FINAL MITIGATION MONITORING AND REPORTING PROGRAM

Berths 302-306 [APL] Container Terminal Project

Environmental Impact Report (EIR)

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Contents

Section 1

Mitigation Monitoring and Reporting Program

Introduction

Assembly Bill 3180 (AB 3180) codified in Section 21081.6 of the California Public Resources Code, became effective January 1, 1989, and requires a Lead or Responsible Agency to adopt a mitigation monitoring and reporting program (MMRP) when approving or carrying out a project. The purpose of this program is to ensure that when an environmental document, either an Environmental Impact Report[1] (EIR) or a negative declaration, identifies measures to reduce potential adverse environmental impacts to less than-significant levels that those measures are implemented as detailed in the environmental document. As lead agency for the Berths 302-306 [APL] Container Terminal Project, and pursuant to AB 3180, the Los Angeles Harbor Department (LAHD) is responsible for implementation of this MMRP.

An EIR has been prepared for the proposed Project that addresses the potential environmental impacts, and where appropriate, recommends measures to mitigate these impacts. As such, this MMRP is required to ensure that adopted mitigation measures are successfully implemented and a monitoring strategy was prepared for each mitigation measure identified in the Berths 302-306 [APL] Container Terminal Project. Once the Board of Harbor Commissioners adopts the MMRP, the applicable LAHD division(s) will incorporate the mitigation monitoring/reporting requirements in the appropriate permits (i.e., engineering specifications, engineering construction permits, real estate entitlements, and/or coastal development permits). Therefore, in accordance with the aforementioned requirements, this document lists each mitigation measure, as well as each lease measure and standard condition of approval, and describes the methods for implementation and verification, and identifies the responsible party or parties as detailed below in the MMRP Implementation section.

Project Overview

Introduction and Project Overview

This section describes the proposed Project for the Berths 302-306 [APL] Container Terminal Project EIR. The EIR analyzes the construction and operation of the proposed Project. The proposed Project is located on Terminal Island, within an industrial area in the vicinity of Fish Harbor. The site is within the Port of Los Angeles Community Plan area of the City of Los Angeles. The proposed Project is located on Pier 300, within LAHD property. The proposed Project encompasses approximately 347 acres and includes improvements to the existing 291-acre APL Terminal and an expanded area of 56 acres. Proposed improvements to the existing terminal would include the following:

- Modify the outbound gates associated with the main gate;
- Modify the terminal entrance lanes;
- Modify the Earle Street gate;
- Install up to 4 new cranes at Berths 302-305;

- Convert a portion of the existing dry container storage unit area to a refrigerated container unit (reefer) storage area equipped with plug-in electric power;
- Demolish and re-construct the Roadability facility;
- Expand the Power Shop facilities by constructing and operating a separate two-story Power Shop Annex building (just north of the existing Power Shop), which would include tractor maintenance bays (first floor) and Marine Offices (second floor); and
- Install utility infrastructure at various areas in the existing backlands (including the removal and installation of new light poles, utilities for a new "Meet and Greet" booth on backlands behind Berth 301, etc.).

Proposed expansion area work would include the following:

- Construct approximately 1,250 linear feet (4 acres) of concrete pile-supported wharf to create Berth 306;
- Install up to 8 new cranes on the new wharf at Berth 306;
- Install Alternative Maritime Power (AMP) along the new wharf at Berth 306;
- Dredge approximately 20,000 cubic yards of suitable and unsuitable sediment from Berth 306. Dredged material will be beneficially reused (as fill), or disposed of at the approved Berths 243-245 confined disposal facility (CDF) site. If these options are unavailable or impracticable, an existing ocean disposal site could be considered for suitable material (i.e., LA-2);
- Improve approximately 41 acres of already constructed but unimproved fill as container terminal backland with infrastructure that could support traditional operations, electric equipment operations, as well as potentially automated operations on the Berth 306 backlands (a majority of the new infrastructure would be located adjacent to existing stations or substations near the reefer area of the existing backlands;
- Redevelop approximately 2 acres of the former LAXT conveyor right of way and approximately 7 acres of former LAXT backland behind Berth 301 into container terminal backland; and
- Develop approximately 2 acres of existing land northeast of the current main gate for a new out gate location.

Project Purpose

The LAHD operates the Port under the legal mandates of the Port of Los Angeles Tidelands Trust (Los Angeles City Charter, Article VI, Section 601) and the California Coastal Act (PRC Division 20 Section 30700 *et seq*.), which identify the Port and its facilities as a primary economic and coastal resource of the State of California and an essential element of the national maritime industry for the promotion of commerce, navigation, fisheries, and Harbor operations. Activities should be water dependent and the LAHD must give highest priority to navigation, shipping, and necessary support and access facilities to accommodate the demands of foreign and domestic waterborne commerce. The LAHD is chartered to develop and operate the Port to benefit maritime uses, and it functions as a landlord by leasing Port properties to more than 300 tenants.

The proposed Project is needed to meet a portion of the Port's projected container throughput demand for the year 2035. In 2007, studies projected Port container throughput demand within the San Pedro Bay Ports Complex of Los Angeles and Long Beach (Port Complex or Ports) would be constrained at 43.2

million twenty-foot equivalent units (TEUs) by 2023; however, this projection was revised in 2009 to take into account a prolonged economic downturn, which negatively impacted global trade and resulted in dramatically reduced actual container throughput and future growth projections. As a result, current projections now estimate that, assuming planned capacity expansions and handling efficiency improvements occur, the Port Complex throughput capacity constraints would be experienced in 2035 at 43.2 million TEUs, twelve years later than expected in the 2007 study. The revised projection assumes completion of planned physical and operational improvements to terminals within the Port Complex, including the proposed Project.

Providing the capacity needed to manage the projected level of cargo throughput is critical for the Port to fulfill its role of facilitating trade along the Pacific Rim, which is expected to grow with anticipated increases in population and foreign trade. The Port also is instrumental to the regional and national markets.[1]

Additionally, a purpose of the proposed Project is to optimize and expand the cargo handling capacity at the APL Terminal to accommodate the increased throughput demand expected at the Port, including at the APL Terminal, in the long-term, while also maintaining consistency with established Port policies pertaining to the environment. This objective would be accomplished through expansion and improvement of the existing Berths 302-305 marine terminal from the current 291 acres to approximately 347 acres, including extension of the existing wharf by 1,250 feet (creating Berth 306), to accommodate an annual throughput of approximately 3.2 million TEUs by 2027.

The expansion and optimization of Pier 300 has been contemplated and analyzed in evaluations prepared for the Port, including Port Plan, Port Master Plan (as amended), and the *Channel Deepening Supplemental EIS/EIR*.

CEQA Objectives

CEQA Guidelines (Section 15124[b]) require that the project description contain a statement of objectives, including the underlying purpose of the proposed Project. The LAHD's overall goal for the proposed Project is threefold: (1) provide a portion of the facilities needed to accommodate the projected long-term growth in the volume of containerized cargo through the Port and at the APL Terminal; (2) implement the Port's green growth strategy, which includes growing core operations while greening to mitigate the environmental impacts of that growth on the local communities and the Los Angeles region; and (3) carry out the Port Strategic Plan to maximize the efficiency and capacity of terminals while raising environmental standards through application of all feasible mitigation measures. The Port's green growth strategy relies on utilizing pollution control measures included in the Clean Air Action Plan (CAAP), sustainable lease agreements, and other sustainability measures.

To meet the overall Project purposes, the following objectives need to be accomplished:

- Optimize the use of existing land at Berths 302-305, the proposed Berth 306 backlands, and associated waterways in a manner that is consistent with the LAHD's public trust obligations;
- Improve the container terminal at Berths 302-306 to more efficiently work larger ships and to ensure the terminal's ability to accommodate increased numbers and sizes of container ships;

1 It should be noted that the previously cited forecast and capacity studies are Port-wide studies and do not consider the market conditions of individual shipping companies and terminal operators. There are competitive differences between container terminals within the Ports, and each terminal's market share will reflect these differences at any given point in time.

- Increase accommodations for container ship berthing, and provide sufficient backland area and associated improvements for optimized container terminal operations, at Berths 302-306;
- Incorporate modern backland design efficiencies into improvements to the existing vacant landfill area at Berth 306; and
- Improve the access into and out of the terminal and internal terminal circulation, at Berths 302-306 to reduce the time for gate turns and to increase terminal efficiency.

NEPA Purpose and Need

As discussed above, implementation of the proposed Project is needed to provide the terminal capacity to accommodate the long-term future cargo demand projected for the Port. The proposed Project would meet a public need for economic growth in trade and import/export of goods, as well as a need for efficiency in cargo handling at the Port.

The overall purpose of the proposed Project is to optimize the cargo handling efficiency and capacity at the APL Terminal to accommodate projected long-term increases in volume of containerized goods shipped through the Port. As the proposed Project is water dependent, optimizing the terminal's efficiency would improve marine shipping and maritime trade. The overall project purpose serves as the foundation of the USACE Section 10 and Section 103 analyses. Under Section 10, the USACE will conduct public interest review (per 33 CFR 320.4).

In general, the scope of federal review for evaluating the potential impacts of a proposed project is focused on those aspects of the project that the affected federal agency has jurisdiction over. The USACE has jurisdiction and permit authority over activities affecting navigable waters and other waters of the U.S., as well as any transport of dredged material for the purpose of ocean disposal. As such, the primary focus of USACE's review of the proposed Project is on those activities that directly or indirectly affect the aquatic environment and for which the USACE has continuing Federal control and responsibility, such as work (i.e., dredging), any in-water reuse or ocean transport and disposal activities, and structures in/under/over navigable waters (i.e., installation of new cranes and construction of the new wharf/pier facilities). The scope of USACE review does, however, include other non-jurisdictional project elements, including some activities in upland (non-water) areas, such as staging and storage of materials along the shoreline required to complete in-water and over-water activities, and operations.

Proposed Project

The proposed Project elements align along four distinct categories:

- Shoreline Improvements;
- Dredging;
- Berths 302 – 305 Backlands Redevelopment; and
- Development of Berth 306 41-acre Backlands

The detailed project elements within each of these larger categories of land uses are described herein.

Shoreline Improvements

The proposed shoreline improvement includes the wharf area expansion and improvement, and new shore-side gantry cranes. The key components for each of these elements are described in greater detail below.

Wharf Area Expansion and Improvement

The proposed Project would include construction of approximately 1,250 linear feet of new wharf area, encompassing approximately 4 acres that would extend eastward from the existing Berths 302-305 wharf. No new rock dike or fill would be required, as this area was previously constructed as part of the Channel Deepening Project, which created the 41-acre undeveloped fill area along Berths 305 and 306. New wharf construction would, however, require the placement of approximately 515 new 24-inch-diameter concrete piles to support the new wharf. These piles would be placed by barge-mounted pile drivers that would be brought to the site by tugboat and temporarily supported by a wharf boat. Construction would also involve the operation of concrete trucks, and heavy-duty over-the-road trucks for the delivery of structural materials, cranes, and other fabrication equipment.

When completed, the concrete wharfs of Pier 300 (Berths 302-306) would total approximately 5,250 linear feet. The existing wharf was designed to accommodate the largest ships in the current transpacific fleet, which can each carry up to 10,000 TEUs. The new wharf extension would be similarly designed. The existing wharf currently has four (4) berths based on the existing average vessel size. Once the new wharf along Berth 306 is completed (approximately 2014), the number of berths serving the terminal would increase to approximately 4.5. However, as fleet changes occur and larger vessels are used over time, the number of useable berth space along the Berths 302 to 306 wharf would decrease to 3.5 berths by 2027.

The crane models, currently operating at the existing wharf are not able to span the width of vessels capable of carrying more than 10,000 TEUs. The new wharf extension and cranes would have the capacity to accommodate larger ships. The largest vessel that is expected to operate as part of the transpacific fleet through year 2027 is the 10,000 to 10,999 TEU vessel. This analysis assumes the operation of a range of vessels including the 10,000 to 10,999 TEU vessels. Alternative Maritime Power (AMP) infrastructure would be installed along the new wharf at Berth 306. AMP is the technique of utilizing shoreside electrical power from the power grid to operate the container ships when they are berthed at an appropriately equipped wharf. AMP connection voltage would be 6.6 kilovolts, 3-phase, 60 Hertz. The proposed Project would assist visiting fleets (in this case, APL and third party shipping lines) to comply with the California Air Resources Board (CARB) adopted schedule for implementing AMP power.[2]

In addition to electricity, the standard ship services at wharf include other utilities, such as telephone and water hook-up facilities at each berth.

[2] As provided for under Title 17, California Code of Regulations section 93118.3, a fleet's vessels — including container vessels, passenger vessels, and refrigerated container (reefer) vessels — must shut down their auxiliary engines (not including 3 or 5 permissible hours of total operation, as specified in the regulation) as follows: (a) In 2014, at least 50 percent of a fleet's visit to the port must meet these operational time limits, and the fleet must reduce its fleet's onboard auxiliary-diesel engine power generation at a given berth by 50 percent from its baseline power generation; (b) in 2017, at least 70 percent of a fleet's visit to the port must meet the aforementioned operational time limits, and the fleet must reduce its fleet's onboard auxiliary-diesel engine power generation at a given berth by 70 percent from its baseline power generation; and (c) in 2020, at least 80 percent of a fleet's visit to the port must meet the aforementioned operational time limits, and the fleet must reduce its onboard auxiliary-diesel engine power generation at a given berth by 80 percent from its baseline power generation.

New Shore-Side Gantry Cranes

Under the proposed Project, up to 12 new A-frame cranes (also known as shore side gantry cranes) would be installed on the wharves at Berths 302 to 306 (four new cranes would be added to the 12 existing cranes on the existing wharf along Berths 302-305, and eight new cranes would be installed at the new Berth 306 wharf). With the existing 12 cranes and the installation of the proposed 12 new cranes at Project completion, the APL Terminal would have a total of 24 cranes. A-frame cranes at the existing terminal have fixed towers that are approximately 245 feet high. When stowed (at a 45-degree angle), the articulated booms on these cranes normally extend to a height of about 280 feet and, for maintenance, are capable of being extended up to 360 feet in the vertical position.

The 12 new cranes would function in a similar manner to the existing cranes but have a longer outreach and higher lift capabilities than the existing cranes in order to accommodate larger ships. When stowed, the height of the new cranes is estimated to extend to approximately 340 feet, and while operating, the A-frame structure of the cranes is estimated to stand at approximately 260 feet.

The new cranes would be outfitted with semi-automatic dual trolley equipment so that they could support an automated backland behind the new Berth 306 if such a system is used.

Dredging

The portion of the channel adjacent to the new wharf at Berth 306 would be dredged to restore a depth of -55 feet mean low low water (MLLW) plus an additional two feet of overdredge. New ships in the world container vessel fleet and pending ship orders indicate that container vessels with a draft of -52 feet are being planned, which would require a channel as deep as -55 feet MLLW plus an additional two feet of overdredge during construction dredging (tolerance). The area along Berth 306 is at various depths within the low fifties and currently less than 55 feet deep. Approximately 20,000 cubic yards of marine sediments would be removed alongside Berth 306 to achieve the desired design depth. Dredged material may be beneficially reused as follows. Suitable material may be disposed at the Cabrillo Shallow Water Habitat Area. Unsuitable material may be disposed at the approved Berths 243-245 CDF. In the event the Cabrillo Shallow Water Habitat Area is unavailable, suitable material may be disposed offshore at LA-2.

Berths 302 – 305 Backlands Redevelopment

Redevelopment of the backlands at the existing APL Terminal involves existing buildings, backlands, and gates.

Buildings. The proposed Project would include demolition and reconstruction of the Roadability Facility, including approximately 4,160 square feet of new building space and approximately 10,000 square feet for two new canopies. In addition, the proposed Project would expand the Power Shop facilities to add tractor maintenance bays and Marine Offices, including approximately 10,158 square feet for the maintenance bays, and approximately 10,150 square feet of second floor space for offices. The redevelopment of the Marine Office facility would meet Leadership in Energy and Environmental Design (LEED) standards and are expected to achieve, at minimum, LEED silver certification, consistent with the LAHD Green Building Policy.

Backlands. The proposed Project would convert a portion of dry container storage unit area to a refrigerated container storage unit (reefer) area with use of electric power. Terminal lighting and fire hydrants would be installed within the improved backland areas. The additional backland improvements would require construction activities such as grading, drainage, paving, striping, lighting, fencing, and the addition of utility facilities and equipment.

Gates. The proposed Project includes the construction of a new Meet and Greet booth (approximately 400 square feet) on backlands behind Berth 301, modifications to the Earle Street Gate, and modifications

to the northeast entrance. Development in the northeast entrance area would include construction of a new out-gate on two acres of undeveloped land northeast of the current main gate, coupled with reconfiguration of the old out-gate.

In addition, within the existing backlands behind Berths 302-305, the proposed Project includes the installation of a new Los Angeles Department of Water and Power (LADWP) industrial station (adjacent to the existing industrial station and new AMP substation, which is located near the existing Roadability Canopy/Genset Building), as well as various substations to support either traditional or electric-powered automated operations on the 41 acres of backlands adjacent to proposed Berth 306. If the new Berth 306 backlands are used to support an automated operation in the future, an area approximately 12 acres in size within the existing backland area adjacent to the new backlands would need to be converted to a Landside Transfer Area (a delineated area where drivers and trucks wait for containers held within the Berth 306 backlands).

Development of Berth 306 41-acre Backlands

Development of the Berth 306 backlands on the 41-acres of undeveloped fill adjacent to the existing terminal would include grading; paving and striping; as well as installation of smaller substations underground electrical lines; water lines; light poles; conduits to support electrical, data and phone connections; sewers; gas lines; and drainage infrastructure. This infrastructure would be adequate to support either traditional or electric-powered automated operations (or some combination of the two).

In addition, other infrastructure elements would be built as part of the initial Project construction that would support either a traditional or an automated 41-acre backland at a later date, such as approximately 7,100 linear feet of rail sets that would support RMGs or the electric Automated Stacking Cranes (ASCs), and any additional corresponding electrical distribution system.[3] The rail sets would be oriented parallel to the berth; the new ASCs, if installed, would likely be larger, with a cantilever on one side and sized to span a stack that is six containers high and 12 containers wide.

Construction for the rails and installation of the ASCs would involve excavation, installing concrete beams that would later support steel rails, paving, and installing conduits for electrical power and data connectivity.

If EMS determines that automated operations are feasible and cost effective for the Berth 306 backlands, additional infrastructure specific to the automated operation would need to be installed. Future installation of the automated equipment would be less complex than installation of the supporting infrastructure that has been included in the initial construction plans for the backland area. This additional work would include some asphalt grinding to flatten the finished grade and to expose the concrete beams, installation of steel rails, and installation of reefer racks (foundations with plug-in electric power) along the edge of the 41-acre area (these racks would allow refrigerated container units to be stored). Improvements to delineate and support operation of the Landside Transfer Area would also be installed adjacent to the Berth 306 backlands, including some excavation and installation of concrete rail beams to support the LTCs, pavement striping, waiting booths for drivers, and concrete curbing.

Monitoring and Reporting Procedures

Mitigation measures, lease measures and standard conditions of approval will be implemented in accordance with this MMRP. Construction bid specifications shall include all applicable construction measures and the contractor(s) work plans shall be provided to LAHD Environmental Management

3 Although additional electrical distribution would be required to operate an automated 41-acre backland, the additional power infrastructure needed to support automated operations is proposed as part of initial Project construction.

Division (LAHD/EMD) for review and approval. Operational mitigation measures and lease measures will be monitored by LAHD/EMD and any specified responsible parties designated by LAHD/EMD.

This MMRP for the proposed Project will be in place through all phases of the project, including design, construction, and operation, and will help ensure that project objectives are achieved. The LAHD shall be responsible for administering the MMRP and ensuring that all parties comply with its provisions. The LAHD may delegate monitoring activities to staff, consultants, or contractors. All construction mitigation measures will be included in the bid specifications in order to document how the contractor intends to comply with all measures applicable to the contract including application of Best Management Practices (BMPs). All mitigation measures and leasing policy requirements will be included in leases and lease amendments. The LAHD will ensure that monitoring is documented through periodic reports and that deficiencies are promptly corrected. The designated environmental monitor will track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to rectify problems.

Mitigation Monitoring and Reporting Program Implementation

Pursuant to AB 3180, this MMRP was prepared and is accompanied by the associated report forms utilized to verify compliance with individual mitigation measures. This MMRP identifies each mitigation measure by discipline, the entity (organization) responsible for its implementation, the report/permit/certification required for each measure, and an accompanying LAHD MMRP form used to certify completion. Certain inspections and reports may require preparation by qualified individuals, and these are specified as needed. The timing and method of verification for each measure is also specified.

Section 2

Mitigation Monitoring and Reporting Program Summary

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Table 2-1. Mitigation Monitoring and Reporting Program Summary for the Berths 302-306 [APL] Container Terminal Project

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
Air Quality, Meteorology and Greenhouse Gases: Construction		
MM AQ-1. Harbor Craft Used During Construction. 1. All harbor craft with C1 or C2 marine engines must utilize a USEPA Tier-3 engine, or cleaner. 2. All dredging equipment shall be electric.	**Timing:** During specified construction phases **Methods:** This measure shall be incorporated into the LAHD bid and contract specifications for all construction work to reduce the impact of construction diesel emissions. The contractor shall adhere to these specifications throughout construction phases. Enforcement shall include oversight by the LAHD project/construction manager or designated building inspectors to ensure compliance with contract specifications. 1. This measure shall be met unless the contractor is able to provide proof that one of the following circumstances exists: ▪ A piece of specialized equipment is unavailable in a controlled form, or within the required Tier level, within the state of California, including through a leasing agreement; ▪ A contractor has applied for necessary incentive funds to put controls on a piece of uncontrolled equipment planned for use on the project, but the application process is not yet approved, or the application has been approved, but funds are not yet available; ▪ A contractor has ordered a control device for a piece of equipment planned for use on the project, or the contractor has ordered a new piece of controlled equipment to replace the uncontrolled equipment, but that order has not been completed by the manufacturer or dealer. In addition, for this exemption to apply, the contractor must attempt to lease controlled equipment to avoid using	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting**: Environmental Management Division, Construction Management Division

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
	uncontrolled equipment, but no dealer within 200 miles of the project has the controlled equipment available for lease. 2. This measure shall be met unless contractor can demonstrate that such equipment is not feasible for a specific activity.	
MM AQ-2. Cargo Ships Used During Construction. 1. All ships and barges used primarily to deliver construction-related materials to a LAHD-contractor construction site shall comply with the expanded Vessel Speed Reduction Program (VSRP) of 12 knots between 40 nautical miles (nm) from Point Fermin and the Precautionary Area. 2. These ships must also use low-sulfur fuel (maximum sulfur content of 0.2 percent) in auxiliary engines, main engines, and boilers within 40 nm of Point Fermin. This condition is superseded by CARB regulations for ships operating within 24 nm of the shoreline where the maximum allowable sulfur content is 0.1 percent. This mitigation measure goes above and beyond CARB's rule in that it requires 0.2 percent sulfur fuel between 25 and 40 nm, whereas the CARB rule requires 0.1 percent sulfur fuel, but only applies to vessels within 24 nm of the shoreline.	**Timing:** During specified construction phases. **Methods:** This measure shall be incorporated into the LAHD bid and contract specifications for all construction work to reduce the impact of construction diesel emissions. The contractor shall adhere to these specifications throughout construction phases. Enforcement shall include oversight by the LAHD project/construction manager or designated building inspectors to ensure compliance with contract specifications.	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting**: Environmental Management Division, Construction Management Division
MM AQ-3. Fleet Modernization for On-Road Trucks Used During Construction. 1. Trucks hauling material such as debris or any fill material will be fully covered while operating off Port property. 2. Idling will be restricted to a maximum of 5 minutes when not in use. 3. USEPA Standards: • For On-road trucks with a gross vehicle weight rating (GVWR) of at least 19,500 pounds: Comply with USEPA 2007 on-road emission standards for PM_{10} and NOx (0.01 grams per brake horsepower-hour (g/bhp-hr) and 1.2 g/bhp-hr or better, respectively).	**Timing:** During specified construction phases. **Methods:** This measure shall be incorporated into the LAHD bid and contract specifications for all construction work to reduce the impact of construction diesel emissions. The contractor shall adhere to these specifications throughout construction phases. Enforcement shall include oversight by the LAHD project/construction manager or designated building inspectors to ensure compliance with contract specifications. The construction equipment measures shall be met, unless one of the following circumstances exist and the contractor is able to provide proof that any of these circumstances exists: • A piece of specialized equipment is unavailable in a	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting**: Environmental Management Division, Construction Management Division

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
	controlled form within the state of California, including through a leasing agreement. • A contractor has applied for necessary incentive funds to put controls on a piece of uncontrolled equipment planned for use on the project, but the application process is not yet approved, or the application has been approved, but funds are not yet available. • A contractor has ordered a control device for a piece of equipment planned for use on the project, or the contractor has ordered a new piece of controlled equipment to replace the uncontrolled equipment, but that order has not been completed by the manufacturer or dealer. In addition, for this exemption to apply, the contractor must attempt to lease controlled equipment to avoid using uncontrolled equipment, but no dealer within 200 miles of the project has the controlled equipment available for lease.	
MM AQ-4. Fleet Modernization for Construction Equipment (Except Vessels, Harbor Craft and On-Road Trucks). 1. Construction equipment will incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards. 2. Idling will be restricted to a maximum of 5 minutes when not in use. 3. Equipment Engine Specifications: • Tier 4 equipment shall be considered based on availability at the time the construction bid is issued. • At a minimum, prior to January 1, 2015, all off-road diesel-powered construction equipment greater than 50 ph will meet Tier 3 off-road emission standards at a minimum. In addition, this equipment will be retrofitted with a CARB-verified Level 3 DECS. • From January 1, 2015 on: All off-road diesel-powered construction equipment greater than 50 hp will meet Tier 4 off-road emission standards at a minimum.	**Timing:** During specified construction phases. **Methods:** This measure shall be incorporated into the LAHD bid and contract specifications for all construction work to reduce the impact of construction diesel emissions. The contractor shall adhere to these specifications throughout construction phases. Enforcement shall include oversight by the LAHD project/construction manager or designated building inspectors to ensure compliance with contract specifications. The construction equipment measures shall be met, unless one of the following circumstances exist and the contractor is able to provide proof that any of these circumstances exists: • A piece of specialized equipment is unavailable in a controlled form within the state of California, including through a leasing agreement. • A contractor has applied for necessary incentive funds to put controls on a piece of uncontrolled equipment planned for use on the project, but the application process is not	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting:** Environmental Management Division, Construction Management Division

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
	yet approved, or the application has been approved, but funds are not yet available. • A contractor has ordered a control device for a piece of equipment planned for use on the project, or the contractor has ordered a new piece of controlled equipment to replace the uncontrolled equipment, but that order has not been completed by the manufacturer or dealer. In addition, for this exemption to apply, the contractor must attempt to lease controlled equipment to avoid using uncontrolled equipment, but no dealer within 200 miles of the project has the controlled equipment available for lease.	
MM AQ-5. Construction Best Management Practices (BMPs). LAHD shall implement BMPs to reduce air emissions from all LAHD-sponsored construction projects, including: 1. Use of diesel oxidation catalysts and catalyzed diesel particulate traps. 2. Maintain equipment according to manufacturer's specifications. 3. Restricting idling of construction equipment and on-road heavy-duty trucks to a maximum of 5 minutes when not in use. 4. Install high-pressure fuel injectors on construction equipment vehicles. 5. Maintain a minimum buffer zone of 300 meters between truck traffic and sensitive receptors. 6. Improve traffic flow by signal synchronization. 7. Enforce truck parking restrictions. 8. Provide on-site services to minimize truck traffic in or near residential areas, including, but not limited to, the following services: meal or cafeteria services, automated teller machines, etc. 9. Re-route construction trucks away from congested streets or sensitive receptor areas. 10. Provide dedicated turn lanes for movement of construction trucks and	**Timing:** During specified construction phases. **Methods:** This measure shall be incorporated into the LAHD bid and contract specifications for all construction work to reduce the impact of construction diesel emissions. The LAHD shall determine the BMPs once the contractor identifies and secures a final equipment list. The contractor shall adhere to these specifications throughout construction phases. Enforcement shall include oversight by the LAHD project/construction manager or designated building inspectors to ensure compliance with contract specifications.	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting**: Environmental Management Division, Construction Management Division

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
equipment on- and off-site. 11. Use electric power in favor of diesel power where available.		
MM AQ-6. Additional Fugitive Dust Controls. 1. SCAQMD Rule 403 requires a Fugitive Dust Control Plan be prepared and approved for construction sites. Construction contractors are required to obtain a 403 Permit from SCAQMD prior to construction. 2. Applicable Rule 403 measures/BMPs to reduce dust shall be included in the contractor's Fugitive Dust Control Plan, at a minimum.	**Timing:** During specified construction phases. **Methods:** This measure shall be incorporated into the LAHD bid and contract specifications for all construction work to reduce the impact of fugitive dust (PM10) emissions. The contractor shall adhere to these specifications throughout construction activities. Enforcement shall include oversight by the LAHD project/construction manager or designated building inspectors to ensure compliance with contract specifications.	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting**: Environmental Management Division, Construction Management Division
MM AQ-7. General Mitigation Measure. For any of the above mitigation measures (MM AQ-1 through AQ-6), if a CARB-certified technology becomes available and is shown to be as good as or better in terms of emissions performance than the existing measure, the technology could replace the existing measure pending approval by LAHD. Measures will be set at the time a specific construction contract is advertised for bids.	**Timing:** During specified construction phases. **Methods:** This measure shall be incorporated into the LAHD bid and contract specifications. The contractor(s) shall submit a plan for review and approval by LAHD prior to beginning any construction activity, which would include any proposed new technology.	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting**: Environmental Management Division, Construction Management Division
MM AQ-8. Special Precautions near Sensitive Sites. All construction activities located within 1,000 feet of sensitive receptors (defined as schools, playgrounds, daycares, and hospitals) shall notify each of these sites in writing at least 30 days before construction activities begin.	**Timing:** During specified construction phases. **Methods:** This measure shall be incorporated into the LAHD bid and contract specifications for all construction activity. The contractor(s) shall submit for review and approval by LAHD prior to beginning of any construction activity, a plan to notify sensitive receptors.	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting**: Environmental Management Division, Construction Management Division

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
Air Quality, Meteorology and Greenhouse Gases: Operation		
MM AQ-9. Alternative Maritime Power (AMP) APL ships calling at Berths 302-306 must use AMP at the following percentages with hoteling in the Port: • 2017: 70 percent of total ship calls. • 2026: 95 percent of total ship calls.	**Timing:** During operation. **Methods:** This measure shall be incorporated into the lease agreements. Tenant shall submit bi-annual compliance report documenting compliance to the Environmental Management Division. Vessel calls shall be monitored by the Wharfingers Office and the Environmental Management Division. Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Marine Exchange, LAHD Wharfingers, Environmental Management and Real Estate Divisions
MM AQ-10. Vessel Speed-Reduction Program. All ships calling at Berths 302-306 shall comply with the expanded VSRP of 12 knots between 40 nm from Point Fermin and the Precautionary Area in the following implementation schedule: • 2014 and thereafter: 95 percent	**Timing:** During operation. **Methods:** This measure shall be incorporated into the lease agreements. Tenant shall be monitored by the Wharfingers and the Environmental Management Division through data provided from the Marine Exchange. Bi-annual tenant compliance reports shall be supplied to the Environmental Management Division Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Marine Exchange, LAHD Wharfingers, Environmental Management and Real Estate Divisions
MM AQ-11. Cleaner OGV Engines. The Tenant shall seek to maximize the number of vessels calling at the Berths 302-306 terminal that meet the IMO NOx limit of 3.4 g/kW-hr. The IMO Tier 2 NOx standards came into effect January 1, 2011 for new vessels. IMO Tier 3 NOx standards will become effective January 1, 2016 for new vessels operating in Emission Control Areas. When ordering new ships bound for the Port of Los Angeles, the purchaser shall confer with the ship designer and engine manufacturer to determine the feasibility of incorporating all emission reduction technology and/or design options.	**Timing:** During operation. **Methods:** This measure shall be incorporated into the lease agreements. Tenant shall submit quarterly reporting forms documenting compliance to LAHD. Wharfingers and Environmental Management Division will independently monitor through monitoring data provided by the Marine Exchange. Bi-annual tenant compliance reports shall be supplied to the Environmental Management Division. Enforcement shall include oversight by the Real Estate	**Implementation:** APL, LAHD **Monitoring and Reporting**: Marine Exchange, LAHD Wharfingers, Environmental Management and Real Estate Divisions

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
	Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	
MM AQ-12: OGV Engine Emissions Reduction Technology Improvements. When using or retrofitting existing ships bound for the Port, the Tenant shall determine the feasibility of incorporating all emission reduction technology and/or design options. Such technology shall be designed to reduce criteria pollutant emissions (NOx and DPM). Some examples of potential methods for reducing emissions from large marine diesel engines include: • Direct Water Injection • Fuel Water Emulsion • Humid Air Motor • Exhaust Gas Recirculation • Selective Catalytic Reduction • Continuous Water Injection • Slide Valves	**Timing:** During operation. **Methods:** This measure shall be incorporated into the lease agreements. Biannual tenant compliance reports shall be supplied to the Environmental Management Division. Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Environmental Management and Real Estate Divisions
MM AQ-13: Yard Tractors at Berths 302-306 Terminal. By the end of 2013, all yard tractors operated at the terminal shall meet USEPA Tier 4 non-road or 2007 on-road emission standards.	**Timing:** During operation. **Methods:** This measure shall be incorporated into the lease agreements. Bi-annual tenant compliance reports shall be supplied to the Environmental Management Division. Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Environmental Management and Real Estate Divisions

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
MM AQ-14: Yard Equipment at Berth 302-306 Railyard. All diesel powered equipment operated at the Berths 302-306 terminal rail yard shall implement the requirements discussed below in MM AQ-15**.**	**Timing:** During operation. **Methods:** This measure shall be incorporated into the lease agreements. Bi-annual tenant feasibility reports shall be supplied to the Environmental Management Division. Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Environmental Management and Real Estate Divisions
MM AQ-15: Yard Equipment at Berths 302-306 Terminal. • By the end of 2012: all terminal equipment equipped with Tier 1 and 2 engines less than 750 hp must meet 2010 on-road or Tier 4 standards by 2012. • By the end of 2012, the highest available Verified Diesel Emissions Controls (VDECs) shall be installed on all Tier 3 equipment. • By the end of 2015: all terminal equipment equipped with Tier 3 engines shall meet USEPA Tier 4 non-road engine standards.	**Timing:** During operation **Methods:** This measure shall be incorporated into the lease agreements. Bi-annual tenant compliance reports shall be supplied to the Environmental Management Division. Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Environmental Management and Real Estate Divisions
MM AQ-16. Truck Idling-Reduction Measure. Within six months of the effective date of the lease agreement and thereafter for the remaining term of the Permit and any holdover, the terminal operator shall ensure that truck idling is reduced to less than 30 minutes in total or 10 minutes at any given time while on the terminal through measures that include but are not limited to, the following: • The operator shall maximize the durations when the main gates are left open, including during off-peak hours (6pm to 7am) • The operator shall implement an appointment-based system for receiving and delivering containers to minimize truck queuing (trucks lining up to enter and exit the terminal's gate) • The operator shall design the main entrance and exit gates to exceed the	**Timing:** During operation. **Methods:** This measure shall be incorporated into the lease agreements. Bi-annual tenant compliance reports shall be supplied to the Environmental Management Division. Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Environmental Management and Real Estate Divisions

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
average hourly volume of trucks that enter and exit the gates (truck flow capacity) to ensure queuing is minimized.		
MM AQ-17: Compact Fluorescent Light Bulbs. All interior buildings on the premises shall exclusively use fluorescent light bulbs, compact fluorescent light bulbs, or a technology with similar energy-saving capabilities, for ambient lighting within all terminal buildings. The tenant shall also maintain and replace any LAHD-supplied compact fluorescent light bulbs.	**Timing:** During construction and operation **Methods:** For newly constructed buildings, this measure shall be incorporated into the LAHD design and bid and contract specifications. The contractor shall adhere to these specifications throughout construction phases. Enforcement shall include oversight by the LAHD project/construction manager or designated building inspectors to ensure compliance with contract specifications. For all buildings: This measure shall be incorporated into the lease agreements and shall be implemented initially by LAHD, and thereafter by the tenant. Bi-annual tenant compliance reports shall be supplied to the Environmental Management Division. Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Environmental Management Division, Construction Management Division
MM AQ-18: Energy Audit. The tenant shall conduct an energy audit by a third party of its choice every 5 years and install innovative power saving technology (1) where it is feasible; and (2) where the amount of savings would be reasonably sufficient to cover the costs of implementation. Such systems help to maximize usable electric current and eliminate wasted electricity, thereby lowering overall electricity use.	**Timing:** During operation (every five years). **Methods:** This measure shall be incorporated into the lease agreements. A compliance report shall be supplied to the Environmental Management Division within six months of every energy audit. Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	**Implementation:** APL, LAHD **Monitoring and Reporting:** Environmental Management Division, Construction Management Division
MM AQ-19: Recycling The tenant shall ensure a minimum of 40 percent of all waste generated in all terminal buildings is recycled by 2014 and 60 percent of all waste generated in all terminal buildings is recycled by 2016. Recycled materials shall include: (a) white and colored paper; (b) post-it notes; (c) magazines; (d) newspaper; (e) file	**Timing:** During operation. **Methods:** This measure shall be incorporated into the lease agreements. Bi-annual tenant compliance reports shall be supplied to the Environmental Management Division.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Environmental Management

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
folders; (f) all envelopes including those with plastic windows; (g) all cardboard boxes and cartons; (h) all metal and aluminum cans; (i) glass bottles and jars; and; (j) all plastic bottles.	Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	Division, Construction Management Division
MM AQ-20: Tree Planting. The applicant shall plant shade trees around the main terminal building, and the tenant shall maintain all trees through the life of the lease.	**Timing:** During construction and operation **Methods:** This measure shall be incorporated into the LAHD design and bid and contract specifications. The contractor shall adhere to these specifications throughout construction phases. Enforcement shall include oversight by the LAHD project/construction manager or designated building inspectors to ensure compliance with contract specifications. This measure shall also be incorporated into the lease agreements for ongoing maintenance. Bi-annual tenant compliance reports shall be supplied to the Environmental Management Division. Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Environmental Management Division, Construction Management Division
LM AQ-1: Periodic Review of New Technology and Regulations. LAHD shall require the Berths 302-306 tenant to review, in terms of feasibility and benefits, any Port-identified or other new emissions-reduction technology, and report to LAHD. Such technology feasibility reviews shall take place at the time of the LAHD's consideration of any lease amendment or facility modification for the proposed Project site. If the technology is determined by the LAHD to be feasible in terms of cost, technical and operational feasibility, the tenant shall work with the LAHDLAHD to implement such technology. Potential technologies that may further reduce emission and/or result in cost-savings benefits for the tenant may be identified through future work on the CAAP, Technology Advancement Program, Zero Emissions Technology Program, and terminal automation. Over the course of the lease, the tenant and the LAHD shall work together to identify potential new technologies. Such	**Timing:** During operation. **Methods:** This measure shall be incorporated into the lease agreements. This measure does not meet all of the criteria for CEQA or NEPA mitigation but is considered an important lease measure to reduce future emissions.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Tenant of Berths 302-306

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
technology shall be studied for feasibility, in terms of cost, technical and operational feasibility, and emissions reduction benefits. As partial consideration for the LAHD agreement to issue the permit to the tenant, the tenant shall implement not less frequently than once every 5 years following the effective date of the permit, new air quality technological advancements, subject to mutual agreement on operational feasibility and cost sharing, which shall not be unreasonably withheld.		
LM AQ-2: Substitution of New Technology. If any kind of technology becomes available and is shown to be as good or as better in terms of emissions reduction performance than the existing measure, the technology could replace the existing measure pending approval by the LAHD. The technology's emissions reductions must be verifiable through USEPA, CARB, or other reputable certification and/or demonstration studies to the LAHD's satisfaction.	**Timing:** During operation. **Methods:** This measure shall be incorporated into the lease agreements. This measure does not meet all of the criteria for CEQA or NEPA mitigation but is considered an important lease measure to reduce future emissions.	**Implementation:** APL, LAHD **Monitoring and Reporting**: Tenant of Berths 302-306
Biological Resources: Construction		
MM BIO-1. Conduct nesting bird surveys. This measure applies only if construction on the 41-acre undeveloped area is to occur between February 15 and September 1. Prior to ground disturbing activities, a qualified biologist shall conduct surveys for the presence of tern nests on the 41-acre backlands, and within the proposed Project site that contains potential nesting bird habitat. Surveys shall be conducted no later than 1 week prior to the clearing, removal, or grubbing of any vegetation or ground disturbance. If active nests of species protected under the MBTA and/or similar provisions of the California Fish and Game Code (i.e., native birds including but not limited to the black-crowned night heron) are located, then a barrier installed at a 50–100 foot radius from the nest(s) shall be established. The barrier will remain until a qualified biologist determines that the young have fledged or the	**Timing:** If construction occurs between February 15 and September 1, biological surveys will be conducted within two weeks of ground clearing activities. **Methods:** This measure shall be incorporated into the LAHD bid and contract specifications for all construction work to ensure contractor(s) are aware of potential work area limitations. The contractor shall adhere to these specifications throughout construction activities. Biologists will survey site for active bird nests. If nests are present, a barrier installed at a 50-100 foot radius from the nest(s) shall be established and construction will avoid those sites. The barrier will remain until a qualified biologist determines that the young have	**Implementation:** LAHD, USACE **Monitoring and Reporting**: Environmental Management Division, Construction Management Division

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
nest is no longer active.	fledged or the nest is no longer active. Enforcement shall include oversight by the LAHD project/construction manager.	
SC BIO-1. Avoid marine mammals and avoid impacts to nesting birds at the Project site. 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 occurring as part of the wharf extension shall include establishment of a safety zone, and the area surrounding the operations will be monitored by a qualified marine biologist for pinnipeds. A 100-meter-radius safety zone will be established around the pile-driving site and monitored for marine mammals. As the pile-driving site will move with each new pile, the 100-meter safety zone shall move accordingly. Prior to commencement of pile-driving, observers on shore or by boat will survey the safety zone to ensure that no marine mammals are seen within the zone before pile-driving of a pile segment begins. If a marine mammal is observed within 10 meter of pile-driving operations, pile-driving shall be delayed until the marine mammals moves out of the area. If a marine mammal in the 100-meter safety zone is observed, but more than 10 meter away, the contractor shall wait at least 15 minutes to commence pile-driving. If the marine mammal has not left the 100-meter safety zone after 15 minutes, pile-driving can commence with a "soft start." This 15-minute criterion is based on a study indicating that pinnipeds dive for a mean time of 0.50 minutes to 3.33 minutes; the 15-minute delay will allow a more than sufficient period of observation to be reasonably sure the animal has left the proposed Project vicinity. If marine mammals enter the safety zone after pile-driving of a segment has begun, pile-driving shall continue. The biologist shall monitor and record the species and number of individuals observed, and make note of their behavior patterns. If the animal appears distressed, and if it is operationally safe to do so, pile-driving shall cease until the animal leaves the area. Prior to the initiation of each new pile-driving episode, the area shall again be thoroughly surveyed by the biologist.	**Timing:** During all in-water construction activities requiring pile driving located in the Outer Harbor. **Methods:** This measure shall be incorporated into LAHD contract specifications for all construction work to ensure contractor(s) are aware of potential work area limitations. The construction contractor shall instruct construction personnel to comply with the measure as part of normal construction procedures. LAHD shall arrange for the presence of a qualified biologist to monitor during construction activity.	**Implementation:** LAHD, Construction Contractor **Monitoring and Reporting**: Environmental Management Division, Construction Management Division

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
SC BIO-2: NMFS Notification. LAHD will notify the National Marine Fisheries Service (NMFS) no less than 14 calendar days prior to commencing construction, dredging, and disposal operations associated with the proposed Project. LAHD will also notify NMFS no less than five calendar days prior to completion of construction, dredging, and disposal operations.	**Timing:** Prior to (no less than 14 calendar days) commencing construction, dredging, and disposal operations associated with the proposed Project. Also no less than five calendar days prior to completion of construction, dredging, and disposal operations. **Methods:** This measure shall be incorporated into LAHD contract specifications for all construction work. The contractor shall notify LAHD no less than 17 calendar days prior to commencing construction and no less than 8 calendar days prior to completion of construction, dredging, and disposal operations. LAHD will then notify NMFS.	**Implementation:** LAHD, Construction Contractor **Monitoring and Reporting**: Environmental Management Division, Construction Management Division
Cultural Resources: Construction		
SC CR-1: Stop Work in Area if Prehistoric and/or Archaeological Resources are Encountered. In the unlikely event that any artifact, or an unusual amount of bone, shell, or non-native stone is encountered during construction, work shall be immediately stopped, the area secured, and work relocated to another area until the found materials can be assessed by individuals competent to assess their value. Examples of such cultural materials might include concentrations of grinding stone tools such as mortars, bowls, pestles, and manos; chipped stone tools such as projectile points or choppers; flakes of stone not consistent with the immediate geology such as obsidian or fused shale; historical trash pits containing bottles and/or ceramics; or structural remains. The contractor shall stop construction within 10 meters (30 feet) of the exposure of these finds until a qualified archaeologist can be retained by the Port to evaluate the find (see 36 CFR 800.11.1 and California Code of Regulations, Title 14, Section 15064.5(f)). If the resources are found to be significant, they shall be avoided or shall be mitigated consistent with Section 106 or State Historic Preservation Officer Guidelines. All construction equipment operators shall attend a preconstruction meeting presented by a professional archaeologist retained by the Port that shall review types of cultural resources and artifacts that would be considered potentially significant, to ensure operator recognition of these materials during construction.	**Timing:** During initial ground disturbance during construction **Methods:** To avoid or reduce this potential impact, the Environmental Management Division shall retain a qualified archaeologist and notify applicable Tribal representatives. This measure shall be incorporated into the LAHD bid and contract specifications for all construction work to ensure contractor(s) are aware of potential work area limitations. The Construction Manager/Contractor shall instruct construction personnel as part of normal construction procedures to halt/redirect construction activities if any materials are uncovered that are suspect of being associated with historical or prehistoric occupation. If materials are found, the construction contractor shall contact the Construction Manager, Environmental Management Division, and archeologist.	**Implementation:** LAHD, archaeological consultants **Monitoring and Reporting:** Environmental Management Division, Construction Management Division

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
Prior to beginning construction, the Port shall meet with applicable Native American Groups, including the Gabrieliño/Tongva Tribal Council, to identify areas of concern. A trained archaeologist shall monitor construction at identified areas. In addition to monitoring, a treatment plan shall be developed in conjunction with the Native American Groups to establish the proper way of extracting and handling all artifacts in the event of an archaeological discovery.		
Geology: Construction and Operation		
LM GEO-1. Emergency Response Planning Lease Requirement. The terminal operator shall work with LAHD Engineers and Port police to develop tsunami response training and procedures to assure that construction and operations personnel shall be prepared to act in the event of a large seismic event. Such procedures shall include immediate evacuation requirements in the event that a large seismic event is felt at the proposed Project site, as part of overall emergency response planning for this proposed Project.	**Timing:** Prior to construction and/or operation **Method: Construction:** LAHD Engineering Division shall provide procedures for inclusion in construction bid and contract specifications as well as work with the tenant to develop a plan as part of the lease agreement. Enforcement shall include oversight by the LAHD project/construction manager or designated building inspectors to ensure compliance with contract specifications **Method: Operations:** General requirements of this measure shall be incorporated into the lease. The Tenant and LAHD shall prepare an emergency response plan for submittal to the LAHD within first year of operation. Enforcement shall include oversight by the Real Estate Division. Annual staff reports shall be made available to the Board at a regularly scheduled public Board Meeting.	**Implementation:** LAHD through Construction Contractor; tenant for operations. **Monitoring and Reporting:** Environmental Management Division, Port Operations, Construction Management Division, Real Estate Division.
Groundwater and Soils: Construction		
LM GW-1: Site Remediation. Unless otherwise authorized by the lead regulatory agency for any given site, the LAHD and/or Tenant (i.e., APL) shall address all contaminated soils within proposed Project boundaries discovered during demolition and grading activities. Contamination existing at the time of discovery shall be the responsibility of the past and/or current property owner. Contamination as a result of the construction process shall be the responsibility of the LAHD and/or	**Timing:** Prior to and concurrent with proposed Project construction. **Method:** LAHD and/or Tenant will prepare a contamination contingency plan and the plan shall be included in bid specifications and leasing agreement. Such procedures will be included in any bid specifications for construction or operations personnel, with a copy of such bid specifications to	**Implementation:** LAHD through Construction Contractor; Tenant to undertake soil disturbing construction activities. **Monitoring and Reporting:** Environmental Management

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
Tenant contractors. Remediation shall occur in compliance with local, state, and federal regulations, and as directed by the lead regulatory agency for the site (such as the Los Angeles RWQCB or DTSC). Soil removal shall be completed such that remaining contamination levels are below risk based health screening levels for industrial sites established by OEHHA and/or applicable action levels (e.g., Environmental Screening Levels, Preliminary Remediation Goals) established by the lead regulatory agency with jurisdiction over the site. Soil contamination waivers may be acceptable as a result of encapsulation (i.e., paving) and/or risk-based soil assessments for industrial sites, but are subject to the review of the lead regulatory agency and LAHD. Excavated contaminated soil shall be properly disposed of off-site unless use of such material on-site is beneficial to construction and approved by the agency overseeing environmental concerns. All imported soil to be used as backfill in excavated areas shall be sampled to ensure that it is suitable for use as backfill at an industrial site.	be provided to LAHD, including a completed copy of its operations emergency response plan prior to commencement of construction activities. The contractor shall adhere to these specifications and throughout construction phases.	Division, Construction Management Division, Engineering Division, Real Estate Division. Environmental Management Division will conduct independent soil sampling as appropriate.
LM GW-2: Contamination Contingency Plan. The following contingency plan shall be implemented to address previously unknown contamination during demolition, grading, and construction: a) All trench excavation and filling operations shall be observed for the presence of free petroleum products, chemicals, or contaminated soil. Soil suspected of contamination shall be segregated from other soil. In the event soil suspected of contamination is encountered during construction, the contractor shall notify the LAHD Project Engineer. The LAHD shall confirm the presence of the suspect material and direct the contractor to remove, stockpile or contain, and characterize the suspect material. Continued work at a contaminated site shall require the approval of the LAHD Project Engineer. b) Excavation of VOC-impacted soil may require obtaining and complying with a South Coast Air Quality Management District Rule 1166 permit. c) The remedial option(s) selected shall be dependent upon a suite of criteria (including but not limited to types of chemical constituents, concentration of the chemicals, health and safety issues, time constraints, cost, etc.) and shall be determined on a site-specific basis. Both off-site and on-site remedial options may be evaluated.	**Timing:** Prior to and concurrent with proposed Project construction. **Method:** LAHD and/or Tenant will prepare a contamination contingency plan and the plan shall be included in bid specifications and leasing agreement. Such procedures will be included in any bid specifications for construction or operations personnel, with a copy of such bid specifications to be provided to LAHD, including a completed copy of its operations emergency response plan prior to commencement of construction activities. The contractor shall adhere to these specifications throughout construction phases.	**Implementation:** LAHD through Construction Contractor; Tenant to undertake soil disturbing construction activities. **Monitoring and Reporting:** Environmental Management Division, Construction Management Division, Engineering Division, Real Estate Division. Environmental Management Division will conduct independent soil sampling as appropriate.

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
d) The extent of removal actions shall be determined on a site-specific basis. At a minimum, the impacted area(s) within the boundaries of the construction area shall be remediated to the satisfaction of the LAHD and the lead regulatory agency for the site. The LAHD Project Manager overseeing removal actions shall inform the contractor when the removal action is complete. e) Copies of hazardous waste manifests or other documents indicating the amount, nature, and disposition of such materials shall be submitted to the LAHD Project Manager within 60 days of project completion. f) In the event that contaminated soil is encountered, all on-site personnel handling or working in the vicinity of the contaminated material must be trained in accordance with USEPA and Occupational Safety and Health and Administration (OSHA) regulations for hazardous waste operations or demonstrate they have completed the appropriate training. Training must provide protective measures and practices to reduce or eliminate hazardous materials/waste hazards at the work place. g) When impacted soil must be excavated, air monitoring will be conducted as appropriate for related emissions adjacent to the excavation. All excavations shall be backfilled with structurally suitable fill material that is free from contamination.		
Transportation (Ground): Operation		
MM TRANS-1: Navy Way and Reeves Avenue. Re-stripe the southbound (and eastbound approach to accommodate the southbound dual right-turns) to provide a right-turn lane, a shared through/right turn lane, and a through lane on the southbound approach.	**Timing:** After construction of the proposed Project, when the intersection is determined to be operating at LOS E or worse. **Methods:** This mitigation would only be constructed when the intersection operates at LOS E or worse. LAHD will monitor the LOS of this location as part of its ongoing port-area intersection monitoring activities and will perform periodic traffic analysis of intersection LOS after the Project is completed. The mitigation measure shall be completed within five years of this determination.	**Implementation:** LAHD **Monitoring and Reporting**: LAHD Environmental Management and Engineering Divisions

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
Noise: Construction		
MM NOI-1: Noise Reduction during Pile Driving. The contractor shall be required to use a pile driving system, such as a Bruce hammer (with silencing kit), an IHC Hydrohammer SC series (with sound insulation system), or equivalent silenced hammer, which is capable of limiting maximum noise levels at 50 feet from the pile driver to 104 dBA, or less, for wharf construction. With implementation of standard condition of approval SC BIO-1, the pile driving would initiate with a soft start, in which the hammer is operated at a reduced energy, followed by a waiting period. The soft start technique would induce marine mammals and birds to leave the immediate area before pile hammer reaches full energy.	**Timing:** During construction. **Methods:** This measure shall be incorporated into the LAHD bid and contract specifications for all construction work. The construction contractor shall ensure that the proposed pile driving equipment and measures are used during construction. The LAHD shall evaluate the contractor proposals with regard to reducing pile driving noise. The LAHD would subsequently perform periodic inspections to ensure that the approved equipment and methods are being used.	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting:** Environmental Management Division, Construction Management Division
MM NOI-2: Erect Temporary Noise Attenuation Barriers Adjacent to Pile Driving Equipment, Where Necessary and Feasible. Erect temporary noise attenuation barriers suitable for pile driving equipment as needed. The barriers should be installed directly between the equipment and the nearest noise sensitive use to the construction site. The need for and feasibility of noise attenuation barriers should be evaluated on a case-by-case basis considering the distance to noise sensitive receptors, the available space at the construction location, and taking account of safety and operational considerations.	**Timing:** Throughout construction. **Methods:** This measure shall be incorporated into the LAHD bid and contract specifications for all construction work. The contractor should install noise attenuation barriers, where feasible according to the above criteria in consultation with the LAHD and shall be monitored for compliance by the LAHD.	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting:** Environmental Management Division, Construction Management Division
Utilities and Public Services: Construction		
SC PS-1: Recycling of Construction Materials. Demolition and/or excess construction materials shall be separated on-site for reuse/recycling or proper disposal. During grading and construction, separate bins for recycling of construction materials shall be provided on-site.	**Timing:** Throughout construction. **Methods:** This measure shall be incorporated into bid and contract specifications for all construction work to improve recycling efforts. The contractor shall adhere to these specifications throughout construction phases. Enforcement shall include oversight by the LAHD project/construction manager to ensure compliance with contract specifications.	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting**: Environmental Management Division, Construction Management Division

Mitigation Measure, Lease Measure or Standard Condition of Approval	*Timing and Methods*	*Responsible Parties*
SC PS-2: Materials with Recycled Content. Materials with recycled content shall be used in Project construction where feasible. Chippers on-site during construction shall be used to further reduce excess wood for landscaping cover.	**Timing:** Throughout construction. **Methods:** This measure shall be incorporated into bid and contract specifications for all construction work to improve recycling efforts. The contractor shall adhere to these specifications throughout construction phases. Enforcement shall include oversight by the LAHD project/construction manager to ensure compliance with contract specifications.	**Implementation:** LAHD through Construction Contractor **Monitoring and Reporting**: Environmental Management Division, Construction Management Division

Notes:
LAHD = Los Angeles Harbor Department
MM = Mitigation Measure
LM = Lease Measure
SC = Standard Condition of Approval