9.0 ppm (10,000 µg/m ³) (State/Federal)	
Toxic Air Contaminant and Odor Thresholds		
Toxic air contaminants (including carcinogens and non-carcinogens)	Maximum Incremental Risk ≥ 10 in 1 million Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	

Source: SCAQMD 2015.

^a The nitrogen dioxide and carbon monoxide thresholds are absolute concentration thresholds, meaning that the maximum predicted Project incremental concentration relative to baseline is added to the background concentration for the Project vicinity, and the total concentration is compared to the threshold.

^b The PM₁₀ and PM_{2.5} thresholds are incremental concentration thresholds, meaning that the maximum predicted Project incremental concentration relative to baseline is directly compared to the threshold without adding the background concentration.

Construction Impacts

Proposed project construction activities at So. Cal. Ships include, but are not limited to:

- Parking lot paving;
- Installation of new security fencing and lighting;
- Stabilizing one corner of the wharf;
- Installation of a pedestal crane;
- Installation of a new small structure; and routine maintenance operations.

Project construction is estimated to occur over a three month period beginning in late 2018.

Emission estimates were completed for all criteria pollutant emissions associated with the use of construction equipment, pile driving, parking lot paving, truck deliveries, and construction worker commute vehicles. Detailed air quality calculations are included as Appendix A.

Emissions from off-road equipment were calculated using estimated engine horsepower rating, load factors and usage hours.

SCAQMD's CEQA Air Quality Handbook requires that the maximum day of construction emissions be compared to their published CEQA thresholds (SCAQMD 1993). If emissions are greater than the thresholds outlined in the table above, the project is deemed to have significant air quality impacts.

Table 4.3- 2 summarizes construction emissions results. The table shows that all pollutant emissions would be below the significance thresholds.

Table 4.3- 2
Peak Daily Construction Emissions (pounds per day)

	<u>NO_x</u>	<u>VOC</u>	<u>SO_x</u>	<u>CO</u>	<u>PM₁₀</u>	<u>PM_{2.5}</u>
Peak Total Day	10.1	2.1	0.0	10.5	8.4	1.0
SCAQMD Max. Daily CEQA Significant Threshold ¹	100	75	150	550	150	55
Above CEQA Threshold?	No	No	No	No	No	No

Prepared by: Environmental Compliance Solutions, Inc.

¹ SCAQMD 2015

In addition to regional emission standards as presented above, SCAQMD has also developed a voluntary program to determine whether or not projects trigger the need for air dispersion modeling. SCAQMD's Localized Significance Thresholds (LST) methodology is based on maximum daily allowable emissions, the area of the emissions source, and the distance to the nearest exposed individual. The LST is set up as a series of look-up tables for emissions of NO_x, CO, particulate matter less than or equal to 10 microns in diameter (PM₁₀), and PM_{2.5}. If anticipated emissions are below the LST look-up table emission levels then the proposed activity is considered not to violate or substantially contribute to an existing or projected air quality standard. This conservatively assumes that our nearest sensitive receptor is someone living on a vessel within the Al Larson Marina, approximately 100 meters away from the nearest boundary of the So. Cal. Ships leasehold. The nearest residential neighborhood is more than half a mile away, across the main channel.

Table 4.3- 3 summarizes the onsite peak daily emissions associated with construction of the proposed Project. The table shows that all pollutant emissions would be below the LSTs without mitigation.

**Table 4.3- 3
Peak Daily Construction Emissions – Localized Significance Thresholds**

	NO _x	VOC	SO _x	CO	PM ₁₀	PM _{2.5}
Peak Daily Construction	10.1	2.1	0.0	10.5	8.4	1.0
SCAQMD Localized Significance Threshold ¹	87	NA	NA	1,611	37	13
Exceeds Threshold?	No	No	No	No	No	No

¹ SCAQMD Localized Significance Thresholds Guidance, July 2008 – Final Localized Significance Threshold Methodology, Tables C-1, C-2, C-4, and C-6 based on Source Receptor Area 4 (South Coastal Los Angeles County). Assumes 2-acre site area. Nearest sensitive receptor = 100 meters

Operational Impacts

As discussed above, So. Cal. Ships has been in business at this location since 1990. Future operations are expected to match current operations. No new employees are anticipated to be hired and existing vessel-related repair services, husbandry, and oil spill response services are not expected to change. Because proposed Project peak daily construction emissions are below both the SCAQMD's mass daily CEQA thresholds and the Localized Significance Thresholds, air quality impacts would not violate any air quality standards. Therefore, impacts would be less than significant and no mitigation is required.

- c) Result in a 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)?

Less-than-Significant Impact. The Basin is designated as a federal nonattainment area for ozone and PM_{2.5} and a state nonattainment area for ozone, PM₁₀, and PM_{2.5}.¹ As mentioned above, project emissions are below all criteria pollutant standards established by SCAQMD.

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.”

The proposed Project was evaluated against SCAQMD's cumulative impacts policy (SCAQMD 2003) and no significant cumulative air quality impacts were identified for either construction activities or operational activities. No mitigation is required.

¹ 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.
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- d) Expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact. This project's construction emissions are below all CEQA significance standards as established by SCAQMD, including the LST standards which are used as surrogates for pollutant concentration modeling. Also, project emissions are anticipated to be short-term, occurring over an approximately three-month period.

The nearest sensitive receptors to this site would be potential live-aboard located in the Al Larson Marina. That location is approximately 100 meters away. The nearest residential neighborhood is over 0.5 miles away, across the main channel. The nearest school is Port of Los Angeles High School and is 0.75 miles away, across the main channel.

For these reasons, proposed Project construction activities would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant and no mitigation is required.

- e) Create objectionable odors affecting a substantial number of people?

Less-than-Significant Impact. Short-term odors from the use of diesel-powered, heavy-duty equipment, pile driving, and paving activities could result during construction. As mentioned above, construction is short-term and only expected to occur for approximately three months. To be conservative, it is assumed that the nearest potential residents are approximately 100 meters away, in the Al Larson Marina. However, the nearest residential neighborhood is across the main channel, over 0.5 miles away.

These distances between the construction activities and potential receptors are far enough to allow for adequate dispersion of the negligible levels of short-term emissions expected to occur. Impacts would be less than significant and no mitigation is required.

4.4 BIOLOGICAL RESOURCES

Would the Project:

- 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 Wildlife or U.S. Fish and Wildlife Service?

Less than Significant Impact with Mitigation Incorporated. The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system was reviewed to gather information regarding potential federally listed species that could occur within the vicinity of the Project site (USFWS 2018). The USFWS IPaC system identified three endangered species, California least tern (*Sterna antillarum browni*), Palos Verdes blue butterfly (*Glaucopsyche lygdamus*), and Pacific pocket mouse (*Perognathus longimembris pacificus*) and two threatened

species, western snowy plover (*Charadrius alexandrinus nivosus*), and coastal California gnatcatcher (*Poliophtilla californica californica*) with the potential to occur within or be affected by activities on the site (USFWS 2018). Additionally, 62 species of migratory birds are known to occur in the vicinity of the Project site (USFWS 2018). However, the Project site consists of a paved surface lot within a heavily industrialized area. Given the developed nature of the Project area and considering that the Project site has already been disturbed, the likelihood of any sensitive or special status species being present is very low. No riparian habitat or other sensitive natural communities occur at the Project site and no trees or other vegetation would be removed as part of the proposed Project. Project-related construction activities on land under the proposed Project would be temporary and minor and would not result in a loss of individuals or habitat for rare, threatened, endangered, protected or species of special concern.

Marine mammals, including dolphins, seals, and sea lions, are protected by the Marine Mammal Protection Act of 1972. California sea lions have been observed in the harbor, especially adjacent to the municipal fish market in the Main Channel and in Fish Harbor. Marine mammals may forage in the harbor but do not breed there. Sightings of marine mammals were recorded during the 2013–2014 biological surveys of the Port Complex (MBC 2016). During the survey timeframe, California sea lions (*Zalophus californianus*) were observed throughout the Los Angeles-Long Beach Harbor, including near the Project site, while harbor seals (*Phoca vitulina*) were limited to Outer Harbor waters. Neither of these pinniped species are endangered, and there are no designated significant ecological areas for either species within the Port Complex.

Pile installation may be required to stabilize the wharf for pedestal crane installation. At this time, we are unsure what materials will be used for piles; however, to be conservative, it is assumed that potential noise impacts to marine mammals could occur. As such, the Port will require mitigation measure (MM) BIO-1 to reduce the potential impact to marine mammals during this construction activity.

Mitigation Measures

Impacts on marine mammals resulting from noise associated with pile driving would be reduced with implementation of MM-BIO-1. This measure would ensure that marine mammals would be readily able to avoid pile driving areas, and no injury to marine mammals from pile driving sounds would be expected.

MM-BIO-1 Protect Marine Mammals. Although it is expected that marine mammals will voluntarily move away from the area at the commencement of the vibratory or “soft start” of pile driving activities, as a precautionary measure, pile driving activities will include establishment of a safety zone, by a qualified marine mammal professional, and the area surrounding the operations (including the safety zones) will be monitored for marine mammals by a qualified marine mammal observer.²

² Marine mammal professional qualifications shall be identified based on criteria established by LAHD. Upon selection as part of the construction award winning team, the qualified marine mammal professional shall develop site-specific pile driving safety zone requirements, which shall follow NOAA Fisheries Technical Guidance Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (NOAA Fisheries 2016) in consultation with the Acoustic Threshold White Paper prepared for this purpose by LAHD (LAHD 2017c). Final pile driving safety zone requirements developed by the selected marine mammal professional shall be submitted to So. Cal. Ship Services and Environmental Management Division.

The pile driving site will move with each new pile; therefore, the safety zones will move accordingly.

Installation of piles required to support the pedestal crane would cause underwater sound levels that could also adversely affect fish. MM BIO-1 has been proposed to reduce the potential for pile driving impacts to marine mammals, and its implementation would also reduce the likelihood of any impacts to fish as a result of pile driving.

Therefore, with the inclusion of MM-BIO-1, impacts associated with listed and other sensitive species would be less than significant.

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

No Impact. As discussed in Section 4.4(a) above, the proposed Project site is completely paved and does not contain riparian habitat or other sensitive communities. As such, no impacts would occur as a result of the proposed Project.

- 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?

No Impact. The proposed Project site does not contain any federally jurisdictional wetlands. The closest recognized saltwater wetland is located approximately 1 mile southwest of the Project and is associated with the Cabrillo Marina. The proposed Project would have no impact on federally jurisdictional wetlands as defined by Section 404 of the Clean Water Act (CWA).

- 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?

No Impact. The POLA provides valuable habitat for foraging, resting, and breeding by numerous bird species. The proposed Project site, however, is located within a highly industrialized area, which does not support special status species, and is not a major migration corridor or wildlife corridor. Additionally, there are no waterside improvements associated with the proposed Project that could potentially impact marine wildlife. As such, there are no impacts to the movement of wildlife species or the use of wildlife nursery sites as a result of the proposed Project.

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

No Impact. The proposed Project site is located on Terminal Island, a heavily developed and industrialized area of the POLA. The Project site requires no vegetation or tree removal. As such, the proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- 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?

No Impact. As previously mentioned, no habitat for any special status or sensitive biological species exists at the project site or in the vicinity. There are no Habitat Conservation Plans (HCPs) currently in place at the POLA. This proposed Project does not trigger an HCP, Natural Community Conservation Plan (NCCP), or any other approved habitat conservation plan. The proposed Project is not located in a Significant Ecological Area (SEA). The nearest SEA is the California least tern nesting area at the southern tip of Pier 400, approximately 0.7 miles southeast of the Project site. Therefore, no impact would occur as a result of the implementation of the proposed Project.

4.5 CULTURAL RESOURCES

Would the Project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less than Significant. A historical resource is defined in Section 15064.5(a)(3) of the CEQA Guidelines as any object, building, structure, site, area, place, record, or manuscript determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Historic resources are further defined as being associated with significant events, important persons, or distinctive characteristics of a type, period or method of construction; representing the work of an important creative individual; or possessing high artistic values. Resources listed in or determined eligible for inclusion in the California Register, included in a local register, or identified as significant in a historic resource survey are also considered historical resources under CEQA. The Project site is located within the Bethlehem Shipyard Historic District, which remains eligible for the National Register of Historic Places (Criterion A), California Register of Historic Places (Criterion 1), and as a City of Los Angeles Historic-Cultural Monument (Criterion 1) for its important associations with the emergency shipbuilding program during World War II (Dudek, 2017).

However, only one of the 18 contributors to the Bethlehem Shipyard Historic District are located on the proposed Project's site. This contributor would not be disturbed or compromised as a result of the proposed Project (Dudek, 2017). Therefore, the proposed Project would have a less than significant impact on historical resources and no mitigation is required.

- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than Significant. The potential to discover an unknown archaeological resource within the Project site is highly unlikely as the site is underlain by manmade fill. Nevertheless, the proposed Project would adhere to CEQA Guidelines (CCR Title 14, Section 15064.5), which states that construction activities would cease in the affected area in the highly unlikely event an archaeological discovery is made. Once the discovery has been evaluated by a qualified archaeologist, (see 36 Code of Federal Regulations [CFR] 800.11.1 and CCR, Title 14, Section 15064.5 [f]) and if the resource is found to not be significant, the work can resume. If the resource is found to be significant, they shall be avoided or shall be treated consistent with Section 106 or State Historic Resource Preservation Officer Guidelines. As such, the proposed Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to state CEQA Guidelines Section 15064.5. Therefore, the proposed Project would have a less than significant impact to archaeological resources with adherence to applicable regulatory requirements. No mitigation is required.

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

Less than Significant. No unique geologic features or paleontological resources are known to exist in or around the Project site. The site is underlain by manmade fill, is already paved, and has experienced considerable previous disturbance. Therefore, there is very little potential to encounter paleontological resources during construction. However, because there is a remote chance of discovering previously unknown paleontological resources, the proposed Project would have a less than significant impact on paleontological resources. No mitigation is required.

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

Less than Significant. As the Project site is underlain by manmade fill and is already paved and experienced considerable previous disturbance, there is a very low potential to encounter or disturb any human remains. Nevertheless, California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and Public Resources Code Section 5097.98 mandate that in the event of an inadvertent or unanticipated discovery of any human remains in a location other than a dedicated cemetery, work shall stop immediately. If the coroner determines the remains are Native American, the coroner shall contact the Native American Heritage Council (NAHC). The NAHC shall identify the most likely descended from the deceased Native American and make recommendations for means of treating or disposing of the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. With compliance with existing regulations prescribed in California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and Public Resources Code Section 5097.98, impacts to human remains would be less than significant. No mitigation is required.

4.6 ENERGY

- a) Would the project conflict with adopted energy conservation plans?

Less-than-Significant Impact. As seen under 4.6 (b) below, the proposed Project requires minimal energy (in terms of fuel consumption) associated with construction activities. Construction total fuel consumption is expected to be less than 6,000 gallons (< 5,000 gallons diesel, < 1,000 gallons gasoline). Operations are expected to be the same in the future as in the baseline conditions so no new operational energy impacts are expected. No new operations will occur at the site as a result of this project and operational energy demand in the future is expected to remain the same as past energy use. However, the site will be required to comply with current state energy efficiency standards and regulations pursuant to the California Building Code, California Green Building Standards and City of Los Angeles Green Building Code that would reduce long-term energy demand. These requirements would reduce wasteful, inefficient and unnecessary consumption of energy over the long-term.

The proposed Project does not conflict with any of the abovementioned plans or policies as it requires negligible use of energy as shown below. Impacts to energy conservation plans will be less than significant and no mitigation is necessary.

- b) Would the project use non-renewable resources in a wasteful and inefficient manner?

Less-than-Significant Impact. Energy (primarily as diesel fuel, but including minor amounts of gasoline) would be used during construction of the proposed Project. Energy expenditures during construction would be temporary, lasting for approximately three months and are necessary to achieve the overall project objective of preparing the site for continuation of maritime support. Construction would not result in substantial waste or inefficient use of energy. Since 1990, So. Cal. Ships has been serving both Ports within the San Pedro Bay Complex with water transport of material, supplies and personnel, land-based logistical support of offshore oil platforms, and tank vessels. In addition, So. Cal. Ship Services is also a State and Federal Oil Spill Response Organization to assist with emergency containment of oil spills. No significant change in current operations is expected at the site.

As such, future operational energy consumption at the site is expected to remain the same as past consumption. Wasteful and inefficient use of non-renewable resources is anticipated to create a less than significant impact and no mitigation is required.

- c) Would the project result in a need for new systems, or substantial alterations to power or natural gas?

No Impact. Current operations at the facility are expected to be maintained in the future. No significant increase in power or natural gas is expected to be required. Therefore, the project would not result in the need for new power systems or substantial upgrades and/or alternations of existing systems and no mitigation is required.

4.7 GEOLOGY AND SOILS

Would the Project:

- 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.

No Impact. The proposed Project site is located within the seismically active Southern California region and has the potential to be subjected to ground shaking hazards associated with earthquake events on active faults. The proposed Project site is located approximately 0.25 mile east of the Palos Verdes fault zone and is not located within an Alquist-Priolo Earthquake Fault Zone (California Institute of Technology 2012). While the proposed Project site is not located within a fault zone, it is located within a landslide and liquefaction zone as defined by the California Department of

Conservation (California Department of Conservation 2015). No habitable structures are proposed and as such the proposed Project site would have limited potential for damage from seismic activity. Further, any potential damage to the Project site as a result of seismic activities (e.g., pavement cracking) would not create impacts to public health or safety. Finally, the project would not increase overall visitation to the area, and thus would not increase public exposure to seismic hazards. The proposed Project, therefore, would result in no impact to earthquake faults or seismic shaking.

- ii) Strong seismic ground shaking?

No Impact. Please see the response to 4.7 (a)(i) above.

- iii) Seismic-related ground failure, including liquefaction?

No Impact. Please see the response to 4.7 (a)(i) above.

- iv) Landslides?

No Impact. The proposed Project site is flat with no significant natural or graded slopes. No habitable structures are proposed and as such the proposed Project site would have limited potential for damage from seismic activity or landslides. Therefore, no impacts to the potential for landslides would occur.

- b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant. Minor construction activities would be undertaken as part of this proposed Project. The new parking lot would increase the footprint of impervious area and reduce potential soil erosion and loss of topsoil. As such, impacts to soil erosion or the loss of topsoil will be less than significant and no mitigation is required.

- c) Be located on a geological 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?

Less than Significant. The proposed Project site is located within an area susceptible to landslides and liquefaction (California Department of Conservation 2015). Implementation of the proposed Project would have little potential to create a landslide, lateral spreading, subsidence, liquefaction or collapse. Therefore, impacts would be less than significant and no mitigation is required.

- 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?

No Impact. No habitable buildings would be constructed as a part of the proposed Project. No impact to life or property due to expansive soils would occur as a result of implementing the proposed Project.

- 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?

No Impact. The proposed Project presents no need for additional capacity or any alternative wastewater disposal system, as there is no additional land use or operation. Therefore, there would be no impacts associated with the use of septic tanks or wastewater disposal systems.

4.8 GREENHOUSE GASES

This section summarizes potential greenhouse gas (GHG) emissions associated with construction of the proposed Project.

As mentioned above, operational activities are expected to remain the same as those currently occurring so no increase in emissions is expected from continuing operations.

Construction-related greenhouse gas emissions from on-road vehicles and off-road diesel construction equipment were calculated and are included as Appendix A – Air Quality Emission Calculations.

CEQA Significance Thresholds

State CEQA Guidelines Section 15064.4(b) sets forth the factors that should be considered by a lead agency when assessing the significance of impacts from GHG emissions on the environment. These factors include:

- The extent to which a project may increase or reduce GHG emissions compared with the existing environmental setting;
- Whether project emissions exceed a threshold of significance that the lead agency determines applicable to a project; and
- The extent to which a project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions.

The guidelines do not specify significance thresholds and allow the lead agencies discretion in how to address and evaluate significance based on these criteria.

The SCAQMD has adopted an interim CEQA significance threshold of 10,000 metric tons per year of CO_{2e} (MT/yr CO_{2e}) for industrial projects where SCAQMD is the lead agency (SCAQMD 2008a). For the purpose of this IS/MND, this analysis used this threshold to evaluate the proposed Project's GHG emissions under CEQA. If estimated GHG emissions remain below this threshold, they would be expected to produce less than significant impacts to GHG levels.

LAHD has determined the SCAQMD-adopted interim industrial threshold of 10,000 MT/yr CO_{2e} to be suitable for the proposed Project following reasons:

- The SCAQMD interim threshold used as the basis for its development, Governor Schwarzenegger's June 1, 2005 Executive Order S-3-05 which set emission reduction targets of reducing GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050 (SCAQMD 2008a). The 2020 target is the core of the California Global Warming Solutions Act of 2006, widely known as Assembly Bill (AB) 32 (Personal Communication: Lora Granovsky, iLanko Environmental and Mike Krause, SCAQMD July 29, 2016).
- The proposed Project's primary GHG source is construction equipment. The SCAQMD industrial source threshold is appropriate for projects with mobile emission sources. California Air Pollution Control Officers Association (CAPCOA) guidance considers industrial projects to include substantial GHG emissions associated with mobile sources (CAPCOA 2008). SCAQMD, on industrial projects for which it is the lead agency, uses the 10,000 MT/yr threshold to determine CEQA significance by combining a project's stationary source and mobile source emissions. Although the threshold was originally developed for stationary sources, SCAQMD staff views the threshold as conservative for projects with both stationary and mobile source because it is applied to a larger set of emissions and therefore captures a greater percentage of projects than would be captured if the threshold was only used for

stationary sources (Personal Communication: Lora Granovsky, iLanko Environmental and Mike Krause, SCAQMD July 29, 2016).

- The SCAQMD industrial source threshold is appropriate for projects with sources that use primarily diesel fuel. Although most of the sources that were considered by the SCAQMD in the development of the 10,000 MT/yr threshold are natural gas-fueled, both natural gas and diesel combustion produce CO₂ as the dominant GHG (The Climate Registry 2016). Furthermore, the conversion of all GHG species into a CO₂e ensures that the GHG emissions from any source, regardless of fuel type, can be evaluated equitably.

After considering these guidelines, LAHD has set the following threshold for use in this IS/MND to determine the significance of proposed Project-related GHG impacts. The proposed Project would create a significant GHG impact if it:

- a) Generates GHG emissions that, either directly or indirectly, that may have a significant impact on the environment?

Table 4.8- 1 below shows the proposed Project’s annual GHG emissions.

**Table 4.8- 1
Annual GHG Emissions – Project Construction (metric tons)**

	CO₂e (MT/yr)
Construction Emissions	< 59
Amortized Emissions ¹	< 2.0
Significance Threshold ²	10,000
Exceeds Threshold?	No
Prepared by: Environmental Compliance Solutions, Inc. Notes: a) One metric ton equals 1,000 kilograms, 2,205 lbs, or 1.1 U.S. (short) tons. b) CO ₂ e = the carbon dioxide equivalent of all GHGs combined. The carbon dioxide equivalent for each GHG represents the emission rate multiplied by its global warming potential (GWP). The GWPs are 1 for carbon dioxide (CO ₂); 28 for methane (CH ₄); and 265 for nitrous oxide (N ₂ O). (2014 IPCC Fifth Assessment Report) ¹ SCAQMD protocol requires amortizing construction emissions over 30 years ² SCAQMD 2015	

Less than Significant. Based on criteria set by the SCAQMD, a proposed project would have the potential to violate an air quality standard or contribute substantially to an existing violation if construction emissions would exceed thresholds of significance in Table 4.3- 1.

The proposed Project would primarily generate increased GHG emissions over the short-term related to operation of construction equipment. Total estimated GHG emissions from construction activities would be less than 59 MT/yr CO₂e, which is well below the SCAQMD significance threshold of 10,000 MT/yr CO₂e. Increases in emissions of GHGs associated with the implementation of the proposed Project would be short-term and less than significant. No mitigation is required.

Informational assessment: Consider whether the Project is consistent with certain statewide, regional and local plans and policies.

As noted above, CEQA Guideline Section 15064.4(b) provides that one factor to be considered in assessing the significance of GHG emissions on the environment is “the extent to which a project complies with regulations or requirements adopted to implement a statewide, regional or local plan for the reduction or mitigation of GHG emissions.”

Several state, regional and local plans have been developed that set goals for the reduction of GHG emissions over the next few years and decades. Some of these plans and policies (notably, Executive Order S-3-05 and AB 32) were taken into account by the SCAQMD in developing the 10,000 MT/yr CO₂e threshold. However, no regulations or requirements have been adopted by relevant public agencies to implement those plans for specific projects, within the meaning of CEQA Guidelines Section 15064.4(b) (3). (See *Center for Biological Diversity v. Cal. Dept. of Fish and Wildlife [Newhall Ranch]* [2015] 62 Cal.4th 204, 223.) Consequently, no CEQA significance assessment based upon compliance with such regulations or requirements can be made for the proposed Project. Nevertheless, for the purpose of disclosure, LAHD has considered for informational purposes only, whether the proposed Project activities and features are consistent with federal, state or local plans, policies or regulations for the reduction of GHG emissions, as set forth below:

The State of California is leading the way in the United States with respect to GHG reductions. Several legislative and municipal targets for reducing GHG emissions, below 1990 levels have been established. Key examples include:

- Senate Bill (SB) 32
 - 1990 levels by 2020
 - 40 percent below 1990 levels by 2030
- AB 32
 - 80 percent below 1990 levels by 2050
- City of Los Angeles Sustainable City Plan
 - 45 percent below 1990 levels by 2025
 - 60 percent below 1990 levels by 2035
 - 80 percent below 1990 levels by 2050

LAHD has been tracking GHG emissions, in terms of CO₂e, since 2005 through the LAHD municipal GHG inventory and the annual inventory of air emissions. POLA-related GHG emissions started making significant reductions since 2006, reaching a maximum reduction in CO₂e of 15 percent from 1990 levels in 2013 (Figure 4). Subsequently, 2014 and 2015 saw GHG levels rise due to a period of port congestion that arose from circumstances outside of the control of either the LAHD or its tenants (Figure 5). This event illustrates a major challenge related to managing GHG-related emissions, as events outside the control of LAHD or its individual tenants will continue to have a varying degree of impact on the progress of reduction efforts.

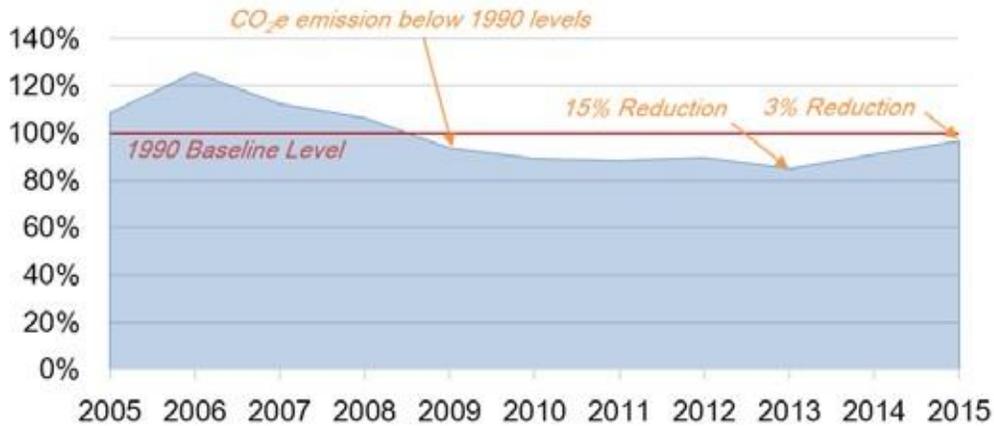


Figure 4 GHG Emissions 2005-2015

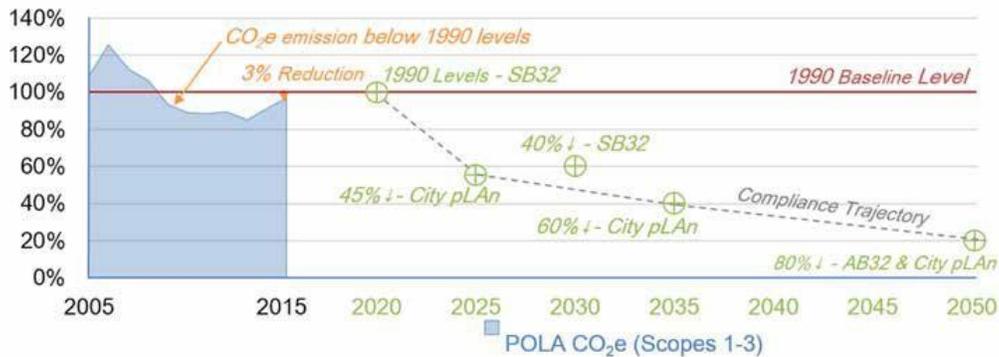


Figure 5 Actual GHG Emissions 2005-2015 & 2015-2015 GHG Compliance Trajectory

LAHD and its tenants have initiated a number of wide-ranging strategies to reduce all port-related GHGs, which includes the benefits associated with the CAAP, Zero Emission Roadmap, Energy Management Action Plan (EMAP), operational efficiency improvements, and land use and planning initiatives. Looking toward 2050, there are several unknowns that will affect future GHG emission levels. These unknowns include grid power portfolios; maritime industry preferences of power sources and fuel types for ships, harbor craft, terminal equipment, locomotives, and trucks; advances in cargo movement efficiencies; the locations of manufacturing centers for products and commodities moved; and increasing consumer demand for goods. The key relationships that have led to operational efficiency improvements to date are the cost of energy, current and upcoming regulatory programs, and the competitive nature of the goods movement industry. We anticipate these relationships will continue to produce benefits with regards to GHG emissions for the foreseeable future.

Nevertheless, with the very aggressive targets shown in Figure 5 above, it is not possible at this time to determine whether POLA-wide emissions or any particular Project applicant will be able to meet the compliance trajectory shown. Compliance will depend upon future regulations or requirements that may be adopted, future technologies that have not been identified or fully developed at this time, or any other POLA-wide GHG reduction strategies that may be established. As a result, while LAHD will continue to work with its tenants to implement aggressive GHG reduction measures to meet the compliance trajectory that is shown, LAHD cannot with certainty confirm compliance with these future plans and policies at this time.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Would the Project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant. Current facility operations are expected to remain the same in the future. One of the services provided by this facility is as a State and Federal Oil Spill Response Organization. If needed, operations at the site could include oil spill response cleanup. These operations have been ongoing at the site and will continue in their future operations. No significant adverse impacts as a result of these operations are anticipated. As such, impacts are expected to be less than significant and no mitigation is required.

- 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?

Less than Significant. Prior site contamination has been mitigated by engineering controls including a plastic vapor barrier and asphalt cap. There are no new hazards or hazardous materials expected to be used as part of this project. Therefore, impacts to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant. No mitigation is required.

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

No Impact. The Project site is not within one-quarter mile of an existing or proposed school. The nearest school is the Port of Los Angeles High School which is located approximately 0.75 miles west of the proposed Project. Further, no increase in handling of hazardous materials is expected as a result of this project. As such there would be no impact to schools.

- 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 the public or the environment?

Less than Significant. The Project site is currently included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (i.e., "Cortese List") maintained by the California Department of Toxic Substances Control (DTSC). This facility is located on the northernmost portion of the Former Southwest Marine facility site. The Site has been investigated and evaluated under the oversight of DTSC in accordance with a Unilateral Order dated November 11, 2008 and under a soil and groundwater remedial action plan. Under this plan, the area has been subject to site management conditions, which are included in the Hazards Section below. (LAHD 2016).

This area has been mitigated by engineering controls (i.e., plastic vapor barrier and asphalt cap) and institutional controls. Site operations are limited to the receipt, temporary storage, and transloading of material to and from ships located within and outside of San Pedro harbor. During the course of these operations no disturbances of the vapor barrier or asphalt cap are required. Further, as the property owner, the Harbor Department must approve any proposed site improvements by the tenant.

As part of the approval process, known as an application for port permit (APP), the site tenant must provide detailed plans to the Harbor Department for any site improvements or renovations. In conjunction with this permitting process, Harbor Department Environmental Management Division (EMD) must review and approve the proposed site activities. Accordingly, EMD staff will review any proposed work that may entail disturbance of the plastic vapor barrier, asphalt cap, or contaminated soil beneath the property. Activities that could potentially disturb site contaminants will either be prohibited or will be permitted only with requisite mitigation measures and/or permit conditions.

The Harbor Department will provide proper notification to the DTSC and/or USEPA as necessary, any time So. Cal. Ships plans to disturb the plastic vapor barrier or asphalt surface covering the contaminated soils, or when contaminated soils beneath the property are exposed or disturbed through potholing, installation of light poles, trenching, soil borings, excavations, etc. Any special instructions for the proposed project will be provided as permit conditions through the APP Process.

The USEPA will be notified in accordance with the Toxic Substances Control Act, in the event that removal of soil containing PCBs is planned at the site. Visual inspections of the site will be performed monthly. Modification to the frequency or duration of the inspections will require approval or direction from DTSC. During these inspections, a comprehensive site-wide inspection by a qualified environmental professional will be conducted and documented to assess the property for the following:

- General site conditions at the time of the inspection;
- Compliance with all engineering and institutional controls, including site usage; and
- An evaluation of the condition and continued effectiveness of all engineering and institutional controls, including any evidence of subsurface disturbances (i.e., cracks or holes).

In the event of any site improvements or renovations conducted in accordance with an LAHD approved APP, inspections will include the evaluation of any required mitigation measures. As part of the RAP implementation, the Harbor Department will review the existing institutional and engineering controls and will provide DTSC an updated Interim Mitigation Plan that will include a description of the controls, a schedule for monitoring and reporting on the controls, and a proposed groundwater monitoring program for this parcel if needed. With adherence to the regulations put forward in the RAP, impacts would be less than significant and no mitigation is required.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The Project site is not located near an existing public airport. The nearest airports are Torrance Airport – Zamperini Field, approximately 5.5 miles northwest, and Long Beach Airport, approximately 8.5 miles northeast of the site. Therefore, no impact would occur associated with airport-related hazards.

- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. A helicopter-landing pad for Island Express is located at Berth 95 approximately 1 mile to the north of the Project site. Only small helicopters operate from this location and transit primarily via the Main Channel. The proximity of the heliport would not result in a safety hazard for people working in the Project area. The proposed Project would have no effect related to private airstrips. Accordingly, there would be no impact.

- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed Project involves temporary construction activities associated with minor site modification. Following the completion of construction activities, the proposed Project will not impair or physically interfere with an adopted emergency response plan.

- h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. Per the Safety Element of the City of Los Angeles General Plan, the Project site is not located in an area designated as Very High Fire Hazard Severity Zone and there are no wildlands within the vicinity of the Project site (City of Los Angeles, 1996). Therefore, no impact related to wildland fires would occur with the implementation of the proposed Project.

4.10 HYDROLOGY AND WATER QUALITY

Would the Project:

- a) Violate any water quality standards or waste discharge requirements?

Less than Significant. Implementation of the proposed Project would include a new parking lot of approximately one paved acre. The proposed Project would be constructed and operated in accordance with the National Pollutant Discharge Elimination System Permit for the Municipal Separate Storm Sewer System (NPDES MS4 Permit) requirements, the requirements of the City of Los Angeles Low Impact Development (LID) Ordinance (Ordinance No. 181899) and the Project would require a construction Stormwater Pollution Prevention Permit (SWPPP). Therefore, impacts related to water quality standards and waste discharge requirements would be less than significant, and no mitigation is required.

- 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 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)?

No Impact. The proposed Project site is not currently an area that allows for groundwater recharge because it is mostly paved or occupied by structures and would remain as such following the proposed paving and pavement repair activities. Although approximately one acre of exposed compacted dirt would be paved, the proposed Project is located on an artificial island constructed of fill material, and therefore, does not support groundwater recharge. Groundwater in the harbor area is south of the Dominguez Gap Barrier and impacted by saltwater intrusion (salinity) and is, therefore, unsuitable for use as drinking water. Implementation of the proposed Project would not affect the location or rate of groundwater recharge, and the proposed Project does not involve use of groundwater for any reason. Therefore, the proposed Project would have no impact with respect to groundwater.

- 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?

No Impact. There are no streams or rivers located nearby that would be affected by the proposed Project. With proper LID implementation and site design, pollutants from the site would not be mobilized during a rain event. Thus, the proposed Project would have no impact with respect to drainage patterns or alteration of the course of a stream or river, which would result in erosion or siltation on or off site.

- d) Substantially alter the existing drainage pattern of the site or area, including 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?

Less than Significant Impact. Surface runoff is largely controlled by engineered drainage structures at the Project site. Surface runoff is directed towards on-site storm-drains, which discharge into the Main Channel leading into the San Pedro Bay. Other than the San Pedro Bay of the Pacific Ocean, there are no surface water bodies within two miles of the Site. As discussed in Section 4.9(c), there are no streams or rivers located nearby that would be affected by the proposed Project. The proposed project would result in one acre of additional impervious surface. This could result in a minor increase in surface runoff. However, this would not substantially change the topography or otherwise substantially alter the drainage pattern of the site, and the rate and amount of surface runoff would not substantially increase. No flooding on or off-site would be expected to occur. Although the proposed Project would result in a minor amount of new impermeable surfaces, with an on-site drainage system that connects with the existing stormdrain system at a suitable point, the existing stormdrain system would continue to convey stormwater runoff for discharge into the harbor after the proposed Project is complete. The on-site drainage system would comply with both the LID specifications as well as the National Pollutant Discharge Elimination System (NPDES) requirements. The proposed Project would have a less than significant impact with respect to drainage patterns or alteration of the course of a stream or river, which would result in flooding on or off site. Therefore, no mitigation is required.

- e) Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant. The proposed Project would be constructed and operated in accordance with the requirements of City's Water Quality Compliance Master Plan for Urban Runoff (City of Los Angeles 2009), designed to direct the installation of best management practices for stormwater capture, control, and treatment to avoid impacts to water quality and manage the volume and flow of drainage off a site. Additionally, the Project would be required to follow the City of Los Angeles LID Ordinance (Ordinance No. 181899). The proposed Project would have a less-than-significant impact with respect to runoff water and no mitigation is required.

- f) Otherwise substantially degrade water quality?

Less than Significant. The proposed Project would be constructed and operated in accordance with the requirements of City's Water Quality Compliance Master Plan for Urban Runoff (City of Los Angeles 2009), designed to direct the installation of best management practices for stormwater capture, control, and treatment to avoid impacts to water quality and manage the volume and flow of drainage off a site. Additionally, the Project, including paving a one-acre dirt lot, would be required to follow the City of Los Angeles LID Ordinance (Ordinance No. 181899). The proposed Project would have a less-than-significant impact with respect to runoff water and no mitigation is required.

- g) Place housing within a 100-year flood hazard area as mapped on a federal flood hazard boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. No housing or other habitat structures are proposed with implementation of the proposed Project. Therefore, no impact would occur.

- h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

No Impact. The proposed Project is located within Zone AE (elevation 9), a Special Flood Hazard Area subject to inundation by the 1% (100-year) annual chance flood (Federal Emergency Management Agency [FEMA] 2008). The proposed Project would place a small accessory structure within the area; however, no impacts to the direction of flood flows are expected and no impacts are anticipated.

- i) 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?

No Impact. There are no dams or levees near the proposed Project. The proposed Project involves only minor modifications to an existing business. It does not have the potential to create or contribute to a risk of a levee or dam failure or flooding risk. Therefore, no impacts to flooding from the failure of a levee or dam would occur as a result of the Project.

- j) Inundation by seiche, tsunami, or mudflow?

No Impact. According the Tsunami Inundation Map for Emergency Plan (California Department of Conservation 2009), the Project site is located within a tsunami inundation area. However, the proposed Project would be confined to existing paved and adjacent areas. Therefore, no increased exposure to tsunami inundation areas would be expected to occur.

- k) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of Sea Level Rise?

Less than Significant. Due to its location at sea level, the infrastructure and operations of the POLA would be vulnerable to Sea Level Rise (SLR). As the proposed Project would involve the construction of a single small accessory structure, it is not anticipated that people or structures would be exposed to significant risk due to SLR as a result of the proposed Project. Impacts associated with risks from SLR would be less than significant.

4.11 LAND USE AND PLANNING

Would the Project:

- a) Physically divide an established community?

No Impact. The proposed Project would involve only short-term construction activities. No long-term separation of land uses or disruption of access between land use types would occur as a result of the Project. Therefore, no impact would occur.

- b) 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?

No Impact. The proposed Project would not conflict with a specific plan, general plan, or zoning ordinance. The Project site is zoned [Q]M3-1 (Quasi Heavy Industrial) under the City of Los Angeles Zoning Ordinance and would continue to have the same land uses as under existing conditions. The proposed Project would not alter the land use of the site or surrounding areas and would not conflict with the *Port Master Plan* (LAHD 2014) or any applicable land use plans. Therefore, no impact would occur with the implementation of the proposed Project.

- c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. As discussed above, the site is not part located within an adopted HCP or NCCP. Therefore, construction of the project would not conflict with any applicable HCP or NCCP. No impact would occur with the implementation of the proposed Project and no mitigation is required.

4.12 MINERAL RESOURCES

Would the Project:

- 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?

No Impact. The project site is already developed and is located in a highly industrialized area surrounded by industrial land uses. According to the California Department of Conservation (Division of Oil, Gas and Geothermal Resources (DOGGR)), no known mineral resources underlie the Project site. The Wilmington Oil Field, the third largest oil field in the U.S., is located approximately 1 mile north of the site (California Department of Conservation 2018). However, the proposed Project would not create any obstacles to oil extraction operations associated with the Wilmington Oil Field. No impacts on known mineral resources would occur.

- 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?

No Impact. As described under Section 4.12(a), there are no active oil wells on site. The proposed Project would not result in the loss of availability of a mineral resource recovery site as described under Section 4.12(a). Therefore, no impact to the availability of a mineral resource would result from construction and operation of the proposed Project.

4.13 NOISE

Would the Project 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?

Less than Significant. The City of Los Angeles adopted a Noise Element as part of their General Plan in November 1998 (City of Los Angeles 1998). The noise element provides an overview of various noise sources (current and anticipated) along with standards and policies. The standards for construction-related noise were codified in Los Angeles City Noise Ordinance (Los Angeles Municipal Code Section 41.40).

The municipal code limits construction activities to the hours of 7:00 AM to 9:00 PM Monday through Friday. On Saturday, the hours are 8:00 AM to 5:00 PM. No work is to be conducted on Sundays. Construction activities at So. Cal. Ship Services will comply with this ordinance.

The Los Angeles Municipal Code Section 112.05, *Maximum Noise Level of Powered Equipment or Powered Hand Tools*, details that the maximum noise level powered equipment may produce within a distance of 500 feet from a City residential zone is 75 A-weighted decibels (dBA) at a distance of 50 feet, unless compliance is technically infeasible. Technically infeasible means that the noise limitations cannot be attained during use of the equipment even with the use of mufflers, shields, sound barriers and/or other noise reduction techniques.

Construction activities could result in temporary increases in ambient noise levels in the project area on a short-term basis. Construction-related noise and groundborne vibration would be generated primarily during pile driving activities. Additional sources of noise could occur from off-road diesel construction equipment. To be conservative, we have considered the nearest potential residential receptors to be liveaboards at the Al Larson Marina. The Project's noise generating components are located between 900 and 1,300 feet from the Al Larson Marina. Due to the distance from potential residential receptors, and the short-term nature of the construction Project, noise impacts are anticipated to be less than significant. No mitigation is required.

- b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant. Minimal trenching necessary to install utility lines as part of this project is not expected to cause groundborne vibrations. Given the nearest sensitive receptors include liveboards that are situated in the harbor waters, by their very nature groundbourne vibrations would not be perceptible from boats. Any potential impacts related to groundborne noise levels would be short-term from construction activities that would be limited to the three-month construction period. Groundborne vibrations would be less than significant and no mitigation is required.

- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. The noise that is anticipated to occur from construction of the proposed Project would be short-term and would not result in a permanent increase in noise levels. Following the completion of construction activities, the proposed Project would have no impact on ambient noise in the Project vicinity. No mitigation is required.

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

Less than Significant. Construction activities would be in compliance with Municipal Code Sections 41.40 and 112.05 and impacts would be less than significant. No mitigation is required.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The nearest airports are Torrance Airport, approximately 5.5 miles northwest, and Long Beach Airport, approximately 8.5 miles northeast of the site. The proposed Project is not located within an airport land use plan. Therefore, no impacts are anticipated to occur.

- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. A helicopter-landing pad for Island Express is located at Berth 95 approximately 2.15 miles to the north of the Project site. Only small helicopters operate from this location and transit primarily via the Main Channel. The proposed construction activities would be located too far from the helicopter-landing pad to effect or be affected by helicopter noise. Therefore, construction workers would not be exposed to excessive noise levels. Therefore, no impact would occur with the implementation of the proposed Project.

4.14 POPULATION AND HOUSING

Would the Project:

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

No Impact. The proposed Project would not require any new housing or extension of roads. The proposed Project would not affect population or housing located within the project area, nor in the vicinity; therefore, there would be no population growth impacts as a result of the proposed Project.

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

No Impact. Please see the response to 4.14(a) above.

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

No Impact. Please see the response to 4.14(a) above.

4.15 PUBLIC SERVICES

Would the Project:

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental 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
 - i) Fire Protection?

No Impact. The LAFD provides fire protection services as well as emergency medical (paramedic) services within the City of Los Angeles. LAFD Station No. 40, located at 330 Ferry Street, is the closest station to the Project site (LAFD 2018). During construction, emergency access to the Project vicinity would be maintained for emergency service vehicles. Following the completion of construction activities, the proposed Project would not result in a long-term increase in demand for fire protection services. Therefore, no impact to fire protection services would occur.

ii) Police protection?

No Impact. The Los Angeles Port Police (Port Police) is the primary law enforcement agency within the POLA. The Port Police are responsible for patrol and surveillance of POLA property including 12 square miles of landside property and 43 miles of waterfront. The Los Angeles Police Department (LAPD) provides police protection to the entire City of Los Angeles, including San Pedro. 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 proposed Project construction would not increase demand for law enforcement and no new facilities would be required. Therefore, implementation of the proposed Project would have no impact on police protection.

iii) Schools?

No Impact. No new residential units would be constructed as a part of the proposed Project, and the proposed Project would not result in that the need for new schools.

iv) Parks?

No Impact. The proposed Project does not include development of any residential uses and would not generate any new permanent residents that would increase the demand on local parks. Therefore, no impact related to parks would occur with the implementation of the proposed Project.

v) Other public facilities?

No Impact. The proposed Project does not include development of residential uses and would not generate any new permanent residents that would increase the demand on other public facilities. As such, no impacts to other public facilities would occur from the implementation of the proposed Project.

4.16 RECREATION

Would the Project:

- 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?

No Impact. The proposed Project is a short-term construction project that would not increase demand on existing regional parks or other recreational facilities; therefore, no impact would occur.

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

No Impact. The proposed Project would not include the development of, or require the construction of, recreational facilities that would physically affect the environment. Therefore, no impact would occur.

4.17 TRANSPORTATION AND TRAFFIC

Would the Project:

- 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?

Less than Significant. According to the Los Angeles County Congestion Management Program (CMP), a Traffic Impact Analysis (TIA) should be conducted at all CMP arterial monitoring intersections, including monitored freeway on-ramps or off-ramps, where a proposed project would add 50 or more trips during either the AM weekday peak hour (7:00 AM – 9:00 AM) or the PM weekday peak hour (4:00 PM to 6:00 PM) and at all mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during the AM or PM weekday peak hours (Los Angeles County Metropolitan Transportation Authority 2010). The City of Los Angeles states that 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 operating at Level of Service (LOS) E or F (City of Los Angeles 2016). Additionally, the guidelines state that a Traffic Study is required when the project is likely to add 43 or more AM or PM peak hour trips. Construction-related activities associated with the proposed Project would require approximately ten construction workers. As such, the effect of construction worker commutes on surrounding roadway segments and intersections would be negligible during the AM and PM peak hours. However, these trips would be spaced out throughout the day and would not approach the thresholds Los Angeles County CMP thresholds triggering a TIA or the City of Los Angeles thresholds triggering a Technical Memorandum or Traffic Study.

The proposed Project construction activities would not result in significant traffic trip generation and would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. In addition, the Project would not encourage or promote non-motorized transit and would not result in the deterioration of transportation service standards, transportation infrastructure, or transit. Impacts from the construction associated with the proposed Project would be short-term and less than significant. No mitigation is required.

- 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?

Less than Significant. Implementation of the proposed Project would not increase visitation to the POLA, and therefore would not increase overall levels of traffic or congestion on any CMP roads or intersections. Although the proposed Project would result in additional trips to the site during construction, these impacts would be limited and short-term. Therefore, impacts to CMP standards would be less than significant. No mitigation is required.

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

No Impact. The nearest airports are Torrance Airport (Zamperini Field), approximately 5.5 miles northwest, and Long Beach Airport, approximately 8.5 miles northeast of the site. Therefore, the project has no potential to increase traffic levels or shift a location of air traffic levels or patterns.

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

No Impact. The proposed Project does not include any alterations to ingress, egress or circulation patterns within the site and vicinity and would not interfere with any existing access. Notices would be posted consistent with POLA policy to notify businesses and members of the public of temporary construction activities and associated hazards. Therefore, no impacts would occur under implementation of the proposed Project.

- e) Result in inadequate emergency access?

Less than Significant. The proposed Project would result in minimal traffic increases during construction. All access routes for emergency services in the vicinity of the Project site would be maintained. No aspect of the proposed Project would impair or degrade emergency access. Therefore, the proposed Project would not result in inadequate emergency access, and impacts are anticipated to be less than significant. No mitigation is required.

- 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?

No Impact. The proposed Project would not alter the land use of the site or surrounding area, and would not conflict with any applicable land use plans. Therefore, the proposed Project would not conflict with policies, plans, or programs supporting alternative transportation, (e.g., bicycles, buses, carpools, vanpools, ridesharing, walking). There are no impacts to public transit, bicycle or pedestrian facilities.

4.18 TRIBAL CULTURAL RESOURCES

This section evaluates impacts related to tribal cultural resources associated with the implementation of the proposed Project.

Assembly Bill (AB) 52, which went into effect on July 1, 2015, established a consultation process with all California Native American Tribes on the NAHC List and required consideration of Tribal Cultural Values in the determination of project impacts and mitigation. AB 52 established a new class of resources, tribal cultural resources, defined as a site feature, place, cultural landscape, sacred place or object, which is of cultural value to a Tribe that is either: (1) on or eligible for the California Historic Register or a local historic register; or (2) treated by the lead agency, at its discretion, as a traditional cultural resource per Public Resources Code 21074 (a)(1)(A)-(B). Public Resources Code Section 21083.09, added by AB 52, required the California Natural Resources Agency to update Appendix G of the CEQA Guidelines to address tribal cultural resources. Pursuant to Government Code Section 11346.6, on August 8, 2016 the California Natural Resources Agency adopted and amended the CEQA Guidelines to include consideration of impacts to tribal cultural resources. These amendments separated the consideration of paleontological resources from tribal cultural resources and updated the relevant sample questions to add specific consideration of tribal cultural resources.

AB 52 Consultation: Pursuant to Public Resources Code Section 21080.3.1(d) Anthony Morales, Chief of San Gabriel Band of Mission Indians was informed of the proposed Project. Pursuant to Public Resources Code Section 21080.3.1(b), LAHD requested response in writing within 30 days if consultation was desired. The informational package was delivered by certified mail on March 27, 2018. As of April 26, 2018, LAHD had not received a request for consultation. The 30-day response period closed and AB 52 has been complied with.

Would the Project 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:

- a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).

No Impact. As discussed in Section 4.5, *Cultural Resources*, the proposed Project is located on the Bethlehem Shipyard Historic District on the Historic District. Only one of the 18 contributors to the Historic District are located on the proposed Project's site, which would not be disturbed or compromised as a result of the proposed Project. Therefore, the proposed Project would have a less than significant impact on historical resources.

- b) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

No Impact. As discussed in Section 4.5, *Cultural Resources*, the potential to discover an unknown tribal cultural resource within the Project site is highly unlikely as the site is underlain by manmade fill. No evidence of tribal cultural resources has been identified within or adjacent to the project site and no “unexpected resources” are anticipated. Therefore, the proposed Project would not result in any impacts to known tribal cultural resources.

4.19 UTILITIES AND SERVICE SYSTEMS

Would the Project:

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

No Impact. The proposed Project would be confined to an area within the So. Cal. Ship Services site. No alterations would be made to the existing water drainage systems that would affect wastewater or stormwater facilities. There would be no new employees or operational changes under the proposed Project that would generate wastewater. Therefore, no impacts to wastewater treatment requirements would occur as a result of Project implementation. No mitigation is required.

- 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?

No Impact. Please see the response to 4.19(a) above. No impact would occur with the implementation of the proposed Project.

- c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. Please see the response to 4.19(a) above. No impact would occur with the implementation of the proposed Project.

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

Less than Significant. Water would not be expected to be needed during construction. After completion of the Project, no new demands to water supplies would occur. Therefore, impacts would be less than significant. No mitigation is required.

- e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. Please see the response to Section 4.19(a) above. No impact would occur with the implementation of the proposed Project.

- f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less than Significant. Minimal solid waste would be generated during construction activities and minimal material would need to be disposed of as a result of the proposed Project. Therefore, impacts to landfills and solid waste are expected to be short-term and less than significant. No mitigation is required.

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

Less than Significant. The proposed Project would be required to conform to the policies and programs of the City of Los Angeles' Solid Waste Integrated Resource Plan (City of Los Angeles 2013). Compliance with the Solid Waste Integrated Resource Plan would ensure sufficient permitted capacity to serve the proposed Project. As such, impacts would be less than significant. No mitigation is required.

4.20 MANDATORY FINDINGS OF SIGNIFICANCE

- a) Does the project 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?

Less than Significant Impact After Mitigation. The project has been determined to have no impacts or less than significant impacts. As discussed in Section 4.4, *Biological Resources*, because the project site is located in a developed area, there are no rare or endangered habitats or protected plant or wildlife species. Pile installation at the Project site could result in disturbances to marine mammals in the vicinity of construction operations and could potentially result in Level A harassment during impact driving of piles at very close range. Mitigation MM BIO-1 has been proposed to reduce the potential for impacts to marine mammals.

As discussed in Section 4.5, *Cultural Resources*, impacts to cultural resources would be less than significant because the entire Project site is underlain by manmade fill and zoned for industrial purposes. As a result, no known examples of major periods of California history or prehistory would be eliminated with implementation of the Project. Additionally, there is no demolition of any historic building nor structures associated with the proposed Project. Therefore, the proposed Project would not degrade the quality of the environment and impacts would be less than significant after mitigation.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a 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.)

Less than Significant. The proposed Project would result in no impacts or less than significant impacts to all resource areas. Because of the small scale and localized effects of the proposed Project, the potential incremental contribution would not be cumulatively considerable. Implementation of the Project will not result in a change of operations at the POLA. Impacts from construction will be short-term and less than significant, which would not contribute substantially to a cumulatively considerable impact.

- c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant. As discussed in the analysis above, implementation of the proposed construction project would not result in any significant environmental impacts. Therefore, no environmental effect which could cause substantial adverse effects on human beings, either directly or indirectly is associated with this project.

5. MITIGATION MONITORING AND REPORTING PROGRAM

CEQA requires public agencies approving projects with significant environmental impacts to adopt a Mitigation Monitoring and Reporting Program (MMRP). (California Public Resources Code, Section 21081.6). The purpose of this program is to ensure that when an IS/MND identifies measures to reduce potential environmental impacts to less-than-significant levels, those measures are implemented as detailed in the environmental document. The mitigation measure and lease measure are listed herein. As the lead agency, LAHD is responsible for implementation of a Mitigation Monitoring and Reporting Plan (MMRP). Once the Board of Harbor Commissioners adopts the MMRP, the applicable LAHD divisions would incorporate the mitigation monitoring/reporting requirements in the appropriate permits (i.e., real estate entitlements or lease permits). Therefore, in accordance with the aforementioned requirements, the MMRP lists each measure, describes the methods for implementation and verification, and identifies the responsible party or parties (see below).

Mitigation/Lease Measure	Timing and Methods	Responsible Party
<p>MM-BIO-1 Protect Marine Mammals. Although it is expected that marine mammals will voluntarily move away from the area at the commencement of the vibratory or “soft start” of pile driving activities, as a precautionary measure, pile driving activities will include establishment of a safety zone, by a qualified marine mammal professional, and the area surrounding the operations (including the safety zones) will be monitored for marine mammals by a qualified marine mammal observer.³</p>	<p>Timing: Throughout pile driving operations. Methods: Tenant shall include this measure in the contract specifications for construction. LAHD shall monitor implementation of mitigation measures during construction.</p>	<p>Implementation: Tenant through Construction Contractor Monitoring and Reporting: EMD and Construction Management Division.</p>

6. PROPOSED FINDING

LAHD has prepared this IS/MND to address the environmental effects of the proposed Project. Based on the analysis provided in this IS/MND, LAHD finds that with the incorporation of described revisions to the proposed Project and/or mitigation measures, the proposed Project would not have a significant effect on the environment.

³ Marine mammal professional qualifications shall be identified based on criteria established by LAHD. Upon selection as part of the construction award winning team, the qualified marine mammal professional shall develop site specific pile driving safety zone requirements, which shall follow NOAA Fisheries Technical Guidance Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (NOAA Fisheries 2016) in consultation with the Acoustic Threshold White Paper prepared for this purpose by LAHD (LAHD 2017c). Final pile driving safety zone requirements developed by the selected marine mammal professional shall be submitted to So. Cal. Ship Services and POLA’s Environmental Management Division.

7. PREPARERS AND CONTRIBUTORS

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8. ACRONYMS AND ABBREVIATIONS

(Q)M3-1	Quasi Heavy Industrial
AB	Assembly Bill
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
APP	Application for Port Permit
Basin	Southern California Air Basin
CAA	Clean Air Act
CAAP	Clean Air Action Plan
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH ₄	methane
CMP	Congestion Management Program
CO	carbon monoxide
CO ₂	carbon dioxide
CO _{2e}	carbon dioxide equivalent
CWA	Clean Water Act
dBA	A-weighted decibel
DTSC	Department of Toxic Substances
EMAP	Energy Management Action Plan
FEMA	Federal Emergency Management Agency
GHG	greenhouse gas
GWP	Global Warming Potential
HCP	Habitat Conservation Plan
IPaC	Information for Planning and Consultation
IS	Initial Study
LAFD	Los Angeles Fire Department
LAHD	Los Angeles Harbor Department
LAPD	Los Angeles Police Department
lbs/ day	pounds per day
LID	Low Impact Development
LOS	Level of Service

MND	Mitigated Negative Declaration
MT/yr	metric tons per year
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Council
NCCP	Natural Community Conservation Plan
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O ₃	ozone
PCB	Polychlorinated Biphenyl
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
POLA	Port of Los Angeles
Port Police	Los Angeles Port Police
RAP	Remedial Action Plan
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SEA	Significant Ecological Area
SLR	sea-level rise
SO _x	sulfur oxides
SWPPP	Stormwater Pollution Prevention Plan
TIA	Traffic Impact Analysis
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compound

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Appendix A:

Permit Renewal for So Cal Ship Services

Construction Emissions

May 2018

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Summary

Construction Emissions (Max. Daily)

Activity	Max. Daily Construction Emissions (lb/day)						
	NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Mobilization	3.0	0.2	1.8	0.3	0.2	0.0	1,224
Parking Area - Prep	10.1	0.8	7.6	8.4	1.0	0.0	4,028
Parking Area - Paving	7.9	0.7	4.5	0.5	0.3	0.0	2,371
Parking Area - Striping, Fencing, Lighting	2.8	2.1	3.7	0.2	0.2	0.0	1,050
Pier Shoring - Prep	7.3	0.8	10.5	0.4	0.3	0.0	2,096
Pier Shoring - Piling	9.7	0.7	4.9	0.5	0.4	0.0	2,416
Pier Shoring - Finishing	1.3	0.1	1.0	0.2	0.1	0.0	648
Pedestal Crane	4.5	0.4	4.5	0.3	0.2	0.0	1,681
Shore Power Supply	2.2	0.2	3.2	0.2	0.1	0.0	794
Demobilization	3.0	0.2	1.8	0.3	0.2	0.0	1,224
Project	10.1	2.1	10.5	8.4	1.0	0.0	4,028
CEQA Significance Threshold (1)	100	75	550	150	55	150	-
Significant?	No	No	No	No	No	No	-

(1) SCAQMD Air Quality Significance Thresholds (rev Mar 2015), <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook>

GHG = Greenhouse Gases = CO2e (includes CO2, CH4, and N2O emissions).

NOx = nitrogen oxides, VOC = volatile organic compounds, CO = carbon monoxide, PM10 = particulate matter 10 microns and less, PM2.5 = particulate matter 2.5 microns and less, SO2 = sulfur dioxide.

Construction GHG Emissions (Annual)

Activity	Max. Annual Construction GHG Emissions (metric tons/year)
Project Max. Annual	< 59
Project Max. Annual amortized over 30 Years	< 2.0
CEQA Significance Threshold (1)	10,000
Significant?	No

(1) SCAQMD Air Quality Significance Thresholds (rev Mar 2015), <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook>

30-year amortization per SCAQMD's Draft Oct 2008 Interim CEQA Greenhouse Gas (GHG) Significance Threshold Guidance Document

There are no CEQA annual significance thresholds for NOx, VOC, CO, PM10, PM2.5, or SO2.

Fuel Consumption from Construction Activities

Equipment Type	Fuel	Total Fuel Usage (gallons)
Off-road Construction Equipment and On-Road Construction Vehicles	Diesel	< 5,000
Worker vehicles	Gasoline	< 1,000
Total		< 6,000

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Daily Maximum Emissions by Task and Annual GHG Emissions

ID	Task Name	Duration (days)	Approx. Start Date	Approx. End Date	Max. Daily Construction Emissions (lb/day)						
					NOx	VOC	CO	PM10	PM2.5	SO2	GHG
1	Mobilization	1	7/1/2018	7/2/2018	3.0	0.2	1.8	0.3	0.2	0.0	1,224
2	Parking Area - Prep	12	7/2/2018	7/14/2018	10.1	0.8	7.6	8.4	1.0	0.0	4,028
3	Parking Area - Paving	10	7/14/2018	7/24/2018	7.9	0.7	4.5	0.5	0.3	0.0	2,371
4	Parking Area - Striping, Fencing, Lighting	6	7/24/2018	7/30/2018	2.8	2.1	3.7	0.2	0.2	0.0	1,050
5	Pier Shoring - Prep	9	7/30/2018	8/8/2018	7.3	0.8	10.5	0.4	0.3	0.0	2,096
6	Pier Shoring - Piling	4	8/8/2018	8/12/2018	9.7	0.7	4.9	0.5	0.4	0.0	2,416
7	Pier Shoring - Finishing	7	8/12/2018	8/19/2018	1.3	0.1	1.0	0.2	0.1	0.0	648
8	Pedestal Crane	7	8/19/2018	8/26/2018	4.5	0.4	4.5	0.3	0.2	0.0	1,681
9	Shore Power Supply	5	8/26/2018	8/31/2018	2.2	0.2	3.2	0.2	0.1	0.0	794
10	Demobilization	1	8/31/2018	9/1/2018	3.0	0.2	1.8	0.3	0.2	0.0	1,224
Max. Daily					10.1	2.1	10.5	8.4	1.0	0.0	4,028

Max. daily emissions assume tasks do not overlap.

Annual Construction GHG Emissions

	Max. Annual Construction GHG (CO2e) Emissions (metric tons/year)
Max. Annual	< 59
Max. Annual Amortized over 30 years	< 2.0

Max. Annual GHG conservatively assumes each task's Max. daily GHG emissions occur for entire duration of the task.

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Mobilization

Mobilization

Equipment/Activity	Vehicle Type	#	Hr/day	HP	Load Factor	mi/day	Max. Daily Construction Emissions (lb/day)						
							NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Large crawler crane	Offroad	1	0.5	300	0.29	-	0.1	0.0	0.1	0.0	0.0	0.0	51
40-ton crane	Offroad	1	0.5	164	0.29	-	0.1	0.0	0.2	0.0	0.0	0.0	28
Excavator	Offroad	1	0.5	164	0.38	-	0.1	0.0	0.2	0.0	0.0	0.0	37
Loader	Offroad	1	0.5	250	0.36	-	0.1	0.0	0.1	0.0	0.0	0.0	53
Grader	Offroad	1	0.5	183	0.41	-	0.1	0.0	0.1	0.0	0.0	0.0	44
Flatbed truck	Onroad	5	-	-	-	40	2.4	0.1	0.3	0.0	0.0	0.0	721
Worker commute	Onroad	10	-	-	-	40	0.1	0.0	0.8	0.0	0.0	0.0	291
Fugitive dust										0.2	0.1		
Total							3.0	0.2	1.8	0.3	0.2	0.0	1,224

Offroad equipment emissions = (#) * (Hr/day) * (Hp) * (Load Factor) * (Emission Factor [g/hp-hr])

See Offroad Diesel Equipment Details for emissions assumptions.

See Onroad Vehicle Details for emissions assumptions.

Fugitive dust includes onroad vehicle travel on paved roads and brake and tire wear.

Task total duration: 1 day

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Parking - Prep

Parking - Prep

Equipment/Activity	Vehicle Type	#	Hr/day	Hp	Load Factor	mi/day	Max. Daily Construction Emissions (lb/day)						
							NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Excavator	Offroad	1	8	164	0.38	-	2.2	0.2	3.3	0.1	0.1	0.0	585
Loader	Offroad	1	8	250	0.36	-	1.4	0.2	1.6	0.1	0.1	0.0	844
Grader	Offroad	1	8	183	0.41	-	1.2	0.2	1.3	0.1	0.0	0.0	704
Haul truck (10-wheel)	Onroad	8	-	-	-	40	3.8	0.1	0.4	0.0	0.0	0.0	1,171
Flatbed truck	Onroad	3	-	-	-	40	1.5	0.0	0.2	0.0	0.0	0.0	433
Worker commute	Onroad	10	-	-	-	40	0.1	0.0	0.8	0.0	0.0	0.0	291
Fugitive dust	-	-	-	-	-	-	-	-	-	8.2	0.8	-	-
Total							10.1	0.8	7.6	8.4	1.0	0.0	4,028

Offroad equipment emissions = (#) * (Hr/day) * (Hp) * (Load Factor) * (Emission Factor [g/hp-hr])

See Offroad Diesel Equipment Details for emissions assumptions.

See Onroad Vehicle Details for emissions assumptions.

Fugitive dust includes grading, soil/material handling, onroad vehicle travel on paved roads, brake and tire wear.

General task description:

Preparation of relatively flat lot for asphalt paving. Includes 400 ft of trenching for conduit.

Task total duration: 12 days

Parameter	Value	Basis/Assumption
Disturbed area	1 acre	Conservative estimate. Actual estimated Parcel 8 area to be paved is ~0.78 acres (30,148 ft2)
Excavate (misc):	540 CY	estimate. misc (excluding trenching)
Excavate (trench):	90 CY	trenching. Estimate: 400' x 2' x 3'
Excavate (total):	630 CY total	misc + trench
Soil density:	1.26 ton/CY	CalEEMod default (~1.5 g/m3 = approx. density of silty loam soil).
Excavation rate:	45 CY/day 16 ton/day	
Haul trucks:	2 trucks/day	max. 15 tons per 10-wheel haul truck. For misc. soil (excludes trench soil).
Subbase		
Gravel subbase:	540 CY total 45 CY/day	estimate. Assume 4" deep * disturbed area.
Density:	1.75 ton/CY	estimate for crushed stone base
	79 ton/day	
Haul trucks:	6 trucks/day	max. 15 tons per 10-wheel haul truck. For misc. soil (excludes trench soil).

Fugitive dust from soil handling/drop operations:

AP42, Section 13.2.4 (Aggregate Handling and Storage Piles, 11/2006):

$$PM_{10} \text{ (lb/ton)} = 0.35 * (0.0032) * ((u / 5)^{1.3} / (M / 2)^{1.4})$$

$$PM_{2.5} \text{ (lb/ton)} = 0.053 * (0.0032) * ((u / 5)^{1.3} / (M / 2)^{1.4})$$

where u = mean wind speed and M = material moisture content

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Parking - Prep

<u>Parameter</u>	<u>Value</u>	<u>Basis/Assumption</u>
u:	6.4 mph	Long Beach avg wind speed = 6.4 mi/hr (AP42, Ch 7.1 (11/2006), Table 7.1-9)
M:	12 %	CalEEMod default, "Cover" material. (Range: Dry = 2%, Moist = 15%, Wet = 50%)
PM10 :	0.00013 lb/ton	
PM2.5:	0.00002 lb/ton	

Fugitive dust from grading:

AP42, Ch 11.9 (Western Surface Coal Mining, 11/2006), Table 11.9-1:

$$PM10 \text{ (lb/mile)} = 0.60 * 0.051 (S)^{2.0}$$

$$PM2.5 \text{ (lb/mile)} = 0.031 * 0.040 (S)^{2.5}$$

where S = mean vehicle speed (mph)

<u>Parameter</u>	<u>Value</u>	<u>Basis/Assumption</u>
S:	4 mph	Estimated mean speed during grading (blade down). Est. range: 2-5 mph for finishing.
PM10 EF:	0.490 lb/mi	
PM2.5 EF:	0.040 lb/mi	
job efficiency:	50%	estimate (ie. 50% means during 8 hr of operation only 4 hr is grading with blade down)
PM10:	7.83 lb/day	(Grading speed [mi/hr]) * (job efficiency [%]) * (Operation [hr/day])
PM2.5:	0.63 lb/day	

Fugitive dust mitigation from watering:

<u>Parameter</u>	<u>Value</u>	<u>Basis/Assumption</u>
Dust mitigation	0%	no watering mitigation.

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Parking - Paving

Parking - Paving

Equipment/Activity	Vehicle Type	#	Hr/day	Hp	Load Factor	mi/day	Max. Daily Construction Emissions (lb/day)						
							NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Paver	Offroad	1	8	75	0.42	-	1.5	0.1	1.9	0.1	0.1	0.0	296
Roller	Offroad	1	8	49	0.38	-	1.2	0.1	1.3	0.0	0.0	0.0	175
Haul truck (10-wheel)	Onroad	11	-	-	-	40	5.3	0.1	0.5	0.0	0.0	0.0	1,610
Worker commute	Onroad	10	-	-	-	40	0.1	0.0	0.8	0.0	0.0	0.0	291
Fugitive dust	-	-	-	-	-	-	-	-	-	0.3	0.2	-	-
Fugitive VOC	-	-	-	-	-	-	-	0.3	-	-	-	-	-
Total							7.9	0.7	4.5	0.5	0.3	0.0	2,371

Offroad equipment emissions = (#) * (Hr/day) * (Hp) * (Load Factor) * (Emission Factor [g/hp-hr])

See Offroad Diesel Equipment Details for emissions assumptions.

See Onroad Vehicle Details for emissions assumptions.

Fugitive dust includes onroad vehicle travel on paved roads and brake and tire wear.

Task total duration: 10 days

Haul truck count estimated from asphalt quantity:

Paving:

<u>Parameter</u>	<u>Value</u>	<u>Basis/Assumption</u>
Paved area:	1 acre	conservative estimate (paved area expected to be less than 1 acre).
Paved area depth:	6 inches	estimate.
Asphalt density:	145 lb/ft ³	
Asphalt total:	1,579 tons	
Asphalt paving rate:	157.9 tons/day	
	4,356 ft ² /day	
Haul trucks:	11 per day	15-ton max. per 10-wheel haul truck.

Paving fugitive VOC:

<u>Parameter</u>	<u>Value</u>	<u>Basis/Assumption</u>
VOC EF	2.62 lb/acre	CalEEMod default.
Paved area:	1 acres	see above
Paving rate:	0.100 acres/day	
VOC daily:	0.26 lb/day	

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Parking - Striping, Fencing, Lighting

Parking - Striping, Fencing, Lighting

Equipment/Activity	Vehicle Type	#	Hr/day	Hp	Load Factor	mi/day	Max. Daily Construction Emissions (lb/day)						
							NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Backhoe	Offroad	1	8	144	0.37	-	1.9	0.2	2.8	0.0	0.0	0.0	500
Concrete mixer truck	Onroad	1	-	-	-	30	0.4	0.0	0.0	0.0	0.0	0.0	112
Haul truck (10-wheel)	Onroad	1	-	-	-	40	0.5	0.0	0.0	0.0	0.0	0.0	146
Worker commute	Onroad	10	-	-	-	40	0.1	0.0	0.8	0.0	0.0	0.0	291
Fugitive dust	-	-	-	-	-	-				0.2	0.1		
Striping Fugitive VOC	-	-	-	-	-	-		1.8					
Total							2.8	2.1	3.7	0.2	0.2	0.0	1,050

Offroad equipment emissions = (#) * (Hr/day) * (Hp) * (Load Factor) * (Emission Factor [g/hp-hr])

See Offroad Diesel Equipment Details for emissions assumptions.

See Onroad Vehicle Details for emissions assumptions.

Fugitive dust includes soil handling, onroad vehicle travel on paved roads, brake and tire wear.

General task description:

Striping at Parcel 8 paved area, installation of fencing at Parcels 6 and 8, and installation of light poles in Parcels 6 and 8.

Task total duration: 6 days

Striping VOC:

<u>Parameter</u>	<u>Value</u>	<u>Basis/Assumption</u>
VOC content:	100 g/L	SCAQMD VOC limit for traffic coatings is 100 g/L.
Coating usage:	12 gal/mile	estimate, per stripe.
Paved area:	1 acres	see Paving task.
Stripe length:	1.1 mi.	estimate, assumes 80% of paved area is marked for 9'x18' parking spaces.
Coating usage:	13.2 gal	
VOC:	11 lb	
VOC daily:	1.83 lb/day	

Fencing:

<u>Parameter</u>	<u>Value</u>	<u>Basis/Assumption</u>
Fence length:	1000 ft	estimated perimeter for Parcels 8 and 9.
Fence posts:	168 posts	estimate: 6 ft apart
Fence excavation:	0.18 CY ea 30.2 CY total 5.0 CY/day	estimate. 4' deep x 1.25' dia. Every 6 ft. CY = cubic yard.
Light pole count:	10 total	estimate
Light pole excavation:	0.70 CY ea 7.0 CY total 1.2 CY/day	estimate. 6' deep x 2' dia.
Total excavation:	6.2 CY/day 7.8 ton/day	assumes 1.26 ton/CY
Haul trucks daily:	1 trucks/day	max. 15 tons per 10-wheel haul truck. Assumes soil bulk density of 1.26 ton/CY.

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Parking - Striping, Fencing, Lighting

Fence concrete:	0.18 CY ea	estimate
	30.2 CY total	
	5.0 CY/day	
Light pole concrete:	0.93 CY ea	estimate. Assume 8' (2' aboveground) x 2' dia.
	9.3 CY total	
	1.6 CY/day	
Concrete total:	6.6 CY/day	fence + light pole concrete
Mixer truck capacity:	8 CY/truck	8 CY standard capacity truck
Mixer trucks daily:	1 trucks/day	

Material Handling/Drop Operations:

AP42, Section 13.2.4 (Aggregate Handling and Storage Piles, 11/2006):

$$PM_{10} \text{ (lb/ton)} = 0.35 * (0.0032) * ((u / 5)^{1.3} / (M / 2)^{1.4})$$

$$PM_{2.5} \text{ (lb/ton)} = 0.053 * (0.0032) * ((u / 5)^{1.3} / (M / 2)^{1.4})$$

where u = mean wind speed and M = material moisture content

<u>Parameter</u>	<u>Value</u>	<u>Basis/Assumption</u>
u:	6.4 mph	Long Beach avg wind speed = 6.4 mi/hr (AP42, Ch 7.1 (11/2006), Table 7.1-9)
M:	12 %	CalEEMod default 12%, "Cover" material. (Range: Dry = 2%, Moist = 15%, Wet = 50%)
PM10 :	0.00013 lb/ton	
PM2.5:	0.00002 lb/ton	

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Pier Shoring - Prep, Piling, Finishing

Pier Shoring - Prep

Equipment/Activity	Vehicle Type	#	Hr/day	Hp	Load Factor	mi/day	Max. Daily Construction Emissions (lb/day)						
							NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Backhoe	Offroad	1	8	144	0.37	-	1.9	0.2	2.8	0.0	0.0	0.0	500
Welder	Offroad	2	8	25	0.42	-	1.3	0.1	1.4	0.1	0.0	0.0	197
Compressor	Offroad	2	8	122	0.42	-	3.6	0.4	5.4	0.1	0.1	0.0	962
Haul truck (10-wheel)	Onroad	1	-	-	-	40	0.5	0.0	0.0	0.0	0.0	0.0	146
Worker commute	Onroad	10	-	-	-	40	0.1	0.0	0.8	0.0	0.0	0.0	291
Fugitive dust	-	-	-	-	-	-	-	-	-	0.2	0.1	-	-
Total							7.3	0.8	10.5	0.4	0.3	0.0	2,096

Offroad equipment emissions = (#) * (Hr/day) * (Hp) * (Load Factor) * (Emission Factor [g/hp-hr])

See Offroad Diesel Equipment Details for emissions assumptions.

See Onroad Vehicle Details for emissions assumptions.

Fugitive dust includes onroad vehicle travel on paved roads and brake and tire wear.

Task total duration: 9 days

Parameter	Value	Basis/Assumption
Excavated quantity:	60 CY	estimate (pier/concrete misc. debris)
Material density:	1.20 ton/CY	estimate of 1.2 ton/CY for "construction debris, asphalt or concrete: loose" (calrecycle.ca.gov)
Excavation rate:	8 ton/day 7 CY/day	
Total trucks	1 trucks/day	15 ton capacity per 10-wheel haul truck.

Fugitive dust from material handling:

AP42, Section 13.2.4 (Aggregate Handling and Storage Piles, 11/2006):

$$PM10 \text{ (lb/ton)} = 0.35 * (0.0032) * ((u / 5)^{1.3} / (M / 2)^{1.4})$$

$$PM2.5 \text{ (lb/ton)} = 0.053 * (0.0032) * ((u / 5)^{1.3} / (M / 2)^{1.4})$$

where u = mean wind speed and M = material moisture content

Parameter	Value	Basis/Assumption
u:	6.4 mph	Long Beach avg wind speed = 6.4 mi/hr (AP42, Ch 7.1 (11/2006), Table 7.1-9)
M:	12 %	CalEEMod default is 12%, "Cover" material. (Range: Dry = 2%, Moist = 15%, Wet = 50%)
PM10 :	0.00013 lb/ton	
PM2.5:	0.00002 lb/ton	

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Pier Shoring - Prep, Piling, Finishing

Pier Shoring - Piling

Equipment/Activity	Vehicle Type	#	Hr/day	HP	Load Factor	mi/day	Max. Daily Construction Emissions (lb/day)						
							NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Large crawler crane	Offroad	1	8	300	0.29	-	1.6	0.2	1.5	0.1	0.1	0.0	816
Pile driver	Offroad	1	2	196	1	-	5.1	0.4	0.8	0.2	0.2	0.0	460
Shuttlelift carrydeck crane	Offroad	1	8	100	0.29	-	1.0	0.1	1.5	0.0	0.0	0.0	272
Flatbed truck	Onroad	4	-	-	-	40	2.0	0.1	0.2	0.0	0.0	0.0	577
Worker commute	Onroad	10	-	-	-	40	0.1	0.0	0.8	0.0	0.0	0.0	291
Fugitive dust	-	-	-	-	-	-	-	-	-	0.2	0.1	-	-
Total							9.7	0.7	4.9	0.5	0.4	0.0	2,416

Offroad equipment emissions = (#) * (Hr/day) * (Hp) * (Load Factor) * (Emission Factor [g/hp-hr]) + fugitive dust from material handling (if applicable)

See Offroad Diesel Equipment Details for emissions assumptions.

See Onroad Vehicle Details for emissions assumptions.

Fugitive dust includes onroad vehicle travel on paved roads and brake and tire wear.

Task total duration: 4 days

Parameter	Value	Basis/Assumption
Pile driving:	0.5 hr/pile	POLA staff: 0.25 hr/pile. Use 0.5 hr/pile for estimate.
Piles daily:	4 piles/day	assume 4 piles/day. Range estimate: 4-8 piles/day (min. 1 hr/pile including setup)
Piles per truck:	1 pile/truck	assume 18 ton/pile (600 lb/ft * 60 ft), 25-ton flatbed truck capacity.
Flatbed trucks daily:	4 trucks/day	
Total piles	16 piles	

Pier Shoring - Finishing

Equipment/Activity	Vehicle Type	#	Hr/day	HP	Load Factor	mi/day	Max. Daily Construction Emissions (lb/day)						
							NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Concrete boom truck	Onroad	1	-	-	-	30	0.4	0.0	0.0	0.0	0.0	0.0	115
Concrete boom pump	-	-	-	-	-	-	0.1	0.0	0.0	0.0	0.0	0.0	18
Concrete mixer truck	Onroad	2	-	-	-	30	0.8	0.0	0.1	0.0	0.0	0.0	225
Worker commute	Onroad	10	-	-	-	40	0.1	0.0	0.8	0.0	0.0	0.0	291
Fugitive dust	-	-	-	-	-	-	-	-	-	0.2	0.1	-	-
Total							1.3	0.1	1.0	0.2	0.1	0.0	648

Offroad equipment emissions = (#) * (Hr/day) * (Hp) * (Load Factor) * (Emission Factor [g/hp-hr]) + fugitive dust from material handling (if applicable)

See Offroad Diesel Equipment Details for emissions assumptions.

See Onroad Vehicle Details for emissions assumptions.

Fugitive dust includes onroad vehicle travel on paved roads and brake and tire wear.

Task total duration: 7 days

Parameter	Value	Basis/Assumption
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Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Pier Shoring - Prep, Piling, Finishing

Concrete total: 90 CY estimate
Concrete daily: 13 CY/day
Mixer truck capacity: 8 CY/truck standard concrete mixer truck capacity is 8 CY
Mixer trucks daily: 2 trucks/day

Concrete boom truck pump:

Concrete pumping emission factors	Concrete pumping emission factors (grams/CY)						
	NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Concrete pumping emission factors	2.062	0.052	0.200	0.016	0.016	0.006	640.8

Factors derived from EMFAC2014 and boom truck pump fuel use estimate (two 61-meter boom trucks: 41.34-52.1 gal diesel to pump ~825 CY over 5 hours).

Ref:<http://concretepumping.com/topic/schwing-runs-fuel-efficiency-test-4-pumps-pumping-into-each-other-for-5-hours>

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Pedestal Crane Install

Pedestal Crane Install

Equipment/Activity	Vehicle Type	#	Hr/day	Hp	Load Factor	mi/day	Max. Daily Construction Emissions (lb/day)						
							NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Large crawler crane	Offroad	1	8	300	0.29	-	1.6	0.2	1.5	0.1	0.1	0.0	816
Aerial Lift	Offroad	2	8	49	0.31	-	1.9	0.2	2.0	0.1	0.1	0.0	285
Flatbed truck	Onroad	2	-	-	-	40	1.0	0.0	0.1	0.0	0.0	0.0	288
Worker commute	Onroad	10	-	-	-	40	0.1	0.0	0.8	0.0	0.0	0.0	291
Fugitive dust	-	-	-	-	-	-	-	-	-	0.2	0.1	-	-
Total							4.5	0.4	4.5	0.3	0.2	0.0	1,681

Offroad equipment emissions = (#) * (Hr/day) * (Hp) * (Load Factor) * (Emission Factor [g/hp-hr])

See Offroad Diesel Equipment Details for emissions assumptions.

See Onroad Vehicle Details for emissions assumptions.

Fugitive dust includes onroad vehicle travel on paved roads and brake and tire wear.

Task total duration: 7 days

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Construction Emissions - May 2018

Shore Power Supply

Shore Power Supply

Equipment/Activity	Vehicle Type	#	Hr/day	Hp	Load Factor	mi/day	Max. Daily Construction Emissions (lb/day)						
							NOx	VOC	CO	PM10	PM2.5	SO2	GHG
40-ton crane	Offroad	1	8	164	0.29	-	1.7	0.2	2.5	0.0	0.0	0.0	446
Flatbed truck	Onroad	1	-	-	-	40	0.5	0.0	0.1	0.0	0.0	0.0	144
Worker commute	Onroad	7	-	-	-	40	0.1	0.0	0.6	0.0	0.0	0.0	204
Fugitive dust	-	-	-	-	-	-				0.1	0.1		
Total							2.2	0.2	3.2	0.2	0.1	0.0	794

Offroad equipment emissions = (#) * (Hr/day) * (Hp) * (Load Factor) * (Emission Factor [g/hp-hr])

See Offroad Diesel Equipment Details for emissions assumptions.

See Onroad Vehicle Details for emissions assumptions.

Fugitive dust includes onroad vehicle travel on paved roads and brake and tire wear.

Task total duration: 5 days

<u>Parameter</u>	<u>Value</u>	<u>Basis/Assumption</u>
Flatbed trucks daily:	1 per day	estimate for delivery of transformer and other misc items (k-rail, etc.)

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Construction Emissions - May 2018

Crane Demobilization

Demobilization

Equipment/Activity	Vehicle Type	#	Hr/day	Hp	Load Factor	mi/day	Max. Daily Construction Emissions (lb/day)						
							NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Large crawler crane	Offroad	1	0.5	300	0.29	-	0.1	0.0	0.1	0.0	0.0	0.0	51
40-ton crane	Offroad	1	0.5	164	0.29	-	0.1	0.0	0.2	0.0	0.0	0.0	28
Excavator	Offroad	1	0.5	164	0.38	-	0.1	0.0	0.2	0.0	0.0	0.0	37
Loader	Offroad	1	0.5	250	0.36	-	0.1	0.0	0.1	0.0	0.0	0.0	53
Grader	Offroad	1	0.5	183	0.41	-	0.1	0.0	0.1	0.0	0.0	0.0	44
Flatbed truck	Onroad	5	-	-	-	40	2.4	0.1	0.3	0.0	0.0	0.0	721
Worker commute	Onroad	10	-	-	-	40	0.1	0.0	0.8	0.0	0.0	0.0	291
Fugitive dust	-	-	-	-	-	-				0.2	0.1		
Total							3.0	0.2	1.8	0.3	0.2	0.0	1,224

Offroad equipment emissions = (#) * (Hr/day) * (Hp) * (Load Factor) * (Emission Factor [g/hp-hr])

See Offroad Diesel Equipment Details for emissions assumptions.

See Onroad Vehicle Details for emissions assumptions.

Fugitive dust includes onroad vehicle travel on paved roads and brake and tire wear.

Task total duration: 1 day

See Offroad Diesel Equipment Details for emissions assumptions.

See Onroad Vehicle Details for onroad vehicle emissions assumptions.

Permit Renewal for So Cal Ship Services

Construction Emissions - May 2018

Offroad Diesel Equipment Details

Offroad Diesel Equipment Details

Equipment Description	CARB Off-Road Category (for Load Factor)	Load Factor	Engine Rating (hp)	Fuel	Engine Model Year	CHrs (hr)	Fuel Use (gal/hr)	Exhaust Emission Factor (g/hp-hr)						
								NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Loader	Rubber Tired Loaders	0.36	250	DSL	2014	4,000	4.65	0.88	0.12	1.02	0.039	0.035	5.0E-03	532
Excavator	Excavators	0.38	164	DSL	2014	4,000	3.22	1.97	0.21	2.99	0.053	0.048	5.0E-03	532
Backhoe	Tractors/Loaders/Backhoes	0.37	144	DSL	2014	4,000	2.75	1.97	0.21	2.99	0.053	0.048	5.0E-03	532
Aerial Lift	Aerial Lifts	0.31	49	DSL	2014	4,000	0.79	3.54	0.31	3.82	0.136	0.125	5.0E-03	532
Grader	Graders	0.41	183	DSL	2014	4,000	3.88	0.88	0.12	1.02	0.039	0.035	5.0E-03	532
Large crawler crane	Cranes	0.29	300	DSL	2014	4,000	4.50	1.02	0.12	0.99	0.042	0.039	5.0E-03	532
40-ton crane	Cranes	0.29	164	DSL	2014	4,000	2.46	1.97	0.21	2.99	0.053	0.048	5.0E-03	532
Shuttlelift carrydeck crane	Cranes	0.29	100	DSL	2014	4,000	1.50	1.97	0.21	2.99	0.053	0.048	5.0E-03	532
Pile driver	None (pile driver, assume 100% load factor)	1.00	196	DSL	1998	1,250	10.13	5.91	0.41	0.95	0.200	0.184	5.0E-03	532
Compressor	Other Construction Equipment	0.42	122	DSL	2014	4,000	2.65	1.97	0.21	2.99	0.053	0.048	5.0E-03	532
Welder	Other Construction Equipment	0.42	25	DSL	2014	4,000	0.54	3.54	0.31	3.82	0.136	0.125	5.0E-03	532
Paver	Pavers	0.42	75	DSL	2014	4,000	1.63	2.62	0.21	3.37	0.117	0.108	5.0E-03	532
Roller	Rollers	0.38	49	DSL	2014	4,000	0.96	3.54	0.31	3.82	0.136	0.125	5.0E-03	532

Notes:

Load factors from CARB's 2010 OFFROAD model (Table D-7: <https://www.arb.ca.gov/regact/2010/offroadlsi10/offroadappd.pdf>)

All offroad diesel construction equipment assumed to be 2014 or newer at start of construction in 2018 (exception: pile driver is modeled as a 20-year old engine).

NOx, THC, CO, and PM10 diesel emission factors from CARB's "2017 Off-road Diesel Emission Factors" (https://www.arb.ca.gov/msei/ordiesel/ordas_ef_fcf_2017_v7.xlsx)

VOC (ROG) calculated from THC assuming VOC = 1.21 * THC for diesel (CARB, https://www.arb.ca.gov/msei/ordiesel/rog_tog_hcratio.xls).

PM2.5 calculated from PM10 assuming PM2.5 = 0.92 * PM10 for diesel (CARB, https://www.arb.ca.gov/msei/ordiesel/pm25_pm10reference.pdf).

SO2 EF calculated from fuel sulfur content and engine BSFC. Details below.

CO2 EF calculated from EPA CO2 EF for mobile diesel sources and engine BSFC. Details below.

CH4 and N2O calculated from EPA CH4 and N2O factors for diesel construction equipment and engine BSFC. Details below.

Fuel estimated based on GHG emission factor.

CHrs = operating hours accumulated on the equipment. Used to estimate emission factor deterioration rates (for NOx, VOC, CO, PM10) due to equipment wear/aging.

EF = Zh + Dr * CHrs, where:

Zh = Zero-hour emission rate, when equipment is new (g/hp-hr) - from CARB's "2017 Off-road Diesel Emission Factors" (https://www.arb.ca.gov/msei/ordiesel/ordas_ef_fcf_2017_v7.)

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Construction Emissions - May 2018

Offroad Diesel Equipment Details

Dr = Deterioration rate or increase in Zh emission rate (g/hp-hr²) - from CARB's "2017 Off-road Diesel Emission Factors" (https://www.arb.ca.gov/msei/ordiesel/ordas_ef_fcf_2017_v7)

<u>Parameter</u>	<u>Value</u>	<u>Basis</u>
Annual usage:	1000 hr/yr	all equipment except pile driver (which assumes 1,250 hr total)
CHrs total = CHrs * (Project Year - Engine Model Year)		
Deterioration rates vary by engine size (hp).		

SO2 emission factor calculated from sulfur content of fuel and estimated engine BSFC:

<u>Parameter</u>	<u>Value</u>	<u>Basis</u>
Engine BSFC:	0.367 lb/hp-hr	CARB OFFROAD2011 model. Assumes same BSFC across all HP ranges.
Diesel max. sulfur content:	15 ppmw as S	ULSD max. is 15 ppmw as S.
SO2 EF:	0.005 g/hp-hr	Calc

GHG emission factor calculated as follows:

<u>Parameter</u>	<u>Value</u>	<u>Basis</u>
Engine BSFC:	0.367 lb/hp-hr	CARB OFFROAD2011 model. Assumes same BSFC across all HP ranges.
CO2 EF for diesel:	10.21 kg/gal	Table A-1, EPA's Mobile Combustion CO2 Emission Factors, "emission-factors_nov_2015_v2.pdf"
CO2 EF:	528 g/hp-hr	diesel density = 7.1 lb/gal.
CH4 EF	0.57 g/gal	Table 5, EPA's Mobile Combustion CH4 and N2O Emission Factors for Non-Road Vehicles.
	0.0295 g/hp-hr	diesel density= 7.1 lb/gal, BSFC=0.367 lb/hp-hr
N2O EF:	0.26 g/gal	Table 5, EPA's Mobile Combustion CH4 and N2O Emission Factors for Non-Road Vehicles.
	0.0134 g/hp-hr	diesel density 7.1 lb/gal, BSFC=0.367 lb/hp-hr
CO2 GWP	1	2014 IPCC Fifth Assessment Report (AR5), http://www.ipcc.ch/report/ar5/
CH4 GWP:	28	2014 IPCC Fifth Assessment Report (AR5), http://www.ipcc.ch/report/ar5/
N2O GWP:	265	2014 IPCC Fifth Assessment Report (AR5), http://www.ipcc.ch/report/ar5/
GHG EF:	532 g/hp-hr	GHG = CO2e = GWP*CO2 + GWP*CH4 + GWP*N2O

Diesel pile hammer hp rating:

Diesel consumption rate:	11 gal/hr	Delmag spec sheet (11 gal/hr for 15,000 kg Delmag D150).
BSFC:	0.4 lb/hp-hr	estimate. Assumes lower fuel efficiency than typical 4-stroke diesel engine.
HP equivalent to CO2 in 1 gal/hr	196 hp	hp = (Diesel usage [gal/hr]) * (7.1 [lb/gal]) / (BSFC [lb/hp-hr])

Fugitive dust from off-road equipment operations such as material handling and grading is calculated by task.

Consistent with CalEEMod (User Guide, Nov 2017), potential fugitive dust from off-road vehicle travel is not estimated.

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Construction Emissions - May 2018

Onroad Vehicle Details

Onroad Vehicle Details

Vehicle Description	EMFAC Vehicle Class	Engine Model Year	Fuel	Fuel Use (gal/day)	Distance (mile/day)	Idling (min/day)	Daily Emissions, excluding Fugitive Dust (lb/day/vehicle)						Fugitive dust (lb/day/veh)		
							NOx	VOC	CO	PM10	PM2.5	SO2	GHG	PM10	PM2.5
Haul truck (10-wheel)	T7 Single	Aggregated	DSL	6.50	40	10	0.478	0.012	0.047	0.004	0.004	0.001	146.4	0.01808	0.01131
Flatbed truck	T7 tractor	Aggregated	DSL	6.41	40	10	0.489	0.014	0.053	0.002	0.002	0.001	144.2	0.01808	0.01131
Concrete boom truck	T7 Single	Aggregated	DSL	5.09	30	40	0.396	0.011	0.042	0.003	0.003	0.001	114.5	0.01356	0.00848
Concrete mixer truck	T7 Single	Aggregated	DSL	4.99	30	25	0.379	0.010	0.039	0.003	0.003	0.001	112.3	0.01356	0.00848
Worker commute	LDA	Aggregated	GAS	1.50	40	0	0.007	0.004	0.085	0.000	0.000	0.000	29.1	0.01499	0.00816

Vehicle Description	Exhaust Emission Factors (grams/mile)							Fugitive Dust Brake and Tire Wear Factors (grams/mile)				Road Dust (grams/mile)	
	NOx	VOC	CO	PM10	PM2.5	SO2	GHG	PM10-Tire Wear	PM10-Brake Wear	PM2.5-Tire Wear	PM2.5-Brake Wear	PM10	PM2.5
Haul truck (10-wheel)	5.287	0.132	0.514	0.042	0.040	0.016	1643	0.036	0.062	0.009	0.026	0.16	0.04
Flatbed truck	5.407	0.154	0.591	0.027	0.025	0.015	1614	0.036	0.062	0.009	0.026	0.16	0.04
Concrete boom truck	5.287	0.132	0.514	0.042	0.040	0.016	1643	0.036	0.062	0.009	0.026	0.16	0.04
Concrete mixer truck	5.287	0.132	0.514	0.042	0.040	0.016	1643	0.036	0.062	0.009	0.026	0.16	0.04
Worker commute	0.075	0.020	0.872	0.002	0.002	0.003	327	0.008	0.037	0.002	0.016	0.16	0.04

Vehicle Description	Idling Emission Factors (g/hr)							Startup/Hotsoak/Runloss Emission Factors (g/trip/vehicle)						
	NOx	VOC	CO	PM10	PM2.5	SO2	GHG	NOx	VOC	CO	PM10	PM2.5	SO2	GHG
Haul truck (10-wheel)	31.78	1.501	5.555	0.154	0.147	0.038	3996	0	0	0	0	0	0	0
Flatbed truck	32.32	0.939	3.774	0.012	0.011	0.049	5108	0	0	0	0	0	0	0
Concrete boom truck	31.78	1.501	5.555	0.154	0.147	0.038	3996	0	0	0	0	0	0	0
Concrete mixer truck	31.78	1.501	5.555	0.154	0.147	0.038	3996	0	0	0	0	0	0	0
Worker commute	0	0	0	0	0	0	0	0.120	0.537	1.761	0.0024	0.0022	0.0007	66.2

Notes:

NOx, VOC, CO, PM10, PM2.5, SO2, and CO2 emission factors (except road dust) from CARB's EMFAC2014 (v1.0.7) model for calendar year 2020 and assume aggregated speeds.

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Construction Emissions - May 2018

Onroad Vehicle Details

Road dust emission factors calculated using EPA's AP42 entrained road dust equation (see below).

Daily emissions (DSL vehicles) = (miles/day) * (EF [g/mile]) + (idling time [min/day]) / (60 [min/hr]) * (Idling EF [g/hr])

Daily emissions (GAS vehicles) = (miles/day) * (EF [g/mile]) + (2 [trips/day]) * (EF [g/trip/vehicle])

For worker commute vehicles, 2 trips/day assumed for startup/hotsoak/runloss emissions.

LDA = Light-duty automobile

CalEEMod default Home-Work trip length in South Coast Air Basin is 19.8 miles (Rural) and 14.7 miles (Urban). Emissions estimates assume 20 miles (40 miles roundtrip).

Fuel use estimated from GHG emissions.

Fugitive dust for PAVED roads:

EPA's AP42, Chapter 13.2.1 (Paved Roads, 1/2011):

PM10 EF (g/mile) = 1 * (sL)^(0.91) * (W)^(1.02)

PM2.5 EF (g/mile) = 0.25 * (sL)^(0.91) * (W)^(1.02)

where sL = surface silt loading (g/m²), W = average vehicle weight (ton)

Parameter	Value	Basis/Assumption
sL:	0.050 g/m ²	Road mix estimate for Los Angeles Co.: 20% Freeway @ 0.015 g/m ² , 50% Major/Collector @ 0.013 g/m ² . 30% Local @ 0.135 g/m ² . sL from CARB, Methodology 7.9 (Entrained Road Travel, Paved Road Dust) Nov 2016, Table 3, https://www.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2016.pdf
W:	2.4 tons	CalEEMod v2016.3.2 default. Estimated avg weight of ALL vehicles traveling on roads.
PM10:	0.160 g/mile	
PM2.5:	0.040 g/mile	

Per AP42, paved road EF is applied using fleet avg weight of ALL vehicles traveling on road (not applied by vehicle weight class).

Road dust emissions assume no credit/reduction for precipitation.

Fugitive dust for UNPAVED roads:

None for South Coast Air Basin per CalEEMod Appendix D (Table 4.1 Road Characteristics): South Coast Air Basin default is 100% paved roads for Construction Worker, Construction Hauling, and Construction Vendor trips.

GHG EF: GWP*CO₂ + GWP*CH₄ + GWP*N₂O

CH₄ and N₂O emission factors:

Vehicle type	CH ₄ (g/mile)	N ₂ O (g/mile)
DSL	0.0051	0.0048
GAS	0.0358	0.0473

Table B-1, https://www.epa.gov/sites/production/files/2016-03/documents/mobileemissions_3_2016.pdf

DSL EFs are for Medium and Heavy Duty Diesel and assumed to apply to all on-road diesel vehicles identified above.

GAS EFs are for 1995 model year gasoline passenger car (25-year old vehicle is conservative assumption) and are assumed to apply to all on-road gasoline vehicles identified above.

Global Warming Potential (GWP) for CO₂, CH₄, and N₂O:

	Value	Basis
CO ₂ GWP	1	2014 IPCC Fifth Assessment Report (AR5), http://www.ghgprotocol.org/calculation-tools
CH ₄ GWP:	28	2014 IPCC Fifth Assessment Report (AR5), http://www.ghgprotocol.org/calculation-tools
N ₂ O GWP:	265	2014 IPCC Fifth Assessment Report (AR5), http://www.ghgprotocol.org/calculation-tools

CO₂ emission factor

	Value	Basis
Gasoline CO ₂ EF:	8.78 kg/gal	Table 2, EPA Mobile Combustion CO ₂ Emission Factors, https://www.epa.gov/sites/production/files/2016-09/documents/emission-factors_nov_2015_v2.pdf
Diesel CO ₂ EF:	10.21 kg/gal	Table A-1, EPA Mobile Combustion CO ₂ Emission Factors, https://www.epa.gov/sites/production/files/2016-09/documents/emission-factors_nov_2015_v2.pdf