# Draft Findings of Fact and Statement of Overriding Considerations

## Berths 136-147 [TraPac] Container Terminal Project

*Environmental Impact Report (EIR)*

DRAFT WORK IN PROGRESS

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# Findings of Fact and Statement of Overriding Considerations

## Table of Contents

# Findings of Fact and Statement of Overriding Considerations

## I. Introduction

These "Findings of Fact" have been prepared by the Los Angeles Harbor Department (Port) as the Lead Agency pursuant to Section 21081 of the Public Resources Code and Section 15091 of the State California Environmental Quality Act (CEQA) Guidelines to support a decision on the Berth 136-147 [TraPac] Container Terminal Project[1]. Section 21081 of the Public Resources Code and Section 15091 of the CEQA Guidelines provide that no public agency shall approve or carry out a project for which an Environmental Impact Report (EIR) has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

1. Changes or alterations have been required in, or incorporated into, the project, which avoid or substantially lessen the significant environmental effects as identified in the Final EIR.
2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
3. Specific economic, legal, social, technological, or other considerations, including provisions of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

Additionally, the Lead Agency must not approve a project that will have a significant effect on the environment unless it finds that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the unavoidable adverse environmental effects. (Pub. Res. Code § 21081(b); 14 Cal. Code Regs. § 15093.) The Board of Harbor Commissioners (Board) adopts the Statement of Overriding Considerations set forth below, which identifies the specific overriding economic, legal, social, technological, or other benefits of the project that outweigh the significant environmental impacts identified in the Final EIR.

[1] The proposed Project includes project elements that will require federal permits from the U.S. Army Corps of Engineers (USACE). As such, an Environmental Impact Statement (EIS) was also prepared for the proposed Project. The USACE and LAHD prepared a joint EIS/EIR in the interest of efficiency and to avoid duplication of effort. The USACE will consider certification and approval of the EIS separate from the Board of Harbor Commissioner's consideration of the EIR.

## Project Objectives

The Port's overall objective for the proposed Project is threefold: (1) provide a portion of the facilities needed to accommodate the projected growth in the volume of containerized cargo through the Port; (2) comply with the Mayor's goal for the Port to increase growth while mitigating the impacts of that growth on the local communities and the Los Angeles region by implementing pollution control measures, including the elements of the San Pedro Bay Ports Clean Air Action Plan (CAAP) specific to the proposed Project; and (3) comply with the Port's Strategic Plan to maximize the efficiency and capacity of terminals while raising environmental standards through application of all feasible mitigation measures. These interrelated goals require increases in the cargo-handling efficiency and capacity of existing terminal facilities in the Port. In order to accomplish these basic objectives in a manner consistent with Port's public trust responsibilities, the following supporting objectives need to be accomplished:

1. Expand and modernize existing container terminal facilities at the Port to the extent required to:
    - Optimize the use of existing land and waterways and be consistent with the Port's overall use of available shoreline;
    - Accommodate foreseeable containerized cargo volumes through the Port;
    - Increase container handling efficiency and create sufficient backland area for container terminal operations, including storage, transport, and on/offloading of container ships in a safe and efficient manner;
    - Provide access to land-based rail and truck infrastructure capable of minimizing surface transportation congestion or delays while promoting conveyance to and from both local and distant cargo destinations; and
    - Improve or construct container ship berthing and infrastructure capacity where necessary to accommodate projected containerized cargo volumes through the Port.
2. Provide on dock-rail capabilities to promote direct transfer of cargo between ship and rail.
3. Apply the foregoing principles to improvement of the existing terminal facilities at Berths 136-147.
4. In connection with improvement and expansion of the Berths 136-147 terminal, provide a landscaped area as a community amenity and to provide physical separation between Port operations and residential areas.

## Project Description

The Berth 136-147 Terminal is currently used, and is proposed to continue to be used, for container terminal operations. The proposed Project includes a 30-year lease renewal to the year 2038 and two phases of construction (2008-2015 and 2015-2025) designed to optimize container terminal operations within the Berths 136-147 area in the West Basin portion of the Port.

The proposed Project would include an expanded container terminal, deeper berths, longer and improved wharves, replacement of existing cranes, new terminal buildings and facilities, a new on-dock intermodal rail yard, a relocated Pier A rail yard, an improved Harry Bridges Boulevard, and a 30-acre buffer area adjacent to Harry Bridges Boulevard. Most of the improvements would occur on the 176 acres currently operated by TraPac. The proposed terminal expansion area is bounded by Harry Bridges Boulevard, the existing terminal, and the Pier A rail yard. Other proposed Project components would occur in the area between "C" Street and Harry Bridges Boulevard, and the area

adjacent to Berths 200C – 200H. The proposed Project consists of expanding the Berths 136-147 Terminal by 57 acres, from 176 to 233 acres, by 2015 (Phase I of the proposed Project), and by an additional 10 acres, to 243 acres, by 2025 (Phase II); constructing an intermodal rail facility in the terminal; and constructing a 30-acre buffer area at the northern boundary of the terminal. The proposed Project also includes replacing existing cranes, dredging deeper berthing areas, filling to create 10 acres of new land, reconstructing existing wharves, and constructing 1,105 feet of new wharves. The increased terminal acreage and new wharves would increase the amount of cargo that could be handled.

The terminal operator would be granted a 30-year lease, lasting until 2038. The Project site and associated facilities would continue to operate as a marine terminal for containerized cargo for the life of the lease. The terminal operator would be required to comply with all laws and regulations, including environmental controls that are not part of the current lease. Those controls would be imposed pursuant to the Port Environmental Policy, CAAP, and the Port of Los Angeles Real Estate Leasing Policy (Port 2006; Section 1.3), and would include emissions standards for terminal equipment; vessel speed reduction (VSR) and low sulfur fuel requirements for ships while under transit; Alternative Maritime Power (AMP) for marine vessels while at berth; clean truck requirements; and other environmental measures unrelated to air quality, such as storm water management.

# II. CEQA Findings

The Findings of Fact are based on information contained in the Draft EIS/EIR and the Final EIR for the proposed Berth 136-147 [TraPac] Container Terminal Project, as well as information contained within the administrative record. The administrative record includes, but is not limited to, the project application, project staff reports, project public hearing records, public notices, written comments on the project, proposed decisions and findings on the project, and all other documents relating to the agency decision on the project. When making CEQA findings required by Public Resources Code Section 21081(a), a public agency shall specify the location and custodian of the documents or other material, which constitute the record of proceedings upon which its decision is based. These records are in the care of the Director of Environmental Management, Los Angeles Harbor Department, 425 South Palos Verdes Street, San Pedro, California 90731.

The Draft EIS/EIR addresses the project's potential effects on the environment, and was circulated for public review and comment pursuant to the State CEQA Guidelines for a period of 90 days. Comments were received from a variety of public agencies, organizations, and individuals. The Final EIR contains copies of all comments and recommendations received on the Draft EIS/EIR, a list of persons, organizations and public agencies commenting on the Draft EIS/EIR, responses to comments received during the public review, and identifies changes to the Draft EIS/EIR. This section provides a summary of the environmental effects of the project that are discussed in the EIR, and provides written findings for each of the significant effects, which are accompanied by a brief explanation of the rationale for each finding.

## Environmental Impacts of the Proposed Project

### Less-Than-Significant Impacts

The Draft EIS/EIR indicated that all impacts would be less-than-significant prior to mitigation in the following environmental resource areas if the proposed Project were implemented:

*Aesthetics and Visual Resources*

*Hazards and Hazardous Materials*

*Marine Vessel Transportation*

In addition, the Draft EIS/EIR indicated that certain less-than-significant impacts prior to mitigation would occur in following environmental resource areas if the proposed Project were implemented:

*Air Quality and Meteorology*

*Biological Resources*

*Cultural Resources*

*Geology*

*Groundwater and Soils*

*Land Use*

*Noise*

*Transportation/Circulation*

*Utilities and Public Services*

*Water Quality Sediments and Oceanography*

## Significant Impacts

The Draft EIS/EIR indicated that significant impacts to the following environmental resources would occur if the proposed project were implemented:

*Air Quality and Meteorology*

*Biological Resources*

*Cultural Resources*

*Geology*

*Groundwater and Soils*

*Land Use*

*Noise*

*Transportation/Circulation*

*Utilities and Public Services*

*Water Quality Sediments and Oceanography*

Many of the significant impacts in the above resources areas could be reduced to less than significant with mitigation. However, as discussed below, a number of significant impacts could not be mitigated and remain significant and unavoidable under CEQA.

## Significant and Unavoidable Impacts

The Draft EIS/EIR indicated that unavoidable significant impacts to the following environmental resources would occur if the proposed project were implemented:

*Air Quality and Meteorology*

*Biological Resources*

*Geology*

*Noise*

*Transportation/Circulation*

*Water Quality Sediments and Oceanography*

The findings are listed by the environmental resource areas set forth above. Findings are provided for impacts found not to be significant, significant impacts that are mitigated to less-than-significant levels, as well as significant unavoidable environmental impacts. Where mitigation measures are proposed, these mitigation measures are included in a Mitigation Monitoring Reporting Plan (MMRP), which has been prepared separately from these findings.

In addition to the mitigation measures that have been incorporated into the proposed project, several alternatives were identified in the Draft EIS/EIR in order to attempt to reduce significant environmental impacts associated with the proposed project. All alternatives to the proposed project and associated findings are discussed in this document.

## Findings Regarding Environmental Impacts Found to be Less-Than-Significant

The LAHD Board of Commissioners hereby finds that the following environmental impacts of the TraPac Project are less than significant. Under CEQA, no mitigation measures are required for impacts that are less than significant (14 Cal. Code Regs. § 15126.4(a)(3)).

| Resource Area | Impact | Finding |
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| Aesthetics & Visual | **AES-1:** The Project would not adversely affect a scenic vista | Of the critical views under consideration, for only one are there indications that the views are recognized and valued for their representing scenic vistas. This is the panoramic view centered to the south from Banning's Landing. For this view there could be no obstruction by features of the Project, which would be 60 degrees or more toward the west and too peripheral to interfere. Therefore, the Board finds that for the reasons described in Section 3.1 of the Draft EIS/EIR impacts will be less than significant. |
| Aesthetics & Visual | **AES-2:** The Project would not adversely affect scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within view from a state scenic highway | No critical public views of the proposed Project site are available from designated scenic highways, routes, corridors or parkways. Therefore, the Board finds that for the reasons described in Section 3.1 of the Draft EIS/EIR impacts will be less than significant. |
| Aesthetics & Visual | **AES-3**: The Project would not adversely affect the existing visual character or quality of a site and its surroundings | The Project would cause no unfavorable and additional contrast with features associated with the valued aesthetic image of the areas seen from critical public viewing positions. With one exception, the Project would add no substantial aesthetic value to affected views. That exception is the proposed Harry Bridges Buffer Area, which would substantially improve the aesthetic quality of the area adjacent to the south side of "C" Street. The existing visual conditions for views to the south from this street would improve from Visual Modification Class 4 to Class 1. This would represent a substantial beneficial impact. Therefore, the Board finds that for the reasons described in Section 3.1 of the Draft EIS/EIR impacts will be less than significant. |
| Aesthetics & Visual | **AES-4:** The Project would not result in a new source of light or glare that would adversely affect day or nighttime views in the area | The Project would result in a reduction in ambient and off-site lighting. Therefore, the Board finds that for the reasons described in Section 3.1 of the Draft EIS/EIR impacts will be less than significant |
| Aesthetics & Visual | **AES-5:** The Project would not result in any shadow effects on nearby shadow-sensitive land uses | The Project would not create new areas of shadow on any shadow-sensitive land uses. Therefore, the Board finds that for the reasons described in Section 3.1 of the Draft EIS/EIR impacts will be less than significant. |
| Aesthetics & Visual | **AES-6:** The Project would not result in inconsistencies with applicable rules and regulations | The Project would cause no adverse visual impacts during construction or operation. Therefore, the Project would not be inconsistent with the relevant laws, ordinances, regulations or standards. Therefore, the Board finds that for the reasons described in Section 3.1 of the Draft EIS/EIR impacts will be less than significant. |
| Air Quality | **AQ-5:** The proposed project will not create objectionable | The Board finds that Impact AQ-5 will be less than significant because the mobile nature of most Project emission sources would |

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| | odors at the nearest sensitive receptor. | help to disperse proposed Project emissions. Additionally, the distance between proposed Project emission sources and the nearest residents is expected to be far enough to allow for adequate dispersion of these emissions to below objectionable odor levels. |
| Air Quality | **AQ-7:** operations would not conflict with or obstruct implementation of an applicable Air Quality Management Plan (AQMP). | The Board finds that Impact AQ-5 will be less than significant because the attainment demonstrations included in the 2007 AQMP account for the emissions generated by projected future growth at the Port. Because one objective of the proposed Project is to accommodate growth in cargo throughput at the Port, the AQMP accounts for the Project. |
| Air Quality | **AQ-5:** The proposed project will not create objectionable odors at the nearest sensitive receptor. | The Board finds that Impact AQ-5 will be less than significant because the mobile nature of most Project emission sources would help to disperse proposed Project emissions. Additionally, the distance between proposed Project emission sources and the nearest residents is expected to be far enough to allow for adequate dispersion of these emissions to below objectionable odor levels. |
| Biology | **BIO-1a:** Construction activities would not cause a loss of individuals or habitat of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat. | As described in Section 3.3 of the Draft EIS/EIR, construction activities on land and in the water, including ocean disposal of dredged material, would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and sound pressure waves from construction activities in the water would not injure marine mammals. Therefore, the Board finds that impacts would be less than significant. |
| Biology | **BIO-1b:** Operations would not cause a loss of individuals or habitat for a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally listed critical habitat. | The Board finds that for the reasons described in Section 3.3, operational activities would result in no loss of individuals or habitat for rare, threatened, endangered, protected, or candidate species, or Species of Special Concern, and underwater sound from proposed Project-related vessels would affect few if any marine mammals. Therefore, the Board finds that impacts will be less than significant. |
| Biology | **BIO-2b:** Operations would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands. | Operational activities on land and in the water would not substantially reduce or alter essential fish habitat (EFH) for the reasons described in Section 3.3, resulting in less than significant impacts to EFH. No Significant Environmental Areas (SEAs), natural plant communities, wetlands, or mudflats eelgrass beds are present, and the mudflats along the Main Channel would not be affected by project-related vessel traffic, resulting in no impacts. Therefore, the Board finds that impacts will be less than significant. |
| Biology | **BIO-3a, 3b:** Construction and operation activities would not interfere with wildlife movement/migration corridors. | No wildlife movement or migration corridors would be affected by the proposed Project during construction activities on land and in the water as described in Section 3.3. Therefore, the Board finds that impacts will be less than significant. |

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| Biology | **BIO-4a:** Dredging and wharf construction activities would not substantially disrupt local biological communities | Construction activities in waters of the West Basin and on the backlands would result in no substantial disruption of local biological communities for the reasons described in Section 3.3. Therefore, the Board finds that impacts will be less than significant. |
| Biology | **BIO-4b:** Operation of the new facilities would not substantially disrupt local biological communities | Operations would not substantially disrupt West Basin and Harbor biological communities through runoff of contaminants. Existing runoff and storm drain discharge controls as well as conditions of all proposed Project-specific permits would be implemented (see Section 3.13).The Board finds that the presence of new wharf structures, increased vessel traffic, or new lighting would not substantially disrupt West Basin and Harbor biological communities, for the reasons described in Section 3.3. |
| Cultural Resources | **CR-2:** Construction of the proposed Project would not impact any potentially significant historic architectural resources. | The Board finds that this impact will be less than significant because with the exception of the Pier A rail yard, there are no existing standing structures within the Berths 136-147 Terminal area over 45 years of age. No historic architectural resources eligible for listing in the NRHP, the CRHR, or otherwise considered a unique or important architectural historic resource under CEQA are recorded within the proposed Project site. |
| Geology | **GEO-3a:** Construction of the proposed Project would not result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury from subsidence/soil settlement. | The Board finds that this impact will be less than significant because subsidence in the vicinity of the proposed Project was mitigated during previous oil extraction in the Port area. Additionally, the project would be designed and constructed in compliance with the recommendations of the geotechnical engineer, consistent with Sections 91.000 through 91.7016 of the Los Angeles Municipal Code, and in conjunction with criteria established by LAHD and Caltrans. |
| Geology | **GEO-3b:** Operation of the proposed Project would not result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury from subsidence/soil settlement. | The Board finds that this impact will be less than significant because subsidence in the vicinity of the proposed Project was mitigated during previous oil extraction in the Port area. Additionally, the project would be designed and constructed in compliance with the recommendations of the geotechnical engineer, consistent with Sections 91.000 through 91.7016 of the Los Angeles Municipal Code, and in conjunction with criteria established by LAHD and Caltrans. |
| Geology | **GEO-4a:** Construction of the proposed Project would not result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury from soil expansion. | The Board finds that this impact will be less than significant because during the proposed Project design phase, the proposed Project engineer would evaluate the expansion potential associated with on-site soils. The soil expansion potential would be evaluated through a site-specific geotechnical investigation, which includes subsurface soil sampling, laboratory analysis of samples collected to determine soil expansion potential, and an evaluation of the laboratory testing results, by a geotechnical engineer. Recommendations of the engineer would be incorporated into the design specifications for the proposed Project, consistent with City design guidelines, including Sections 91.000 through 91.7016 of the Los Angeles Municipal Code, in conjunction with criteria established by LAHD. |

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| Geology | **GEO-4b:** Operation of the proposed Project would not result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury from soil expansion. | The Board finds that this impact will be less than significant because during the proposed Project design phase, the proposed Project engineer would evaluate the expansion potential associated with on-site soils. The soil expansion potential would be evaluated through a site-specific geotechnical investigation, which includes subsurface soil sampling, laboratory analysis of samples collected to determine soil expansion potential, and an evaluation of the laboratory testing results, by a geotechnical engineer. Recommendations of the engineer would be incorporated into the design specifications for the proposed Project, consistent with City design guidelines, including Sections 91.000 through 91.7016 of the Los Angeles Municipal Code, in conjunction with criteria established by LAHD. |
| Geology | **GEO-5a:** Construction of the proposed Project would not result in or expose people or property to a substantial risk of landslides or mudslides. | The Board finds that this impact will be less than significant because the topography in the vicinity of the proposed Project site is flat and not subject to landslides or mudflows. |
| Geology | **GEO-5b:** Operation of the proposed Project would not result in or expose people or property to a substantial risk of landslides or mudslides. | The Board finds that this impact will be less than significant because the topography in the vicinity of the proposed Project site is flat and not subject to landslides or mudflows. |
| Geology | **GEO-6a:** Shallow groundwater, which would cause unstable collapsible soils, may be encountered during excavation, but would not expose people or structures to substantial risk. | The Board finds that this impact will be less than significant because implementation of standard engineering practices regarding saturated, collapsible soils would prevent any substantial risk to people or structures. |
| Geology | **GEO-6b:** Collapsible soils would have no impact on proposed Project operations and would not expose people or structures to substantial risk. | The Board finds that this impact will be less than significant because no excavations would be completed as a part of proposed Project operations. |
| Geology | **GEO-7a, 7b:** Construction and operation of the proposed Project would not result in one or more distinct and prominent geologic or topographic features being destroyed, permanently covered, or materially and adversely modified. | The Board finds that this impact will be less than significant because the proposed Project area is relatively flat and paved, with no prominent geologic or topographic features. |
| Geology | **GEO-8a, 8b**: Although the northern portion of the proposed Project site is underlain by the Wilmington | The Board finds that this impact will be less than significant because the proposed Project site is located in MRZ-1, which is defined as an area where adequate information indicates that no significant mineral deposits are present or where it is judged that |

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| | Oil Field, construction and operation of the proposed Project would not result in the permanent loss of availability of any mineral resource of regional, statewide, or local significance. | little likelihood exists for their presence. Additionally, any petroleum reserves beneath the site could be accessed from remote locations, using directional (or slant) drilling techniques. |
| Groundwater and Soils | **GW-1b:** Proposed Project operations would not result in uncovering of toxic substances or other contaminants associated with historical uses of the Port that might result in exposure to operations personnel. | The Board finds that this impact will be less than significant because construction activities would reduce on-site contamination to levels acceptable by the applicable lead regulatory agency. In addition, no excavations that might encounter contaminated soil and/or groundwater would be completed as part of proposed Project operations. |
| Groundwater and Soils | **GW-2b:** Proposed Project operations would not result in expansion of the area affected by contaminants. | The Board finds that this impact will be less than significant because construction activities would reduce on-site contamination to levels acceptable by the applicable lead regulatory agency, prior to proposed Project operations. In addition, no excavations that might encounter contaminated soil, which could be inadvertently spread to non-contaminated areas, would be completed as part of proposed Project operations. |
| Groundwater and Soils | **GW-3a, 3b:** Proposed Project construction and operation would not result in a change to potable water levels. | The Board finds that this impact will be less than significant because drinking water is provided to the area where the proposed Project would be located by the City of Los Angeles Department of Water and Power. Although shallow groundwater may be locally extracted during construction dewatering operations (e.g., for utility line and foundation excavations), this perched groundwater is highly saline and non-potable. |
| Groundwater and Soils | **GW-4a, 4b:** Proposed Project construction and operation would not result in a demonstrable and sustained reduction in potable groundwater recharge capacity. | The Board finds that this impact will be less than significant because most of the proposed Project area is currently paved and impermeable to groundwater recharge. Construction activities at the proposed Project site would result in removal of pavement in select areas prior to repaving, thus resulting in a temporary increase in groundwater recharge at the site. The proposed Project area is underlain by highly saline, non-potable groundwater, such that any temporary increase in recharge would be inconsequential. |
| Groundwater and Soils | **GW-5a, 5b:** Proposed Project construction and operation would not result in violation of regulatory water quality standards at an existing production well. | The Board finds that this impact will be less than significant because no existing production wells are located in the vicinity of the proposed Project site. |
| Hazards and Hazardous Materials | **RISK-1a, b:** The Project would not substantially increase the probable frequency and severity of consequences to people or | With respect to RISK-1a, implementation of construction and demolition standards, including Best Management Practices (BMPs) would minimize the potential for an accidental release of petroleum products and/or hazardous materials and/or explosion during Phase I/II construction/demolition activities. |

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| | property during construction/demolitions phases, or during operations, as a result of accidental release or explosion of a hazardous substance. | Construction/demolition related spills are classified as "frequent," but are typically short-term and localized, and involve limited fuel volumes. The consequences of such accidents are classified as "slight" resulting in a Risk Code of 4 that is "acceptable." Therefore, the Board finds that impacts will be less than significant.<br><br>With respect to RISK-1b, based on the projected increase in TEUs, the frequency of potential project-related spills would increase to 1.2 from 0.5 spills per year, and be classified as "frequent." Based on past history, the potential consequences of such spills are classified as "slight", resulting in a Risk Code of 4 that is "acceptable." (No impacts to the public were reported from any hazardous material spills reported during the 1997-2004 period.) Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills would minimize the potentials for adverse public health impacts. Project operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance. Therefore, the Board finds that impacts will be less than significant. |
| | **RISK-2a, b:** The Project would not substantially increase the probable frequency and severity of consequences to people or property as a result of construction, demolition, or operation activities. | With respect to RISK-2a, construction and demolition activities would be conducted using BMPs and in accordance with the Los Angeles Municipal Code (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article 4). Quantities of hazardous material that exceed thresholds in Chapter 6.95 of the California Health and Safety Code would be subject to a Release Response Plan (RRP) and a Hazardous Materials Inventory (HMI). Implementation of increased inventory accountability and spill prevention controls associated with the RRP and HMI would limit the frequency and severity of potential releases of hazardous materials, minimizing potential health hazards and/or contamination of soil or water. The probability of such spills is classified as "frequent," but because such spills are typically short-term and localized the potential consequence of such accidents is classified as "slight" resulting in a Risk Code of 4 that is "acceptable." Therefore, construction/demolition activities at Berths 136-147 would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. The Board finds that impacts will be less than significant.<br><br>With respect to RISK-2b, the Port is currently developing a Port-wide transportation master plan (TMP) for roadways in and around its facilities. Some of the transportation improvements already under consideration include: I-110/SR-47/Harbor Boulevard interchange improvements; and additional traffic capacity analysis for the Vincent Thomas Bridge. The Port is also working on several strategies to increase rail transport, which will reduce reliance on trucks. These projects would serve to reduce the frequency of truck accidents. In addition, the Port is currently phasing out older trucks as part of the Clean Truck Program and the Transportation Worker Identification Credential (TWIC) program will also help identify |

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| | | and exclude truck drivers that lack the proper licensing and training. Since these programs will be implemented prior to the proposed Project operational expansion, the consequence classification and Risk Code would be reduced to "moderate. Project operations are not expected to increase until Phase I construction is complete. The Clean Truck Program and TWIC Program would be instituted by that time. Therefore, the Board finds that impacts will be less than significant. |
| | **RISK-3a, b:** The Project would not substantially interfere with an existing emergency response or evacuation plan. | With respect to RISK-3a, emergency response and evacuation planning is the responsibility of the Los Angeles Police Department (LAPD), LAFD, Port Police, and United States Coast Guard (USCG). Construction and demolition activities would be subject to emergency response and evacuation systems implemented by LAFD. LAFD would review all plans prior to commencement of construction and demolition activities to ensure that adequate vehicular access to the Project area is provided and maintained. Therefore, the Board finds that impacts will be less than significant.<br><br>With respect to RISK-3b, because the terminal would continue to operate as a container terminal, proposed road improvements would reduce traffic congestion, and Project operations would be subject to emergency response and evacuation systems implemented by the LAFD, Project operations would not interfere with any existing emergency response or emergency evacuation plans or increase the risk of injury or death. Therefore, the Board finds that impacts will be less than significant. |
| | **RISK-4a, b:** The Project would comply with applicable regulations and policies guiding development within the Port during construction/demolition and operation | With respect to RISK-4a, construction and demolition of the project would be completed using standard BMPs and in accordance with LAHD plans and programs, LAFD regulations, and all hazardous waste laws and regulations. Therefore, the Board finds that impacts will be less than significant.<br><br>With respect to RISK-4b, Project plans and specifications will be reviewed by the LAFD for conformance to the Los Angeles Municipal Fire Code, and operation of the Project would be required to comply with all existing hazardous waste laws and regulations. Project operations would not conflict with Port of Los Angeles Risk Management Plan (RMP). Therefore, the Board finds that impacts will be less than significant. |
| | **RISK-5a, b:** The probability of a major tsunami is classified as "improbable (less than once every 10,000 years) and the potential consequence of such an event during construction/demolition and operation is classified as "moderate" resulting in Risk Code of 4 (see discussion of | With respect to RISK-5a, the probability of a major tsunami during the life of the Project is classified as "improbable." The potential consequence of such an event is classified as "moderate," resulting in a Risk Code of 4 that is "acceptable." (See Section 3.5, Geology for additional information on the probability of a major tsunami.) The volume of spilled fuel associated with a potential tsunami is expected to be less than 10,000 gallons, which is considered "slight." Therefore, the Board finds that impacts will be less than significant.<br><br>With respect to RISK-5b, the probability of a major tsunami |

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| | Risk Codes in Section 3.7.4.1 of the Draft EIS/EIR) that is "acceptable". | during the life of the Project is classified as "improbable." The potential consequence of such an event is classified as "moderate," resulting in a Risk Code of 4 that is "acceptable." (See Section 3.5, Geology for additional information on the probability of a major tsunami.)<br><br>In regards to potential fuel spills due to a tsunami, the volume of spilled fuel is expected to be relatively low since all fuel storage contains at the Project site would quite small in comparison to the significance criteria volumes. USCG regulations establish a timeline for eliminating single hull vessels from operating in the navigable waters or the Exclusive Economic Zone of the U.S. and for requiring double hull, or an approved double containment system after specified dates. It is unlikely that single-hull vessels will utilize the Project terminal facilities given the Project schedule and the planned phase-out of single hull vessels. Therefore, the Board finds that impacts will be less than significant. |
| | **RISK-6a, b**: An increase in the volume of container vessels visiting the terminal would not change the probability or consequences of a terrorist attack on the Berths 136-147 Terminal since the terminal is already considered a potential economic target, as well as a potential mode to smuggle a weapon into the United States. In addition, the measures outlined in Section 3.7.2.5 would serve to reduce the potential for a successful terrorist attack on the Berths 136-147 facility as compared to project baseline conditions. These measures have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. | With respect to RISK-6a, the probability of a terrorist attack is not likely to appreciably change over the existing baseline during construction. Increase in construction vessel traffic could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal. The potential public safety consequences of a terrorist attack on the Berths 136-147 terminal are considered negligible since, in the event of a successful attack, a small number of offsite injures are possible if fuel is spilled into Port waters, resulting in fire. Potential thermal radiation and explosion overpressure levels would be limited to the immediate vicinity of the attack and would not overlap any existing, planned or permitted vulnerable resources, but the potential for limited public exposure along Port waterways is possible. Therefore, the Board finds that impacts will be less than significant.<br><br>With respect to RISK-6b, an increase in the volume of container vessels visiting the terminal would not change the probability or consequences of a terrorist attack on the Berths 136-147 Terminal since the terminal is already considered a potential economic target, as well as a potential mode to smuggle a weapon into the United States. In addition, the Port Security Initiatives outlined in Section 3.7.2.5 of the Draft EIS/EIR would serve to reduce the potential for a successful terrorist attack on the Berths 136-147 facility as compared to project baseline conditions (under which many of these measures had not been implemented). These measures have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. Therefore, the Board finds that potential impacts associated with a potential terrorist attack on the Berths 136-147 facility are considered less than significant. |

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| Land Use | **LU-1:** The proposed Project would be consistent with the adopted land use/density designation in the Community Plan, redevelopment plan or specific plan for the site. | As discussed in Section 3.8 of the Final EIS/EIR, the Project would be consistent with the Port of Los Angeles Plan and site zoning (after amendments) and includes a physical separation of terminal facilities from residential areas. Therefore, the Board finds that impacts on land use would be less than significant.<br><br>The proposed Project would be consistent with the Port of Los Angeles Plan and site zoning. As the proposed Project would require amendments to the Port Master Plan (PMP) to create 10 acres of additional backlands/container storage areas within the Northwest Slip, inconsistencies with the PMP would not occur. Construction of the Harry Bridges Buffer Area and proposed roadways improvements would convert land designated in the Wilmington-Harbor City Community Plan for industrial uses to open space/recreational and roadway uses; however, these activities would occur on vacant parcels owned by the Port and are adjacent to existing roadways. Furthermore, the proposed GPA (i.e., roadway downgrades, zoning designation restrictions, height variance) would ensure consistency with the land use/density designations identified in the Wilmington-Harbor City Community Plan. In addition, because terminal activities would be confined to the proposed Project site project operations would not affect blighted conditions in surrounding redevelopment project areas. |
| Land Use | **LU-2:** The Project would be consistent with the General Plan or adopted environmental goals or policies contained in other applicable plans | As discussed in Section 3.8 of the Draft EIS/EIR, the project would be consistent with the Port of Los Angeles Plan, the Wilmington Harbor City Community Plan, the PMP/Coastal Act, SCAG policies, including the RCP and RTP and the San Pedro Bay Ports CAAP. Therefore, the Board finds that the impacts on applicable plans would be less than significant.<br><br>Proposed roadway improvements associated with widening Harry Bridges Boulevard and the buffer area would not conflict with adopted Wilmington-Harbor City Community Plan policies. The proposed Project would modify Harry Bridges Boulevard from to straighten it, provide a median and shoulders, which would widen it from 50 feet to 84 feet, which would bring the edge of the roadway up to 20 feet closer to “C” Street. Additionally, construction of the buffer area between Harry Bridges Boulevard and “C” Street, from Figueroa Street to Lagoon Avenue, would require removal of six north-south access streets within this area. Most of these roadways would be vacated; the proposed GPA would be required to downgrade Wilmington Boulevard and Neptune Avenue. However, this would result in isolating Port-related truck traffic away from the residential neighborhood north of “C” Street; consequently, the combination of widening Harry Bridges Boulevard and creating the Harry Bridges Buffer Area would not conflict with Wilmington-Harbor City Community Plan policies, which recommend that Port-related traffic be diverted away from adjacent residential areas when the circulation system is upgraded, and that circulation improvements be compatible with, and beneficial in, reducing environmental impacts to surrounding areas caused by Port-related activities. |

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| Land Use | **LU-4:** The proposed Project would not cause secondary impacts to surrounding land uses | The Project would generate substantial employment opportunities that would not result in significant secondary impacts on land use. The proposed Project would not change residential property trends in the areas immediately adjacent to the Port. Therefore, the Board finds that secondary impacts to surrounding land uses would be less than significant.<br><br>Residential property values in communities adjacent to the Port have increased in recent years and do not exhibit depreciated or stagnant values (LAEDC 2002). The proposed Project would not change residential property trends in the areas immediately adjacent to the Port. The proposed Project would increase the number of direct, indirect, and induced jobs and income in the region and result in other economic benefits. While the economic impacts are beneficial, the increase in jobs attributable to the proposed Project would be spread over the larger economic region (refer to Section 7.3.1). In addition, changes in property value are dependent on other unrelated factors including interest rates, ease of access as a bedroom community to employment centers, availability of quality education and historic and existing zoning practices |
| Noise | **NOI-2:** Construction activities would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 PM and 7:00 AM Monday through Friday, before 8:00 AM or after 6:00 PM on Saturday, or at any time on Sunday. | As discussed in Section 3.9 of the Draft EIS/EIR, there would be no construction-related noise impacts during prohibited hours. Therefore, the Board finds that these noise impacts would be less than significant.<br><br>No Project construction activities will occur between the hours of 9:00 pm and 7:00 am Monday through Friday, before 8:00 am or after 6:00 pm on Saturday, or at any time on Sunday. |
| Noise | **NOI-3:** Operations would generate noise, but noise levels would not substantially exceed existing ambient noise levels at sensitive receivers. | As discussed in Section 3.9 of the Final EIS/EIR, noise levels would not cause the CNEL to be increased by 3 dBA CNEL or more to the "normally unacceptable" or "clearly unacceptable" category, nor exceed 5 dBA over the current CNEL at sensitive locations. Therefore, the Board finds that operational noise impacts would be less than significant. For the reasons explained in Section 3.9.4.3.1.2, the Board finds that these impacts would be less than significant. Although impacts from NOI-3 were not found to be significant, Mitigation Measure NOI-2 has been incorporated into the Project to further reduce noise from the rail yard and provide additional landscaping in the Port. MM NOI-2 provides that a landscaped buffer along the northwest side of the proposed Pier A Yard between the yard and Alameda Street and on the southeast side of the yard between the facility and the marina area, will be incorporated into the project scope. The buffer will include mature trees and shrubs and shall be maintained for the life of the Project. If noise monitoring indicates that there will be exceedence of the City noise ordinance at the marinas in consolidated slip from operation of the relocated Pier A yard, a 6'-8' wall along the southeast side of the yard between the yard and the marinas will be constructed. |

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| Transportation | **TRANS-3:** An increase in on-site employees due to Project operations would result in a less than significant increase in related public transit use. | Although the proposed Project would result in additional on-site employees, the increase in work-related trips using public transit would be negligible. Port terminals generate extremely low transit demand for several reasons. The primary reason that Port workers do not use public transit is that many terminal workers must first report to union halls for dispatch before proceeding to the terminal to which they have been assigned. Most workers prefer to use a personal automobile to facilitate this disjointed travel pattern. Also, Port workers live throughout the Southern California region and do not have access to the few bus routes that serve the Port. Additionally, Port workers' incomes are generally higher than similarly skilled jobs in other areas and higher incomes correlates to lower transit usage (Pucher, Renne 2003). Finally, parking at the Port is readily available and free, which encourages workers to drive to work. Therefore, it is expected that less than ten work trips per day would be made on public transit, which could easily be accommodated by existing bus transit services and would not result in a demand for transit services which would exceed the supply of such services. Observations of transit usage in the area for bus routes that serve the proposed Project area (MTA routes 446 and 447) revealed that the buses are currently not operating near capacity and would be able to accommodate this level of increase in demand without exceeding supply. Consequently, the Board finds that impacts due to additional demand on local transit services would be less than significant. |
| Transportation | **TRANS-4:** Proposed Project operations would result in a less than significant increase in freeway congestion. | As the analysis in Section 3.10 explains, the Congestion Management Plan (CMP) arterial monitoring station at both Alameda Street/Pacific Coast Highway (PCH) and at I-110 at "C"-Street and I-710 at Willow Street indicate that there is no CMP system impact. Therefore, the Board finds that impacts will be less than significant. |
| Marine Vessel Transportation | **VT-1a**: The Project would not interfere with the operation of designated vessel traffic lanes or impair the level of safety for vessels navigating the Main Channel, West Basin area, and/or the precautionary areas during construction | Additional barge trips required to transport rock material from Catalina Island would increase traffic within the Port and the approach corridors to the Precautionary Area (see Figure 3.11-1 in the Draft EIS/EIR), but would not result in a significant contribution to vessel congestion within the Port and/or approach corridors. These activities are routinely conducted in the Port and contractors performing in-water construction activities are subject to applicable rules and regulations stipulated in all LAHD contracts and of the Army permits. As standard safety precautions would be utilized by the Port in piloting these vessels through harbor waters, the short-term presence of supply barges/support boats at Berths 136-139 and 145-147 and associated barge trips would not reduce the existing level of safety for vessel navigation in the Port. Therefore, the Board finds that impacts will be less than significant. |
| Marine Vessel Transportation | **VT-1b:** The Project would not interfere with the operation of designated vessel traffic lanes or impair the level of safety for vessels navigating the Main Channel, | The Project would increase the total number of vessels calling at the Port by approximately 3.3 percent over the current number of the vessels that call at the Port annually. Although the additional 88 vessel calls would increase vessel traffic within the West Basin, Port, and precautionary areas, the proposed Project would not significantly increase vessel congestion within the approach |

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| | West Basin area, and/or the precautionary areas during operation. | corridors in the open ocean. Project improvements would also improve overall conditions in Los Angeles Harbor by creating berth depths sized to accommodate larger ships, reducing the number of vessels and vessel trips required to accommodate projected container throughput at the Port. The proposed deepening of the areas adjacent to the berths in this area as part of the Channel Deepening Project further ensures that the larger, deeper-draft ships can safely navigate within the West Basin. While the increased ship size could affect maneuverability, the risk of accident is largely based on the number of vessels present and would therefore not have significant impacts on marine vessel safety within the Port. Therefore, the Board finds that impacts will be less than significant. |
| Public Services & Utilities | **PS-1:** The Project would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects. | As described in Section 3.12, the Project would not increase the demand for additional law enforcement officers and/or facilities such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without additional facilities, the construction of which could cause significant environmental effects. Therefore, the Board finds that impacts would be less than significant. |
| Public Services & Utilities | **PS-2:** Development of the proposed Project would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service | As described in Section 3.12, the proposed Project would not increase the demand for fire services to a degree that would require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service. Therefore, the Board finds that impacts would be less than significant. |
| Public Services & Utilities | **PS-3:** The proposed Project would not result in a substantial increase in utility demands; however, construction and/or expansion of onsite water, wastewater, or storm drain lines would be required to support new terminal development. | The project would have a less than significant impact on utility demands for the reasons explained in Section 3.12. For those reasons, the Board finds that this impact will be less than significant. |
| Public Services & Utilities | **PS-4:** The proposed Project would not generate substantial water, and/or wastewater demands that would exceed the capacity of existing facilities in the Project area. | The project would have a less than significant impact on water and wastewater demands for the reasons explained in Section 3.12. For those reasons, the Board finds that this impact will be less than significant. The project's significant but mitigable impact on solid waste capacity is discussed below. |
| Public Services & Utilities | **PS-5:** Implementation of the proposed Project would generate minor increases in energy demands; however, construction of new offsite energy supply facilities and distribution infrastructure | The project would have a less than significant impact on energy demands for the reasons explained in Section 3.12. For those reasons, the Board finds that this impact will be less than significant. |

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| | would not be required to support Project activities | |
| Public Services & Utilities | **PS-6:** The proposed Project would not result in a loss or diminished quality of recreational, educational, or visitor-oriented opportunities, facilities, or resources in the proposed Project area. | The project would have a less than significant impact on recreational, educational, or visitor-oriented opportunities for the reasons explained in Section 3.12. For those reasons, the Board finds that this impact will be less than significant. |
| Water Quality, Sediments & Oceanography | **WQ-1a:** Wharf demolition and construction activities could create pollution, contamination, or a nuisance as defined in Section 13050 of the CWC or cause regulatory standards to be violated in harbor waters | For the reasons explained in Section 3.13, the Board finds that project-related changes are not expected to create pollution, contamination, a nuisance, or violate any water quality standards, and impacts to water quality from in-water construction activities and disposal would be less than significant. |
| Water Quality, Sediments & Oceanography | **WQ-1b:** Runoff from backland development/redevelopment could create pollution, contamination, or a nuisance as defined in Section 13050 of the CWC or cause regulatory standards to be violated in harbor waters. | For the reasons explain in Section 3.13, the Board finds that project-related changes are not expected to create pollution, contamination, a nuisance, or violate any water quality standards, and impacts to water quality from in-water construction activities and disposal would be less than significant. |
| Water Quality, Sediments & Oceanography | **WQ-1c**: Fill, development, and wharf extension in the Northwest Slip could create pollution, contamination, or a nuisance as defined in Section 13050 of the CWC or cause regulatory standards to be violated in harbor waters. | For the reasons explain in Section 3.13, the Board finds that the Northwest Slip construction activities are not expected to create pollution, contamination, a nuisance, or violate any water quality standards. |
| Water Quality, Sediments & Oceanography | **WQ-1d:** Accidents during construction could create pollution, contamination, or a nuisance as defined in Section 13050 of the CWC or cause regulatory standards to be violated in harbor waters | Spills or leaks that occur on land are expected to be contained and cleaned up before any impacts to surface water quality can occur. Spills from dredges or barges could directly affect water quality within West Basin, resulting in a visible film on the surface of the water; however, the probability of an accidental spill from a vessel to the Harbor that would cause a nuisance or adversely affect beneficial uses is low. Therefore, the Board finds that accidental spills of pollutants would cause less than significant impacts. |
| Water Quality, Sediments & Oceanography | **WQ-2a:** Proposed Project construction would not result in increased flooding, which would have the potential to harm people or damage property or sensitive | The proposed Project would not increase potentials for flooding or increase risks to humans, property, or sensitive biological resources. Therefore, impacts from flooding would be less than significant. |

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| | biological resources. | |
| Water Quality, Sediments & Oceanography | **WQ-2b:** Operation of proposed Project facilities would not result in increased flooding, which would have the potential to harm people or damage property or sensitive biological resources. | Operation of the proposed Project facilities would not increase the potential for flooding to harm people or damage property or sensitive biological resources beyond the baseline because the Project operations would not substantially increase impermeable surfaces, alter the topography of the site, or reduce the capacity of the existing stormwater conveyance systems. Therefore, the Board finds that flooding impacts would be less than significant. |
| Water Quality, Sediments & Oceanography | **WQ-3a:** Construction activities would not result in a permanent adverse change in movement of surface water in the Harbor. | For the reasons explain in Section 3.13, the Board finds that construction activities for the proposed Project would not result in a permanent adverse change in surface water movement because these activities would not impose barriers to water movement into and out of the West Basin, and impacts to water quality and oceanography would be less than significant. |
| Water Quality, Sediments & Oceanography | **WQ-3b**: Operations would not result in a permanent adverse change in movement of surface water in the Harbor. | Proposed Project operations would not cause a permanent adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow because the project would not install barriers to prevent or impede water movement in the West Basin or harbor. Therefore, the Board finds that impacts to water quality, hydrology, and oceanography would be less than significant. |
| Water Quality, Sediments & Oceanography | **WQ-4a:** Construction activities have the potential to accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition which would not be contained or controlled on-site. | Construction activities for the proposed Project would not accelerate natural processes of wind and water erosion because BMPs, such as sediment basins and traps, barriers, inlet protection, and other standard soil management procedures, would be implemented to minimize erosion from the construction site. Runoff from general construction activities would cause short-term, localized changes in receiving water quality. Therefore, the Board finds that impacts would be less than significant. |
| Water Quality, Sediments & Oceanography | **WQ-4b:** Operations have a low potential to accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition, which would not be contained or controlled on-site. | Project-related operations would not accelerate erosion and soil deposition in the harbor due in part to implementation of required soil control measures, such as soil stabilization or traps. Therefore, the Board finds that impacts to water quality would be less than significant. |

## Significant Environmental Impacts that are reduced to a Less-Than-Significant Level by Mitigation Measures Incorporated into the Project

The following resource areas have significant environmental impacts that could be reduced to less-than-significant levels through the implementation of appropriate mitigation measures. With mitigation, these resource areas are found to be less than significant:

*Cultural Resources*

*Groundwater and Soils*

*Land Use*

*Utilities and Public Services*

In addition, the following resource areas also have significant impacts that could be reduced to less-than-significant levels through the implementation of appropriate mitigation measures. However, these resource areas also include significant unavoidable impacts (discussed on page 35) and therefore remain significant:

*Air Quality and Meteorology*

*Biological Resources*

*Transportation/Circulation*

The Board hereby finds that mitigation measures have been identified in the EIR that will avoid or substantially lessen the following significant environmental impacts to a less than significant level. The significant impacts and the mitigation measures that will reduce them to a less than significant level are as follows.

## Cultural Resources

As discussed in Section 3.4 of the Draft EIS/EIR, there would be one significant impact to cultural resources that would be mitigated to a less than significant level as a result of mitigation measures incorporated into the Project. In addition, although not considered significant, construction of the proposed Project has an extremely low potential to disturb, damage, or degrade unknown archaeological and ethnographic cultural resources and therefore, mitigation has been applied to reduce this potential impact. The impacts and mitigation measures are discussed below.

### Impact CR-3

Excavations for the proposed Harry Bridges Buffer Area in the northwestern portion of the proposed Project site would potentially disturb paleontological resources of regional or statewide importance. Late Pleistocene sandstone and sand deposits such as those in the northwestern portion of the proposed Harry Bridges Buffer Area between Harry Bridges Boulevard and "C" Street are known to contain intact vertebrate fossils, which are considered of regional, if not state-wide significance due to their rarity. Project grading and excavations would have the potential to adversely impact these unknown but potentially significant paleontological resources.

## Finding

Changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect as identified in the final EIR. These changes are set forth in Mitigation Measure CR-2 below.

***MM CR-2:*** *The Port shall inform construction contractors of the paleontological sensitivity within the northwestern portion (i.e., west of Wilmington Boulevard) of the proposed Harry Bridges Buffer Area between Harry Bridges Boulevard and "C" Street, and require that equipment operators be directed to temporarily cease work in the event a potential vertebrate fossil is encountered during ground disturbances. If a potential fossil is encountered, excavation within 10-meters (30-feet) of the find shall be temporarily suspended and redirected elsewhere. A qualified vertebrate paleontologist shall be retained to evaluate the significance of the fossil. If the fossil is determined to be a significant vertebrate specimen, the paleontologist shall systematically remove and stabilize the specimen in anticipation of its preservation. The Port shall fund the curation of the significant vertebrate specimen in a qualified professional research facility, such as the Los Angeles County Natural History Museum.*

### Rationale for Finding

Implementation of monitoring activities during construction, and applying appropriate investigation and treatment methods, as set forth in MM CR-2, would reduce significant impacts to potentially significant paleontological resources to less than significant levels.

## Impact CR-1

As discussed in Section 3.4 of the Draft EIS/EIR, no known archaeological sites are recorded within the proposed Project area, and no evidence of prehistoric or historic archaeological material was identified during previous cultural resource site record and literature searches and archaeological surveys (Port 1997a). Due to the extensive nature of previous ground disturbances within the proposed Project area and the substantial depths to which the soils have been disturbed, it is highly unlikely that any unknown, intact archaeological deposits exist within soils in the proposed Project area. Although not considered significant, construction of the proposed Project has an extremely low potential to disturb, damage, or degrade unknown archaeological and ethnographic cultural resources and therefore, mitigation has been applied to reduce this potential impact.

### Finding

Changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effects. These changes are set forth in Mitigation Measure CR-1 below. Because such measure is available, and can be implemented, the Board hereby finds that implementation of this mitigation measure is feasible.

***MM CR-1:*** *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 and relocated from that area. 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 pertinent CEQA regulations). Examples of such cultural materials might include concentrations of ground 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; trash pits containing bottles and/or ceramics; or structural remains. If the resources are found to be significant, they shall be avoided or shall be mitigated consistent with SHPO Guidelines. All construction equipment operators shall attend a pre-construction 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.*

*If human remains are encountered, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains. The Los Angeles County Coroner shall be contacted to determine the age and cause of death of the deceased. If the remains are not of Native American heritage, construction in the area may recommence. If the remains are of Native American origin, the most likely descendants of the deceased shall be identified by the Native American Heritage Commission (NAHC). The Port and USACE shall consult with the Native American most likely descendant(s) to identify a mutually acceptable strategy for treating and disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98. If the NAHC is unable to identify a most likely descendant, the descendant fails to make a recommendation within 24 hours of being notified by the NAHC, the Port, or the USACE and the descendant are not capable of reaching a mutually acceptable strategy through mediation by the NAHC, the Native American human remains and associated grave goods shall be reburied with appropriate dignity on the proposed Project site in a location not subject to further subsurface disturbance*.

### Rationale for Finding

Implementation of monitoring activities during construction, and applying appropriate investigation and treatment methods, as described in MM CR-1, would reduce significant impacts to unknown archaeological and ethnographic cultural resources to less than significant levels.

## Groundwater and Soils

As discussed in Section 3.6 of the Draft EIS/EIR, there would be two significant impacts to Groundwater and Soils resources that would be mitigated to less than significant levels as a result of mitigation measures incorporated into the Project. The impacts and mitigation measures are discussed below.

### Impact GW-1a

Construction activities may encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants. Grading and construction (e.g., excavations for utilities and foundations) in backland areas could expose construction personnel, existing operations personnel, and future occupants of the site to contaminated soil. Similarly, grading in the proposed buffer area could expose construction personnel and future recreational users to contaminated soil.

## Finding

Changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect as identified in the final EIR. These changes are set forth in Mitigation Measures GW-1 and GW-2 below.

***GW-1: Site Remediation.*** *Unless otherwise authorized by the lead regulatory agency for any given site, the Port shall remediate all contaminated soils within proposed Project boundaries prior to or during demolition and grading activities. Remediation shall occur in compliance with local, state, and federal regulations, as described in Section 3.6.3, and as directed by the Los Angeles Fire Department, DTSC, and/or RWQCB.*

*Soil remediation shall be completed such that contamination levels are below health screening levels established by OEHHA and/or applicable action levels 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) in backland areas and/or risk-based soil assessments, but would be subject to the discretion of the lead regulatory agency.*

*Existing groundwater contamination throughout the proposed Project boundary shall continue to be monitored and remediated, simultaneous and/or subsequent to site redevelopment, in accordance with direction provided by the RWQCB.*

*Unless otherwise authorized by the lead regulatory agency for any given site, areas of soil contamination that shall be remediated prior to, or in conjunction with, project demolition, grading, and construction would include, but not be limited to, the proposed Project areas listed in Table 3.6-1 and summarized on the attached Figure 3.6-3.*

***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. Deeply discolored soil or suspected contaminated soil shall be segregated from light colored soil. In the event unexpected suspected chemically impacted material (soil or water) is encountered during construction, the contractor shall notify the Los Angeles Harbor Department's Chief Harbor Engineer, Director of Environmental Management, and Risk Management's Industrial Hygienist. The Port shall confirm the presence of the suspect material and direct the contractor to remove, stockpile or contain, and characterize the suspect material(s) identified within the boundaries of the construction area. Continued work at a contaminated site shall require the approval of the Chief Harbor Engineer.*

*b) A photoionization detector (or other similar devices) shall be present during grading and excavation of suspected chemically impacted soil.*

*c) Excavation of VOC-impacted soil will require obtaining and complying with a South Coast Air Quality Management District Rule 1166 permit.*

*d) The remedial option(s) selected shall be dependent upon a number 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 shall be evaluated.*

*e) The extent of removal actions shall be determined on a site-specific basis. At a minimum, the chemically impacted area(s) within the boundaries of the construction area shall be remediated to the satisfaction of the lead regulatory agency for the site. The Port Project Manager overseeing removal actions shall inform the contractor when the removal action is complete.*

*f) Copies of hazardous waste manifests or other documents indicating the amount, nature, and disposition of such materials shall be submitted to the Chief Harbor Engineer within 30 days of project completion.*

*g) In the event that contaminated soil is encountered, all on-site personnel handling or working in the vicinity of the contaminated material shall be trained in accordance with Occupational Safety and Health and Administration (OSHA) regulations for hazardous waste operations. These regulations are based on CFR 1910.120 (e) and 8 CCR 5192, which states that "general site workers" shall receive a minimum of 40 hours of classroom training and a minimum of three days of field training. This training provides precautions and protective measures to reduce or eliminate hazardous materials/waste hazards at the work place.*

*h) In cases where potential chemically impacted soil is encountered, a real-time aerosol monitor shall be placed on the prevailing downwind side of the impacted soil area to monitor for airborne particulate emissions during soil excavation and handling activities.*

*i) All excavations shall be filled with structurally suitable fill material which is free from contamination.*

### Rationale for Finding

Incorporation of Mitigation Measure GW-1 will require soil and groundwater remediation of known contaminated areas. Incorporation of Mitigation Measure GW-2 will require implementation of a contingency plan for encountering unknown soil contamination. These measures would reduce the risk of health and safety impacts to on-site personnel in backland areas, as well as construction personnel and recreational users of the buffer area, in the event that construction activities encounter toxic substances or other contaminants associated with historical uses of the Port to less than significant levels.

## Impact GW-2a

Project construction would potentially result in expansion of the area affected by contaminants. Soil and groundwater in the Berths 142-147 backland areas, the Pier A rail yard, and the proposed buffer area, have been impacted by hazardous substances and petroleum products, as a result of spills during historic industrial land uses. Excavation and grading in contaminated soils could result in inadvertent spreading of such contamination to areas that were previously unaffected by spills of petroleum products or hazardous substances.

### Finding

Changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. These changes are set forth in Mitigation Measures GW-1 and GW-2 above.

### Rationale for Finding

Incorporation of Mitigation Measure GW-1 will require soil and groundwater remediation of known contaminated areas. Incorporation of Mitigation Measure GW-2 will require implementation of a contingency plan for encountering unknown soil contamination. These measures would reduce the potential for construction activities to result in expansion of the area affected by contaminants to less than significant levels.

## Land Use

As discussed in Section 3.8 of the Draft EIS/EIR, there would be one significant impact to Land Use that would be mitigated to a less than significant level as a result of mitigation measures incorporated into the Project. The impact and mitigation measures are discussed below.

### Impact LU-3

Truck use within Wilmington was addressed in the analysis of Impact LU-3 because of TraPac's unique proximity to Wilmington, in response to comments raised on this issue during scoping, and at the request of PCAC. There is a history of truck incursion complaints from the Figueroa/Harry Bridges Blvd./Alameda Streets that form a direct boundary with the Community of Wilmington and which was the partial reasoning behind the original "B" Street Project. This was identified as a significant impact in the final EIR.

### Finding

Changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. These changes are set forth in Mitigation Measure LU-1 and LU-2 below.

> ***MM LU-1: Install Truck Route Signage.*** *Fixed signs directing truck drivers to designated and alternative truck routes shall be installed throughout Wilmington. The Port shall survey the Wilmington area to identify additional locations where signage may help restrict truck activity from and residential areas on an annual basis.*
>
> ***Mitigation Measure LU-2: Truck Traffic Enforcement****. Port police will increase patrols to further enforce the prohibition against truck traffic that might enter residential streets from the designated truck routes adjacent to the Port The Port Police will prepare a quarterly report on truck traffic enforcement actions.*

### Rationale for Finding

As explained above, there is a history of truck incursion complaints from the Figueroa/Harry Bridges Blvd./Alameda Streets that form a direct boundary with the Community of Wilmington and which was the partial reasoning behind the original "B" Street Project. The construction of the Harry Bridges Buffer Area and several street closures as part of the Project will resolve a majority of these incursions by limiting truck access into residential areas. However, in light of the fact that these incursions are still possible, especially in the Alameda Street area, Mitigation Measures LU-1 and LU-2 have been incorporated into the Project to further discourage the trucks from leaving the designated truck routes that border the Port and directly entering the community. Implementation of

these measures would reduce the Project's contribution to existing violations of unauthorized truck use in Wilmington to less than significant levels. Furthermore, the Port has hired an officer whose sole job is to patrol the Wilmington area for truck violations. In addition, the Port has posted over fifty signs in Wilmington with information about the trucks routes and prohibitions. Mitigation Measure LU-1 will build on actions already taken by the Port by further surveying the Wilmington area to identify additional locations where signage may help restrict truck activity from and residential areas.

## Utilities and Public Services

As discussed in Section 3.12 of the Draft EIS/EIR, there would be one significant impact to Utilities and Public Services that would be mitigated to a less than significant level as a result of mitigation measures incorporated into the Project. The impact and mitigation measures are discussed below.

### Impact PS-4

Construction and demolition activities would generate debris that would require disposal in a landfill. Construction debris is one of the greatest individual contributors to solid waste capacity, making up approximately 22 percent of the State of California's waste disposal demand (CIWMB 2004b). Proposed construction activities would generate construction and demolition materials including asphalt, concrete, building materials, and solids. The amount of solid waste generated by construction activities would result in a substantial one-time contribution to the solid waste stream, possibly contributing to the exceedance of solid waste facility capacities. Therefore, impacts associated with solid waste generation during construction activities would be significant.

### Finding

Changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the Final EIR. These changes are set forth in Mitigation Measure PS-1, PS-2 and PS-3 below.

***MM 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.*

***MM PS-2: Materials with Recycled Content.*** *Materials with recycled content shall be used in project construction. Chippers on site during construction shall be used to further reduce excess wood for landscaping cover.*

***MM PS-3: AB 939 Compliance.*** *The applicant shall implement a Solid Waste Management Program including the following measures to achieve a 50 percent reduction in waste generation and ensure compliance with the California Solid Waste Management Act (AB 939).*

*a. Provision of space and/or bins for storage of recyclable materials within the project site. All garbage and recycle bin storage space shall be enclosed and plans should show equal area availability for both garbage and recycle bins within storage spaces.*
*b. Establish a recyclable material pick-up area for commercial buildings.*
*c. Participate in a curb-side recycling program to serve the new development.*
*d. Develop a plan for accessible collection of materials on a regular basis.*

*e. Develop source reduction measures, which indicate method and amount of expected reduction.*

*f. Implementation of a program to purchase materials that have recycled content for project construction and operation (i.e., lumber, plastic, office supplies).*

*g. Provision of a resident-tenant/employee education pamphlet to be used in conjunction with available Los Angeles County and federal source reduction educational materials. The pamphlet shall be provided to all commercial tenants by the leasing/property management agency.*

*h. Inclusion of lease language requiring tenant participation in recycling/waste reduction programs, including specification that janitorial contracts support recycling.*

### Rationale for Finding

Implementation of Mitigation Measures PS-1 through PS-3 would reduce proposed Project construction related solid waste generation and ensure compliance with AB 939 by increasing recycling rates thereby diverting solid waste. As a result the impact to landfills as a result of the Project would be reduced to less than significant levels.

## Air Quality

As discussed in Section 3.2 of the Draft EIS/EIR, there would be one significant Air Quality impact that would be mitigated to a less than significant level as a result of mitigation measures incorporated into the Project. The impact and mitigation measures are discussed below.

### Impact AQ-6

A Health Risk Assessment (HRA) was completed to determine whether the proposed Project would expose receptors to significant levels of toxic air contaminants (TACs). The HRA was used to quantify the significance of public health effects generated by Project emissions of TACs. The HRA evaluated cancer and non-cancer effects, which is consistent with quantitative health impact analyses used for purposes of CEQA documentation. Estimates of Project health effects included the evaluation of: (1) operational emissions from the expanded Berths 136-147 terminal and relocated Pier A rail yard operated by PHL; and (2) Diesel Particulate Matter (DPM) emissions from Project construction. The full HRA can be found in Appendix D3 of the Draft EIS/EIR.

Emissions of TACs from Project operational sources would occur from the (1) internal combustion of diesel or residual fuels in ships, tugboats, terminal equipment, locomotives, and trucks and (2) external combustion of diesel or residual fuels in Ocean Going Vessels (OGV) service boilers. Emissions of TACs from Project construction sources would occur from the internal combustion of diesel fuels in construction equipment and associated harbor craft. For health effects resulting from long-term exposure to Project diesel emissions, the Project HRA only considered DPM emissions, in accordance with the Office of Environmental Health Hazard Assessment (OEHHA) guidance (OEHHA 2003). In regard to acute non-cancer effects from Project diesel sources, OEHHA assesses both criteria pollutants and chemicals that are subsets of VOCs and particulate matter.

As presented in Chapter 3.2 of the Draft EIS/EIR, the maximum CEQA increment for residential cancer risk is predicted to be 155 in a million. This risk value exceeds the significance criterion of 10 in a million risk and therefore this impact would be significant under CEQA. This impact would occur just

northeast of the intersection of C Street and Mar Vista Avenue in Wilmington. The maximum cancer risk increments at an off-site occupational (near the corner of Fries Avenue and La Paloma Street), sensitive, and recreational receptor also would exceed the 10 in a million significance criterion (98 in a million, 113 in a million, and 61 in a million respectively). The maximum cancer risk increment at a student receptor would be less than significant (2.4 in a million). In reviewing the student receptor locations, it was found that one school, the Wilmington Skills Center at 217 Island Ave. Wilmington CA, was inadvertently missed. This location is part of the Harbor Occupation Center and serves adult students only and therefore would not be considered a sensitive receptor location. In addition, the Hawaiian Elementary school represents the maximum student receptor and is closer to the project site than the Wilmington Skills Center.

The prediction for the maximum CEQA increment for acute non-cancer effects would exceed the 1.0 hazard index significance criterion at residential, occupational, and recreational receptors in proximity to the Project terminal. The maximum occupational and recreational impacts would occur along Fries Avenue south of Pier A Street and in the southwest portion of the Harry Bridges Buffer Area. The maximum CEQA increment for acute non-cancer effects to student receptor types would remain below the 1.0 hazard index significance criterion. The prediction for the maximum CEQA increment for chronic non-cancer effects would remain below the significance criterion of 1.0 at all receptor types.

## Finding

Changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. These changes are set forth in Mitigation Measure AQ-6 through AQ-12 below.

***MM AQ-6: AMP.*** *Ships calling at Berth 136-147 shall use AMP while hotelling at the Port in the following at minimum percentages: (a) 2009: 25% of ship calls; (b) 2010: 50% of ship calls; (c) 2012: 60% of ship calls; (d) 2015: 80% of ship calls; and (e) 2018: 100% of ship calls. Additionally, by 2010, all ships retrofitted for AMP shall be required to use AMP while hotelling at 100 percent compliance rate, with the exception of circumstances when an AMP-capable berth is unavailable due to utilization by another AMP-capable ship.*

***MM AQ-7: Yard Tractors****. All yard tractors operated at the Berths 136-147 Terminal, including the on-dock rail facility, shall implement the following measures.*

*Beginning in 2007, all new yard tractors shall be either (1) the cleanest available NOx alternative-fueled engine meeting 0.015 Gm/Hp-Hr for PM or (2) the cleanest available NOx diesel-fueled engine meeting 0.015 Gm/Hp-Hr for PM. If there are no engines available that meet 0.015 Gm/Hp-Hr for PM, the new engines shall be the cleanest available (either fuel type) and will have the cleanest Verified Diesel Emissions Controls (VDEC).*

*By the end of 2010, all yard tractors would meet at a minimum the USEPA Tier 4 non-road emission standards.*

***MM AQ-8****:* ***Yard Equipment.*** *All diesel-powered terminal equipment other then yard tractors at the Berths 136-147 Terminal, including the on-dock rail facility, shall implement the following measures.*

*Beginning in 2008, all non-yard tractor purchases shall be either (1) the cleanest available NOx alternative-fueled engine meeting 0.015 Gm/Hp-Hr for PM or (2) the cleanest available*

*NOx diesel-fueled engine meeting 0.015 Gm/Hp-Hr for PM. If there are no engines available that meet 0.015 Gm/Hp-Hr for PM, the new engines shall be the cleanest available (either fuel type) and will have the cleanest VDEC.*

*By the end of 2012, all non-yard tractor terminal equipment less than 750 Hp shall meet the USEPA Tier 4 non-road or Tier 4 non-road engine standards.*

*By the end of 2014, all terminal equipment shall meet USEPA Tier 4 non-road engine standards*

***MM AQ-9: Trucks.*** *Heavy-duty diesel trucks entering the Berths 136-147 Terminal shall achieve the EPA 2007 Heavy-Duty Highway Rule emission standards for on-road heavy-duty diesel engines (USEPA 2001a) in the following percentages: 30% in 2008, 50% in 2009, 70% in 2010, and 100% in 2012 and thereafter.*

***MM AQ-10**: **VSRP.** All ships calling at Berth 136-147 shall comply with the expanded VSRP of 12 knots between 40 nm from Point Fermin and the Precautionary Area in the following implementation schedule: 95% in 2008.*

***MM AQ-11**: **Low Sulfur Fuel** Ships calling at Berth 136-147 shall use low-sulfur fuel (maximum sulfur content of 0.2 percent) in auxiliary engines, main engines, and boilers within 40 nm of Point Fermin (including hotelling for non-AMP ships) at the following annual participation rates: (a) 2009: 20 percent of auxiliary engines, main engines, and boilers; (b) 2010: 30 percent of auxiliary engines, main engines, and boilers; (c) 2012: 50 percent of auxiliary engines, main engines, and boilers; and (d) 2015: 100 percent of auxiliary engines, main engines, and boilers Additionally, by 2012, all frequent caller ships (three or more calls a month) shall use 0.2% in main engines, auxiliary engines and boilers within 40nm of the Port*

***MM AQ-12: Slide Valves** Ships calling at Berth 136-147 shall be equipped with slide valves or equivalent on main engines in the following percentages: (a) 15 percent in 2008; (b) 50 percent in 2010; and (c) 95 percent in 2015. By 2012, all frequent caller ships (three or more calls a month) shall comply with this requirement.*

## Rationale for Finding

Mitigation Measures AQ-6 through AQ-12 would be implemented as part of the Project to reduce diesel particulate matter and other TAC emissions. After mitigation, the maximum CEQA increment for residential cancer risk predicted for the mitigated Project would be reduced to 1.4 in a million ($1.4 \times 10^{-6}$), which is less than the significance criterion of 10 in a million. The location of this impact is near Berth 202 within the Consolidated Slip Marina in association with a live aboard. The maximum mitigated Project CEQA cancer risk increments at other receptor types would also remain below the 10 in a million significance criterion. The mitigated Project would produce lower residential cancer risks compared to the CEQA Baseline within the entire modeling domain except for a small area that encompasses the Consolidated Slip that is northeast of the Berths 136-147 terminal. The mitigated Project would reduce maximum CEQA increments for acute non-cancer effects to below the 1.0 hazard index significance criterion at all receptor types. Implementation of Mitigation Measures AQ-6 through AQ-12 would reduce proposed Project TAC emissions to less than significant levels.

# Biological Resources

As discussed in Section 3.3 of the Draft EIS/EIR, there would be two significant impacts to Biological Resources that would be mitigated to less than significant levels as a result of mitigation measures incorporated into the Project. The impacts and mitigation measures are discussed below.

## Impact Bio 2-a

Filling of the Northwest Slip would result in a permanent loss of Inner Harbor marine habitat and a reduction of essential fish habitat (EFH) in the West Basin, a significant impact under CEQA. Construction activities in the backlands, including the rail yard relocation, and for road improvements (Harry Bridges Boulevard widening and buffer area) would have no direct impacts on EFH or other natural habitats because none are present. Indirect impacts through runoff of sediments during storm events would be less than significant because such runoff would be controlled as described for water quality in Section 3.13 of the Draft EIS/EIR (e.g., project-specific storm water pollution prevention plans with best management practices such as sediment barriers and sedimentation basins). No impacts to significant ecological areas (SEAs,) kelp beds, eelgrass beds, wetlands, or mudflats would occur because none of these habitats are present at or near the proposed Project site.

### Finding

Changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. These changes are set forth in Mitigation Measure BIO-1 below.

> ***BIO-1.*** *The Port shall apply 4.75 credits (= 9.5 Inner Harbor acres) available in the Bolsa Chica or Outer Harbor mitigation banks to compensate for loss of fish and wildlife habitat due to construction of fill in the Northwest Slip of the West Basin. Credit accounting and debiting of credits from either the Bolsa Chica or Outer Harbor mitigation banks shall occur prior to issuance of a Section 10/404 Permit by the USACE.*

### Rationale for Finding

Mitigation Measure BIO-1 would fully offset Project impacts to EFH sustainable fisheries and loss of general marine habitat. Mitigation of the filling of 9.5 acres (3.9 ha) of Inner Harbor marine habitat would require credit from either the Bolsa Chica Mitigation Agreement or the Outer Harbor Mitigation Bank. Incorporation of Mitigation Measure BIO-1 reduces the impact to less than significant.

## Impact BIO-5

As part of the proposed Project, 10 acres of water will be filled for additional backlands. Construction of a 10-acre (4-ha) fill in the Northwest Slip would cause a permanent loss of 9.5 acres (3.1 ha) of aquatic habitat in the Los Angeles Inner Harbor as described above, and this impact would be significant.

### Finding

Changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. These changes are set forth in Mitigation Measure BIO-1 above.

### Rationale for Finding

Port has developed, and continues to develop as needed, mitigation projects to provide mitigation credits for impacts of development in the Harbor to marine biological resources in coordination with NOAA Fisheries, USFWS, and CDFG through agreed-upon mitigation policies (USACE and Port 1992). These policies specify the values of existing habitats in the Harbor in a system of credits that are related to surface area, water depth, and location within the Harbor. Mitigation Measure BIO-1 would completely mitigate the significant loss of Inner Harbor habitat for aquatic species by replacement through existing mitigation agreements/banks.

## Transportation and Circulation

As discussed in Section 3.10 of the Draft EIS/EIR, there would be two significant impacts to Transportation and Circulation that would be mitigated to less than significant levels as a result of mitigation measures incorporated into the Project. The impacts and mitigation measures are discussed below.

### Impact TRANS-1

There would be temporary impacts on the study area roadway system, as defined in Section 3.10.2.2 of the Draft EIS/EIR, during construction of the Project because the construction activities would generate vehicular traffic associated with construction workers' vehicles and trucks delivering equipment and fill material to the site. This site-generated traffic would result in increased traffic volumes on the study area roadways for the duration of the construction period, which would span a period of 2 to 3 years for the various project components.

### Finding

Changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. These changes are set forth in Mitigation Measure Trans-1 below:

> **Trans-1:** *Prior to beginning construction, the construction contractor shall prepare a detailed traffic management plan which shall include the following detour plans, coordination with emergency services and transit providers, coordination with adjacent property owners and tenants, advanced notification of temporary bus stop loss and/or bus line relocation, identify temporary alternative bus routes, advanced notice of temporary parking loss, identify temporary parking replacement or alternative adjacent parking within a reasonable walking distance, use of designated haul routes, use of truck staging areas, observance of hours of operations restrictions and appropriate signing for construction activities. The traffic management plan shall be submitted to Los Angeles Harbor Department (Port) for approval before beginning construction.*

### Rationale for Finding

Incorporation of Mitigation Measure Trans-1 will require the construction contractor to prepare a detailed traffic management plan as described above. This plan will ensure that impacts to the study area roadway system as a result of Project construction will be less than significant.

## Impact TRANS-2

The Project would result in significant circulation system impacts at four study intersections.

Specifically, the LOS at the Avalon Boulevard/Harry Bridges Boulevard intersection would experience a significant traffic impact during the P.M. peak hour during proposed Project build-out year 2038. At 2038, Avalon Boulevard/Harry Bridges Boulevard would operate at LOS C during the P.M. peak hour, and the level of Project-related traffic would exceed the City of Los Angeles threshold for significant impact.

The Alameda Street/Anaheim Street intersection would experience a significant traffic impact during the A.M. peak hour during proposed Project build-out year 2015 and significant traffic impact for both the A.M. and P.M. peak hours in 2038. At 2015, Alameda Street/Anaheim Street would operate at LOS D during the A.M. peak hour, and the level of Project-related traffic would exceed the City of Los Angeles threshold for significant impact. At 2038, Alameda Street/Anaheim Street would operate at LOS F in the A.M. peak hour and LOS E during the P.M. peak hour, and the level of Project-related traffic would exceed the City of Los Angeles threshold for significant impacts.

The Fries Avenue/Harry Bridges Boulevard intersection would experience a significant traffic impact during the P.M. peak hour during proposed Project build-out year 2038. At 2038, Fries Avenue/Harry Bridges Boulevard would operate at LOS C during the P.M. peak hour; and the level of Project-related traffic would exceed the City of Los Angeles threshold for significant impacts

The Broad Avenue/Harry Bridges Boulevard intersection would experience a significant traffic impact during the P.M. peak hour during proposed Project build-out year 2038. At 2038, Broad Avenue/Harry Bridges Boulevard would operate at LOS C during the P.M. peak hour; and the level of Project-related traffic would exceed the City of Los Angeles threshold for significant impacts.

### Finding

Changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effects identified in the final EIR. These changes are set forth in Mitigation Measures Trans-2 through Trans- 7 below:

***Trans -2****: Avalon Boulevard and Harry Bridges Boulevard – Provide an additional eastbound through-lane on Harry Bridges Boulevard. This measure shall be implemented by 2038.*

***Trans-3****: Alameda Street and Anaheim Street – Provide additional northbound and southbound through-lanes on Alameda Street, and provide a northbound free right-turn lane from northbound Alameda Street to eastbound Anaheim Street. This measure shall be implemented by 2015.*

***Trans #4**: Fries Avenue and Harry Bridges Boulevard – Add dual northbound left-turn lanes from northbound Fries Avenue to westbound Harry Bridges Boulevard, and provide an additional northbound right-turn lane from northbound Fries Avenue to eastbound Harry Bridges Boulevard. This measure shall be implemented by 2038.*

***Trans #5**: Broad Avenue and Harry Bridges Boulevard – Provide an additional eastbound through-lane on Harry Bridges Boulevard. This measure shall be implemented by 2038.*

In addition, the Port is currently planning a number of transportation projects slated for the West Basin area including improvements to freeway ramp/arterial interchanges along SR-47 and I-110. These projects were developed as part of the ongoing *Port of Los Angeles Roadway Transportation Study (Roadway Study)*. These transportation projects were assumed as part of the analysis in the Draft EIS/EIR. If these projects are not constructed in the timeframe assumed, the following mitigation measures shall also be incorporated into the Project:

***Trans #6**: Figueroa Street and Harry Bridges Boulevard – Provide dual southbound left-turn lanes from southbound Figueroa Street to eastbound Harry Bridges Boulevard and change southbound left-turn phasing from a permitted phase to protected phase. This measure shall be implemented by 2038.*

***Trans #7**: Figueroa Street/C-Street and I-110 Ramps – Signalize this intersection, provide dual northbound left-turn lanes from northbound Figueroa Street to the I-110 northbound on-ramp, and re-stripe the eastbound shared left-through-right lane to an exclusive right turn only lane. This measure shall be implemented by 2015.*

## Rationale for Finding

Incorporation of Mitigation Measures Trans-2 through Trans-7 will reduce impacts circulation system impacts at the four study intersections identified above to less than significant levels by implementing the design changes set forth therein to reduce traffic delays.

# Significant and Unavoidable Environmental Impacts That Cannot Be Reduced to a Less-Than-Significant Level

**Unavoidable Significant Impacts** The Draft EIS/EIR indicated that unavoidable significant impacts to the following environmental resources would occur if the proposed project were implemented.

*Air Quality and Meteorology*

*Biological Resources*

*Geology*

*Noise*

*Transportation/Circulation*

*Water Quality Sediments and Oceanography*

Attachment 1 contains a list of comments received on the Draft EIS/EIR that contain suggested mitigation measures and/or alternatives suggested to reduce significant and unavoidable impacts. The discussion below refers to Attachment 1 and indicates whether the proposed mitigation measure and/or alternative has been added to the Final EIR and/or incorporated into the Project. The Board has determined that certain proposed mitigation measures and/or alternatives are infeasible in light of specific economic, legal, social, technological, and other considerations and, therefore, have not been incorporated into the Project. The evidence of such infeasibility is explained below.

## Air Quality

As discussed in Section 3.2 of the DEIR, there would be significant impacts to air quality and meteorology related to construction and operation as a result of the proposed Project. The impacts and mitigation measures are discussed below.

### Impact AQ-1

Proposed Project construction would produce emissions that would exceed South Coast Air Quality Management District (SCAQMD) emission significance thresholds. SCAQMD thresholds have been established for volatile organic compounds (VOCs), carbon monoxide (CO), nitrogen oxides ($NO_x$), sulfur oxides ($SO_x$), particulate matter of 10 microns and less ($PM_{10}$) and particulate matter of 2.5 microns and less ($PM_{2.5}$). As discussed in Section 3.2 of the Draft EIS/EIR, without mitigation, the proposed construction activities are estimated to produce emissions that would exceed all daily SCAQMD thresholds except for CO. Dredging and disposal and rip-rap placement would produce the greatest amounts of emissions from the proposed construction activities. The main contributors to emissions from these activities include: (1) transit and hotelling of general cargo vessels during crane and sheet-piles deliveries; (2) tugboats that deliver dike rock and transport dredge sediments; (3) clamshell dredge equipment; (4) barge equipment used to place rip-rap and wharf pilings; and (5) earth-moving equipment. Fugitive dust from earth-moving activities would contribute to the majority of PM emissions during upland construction activities, while PM emissions from all other construction activities mainly would take the form of combustive diesel particulate matter (DPM). During a peak day of activity, the proposed Project's Phase 1 construction would produce significant levels of VOC, $NO_x$, $SO_x$, $PM_{10}$, and $PM_{2.5}$ emissions and Phase 2 construction would produce significant levels of VOC, $NO_x$, and

$PM_{2.5}$ emissions under CEQA. As a result, mitigation is required. In regard to $PM_{10}/PM_{2.5}$ emissions, the overwhelming majority of this pollutant emitted during Phase 1 construction would occur in the form of fugitive dust. However, almost all $PM_{2.5}$ emissions during Phase 2 construction would occur from diesel fuel combustion.

## Finding

The Draft EIS/EIR discussed impacts to regional air quality that would result during construction activities associated with the proposed project (Impact AQ-1). Implementation of Mitigation Measures AQ-1 through AQ-3 and AQ-5 would reduce Project construction emissions. However, emissions under CEQA would continue to exceed the (1) $NO_x$, $SO_x$, $PM_{10}$, and $PM_{2.5}$ SCAQMD emission thresholds during Phase 1 and (2) $NO_x$, $PM_{10}$, and $PM_{2.5}$ SCAQMD emission thresholds during Phase 2. As a result, these emissions would remain significant under CEQA. In the Final EIR, AQ-1 through AQ-5, AQ-18B and AQ-25 were included to reduce construction emissions. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce construction emissions below significance. Specific economic, legal, social, technological, or other considerations make infeasible additional mitigation measures or project alternatives, as explained below.

***MMAQ-1: Harbor Craft for Crane and Sheet-pile Deliveries and Construction.*** *All cargo ships used for terminal crane and sheet pile deliveries shall comply with the expanded VSRP of 12 knots from 40 nm from Point Fermin to the Precautionary Area. Ships used for sheet pile deliveries in Phase II construction (post 2015) shall 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 measure shall also require all harbor craft used during the construction phase of the project to, at a minimum, be repowered to meet the cleanest existing marine engine emission standards or U.S. EPA Tier 2. Additionally, where available, harbor craft shall meet the proposed U.S. EPA Tier 3 (which are proposed to be phased-in beginning 2009) or cleaner marine engine emission standards. In addition, all dredging equipment shall be electric.*

*The above harbor craft 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:*

1. *A piece of specialized equipment is unavailable in a controlled form within the state of California, including through a leasing agreement.*
2. *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.*
3. *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.*

***Mitigation Measure AQ-2: Fleet Modernization for On-Road Trucks.*** *All on-road heavy-duty diesel trucks with a gross vehicle weight rating (GVWR) of 33,000 pounds or greater used on-site or to transport materials to and from the site shall comply with EPA 2007 on-road PM emission standards and be the cleanest available NOx for Phase I. In addition, for Phase II construction*

*(post January 2015), all on-road heavy-duty diesel trucks with a gross vehicle weight rating (GVWR) of 33,000 pounds or greater used on-site or to transport materials to and from the site shall comply with year 2010 emission standards where available. Trucks hauling materials such as debris or fill shall be fully covered while operation off Port property.*

*The above on-road truck measures shall be met, unless one of the following circumstances exists and the contractor is able to provide proof that any of these circumstances exists:*

1. *A piece of specialized equipment is unavailable in a controlled form within the state of California, including through a leasing agreement.*
2. *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.*
3. *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.*

***Mitigation Measure AQ-3: Fleet Modernization for Construction Equipment.*** *All off-road diesel-powered construction equipment greater than 50 hp, except derrick barges and ocean going cargo vessels, shall meet the cleanest off-road diesel emission levels available but no greater than Tier 2 emission standards for projects starting construction prior to December 2011. Tier 3 emission standards shall be applied to projects starting construction between December 2011 and January 2015. The contractor could meet Tier 3 equivalent PM10 emission limits through the use of new or repowered engines designed to meet Tier 2 PM standards and/or the use of ARB approved diesel particulate traps. For Phase II construction (post 2015), equipment shall meet the Tier 4 emission standards where available. In addition, construction equipment shall incorporate, where feasible, emissions savings technology such as hybrid drives and specific fuel economy standards.*

*The above construction equipment measures shall be met, unless one of the following circumstances exists and the contractor is able to provide proof that any of these circumstances exists:*

1. *A piece of specialized equipment is unavailable in a controlled form within the state of California, including through a leasing agreement.*
2. *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.*
3. *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: Best Management Practices (BMPs).*** *Port shall implement a process by which to select additional BMPs to further reduce air emissions during construction if it is determined that the proposed construction equipment exceed any SCAQMD significance threshold. The following types of measures would be required on construction equipment: (a) use of diesel oxidation catalysts and catalyzed diesel particulate traps; (b) maintain equipment according to manufacturers' specifications; (c) restrict idling of construction equipment to a maximum of 5 minutes when not in use; and (d) install high-pressure fuel injectors on construction equipment vehicles. The Port shall determine the BMPs once the contractor identifies and secures a final equipment list.*

***MM AQ-5: Additional Fugitive Dust Controls.*** *The construction contractor shall further reduce fugitive dust emissions to 90 percent from uncontrolled levels. The Project construction contractor shall specify and implement dust-control methods that will achieve this control level in a SCAQMD Rule 403 dust control plan. The construction contractor shall designate personnel to monitor the dust control program and to order increased watering, as necessary, to ensure a 90 percent control level. Their duties shall include holiday and weekend periods when work may not be in progress.*

*Measures to reduce fugitive dust include, but are not limited to, the following:*

- *Active grading sites shall be watered one additional time per day beyond that required by Rule 403.*
- *Contractors shall apply approved non-toxic chemical soil stabilizers to all inactive construction areas or replace groundcover in disturbed areas.*
- *Construction contractors shall provide temporary wind fencing around sites being graded or cleared.*
- *Trucks hauling dirt, sand, or gravel shall be covered or shall maintain at least 2 feet of freeboard in accordance with Section 23114 of the California Vehicle Code.*
- *Construction contractors shall install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off tires of vehicles and any equipment leaving the construction site.*

*The grading contractor shall suspend all soil disturbance activities when winds exceed 25 mph or when visible dust plumes emanate from a site; disturbed areas shall be stabilized if construction is delayed.*

***AQ-18A: General.*** *Any of the above mitigation measures can be replaced by a new and/or alternative technology, provided the technology (1) is CARB-certified, (2) is equal to or exceeds emissions savings as analyzed in this EIS/EIR and, (3) is approved by the Port of Los Angeles*

***MMAQ-25: 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.*

## Rationale for Finding

Changes or alterations in the form of mitigation measures have been incorporated into the project in the form of AQ-1 through AQ-5, AQ-18B and AQ-25, which lessen significant construction emissions. Although reduced as a result of the mitigation measures, construction emissions remain significant and unavoidable. Table 1 presents the construction emissions and thresholds before and after mitigation.

**Table 1: Construction Emissions** *(bold numbers denote significant emissions)*

| | EMISSIONS (POUNDS PER DAY) | | | | | |
|---|---|---|---|---|---|---|
| | VOC | CO | $NO_x$ | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
| **Phase I** | | | | | | |
| Peak Daily Emissions | **126** | 443 | **1,845** | **676** | **424** | **161** |
| Mitigated Peak Daily Emissions* | 74 | 299 | **1,459** | **541** | **205** | **97** |
| SCAQMD Daily Significance Thresholds | *75* | *550* | *100* | *150* | *150* | *55* |
| **Phase II** | | | | | | |
| Peak Daily Emissions | **97** | **233** | **2,304** | **3** | **116** | **109** |
| Mitigated Peak Daily Emissions* | 56 | 180 | **1,476** | 2 | 72 | **67** |
| SCAQMD Daily Significance Thresholds | *75* | *550* | *100* | *150* | *150* | *55* |

*Due to availability issues, all mitigation measures were not fully quantified. The Final EIR however includes information on relative emissions reduction for all mitigation measures.

While the mitigation measures presented in the Final EIR reduce emissions, emissions would still exceed SCAQMD emissions in Phase I ($NO_x$, $SO_x$, $PM_{10}$, and $PM_{2.5}$) and Phase II ($NO_x$, $PM_{10}$, and $PM_{2.5}$). Mitigation measures AQ-1 through AQ-5, AQ-18A and AQ-25 in the Draft EIS/EIR represent feasible means to reduce air pollution impacts from proposed construction sources.

Emissions will largely come from diesel-powered construction equipment such as concrete mixers, trucks, bulldozers, and graders for backland development, rail construction and buffer construction; pile drivers, tugboats and clamshell dredgers for wharf redevelopment and the 10 acre fill; and cargo ships for crane delivery. As part of the Draft EIS/EIR, mitigation was developed aimed at reducing these emissions through accelerating fleet turnover to newer, cleaner equipment, adding retrofit devices and employing best management practices (BMPs).

While changes to AQ-1 through AQ-5, AQ-18B and AQ-25 will reduce construction emissions, further mitigation is not feasible at this time because of availability due to limitations with the existing construction fleet. Most construction contractors do not own their own equipment because of the costs associated with owning, maintaining and storing large equipment, but instead rent equipment and thereby may be limited by availability. For example, new Tier 3 standard off-road engines became commercially available in 2006/2007 for the prevalent horsepower categories proposed for Project construction. Since most of Phase 1 construction would occur within a few years after this time, therefore all Project construction equipment may not be able to comply with these standards. Hence, MM AQ-3 proposes a more achievable goal that requires non-marine construction equipment on the average to comply with Tier 2-equivalent standards. MM AQ-3 does require all of the equipment to comply with the Tier 4 standards in Phase II. The discussion below includes more details on potential mitigation measures.

<u>Construction Trucks and Equipment:</u>

Comments on the Draft EIS/EIR from (SCAQMD), Natural Resources Defense Council (NRDC), and the PCAC Air Quality Subcommittee (Attachment 1) suggested accelerating construction equipment and truck fleet turnover even further (SCAQMD-11 & 12, NRDC-12, 15, & 16, and

PCAC AQ-16 & 17). For example, comments called for construction equipment to meet USEPA Tier 3 and 4 standards and on road trucks to meet the lowest certified $NO_x$ emission levels. Based on comment received, the Final EIR has modified MM AQ-2 and MMAQ-3 to require stricter emission standards. In addition, the Project construction procurement process will include a selection system that requires bidders to use the cleanest available construction equipment and the mitigation measures will result in further emission reductions than assumed in the Draft EIS/EIR.

Another comment (NRDC-17) suggesting changing MMAQ-5 to limit off-road construction equipment idling to 5 minutes (this comment was also received from SCAQMD), requires a manager on-site to verify compliance with all mitigation measures and best practices, ensure that grid power is available to the construction site whenever power is needed in place of using any diesel generators and where access to the power grid is limited, on-site generators must meet the equivalent current off-road standards for $NO_x$, *and* meet a 0.01 gram per brake-horsepower-hour standard for PM, *or* be equipped with Level 3 verified diesel emissions control systems (VDECS). In response to this comment, MM AQ-5 was amended to restrict idling of construction equipment to a maximum of 5 minutes when not in use; and MM AQ-3 was amended to include the following: all off-road diesel-powered construction equipment and generators greater than 25 hp, except derrick barges and marine vessels, shall meet the cleanest off-road diesel emission levels available but no greater than EPA Tier 3 $NO_x$ emission standards. In regards to requiring a manager to verify compliance, as part of the MMRP, the construction contractor will be required to provide regular compliance reports.

NRDC (NRDC-18) also requested that the following mitigation measures be added: any trucks hauling materials such as debris or fill, must be fully covered while operating off-site (i.e. in transit to or from the site) and notify each sensitive sites of the project, in writing, at least 30 days before construction activities begin. Mitigation Measure MM AQ-2 has been amended to include the following provision "trucks hauling materials such as debris or fill shall be fully covered while operation off-Port property" and MM AQ-25 has been added to the Project: "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".

Comments from the PCAC Air Quality Subcommittee (PCAC AQ-16 and 17), the Northwest San Pedro Neighborhood Council (NWSP-4), NRDC (NRDC-12), and others requested that the construction mitigation measures be amended to use electric or alternative fuel-powered equipment. It is infeasible at this time to require alternative fuels or electric power for construction equipment, due to lack of availability. In consideration of this comment, the Port queried a number of construction contractors and determined that none of them currently use alternative fuels or electric powered on or off-road construction equipment. In addition, biodiesel use at the Port is not being heavily pursued due to reported increases in $NO_x$ emissions. Construction equipment using biodiesel are not expected to meet the percent $NO_x$ reduction assumed in the Draft EIS/EIR. As discussed on page 3.2-3, while the South Coast Air Basin has been in attainment for $NO_2$ since 1991, the region is now considered a maintenance area for $NO_2$ and local air agencies are pursuing further reductions in $NO_x$ emissions to offset regional increases in population.

Dredge equipment represents one type of equipment that could be electrified. For example, the Port used a fixed electrical dredger for the Channel Deepening project. While the type of wharf work in the proposed Project requires a clamshell dredger that requires more movement and therefore is more difficult to electrify, electric clamshell dredgers do exist. Therefore, the Port will require the use of an electric dredger and this measure has been added to MM AQ-1.

Harbor Craft used in Construction

In addition to accelerated fleet turnover, comments were received regarding additional mitigation for ships and harbor craft (tugboats, barges, etc.) used for construction (SCAQMD-9, NRDC-14). Specifically comments called for the use of low sulfur fuel, AMP and main engine retrofits in ships used to deliver cranes and sheet piles, and emission standards for the tugs used in wharf construction. MM AQ-1 has been amended to include use of low sulfur fuel (0.2%) in the ships used to deliver sheet piles and the marine terminal cranes and emission standards for the tugs used in wharf construction.

NRDC (NRDC-14) suggested use of low sulfur (no higher than 1,000 ppm fuel) and best available control technology (BACT), such as selective catalytic reduction (SCR) in the ships used to deliver cranes. In response to 0.1% low sulfur fuel vs. 0.2% low sulfur fuel, in order to allow for some margin of error and product contamination in the distribution system, when a shipping line orders 0.2% sulfur fuel, they are actually receiving a fuel with a lower sulfur content of between 0.13% and 0.16%. Therefore, if the mitigation measure required 0.1% fuel, the fuel supplier would have to provide fuel at a lower than 0.1% content, which may not be possible at refineries. There will be a total of only 3 ship visits that deliver sheet pile and cranes during Phase I construction. Because they will visit the Port within the first year (2008) and they likely will not be a dedicated service to the Port, they cannot be expected to comply with AMP or main engine retrofits. Currently, AMP retrofits cost approximately $800,000 per vessel and retrofits can take between 6 to 12 months to install and test. In addition, AMP facilities are not expected to be installed on the wharves even if the ships were retrofitted. In response to requiring SCR technology on main engines, although SCR technology has been demonstrated on four new vessels carrying scrap/steel between the Bay Area and Korea, the applicability of low-emissions technologies like SCR to large ocean-going vessel, such as the ship used to deliver cranes, needs to be further evaluated and demonstrated. SCR is currently being tested as part of the CAAP's Technological Advancement Program (TAP). There are still a number of technological feasibility questions in regards to SCR, namely spatial needs, reactant (ammonia) availability and byproduct issues. In regards to the harbor craft used in construction, through funding by the ARB Carl Moyer Program, several tugboat operators at the Ports have re-powered their engines to Tier 2-compliant standards. However, none have yet been upgraded to EPA Tier 3 (which is proposed to be phased-in beginning 2009).

## Impact AQ-2

A dispersion modeling analysis was performed to estimate the ambient impact of construction emissions from the proposed Project. The analysis focused on the peak day of Phase 1 construction activities, as Phase 2 construction emissions mainly occur from off-site activities (dredge, dike construction, and dredge material transport) whose impacts are not compared to the SCAQMD ambient air quality thresholds (SCAQMD 2006). Due to the relatively low magnitude of onsite construction emissions, Phase 2 construction would produce less than significant ambient air quality impacts. Without mitigation, the proposed Project's Phase 1 construction emissions would produce impacts that would exceed the SCAQMD 1-hour $NO_2$ and 24-hour $PM_{10}$/$PM_{2.5}$ ambient thresholds. Therefore, these represent significant air quality impacts under CEQA.

### Finding

Implementation of Mitigation Measures AQ-1 through AQ-5 would reduce ambient pollutant impacts from Phase 1 construction. However, with mitigation, the Project Phase 1 construction emissions

would produce impacts that would exceed the SCAQMD 1-hour $NO_2$ and 24-hour $PM_{10}/PM_{2.5}$ ambient thresholds. As a result, Project residual impacts would remain significant for 1-hour $NO_2$ and 24-hour $PM_{10}/PM_{2.5}$ under CEQA. In the Draft EIS/EIR, AQ-1 through AQ-5, AQ-18B and AQ-25 were included to reduce construction emissions. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce construction emissions below significance.

***MMAQ-1: Crane and Sheet-pile Deliveries and Construction Harbor Craft.*** *All cargo ships used for terminal crane and sheet pile deliveries shall comply with the expanded VSRP of 12 knots from 40 nm from Point Fermin to the Precautionary Area. Ships used for sheet pile deliveries in Phase II construction (post 2015) shall 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 measure shall also require all harbor craft used during the construction phase of the project to, at a minimum, be re-powered to meet the cleanest existing marine engine emission standards or U.S. EPA Tier 2. Additionally, where available, harbor craft shall meet the proposed U.S. EPA Tier 3 (which are proposed to be phased-in beginning 2009) or cleaner marine engine emission standards. In addition, all dredging equipment shall be electric.*

*The above harbor craft 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:*

1. *A piece of specialized equipment is unavailable in a controlled form within the state of California, including through a leasing agreement.*
2. *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.*
3. *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*

***Mitigation Measure AQ-2: Fleet Modernization for On-Road Trucks.*** *All on-road heavy-duty diesel trucks with a gross vehicle weight rating (GVWR) of 33,000 pounds or greater used on-site or to transport materials to and from the site shall comply with EPA 2007 on-road PM emission standards and be the cleanest available NOx for Phase I. In addition, for Phase II construction (post January 2015), all on-road heavy-duty diesel trucks with a gross vehicle weight rating (GVWR) of 33,000 pounds or greater used on-site or to transport materials to and from the site shall comply with year 2010 emission standards where available. Trucks hauling materials such as debris or fill shall be fully covered while operation off Port property.*

*The above on-road truck 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:*

1. *A piece of specialized equipment is unavailable in a controlled form within the state of California, including through a leasing agreement.*

2. *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.*
3. *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.*

***Mitigation Measure AQ-3: Fleet Modernization for Construction Equipment.*** *All off-road diesel-powered construction equipment greater than 50 hp, except derrick barges and ocean going cargo vessels, shall meet the cleanest off-road diesel emission levels available but no greater than Tier 2 emission standards for projects starting construction prior to December 2011. Tier 3 emission standards shall be applied to projects starting construction between December 2011 and January 2015. The contractor could meet Tier 3 equivalent PM10 emission limits through the use of new or repowered engines designed to meet Tier 2 PM standards and/or the use of ARB approved diesel particulate traps. For Phase II construction (post 2015), equipment shall meet the Tier 4 emission standards where available. In addition, construction equipment shall incorporate, where feasible, emissions savings technology such as hybrid drives and specific fuel economy standards.*

*The above construction equipment measures shall be met, unless one of the following circumstances exists and the contractor is able to provide proof that any of these circumstances exists:*

1. *A piece of specialized equipment is unavailable in a controlled form within the state of California, including through a leasing agreement.*
2. *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.*
3. *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: Best Management Practices (BMPs).*** *Port shall implement a process by which to select additional BMPs to further reduce air emissions during construction if it is determined that the proposed construction equipment exceed any SCAQMD significance threshold. The following types of measures would be required on construction equipment: (a) use of diesel oxidation catalysts and catalyzed diesel particulate traps; (b) maintain equipment according to manufacturers' specifications; (c) restrict idling of construction equipment to a maximum of 5 minutes when not in use; and (d) install high-pressure fuel injectors on construction equipment vehicles. The Port shall determine the BMPs once the contractor identifies and secures a final equipment list*

***MM AQ-5: Additional Fugitive Dust Controls.*** *The calculation of fugitive dust (PM) from Project earth-moving activities assumes a 75 percent reduction from uncontrolled levels to simulate rigorous watering of the site and use of other measures (listed below) to ensure Project compliance with SCAQMD Rule 403. The construction contractor shall further reduce fugitive dust emissions to 90 percent from uncontrolled levels. The Project construction contractor shall specify and implement dust-control methods that will achieve this control level in a SCAQMD Rule 403 dust control plan. The construction contractor shall designate personnel to monitor the dust control program and to order increased watering, as necessary, to ensure a 90 percent control level. Their duties shall include holiday and weekend periods when work may not be in progress.*

*Measures to reduce fugitive dust include, but are not limited to, the following:*

+ *Active grading sites shall be watered one additional time per day beyond that required by Rule 403.*
+ *Contractors shall apply approved non-toxic chemical soil stabilizers to all inactive construction areas or replace groundcover in disturbed areas.*
+ *Construction contractors shall provide temporary wind fencing around sites being graded or cleared.*
+ *Trucks hauling dirt, sand, or gravel shall be covered or shall maintain at least 2 feet of freeboard in accordance with Section 23114 of the California Vehicle Code.*
+ *Construction contractors shall install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off tires of vehicles and any equipment leaving the construction site.*

*The grading contractor shall suspend all soil disturbance activities when winds exceed 25 mph or when visible dust plumes emanate from a site; disturbed areas shall be stabilized if construction is delayed.*

***AQ-18A: General.*** *Any of the above mitigation measures can be replaced by a new and/or alternative technology, provided the technology (1) is CARB-certified, (2) is equal to or exceeds emissions savings as analyzed in this EIS/EIR and, (3) is approved by the Port of Los Angeles*

***MMAQ-25: 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.*

## Rationale for Finding

Changes or alterations in the form of mitigation measures have been incorporated into the project in the form of AQ-1 through AQ-5, AQ-18B and AQ-25, which lessen significant construction emissions. Although reduced as a result of the mitigation measures, construction emissions remain significant and unavoidable as shown in Table 2**.**

**Table 2: Construction Emissions** *(bold numbers denote significant emissions)*

| *Pollutant* | *Averaging Time* | *Maximum Impact from Phase 1 Emissions ($\mu g/m^3$)* | *Background Pollutant Concentration ($\mu g/m^3$)* | *Total Maximum Phase 1 Impact ($\mu g/m^3$)* | *SCAQMD Threshold[a] ($\mu g/m^3$)* |
|---|---|---|---|---|---|
| $NO_2$ | 1-hour | 776 | 263 | **1,039** | 338 |
| CO | 1-hour | 1,086 | 6,629 | 7,715 | 23,000 |
| | 8-hour | 305 | 5,371 | 5,676 | 10,000 |
| $PM_{10}$ | 24-hour | **110** | - | - | 10.4 |
| $PM_{2.5}$ | 24-hour | **35** | - | - | 10.4 |

While the mitigation measures presented in the Final EIR reduce emissions, emissions would still exceed SCAQMD one-hour $NO_2$, and 24 hour ambient $PM_{10}$, and $PM_{2.5}$ emissions. Mitigation measures AQ-1 through AQ-5, AQ-18A and AQ-25 in the Draft EIS/EIR represent feasible means to reduce air pollution impacts from proposed construction sources.

Emissions will largely come from diesel-powered construction equipment such as concrete mixers, trucks, bulldozers, and graders for backland development, rail construction and buffer construction; pile drivers, tugboats and clamshell dredgers for wharf redevelopment and the 10 acre fill; and cargo ships for crane delivery. As part of the Draft EIS/EIR, mitigation was developed aimed at reducing these emissions through accelerating fleet turnover to newer, cleaner equipment, adding retrofit devices and employing best management practices (BMPs).

While changes to AQ-1 through AQ-5, AQ-18B and AQ-25 will reduce construction emissions, further mitigation is not available due to limitations with the existing construction fleet. Most construction contractors do not own their own equipment because of the costs associated with owning, maintaining and storing large equipment, but instead rent equipment and thereby may be limited by availability. For example, new Tier 3 standard off-road engines became commercially available in 2006/2007 for the prevalent horsepower categories proposed for Project construction. Since most of Phase 1 construction would occur within a few years after this time, therefore all Project construction equipment may not be able to comply with these standards. Hence, MM AQ-3 proposes a more achievable goal that requires non-marine construction equipment on the average to comply with Tier 2-equivalent standards. MM AQ-3 does require all of the equipment to comply with the Tier 4 standards in Phase II. The discussion below includes more details on potential mitigation measures.

Construction Trucks and Equipment:

Comments on the Draft EIS/EIR from SCAQMD, NRDC, and the PCAC Air Quality Subcommittee (Attachment 1) suggested accelerating construction equipment and truck fleet turnover even further (SCAQMD-11 & 12, NRDC-12, 15, & 16, and PCAC AQ-16 & 17). For example, comments called for construction equipment to meet USEPA Tier 3 and 4 standards and on road trucks to meet the lowest certified $NO_x$ emission levels. Based on comments received, the Final EIR has modified MM AQ-2 and MMAQ-3 to require stricter emission standards. In addition, the Project construction

procurement process will include a selection system that requires bidders to use the cleanest available construction equipment and the mitigation measures will result in further emission reductions than assumed in the Draft EIS/EIR.

Another comment (NRDC-17) suggesting changing MMAQ-5 to limit off-road construction equipment idling to 5 minutes (this comment was also received from SCAQMD), require a manager on-site to verify compliance with all mitigation measures and best practices, ensure that grid power is available to the construction site whenever power is needed in place of using any diesel generators and where access to the power grid is limited, on-site generators must meet the equivalent current off-road standards for $NO_x$, and meet a 0.01 gram per brake-horsepower-hour standard for PM, or be equipped with Level 3 verified diesel emissions control systems (VDECS). In response to this comment, MM AQ-5 was amended to restrict idling of construction equipment to a maximum of 5 minutes when not in use; and MM AQ-3 was amended to include the following: all off-road diesel-powered construction equipment and generators greater than 25 hp, except derrick barges and marine vessels, shall meet the cleanest off-road diesel emission levels available but no greater than EPA Tier 3 $NO_x$ emission standards. In regards to requiring a manager to verify compliance, as part of the MMRP, the construction contractor will be required to provide regular compliance reports.

NRDC (NRDC-18) also requested that the following mitigation measures be added: any trucks hauling materials such as debris or fill, must be fully covered while operating off-site (i.e. in transit to or from the site) and notify each sensitive sites of the project, in writing, at least 30 days before construction activities begin. Mitigation measure MM AQ-2 has been amended to include the following provision "trucks hauling materials such as debris or fill shall be fully covered while operating off Port property"; and MM AQ-25 has been added to the Project: "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".

Comments from the PCAC Air Quality Subcommittee (PCAC AQ-16 and 17), the Northwest San Pedro Neighborhood Council (NWSP-4), NRDC (NRDC-12), and others requested that the construction mitigation measures be amended to use electric or alternative fuel-powered equipment. It is infeasible at this time to require alternative fuels or electric power for construction equipment, due to lack of availability. In consideration of this comment, the Port queried a number of construction contractors and determined that none of them currently use alternative fuels or electric powered on or off-road construction equipment. In addition, biodiesel use at the Port is not being heavily pursued due to reported increases in $NO_x$ emissions. Construction equipment using biodiesel are not expected to meet the percent $NO_x$ reduction assumed in the Draft EIS/EIR. As discussed on page 3.2-3, while the South Coast Air Basin has been in attainment for $NO_2$ since 1991, the region is now considered a maintenance area for $NO_2$ and local air agencies are pursuing further reductions in $NO_x$ emissions to offset regional increases in population.

Dredge equipment represents one type of equipment that could be electrified. For example, the Port used a fixed electrical dredger for the Channel Deepening project. While the type of wharf work in the proposed Project requires a clamshell dredger that requires more movement and therefore is more difficult to electrify, electric clamshell dredgers do exist. Therefore, the Port will require the use of an electric dredger and this measure has been added to MM AQ-1.

<u>Harbor Craft used in Construction</u>

In addition to accelerated fleet turnover, comments were received regarding additional mitigation for the harbor craft used during construction (tugs, barges etc.) (SCAQMD-9, NRDC-14). Specifically comments called for the use of low sulfur fuel, AMP and main engine retrofits in ships used to deliver cranes and sheet piles, and emission standards for the tugs used in wharf construction. MM AQ-1 has been amended to include use of low sulfur fuel (0.2%) in ships used to deliver sheet piles and marine terminal cranes and emission standards for the tugs used in wharf construction.

NRDC (NRDC-14) suggested use of low sulfur (no higher than 1,000 ppm fuel) and best available control technology (BACT), such as SCR in the ships used to deliver cranes. In response to 0.1% low sulfur fuel vs. 0.2% low sulfur fuel, in order to allow for some margin of error and product contamination in the distribution system, when a shipping line orders 0.2% sulfur fuel, they are actually receiving a fuel with a lower sulfur content of between 0.13% and 0.16%. Therefore, if the mitigation measure required 0.1% fuel, the fuel supplier would have to provide fuel at a lower than 0.1% content, which may not be possible in current refineries. There will be a total of only 3 ship visits that deliver sheet pile and cranes during Phase I construction. Because they will visit the Port within the first year (2008) and they likely will not be a dedicated service to the Port, they cannot be expected to comply with AMP or main engine retrofits. Currently, AMP retrofits cost approximately $800,000 per vessel and retrofits can take between 6 to 12 months to install and test. In addition, AMP facilities are not expected to be installed on the wharves even if the ships were retrofitted. In response to requiring SCR technology on main engines, although SCR technology has been demonstrated on four new vessels carrying scrap/steel between the Bay Area and Korea, the applicability of low-emissions technologies like SCR to large ocean-going vessel, such as the ship used to deliver cranes, needs to be further evaluated and demonstrated. SCR is currently being tested as part of the CAAP's Technological Advancement Program (TAP). There are still a number of technological feasibility questions in regards to SCR, namely spatial needs and reactant (ammonia) availability and byproduct issues. In regards to the harbor craft used in construction, through funding by the ARB Carl Moyer Program, several tugboat operators at the Ports have re-powered their engines to Tier 2-compliant standards. However, none have yet been upgraded to EPA Tier 3 (which is proposed to be phased-in beginning 2009).

## Impact AQ-3

The proposed Project would result in operational emissions that exceed 10 tons per year of VOCs and SCAQMD thresholds of significance. The main contributors to Project operational emissions include: (1) terminal equipment (yard tractors and other equipment); (2) on-road trucks; (3) container ships in cruise mode outside of the Port breakwater; and (4) vessels at berth in hotelling mode. With time, vessel sources would produce a greater percentage of total Project emissions. This is the case, as these sources are not currently subject to agency-adopted requirements to meet lower emissions standards in the future. Conversely, all other Project source categories have future emission standards that will substantially reduce their emissions with time, due to the replacement of old with new vehicles. Additionally, shifting a large percentage of Project rail cargo from offsite rail yards to the on-site rail yard would produce emissions savings.

As discussed in the EIR, the net change in average daily operational emissions between the unmitigated proposed Project and CEQA Baseline would exceed the following SCAQMD daily thresholds: (1) in 2008, VOC, $NO_x$, and $SO_x$; (2) in 2015, all thresholds except VOC; (3) in 2025, $NO_x$, $SO_x$, and $PM_{10}$; and (4) in 2038, $SO_x$. The net change in VOC emissions between the unmitigated Project and CEQA Baseline also would exceed 10 tons in Project year 2008 during a peak day of activity in the following Project years, operational emissions between the unmitigated

Project and CEQA Baseline would exceed the following SCAQMD daily thresholds: (1) in 2008, all thresholds; (2) in 2015, all thresholds except VOC; (3) in 2025 and 2038, the $SO_x$ threshold. As a result, these exceedances of the SCAQMD emission thresholds represent significant levels of emissions produced during the operation of the proposed Project under CEQA.

## Finding

The Draft EIS/EIR discussed impacts to regional air quality that would result during operational activities associated with the proposed project (Impact AQ-3). Mitigation measures AQ-6 through AQ-17, AQ-18-B and, AQ-26 have been developed to reduce operational emissions. After mitigation, the proposed Project's average daily operational emissions would exceed the $NO_x$ and $SO_x$ SCAQMD daily thresholds in 2008. The net change in annual emissions between the mitigated Project and CEQA Baseline would not exceed the criterion of 10 tons per year VOC in any project year. By 2015, the mitigated Project would produce lower average daily emissions of all pollutants compared to the CEQA baseline. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce construction emissions below significance.

***MM AQ-6: AMP.*** *Ships calling at Berth 136-147 shall use AMP while hotelling at the Port in the following at minimum percentages: (a) 2009: 25% of ship calls; (b) 2010: 50% of ship calls; (c) 2012: 60% of ship calls; (d) 2015: 80% of ship calls; and (e) 2018: 100% of ship calls. Additionally, by 2010, all ships retrofitted for AMP shall be required to use AMP while hotelling at 100 percent compliance rate, with the exception of circumstances when an AMP-capable berth is unavailable due to utilization by another AMP-capable ship.*

***MM AQ-7: Yard Tractors****. All yard tractors operated at the Berths 136-147 Terminal, including the on-dock rail facility, shall implement the following measures.*

*Beginning in 2007, all new yard tractors shall be either (1) the cleanest available NOx alternative-fueled engine meeting 0.015 Gm/Hp-Hr for PM or (2) the cleanest available NOx diesel-fueled engine meeting 0.015 Gm/Hp-Hr for PM. If there are no engines available that meet 0.015 Gm/Hp-Hr for PM, the new engines shall be the cleanest available (either fuel type) and will have the cleanest Verified Diesel Emissions Controls (VDEC).*

*By the end of 2010, all yard tractors would meet at a minimum the USEPA Tier 4 non-road emission standards.*

***MM AQ-8****:* ***Yard Equipment.*** *All diesel-powered terminal equipment other then yard tractors at the Berths 136-147 Terminal, including the on-dock rail facility, shall implement the following measures.*

*Beginning in 2008, all non-yard tractor purchases shall be either (1) the cleanest available NOx alternative-fueled engine meeting 0.015 Gm/Hp-Hr for PM or (2) the cleanest available NOx diesel-fueled engine meeting 0.015 Gm/Hp-Hr for PM. If there are no engines available that meet 0.015 Gm/Hp-Hr for PM, the new engines shall be the cleanest available (either fuel type) and will have the cleanest VDEC.*

*By the end of 2012, all non-yard tractor terminal equipment less than 750 Hp shall meet the USEPA Tier 4 non-road or Tier 4 non-road engine standards.*

*By the end of 2014, all terminal equipment shall meet USEPA Tier 4 non-road engine standards*

***MM AQ-9: Trucks.*** *Heavy-duty diesel trucks entering the Berths 136-147 Terminal shall achieve the EPA 2007 Heavy-Duty Highway Rule emission standards for on-road heavy-duty diesel engines (USEPA 2001a) in the following percentages: 30% in 2008, 50% in 2009, 70% in 2010, and 100% in 2012 and thereafter.*

***MM AQ-10**: **VSRP.** All ships calling at Berth 136-147 shall comply with the expanded VSRP of 12 knots between 40 nm from Point Fermin and the Precautionary Area in the following implementation schedule: 95% in 2008.*

***MM AQ-11**: **Low Sulfur Fuel** Ships calling at Berth 136-147 shall use low-sulfur fuel (maximum sulfur content of 0.2 percent) in auxiliary engines, main engines, and boilers within 40 nm of Point Fermin (including hotelling for non-AMP ships) at the following annual participation rates: (a) 2009: 20 percent of auxiliary engines, main engines, and boilers; (b) 2010: 30 percent of auxiliary engines, main engines, and boilers; (c) 2012: 50 percent of auxiliary engines, main engines, and boilers; and (d) 2015: 100 percent of auxiliary engines, main engines, and boilers. Additionally, by 2012, all frequent caller ships (three or more calls a month) shall use 0.2% in main engines, auxiliary engines and boilers within 40nm of the Port.*

***MM AQ-12: Slide Valves** Ships calling at Berth 136-147 shall be equipped with slide valves or equivalent on main engines in the following percentages: (a) 15 percent in 2008; (b) 50 percent in 2010; and (c) 95 percent in 2015. By 2012, all frequent caller ships (three or more calls a month) shall comply with this requirement.*

***MM AQ-13: New Vessel Builds.*** *All new vessel builds shall incorporate $NO_x$, PM and GHG control devices on auxiliary and main engines. These control devices include, but are not limited to the following technologies, where appropriate: (1) selective catalytic reduction (SCR) technology, (2) exhaust gas recirculation, (3) in line fuel emulsification technology, (4) diesel particulate filters (DPFs) or exhaust scrubbers, (5) common rail, (6) Low $NO_x$ burners for boilers, (7) implementation of fuel economy standards by vessel class and engines, and (8) diesel-electric pod-propulsion system.*

*This measure focuses on reducing DPM, $NO_x$, and $SO_x$ emissions from main engines and auxiliary engines. OGV engine standards have not kept pace with other engine standards such as trucks and terminal equipment. New vessels destined for California service should be built with these technologies. As new orders for ships are placed, the Ports believe it is essential that the following elements be incorporated into future vessel design and construction:*

1. *Work with engine manufacturers to incorporate all emissions reduction technologies/options when ordering main and auxiliary engines, such as slide valves, common rail, and exhaust gas recirculation.*
2. *Design in extra fuel storage tanks and appropriate piping to run both main and auxiliary engines on a separate/cleaner fuel.*
3. *Incorporate SCR or an equally effective combination of engine controls. If SCR systems are not commercially available at the time of engine construction, design in space and access for main and auxiliary engines to facilitate installation of SCR or other retrofit devices at a future date.*

*In addition, this measure will also incorporate design changes and technology to reduce GHG emissions where available.*

***MM AQ-14: Clean Rail Yard Standards.*** *The new Berth 136-147 on-dock rail yard would incorporate the cleanest locomotive technologies/measures. These include use of diesel-electric hybrids, multiple engine generator sets, alternative fuels, DPFs, SCR, idling shut-off devices, and idling exhaust hoods. The on-dock rail yard would utilize "clean" CHE and HDVs and comply with the CAAP's Technology Advancement Program. Additionally, the Port shall require diesel particulate traps (DPTs) on all PHL switcher locomotives that operate within the Project rail yard beginning in 2015.*

***MM AQ-15: Reroute Cleaner Ships.*** *The Berths 136-147 Terminal operator shall use ships meeting IMO MARPOL Annex VI $NO_x$ emissions limits for Category 3 engines to the greatest extent possible when scheduling ship visits.*

***MM AQ-16: Truck Idling Reduction Measures.*** *The Berths 136-147 Terminal operator shall ensure that truck idling is reduced at the Terminal. Potential methods to reduce idling include, but are not limited to, the following: (1) operator shall maximize the durations when the main gates are left open, including during off-peak hours, (2) operator shall implement a container tracking and appointment-based truck delivery and pick-up system to minimize truck queuing, and (3) operator shall design gate to exceed truck flow capacity to ensure queuing is minimized.*

***MM AQ-17:*** *The Port shall require the Berths 136-147 tenant to review, in terms of feasibility, any Port-identified or other new emissions-reduction technology, and report to the Port. Such technology feasibility reviews shall take place at the time of the Port's consideration of any lease amendment or facility modification for the Berths 136-147 property. If the technology is determined by the Port to be feasible in terms of cost, technical and operational feasibility, the tenant shall work with the Port to implement such technology.*

*As partial consideration for the Port's agreement to issue the permit to the tenant, tenant shall implement not less frequently than once every 7 years following the effective date of the permit, new air quality technological advancements, subject to the parties mutual agreement on operational feasibility and cost sharing which shall not be unreasonably withheld.*

***MM AQ-18B****: For any of the above mitigation measures (MM AQ-6 through AQ-16), 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 the Port*

***MM AQ-26****:* ***Throughput Tracking****. If the project exceeds project throughput assumptions/projections anticipated through the years 2015 and 2025, and 2030, then staff would evaluate the effects of this on the emission sources (ship calls, locomotive activity, backland equipment, and truck calls) relative to the EIR. If it is determined that these emission sources exceed EIR assumptions, staff would evaluate actual air emissions for comparison with the EIR and if the criteria pollutant emissions exceed those in the EIR, then new/additional mitigations would be applied through MMAQ-17.*

## Rationale for Finding

Changes or alterations in the form of mitigation measures have been incorporated into the project in the form of AQ-6 through AQ-17, AQ-18-B and, AQ 26 which lessen the significant effects of operation. The mitigation identified to reduce emissions comes primarily from the CAAP. The CAAP represented a collaborative effort between the Ports of Los Angeles and Long Beach, SCAQMD, CARB, and USEPA to identify mechanisms to reduced emissions at both Ports. Through this collaborative effort, exhaustive research was done on available emissions reduction technology and measures. This EIS/EIR complies with CAAP. In addition, the Draft EIS/EIR also considered mitigation developed as part of the former proposed No Net Increase (NNI) Plan and an analysis of applicable mitigation can be found in Appendix B of the Draft EIS/EIR. However, although reduced as a result of the mitigation measures, emissions remain significant and unavoidable in 2008 as shown in Tables 3 and 4 below for both peak day and average day emissions.

**Table 3: Peak Daily Operational Emissions** *(bold numbers denote significant emissions)*

| Project Scenario/Activity | EMISSIONS (POUNDS PER DAY) | | | | | |
|---|---|---|---|---|---|---|
| | VOC | CO | $NO_x$ | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
| **Project Year 2008** | | | | | | |
| Proposed Project | 2,360 | 7,921 | 28,266 | 5,055 | 1,828 | 1,495 |
| Mitigated Proposed Project | 2,063 | 6,728 | 26,255 | 5,055 | 1,668 | 1,348 |
| CEQA Baseline 2003 | 1,185 | 4,077 | 13,472 | 2,724 | 1,022 | 831 |
| Net Emissions No Mitigation | **383** | **986** | **5,255** | **1,205** | **222** | **166** |
| Net Emissions With Mitigation | **85** | (207) | **3,244** | **1,205** | 61 | 19 |
| SCAQMD Daily Significance Thresholds | 55 | 550 | 55 | 150 | 150 | 55 |
| **Project Year 2015** | | | | | | |
| Proposed Project | 1,758 | 8,489 | 30,102 | 7,372 | 2,078 | 1,664 |
| Mitigated Proposed Project | 915 | 5,060 | 8,346 | 1,450 | 616 | 304 |
| CEQA Baseline 2003 | 1,185 | 4,077 | 13,472 | 2,724 | 1,022 | 831 |
| Net Emissions No Mitigation | (219) | **1,554** | **7,091** | **3,521** | **472** | **335** |
| Net Emissions With Mitigation | (1,062) | (1,875) | (14,665) | (2,401) | (991) | (1,025) |
| SCAQMD Daily Significance Thresholds | 55 | 550 | 55 | 150 | 150 | 55 |
| **Project Year 2025** | | | | | | |
| Proposed Project | 1,224 | 7,327 | 19,558 | 7,377 | 1,636 | 1,215 |
| Mitigated Proposed Project | 772 | 6,170 | 8,847 | 1,438 | 694 | 333 |
| CEQA Baseline 2003 | 1,185 | 4,077 | 13,472 | 2,724 | 1,022 | 831 |
| Net Emissions No Mitigation | (753) | 392 | (3,453) | **3,526** | 29 | (114) |
| Net Emissions With Mitigation | (1,205) | (765) | (14,163) | (2,413) | (913) | (995) |
| SCAQMD Daily Significance Thresholds | 55 | 550 | 55 | 150 | 150 | 55 |
| **Project Year 2038** | | | | | | |
| Proposed Project | 1,253 | 6,989 | 17,529 | 7,377 | 1,581 | 1,164 |
| Mitigated Proposed Project | 761 | 6,162 | 8,631 | 1,438 | 681 | 322 |
| CEQA Baseline 2003 | 1,185 | 4,077 | 13,472 | 2,724 | 1,022 | 831 |
| Net Emissions No Mitigation | (725) | 54 | (5,481) | **3,526** | (25) | (165) |
| Net Emissions With Mitigation | (1,216) | (773) | (14,379) | (2,413) | (925) | (1,007) |
| SCAQMD Daily Significance Thresholds | 55 | 550 | 55 | 150 | 150 | 55 |

**Table 4: Average Daily Operational Emissions** *(bold numbers denote significant emissions)*

| Project Scenario/Activity | EMISSIONS (POUNDS PER DAY) | | | | | |
|---|---|---|---|---|---|---|
| | VOC | CO | $NO_x$ | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
| **Project Year 2008** | | | | | | |
| Proposed Project | 1,352 | 4,457 | 16,067 | 3,297 | 1,106 | 880 |
| Mitigated Proposed Project | 1,135 | 3,585 | 14,598 | 3,297 | 989 | 772 |
| CEQA Baseline 2003 | 1,185 | 4,077 | 13,472 | 2,724 | 1,022 | 831 |
| Net Emissions No Mitigation | **167** | **380** | **2,596** | **573** | 84 | 49 |
| Net Emissions With Mitigation | (50) | (491) | **1,127** | **573** | (33) | (59) |
| SCAQMD Daily Significance Thresholds | 55 | 550 | 55 | 150 | 150 | 55 |
| **Project Year 2015** | | | | | | |
| Proposed Project | 987 | 4,662 | 17,691 | 4,296 | 1,243 | 960 |
| Mitigated Proposed Project | 496 | 2,321 | 6,033 | 924 | 444 | 216 |
| CEQA Baseline 2003 | 1,185 | 4,077 | 13,472 | 2,724 | 1,022 | 831 |
| Net Emissions No Mitigation | (198) | **586** | **4,220** | **1,572** | **221** | **129** |
| Net Emissions With Mitigation | (689) | (1,756) | (7,438) | (1,800) | (578) | (615) |
| SCAQMD Daily Significance Thresholds | 55 | 550 | 55 | 150 | 150 | 55 |
| **Project Year 2025** | | | | | | |
| Proposed Project | 804 | 3,812 | 14,260 | 5,619 | 1,182 | 875 |
| Mitigated Proposed Project | 512 | 2,957 | 6,663 | 1,125 | 509 | 245 |
| CEQA Baseline 2003 | 1,185 | 4,077 | 13,472 | 2,724 | 1,022 | 831 |
| Net Emissions No Mitigation | (381) | (265) | **789** | **2,895** | **160** | 44 |
| Net Emissions With Mitigation | (672) | (1,120) | (6,809) | (1,599) | (513) | (586) |
| SCAQMD Daily Significance Thresholds | 55 | 550 | 55 | 150 | 150 | 55 |
| **Project Year 2038** | | | | | | |
| Proposed Project | 843 | 3,901 | 13,136 | 5,620 | 1,155 | 850 |
| Mitigated Proposed Project | 515 | 3,287 | 6,499 | 1,126 | 506 | 243 |
| CEQA Baseline 2003 | 1,185 | 4,077 | 13,472 | 2,724 | 1,022 | 831 |
| Net Emissions No Mitigation | (342) | (175) | (336) | **2,896** | 133 | 19 |
| Net Emissions With Mitigation | (670) | (790) | (6,973) | (1,598) | (515) | (588) |
| SCAQMD Daily Significance Thresholds | 55 | 550 | 55 | 150 | 150 | 55 |

The Final EIR has accelerated implementation and/or modified of some mitigation measures proposed in the Draft EIS/EIR and has added one additional mitigation MM AQ-26 to further reduce operational emissions. However, as shown above, while the mitigation measures presented in the Final EIR reduce emissions, emissions would still exceed SCAQMD thresholds in 2008. Mitigation measures AQ-6 through AQ-17, AQ-18B and, AQ-26 represent feasible means to reduce air pollution impacts from proposed operational sources. However, adding new mitigation measures and/or modifying existing mitigation measures may not result in reducing emissions in 2008. The Final EIR assumes that 2008 will be the first year of Project operation. Because a number of the mitigation measures are being phased-in for technical and financial reasons, these mitigation measures would not be available in 2008. In addition, a number of the mitigation measures, namely MMAQ-6 (AMP) and MMAQ-15 (rail standards) require facilities to be constructed, limiting full implementation in 2008. For example, SCAQMD, NRDC and the PCAC Air Quality subcommittees, among others, requested a shorter phase-in schedule for MMAQ-6 (AMP) in order to further reduce emissions from vessels while at berth. While MMAQ-6 was modified in the Final EIR, the Port cannot require AMP until 2009 at the earliest to accommodate the wharf construction schedule. The wharf-side AMP infrastructure is not yet installed. Installation will take up to a year, mainly due to the transformer. The phase-in schedule will allow for the AMP infrastructure to be constructed on the wharf. The

infrastructure is expected to be installed on the first section of wharf by 2009 and on all wharves by 2011. The discussion below includes more details on potential mitigation measures.

Ocean Going Vessels

Comments were received on ocean going vessel mitigations from SCAQMD (SCAQMD-14, 19, 20, & 21), NRDC (NRDC-19, 23, 24, & 27) and the PCAC Air Quality Subcommittee (PCAC-AQ-10, 11 & 13) (Attachment 1). A number of comments requested that the phase-in schedule for AMP and low sulfur fuel use be accelerated to further reduce emissions from ocean going vessels and that the Port require new technology to reduce emissions from the main engines.

*Alternative Maritime Power (AMP)*

MM AQ-6 calls for phasing in AMP between 2009 and 2018.y MM AQ-6 was amended in the Final EIR to increase AMP participation in 2010 and 2012. In regards to further accelerating AMP, the current phase-in schedule takes into consideration the tenant's business plan. Mitsui O.S.K. Lines Ltd (MOL) is TraPac's parent company and they have committed to retrofitting MOL ships dedicated to the Los Angeles service with AMP technology. The phase-in schedule assumes that 100 percent of MOL's P-Class vessels will be AMP-capable and will use AMP by 2010. These P-class vessels will be the most frequent callers at the terminal that provide weekly service between the US West Coast and Asia and they are assumed to make up approximately 50 percent of TraPac's ship calls. The longer phase-in schedule is to accommodate MOL's APX class vessels and third-party invitees. MOL's APX service provides monthly service to Europe, the US East Coast, and connections to the US West Coast through the Panama Canal. These ships are not dry-docked as frequently as the P-class vessels, due to their long vessel transits, and therefore they will require a longer phase-in to achieve AMP retrofits. The APX service is only expected to call at the terminal monthly. While MOL represents TraPac primary business partner, TraPac will also contract with other shipping lines, referred to as third-party invitees, to fill extra wharf capacity. TraPac has recently lost a majority of their third-party invitees due, in part, to terminal upgrades delays and costs associated with expected future environmental requirements. While TraPac anticipates they will be able to attract new third-party invitees with the terminal upgrades assumed as part of the proposed project, the actual customer mix is not yet known and costs associated with environmental requirements remain an issue. Currently, AMP retrofits cost approximately $800,000 per vessel. Through future lease amendments and the CAAP, all Port container terminals and shipping lines are expected to comply with AMP in the future. However, until most or all of the other container terminals and vessels are required to use AMP, with AMP requirements at the Berth 136-147 terminal, TraPac will have difficulty attracting third party business. The longer phase-in schedule allows TraPac to negotiate environmental upgrades with the invitees and to also to remain competitive with other Port terminals that do not yet have environmental requirements as part of their operating requirements.

*Low Sulfur Fuel*

MMAQ-11 calls for phasing-in use of 0.2% sulfur fuel between 2009 and 2015. The Port received a number of comments on MMAQ-11 from SCAQMD, NRDC, and the PCAC Air Quality Subcommittee. The comments requested a shorter phase-in schedule and using 0.1% instead of 0.2% low sulfur fuel in order to reduce emissions from vessels while in transit. In response, the Port amended MM AQ-11's phase-in schedule to increase participation in 2009 and 2010. However, further reductions are not feasible. Low sulfur fuel is phased-in over time due to technical issues, availability, and the tenant's business plan. MOL has committed to using low sulfur fuel at 0.2% sulfur content in MOL ships dedicated to a Los Angeles service. This phase-in schedule assumes

100% of MOL's P-Class vessels will use low sulfur fuel in auxiliary engines, main engines, and boilers by 2012. These P-class vessels will be the most frequent callers at the terminal providing a weekly service between the US West Coast and Asia and are assumed to make up approximately 50% of TraPac's ship calls. The longer phase-in schedule is to accommodate third-party invitees. TraPac has recently lost a majority of their third-party invitees due, in part, to terminal upgrades delays and costs associated with expected future environmental requirements. While TraPac anticipates they will be able to attract new third-party invitees with the terminal upgrades assumed as part of the proposed project, the actual customer mix is not yet known and costs associated with environmental requirements remain an issue.

Currently, ships that frequent the Port burn heavy fuel oil (HFO) that has a sulfur content ranging from 1.0 to 4.5%, with an average of 2.7%, in their main and auxiliary engines, and boilers. At today's cost, low sulfur (0.2%) costs approximately $350 more per ton than bunker fuel (currently, bunker fuel is approximately $400 per ton, while low sulfur fuel is $750 [www.bunkerworld.com accessed 10/10/07]). Assuming a round trip voyage from 40 nm to Berth 136-147 at 12 knots an hour and hotelling, a 5,000 TEU ship would use approximately 22 tons of fuel in main and auxiliary engines and boilers. Based on this scenario, low sulfur fuel (0.2%) will cost approximately $7,700 as compared to HFO. Additionally, there may be retrofits associated with using low sulfur fuel. Recently, Maersk, another shipping company at the Port, began using 0.2% low sulfur fuel. Maersk reported that the ship retrofits cost approximately $300,000 per vessel. Through future lease amendments and the CAAP, all Port container terminals are expected to comply with low sulfur fuel regulations in the future. However, until most or all of the other container terminals and shipping lines are required to use low sulfur fuel, with 0.2% sulfur requirements at the Berth 136-147 terminal, TraPac will have difficulty attracting third-party business. The longer phase-in schedule allows TraPac to negotiate environmental upgrades with the invitees and to also to remain competitive with other Port terminals that do not yet have environmental requirements as part of their operating requirements. Additionally, as part of the CAAP, the Ports are developing a low sulfur fuel tariff that would apply to all container vessels entering the San Pedro Bay. This tariff would both remove any competitive disadvantages among the different container terminals competing for third-party business and accelerate emissions reductions. This tariff would supersede the proposed environmental mitigation.

While the phase-in schedule is largely to accommodate financial considerations, there are also potential issues with fuel availability and potential ship retrofits. As a whole, most container ships will require minimal upgrades to use 0.2% sulfur fuel, especially newer ships designed with low sulfur fuel in mind. However each ship must be looked at on a case-by-case basis to ensure safe vessel functions. MOL is currently performing retrofits and safety testing on all ships dedicated to the Berth 136-147 terminal. Third-party customers will also require time to address their ship fleets. According to the *Evaluation of Low Sulfur Marine Fuel Availability- Pacific Rim* (2005) and further investigations by the San Pedro Bay Ports, low sulfur fuel is available in most Japanese ports (the origin of most MOL ships dedicated to the Berth 136-147 terminal), Singapore and Hong Kong. However, low sulfur fuel is not readily available in China (most of TraPac's former third-party business originated in China). These vessels could take on fuel in Los Angeles, but use of low sulfur fuel in their inbound leg cannot be guaranteed at this time. As part of the CAAP, the Ports are working with local port authorities and fuel suppliers in areas that low sulfur fuel is not readily available to remove this hurdle.

In regards to the request to mandate fuel with a fuel content of 0.1% instead of 0.2%, the Port has found that requiring 0.1% is infeasible due to availability issues. In order to allow for some margin of error and product contamination in the distribution system, when a shipping line orders 0.2% sulfur

fuel, they are actually receiving a fuel with lower sulfur content of between 0.13% and 0.16%. Therefore, if the mitigation measure required 0.1% fuel, the fuel supplier would have to provide fuel at a lower than 0.1% content, which may not be currently possible at refineries. Additionally, 0.2% is consistent with the CAAP. In developing and approving the CAAP, the Ports of Los Angeles and Long Beach met and collaborated with agencies (including CARB, SCAQMD, and USEPA), environmental and community groups, and the shipping industry. As a result of this collaborative process, 0.2% sulfur fuel was found to be feasible from port-wide perspective.

*Slide Valves*

Currently, slide valves are being phased-in between 2009 and 2015 through MM AQ-12. Comments were received from the PCAC Air Quality Subcommittee (PCAC AQ-11) regarding slide valves. Accelerating the slide valves phase-in schedule is another potential mitigation measure that may reduce emissions from ships in 2008. However, slide valves are also being phased-in to accommodate technical issues and the tenant's business plan. MOL has committed to retrofitting MOL ships with slide valves. This phase-in schedule assumes 100% of MOL's P-Class vessels will be retrofitted with slide valves within 2 years of Project approval (2010). These P-class vessels will be the most frequent callers at the terminal providing a weekly service between the US West Coast and Asia and are assumed to make up approximately 50% of TraPac's ship calls. The longer phase-in schedule is to accommodate third-party invitees. While MOL represents TraPac primary business partner, TraPac will also contract with other shipping line, referred to as third-party invitees, to fill extra wharf capacity. TraPac has recently lost a majority of their third-party invitees due terminal upgrades delays and costs associated with expected future environmental requirements. While TraPac anticipates they will be able to attract new third-party invitees with the terminal upgrades assumed as part of the proposed project, the actual customer mix is not yet known and costs associated with environmental requirements remain an issue. While slide valves are relatively easy to install, not overly expensive, and provides good $NO_x$ and PM reductions, slide valves are specific to Man B&W engines. Other engine manufactures are working on equivalent technologies and preliminary tests appear promising. Because the third-party invites mix is not yet known, slide valves are being phased-in over time to allow for this research and development.

*Main Engine Control Technology*

The Port received a number of comments (SCAQMD-20 &21, NRDC-24 & 27 and PCAC AQ-13) requesting additional mitigation measures to reduce ship emissions, namely main engine control devices, such as SCR, Exhaust Gas Water Treatment, Water Injection, and Injection Timing Delay. NRDC also requested that the Port require ships to meet the "Blue Sky Series" standards. New main engine control devices may decrease emissions in 2008; however the main engine technology identified in comments are not feasible at this time. For example, although SCR technology has been demonstrated on four new vessels carrying scrap/steel between the Bay Area and Korea, the applicability of low-emissions technologies like SCR to large ocean-going vessels such as container ships needs to be further evaluated and demonstrated. There are still a number of feasibility questions in regards to SCR, namely spatial needs, reactant (ammonia) availability, and byproduct issues. At this time, SCR is not feasible. Therefore, accelerating this mitigation measure would not reduce 2008 emissions. In regards to the "Blue Sky Series", the Blue Skies Series Category 3 engines refer to a theoretical ship retrofit program developed for the No Net Increase (NNI) Plan being considered by the Port. NNI was never adopted by the Port or the City of Los Angeles. However, the Draft EIS/EIR discussed on page B-4 of Appendix B, the Blue Sky Series engines are not yet available and therefore not feasible at this time.

SCR and the other control devices listed above are expected to be available in the future and therefore are currently being tested as part of the TAP. Mitigation Measures AQ-17 is designed to, in conjunction with the lease measures below, provide a process to consider and implement new technology identified in the TAP throughout the lease period.

*As partial consideration for the Port's agreement to issue the permit to the tenant, tenant shall implement not less frequently than once every 7 years following the effective date of the permit, new air quality technological advancements, subject to the parties mutual agreement on operational feasibility and cost sharing which shall not be unreasonably withheld*.

Additionally, MM AQ-13 has been modified to include additional future technologies:

***MMAQ-13 New Vessel Builds.*** *All new vessel builds shall incorporate $NO_x$ PM_and GHG control devices on auxiliary and main engines. These control devices include, but are not limited to the following technologies, where appropriate: (1) selective catalytic reduction (SCR) technology, (2) exhaust gas recirculation, (3) in line fuel emulsification technology, (4) diesel particulate filters (DPFs) or exhaust scrubbers, (5) common rail, (6) Low $NO_x$ burners for boilers, (7) implementation of fuel economy standards by vessel class and engines, and (8) diesel-electric pod-propulsion system.*

*This measure focuses on reducing DPM, $NO_x$, and $SO_x$ emissions from main engines and auxiliary engines. OGV engine standards have not kept pace with other engine standards such as trucks and terminal equipment. New vessels destined for California service should be built with these technologies. As new orders for ships are placed, the Ports believe it is essential that the following elements be incorporated into future vessel design and construction:*

1. *Work with engine manufacturers to incorporate all emissions reduction technologies/options when ordering main and auxiliary engines, such as slide valves, common rail, and exhaust gas recirculation.*
2. *Design in extra fuel storage tanks and appropriate piping to run both main and auxiliary engines on a separate/cleaner fuel.*
3. *Incorporate SCR or an equally effective combination of engine controls. If SCR systems are not commercially available at the time of engine construction, design in space and access for main and auxiliary engines to facilitate installation of SCR or other retrofit devices at a future date.*

*In addition, this measure will also incorporate design changes and technology to reduce GHG emissions where available.*

Terminal Equipment

Yard tractors and equipment represent another source of emissions on the terminal that could be targeted to reduce 2008 emissions. NRDC (NRDC 20 &21) specifically requested limits on idling and that yard equipment be required to run on alternative fuel. An idling limitation is unnecessary, as typically equipment crews are developed to operate efficiently and if excessive idling occurs, a crew will stop operation of a hostler. In regards to alternative fuels, MM AQ-7 and MMAQ-8 are fuel neutral and require yard equipment to meet certain standards. Therefore, switching to alternative fuels would not reduce $NO_x$ and PM emissions further than what is already assumed. In addition, biofuel use at the Port is not being heavily pursued due to reported increases in $NO_x$ emissions. Accordingly

yard equipment using biofuel are not expected to meet the percent $NO_x$ reduction assumed in the DEIS/EIS. As discussed on page 3.2-3, while the South Coast Air Basin has been in attainment for $NO_x$ since 1991, the region is now considered a maintenance area for $NO_x$ and local air agencies are pursuing further reductions prevent regional increases from increased population SCAQMD and others suggested that the yard equipment be electrified to reduce emissions.

A number of comments were received regarding electric terminal equipment (SCAQMD-16, NRDC-21). TraPac has stated that they intend to electrify their rail-mounted gantry cranes (RMGs) in the new intermodal yard. TraPac also indicates that they are interested in electric rubber-tired gantry cranes (RTGs) on their backland, but that they plan to evaluate the results of Port tests before they commit to this measure due to a number of operational issues. Currently, diesel powered RTGs can be moved around the backlands. Electric RTGs must be plugged-in, thereby limiting mobility. Port tests will examine the best physical terminal layout and whether overhead or trenched electricity provides the most flexible backlands operation.

Rail and Truck Transport

A number of comments were received on MM AQ-14 (Clean Rail Standards) and MM AQ-16 (Truck Idling) to reduce emissions from transporting containers on and off the terminal on the landside (SCAQMD-17, 22 & 23, NRDC-22, 26, & 28 and PCAC AQ-9 & 14). In regards to trucks, the comments requested idling limits. In regards to rail, comments requested cleaner rail standards and compliance with the CAAP.

*Clean Rail Standards*

The Port has amended MM AQ-14 in response to comments from SCAQMD, NRDC and PCAC. MM AQ-14 has been revised in the Final EIR to state:

> ***MM AQ-14****: Clean Rail Yard Standards. The Berth 136-147 on-dock rail yard will incorporate the cleanest locomotive technologies into their operations. These include diesel-electric hybrids, multiple engine generator sets, use of alternative fuels, DPFs, SCR, idling shut-off devices, and idling exhaust hoods. The on-dock rail yard will also, utilize "clean" CHE and HDVs and comply with the CAAP's Technology Advancement Program. Additionally, the Port shall require diesel particulate traps (DPTs) on all PHL switcher locomotives that operate within the Project rail yard beginning in 2015. Because some of these systems are not yet available, but are expected to be available within the next few years, and given the uncertainty of implementing MM AQ-14, the mitigated emission analysis took no reduction for the effects of this measure.*

The Port will implement MM AQ-14 with respect to line haul locomotives using the new on-dock rail yard through ongoing negotiations with Class 1 railroads, consistent with the schedule set forth in CAAP measures RL2 and RL3. However, because the on-dock rail yard will take approximately three years to build, additional rail and rail equipment mitigation would not reduce 2008 emissions further than what is assumed in the Final EIR.

Comments were also received regarding CAAP compliance. Relocating the Pier A PHL rail yard does not trigger CAAP measure RL3. RL3 does apply to new and redeveloped rail facilities, but, in this instance, cannot be applied to PHL given the language of RL3, which states that a list of cleanest available locomotive technologies "will be provided for project proponents to consider…and the measures will be formalized in lease requirements." (CAAP). PHL is a third-party, independent rail

company that provides rail transportation, yard switching, maintenance and dispatching services to the San Pedro Bay Ports. PHL manages all rail dispatching and switching functions at the on-dock rail yards at the two ports. In addition to switching and scheduling services for the on-dock facilities, PHL also serves as a go-between for trains carrying supplies from various parts of the United States to be delivered directly to Los Angeles- and Long Beach-area businesses. For this carload function, PHL handles tank cars, automobile carriers, box cars, hopper cars and various other types of cars. PHL currently operates with a base at Pier A in the Port. This base serves as a classification yard, crew on duty point, and locomotive service facility. Because the PHL rail yard is being relocated at the discretion of the Port, PHL is not a project proponent. Furthermore, TraPac is not responsible for PHL's relocation or operation. Nor does TraPac have any ability, directly or indirectly, to control PHL's operations. Accordingly, RL3 cannot be applied to PHL at this time. PHL entered into an agreement with the Ports of Los Angeles and Long Beach in January 2006 to replace their switch locomotive engines with cleaner engines that meet the Tier 2 locomotive standards. The replacement is scheduled to occur between the 3rd quarter of 2006 and the 3rd quarter of 2007, per CAAP measure RL1. This agreement is discussed in the Draft EIS/EIR Section 3.2.3.3, Local Regulations and Agreements. The Final EIR does however propose to implement diesel particulate traps (DPTs) on PHL locomotives beginning in 2015. This control measure is a strategy of RL-3 and it would DPM emissions from these locomotives by about 90 percent from uncontrolled levels.

*Trucks*

In regards to trucks, MM AQ-16 has been amended to increase idling restrictions consistent with SCAQMD and NRDC's comments. In addition, all trucks that call at the Berths 136-147 terminal will be CAAP-compliant. MMAQ-9 incorporates the Port's Clean Truck tariff into the TraPac terminal. On November 1, 2007 the Board of Harbor Commissioners adopted a tariff to implement the progressive banning of older trucks from operation at the Ports. Under the progressive ban, trucks will only be granted entry to Port terminals if they (1) are registered with the Ports, (2) meet the model-year requirements of the schedule banning dirty trucks, and (3) have a Radio Frequency Identification (RFID) tag that will provide information about each truck to the Ports. The truck registry information will include the truck owner, model year, and emissions level as indicated by the truck's status of compliance with USEPA's 2007 Onroad Heavy Duty Diesel emissions standards and/or CARB VDECS retrofit status. Port marine terminal operators will be required to equip their terminals with RFID tag readers to manage access of drayage trucks and improve security at their facilities. MMAQ-9 will ensure required gate modifications are completed to support the Clean Trucks tariff, and will prohibit the applicant from permitting access to the terminal any truck not compliant with the CTP truck ban schedule.

*Alternative Rail System*

To reduce emissions as a whole, SCAQMD (SCAQMD-24) recommended that the Final EIR include a mitigation measure that would implement a Green Container Transport System. NRDC (NRDC-32) also requested that the Port analyze an alternative rail transport system. Such a mitigation measure would not be feasible in a project specific EIR. Due to the complexity and cost of implementing new low-emission technologies, such as rail electrification, development and implementation of these technologies are best handled on the Ports-wide basis. The TAP is a process to achieve this objective. As stated in SCAQMD-21, the opportunity exists to require such technologies if the tenant proposed a lease amendment or facility modification.

<u>Harbor Craft (tugs):</u>

Comments were also received on including mitigation for harbor craft used during operation from NRDC (NRDC-30) and PCAC (PCAC AQ-15). The CAAP proposes to reduce harbor craft emissions within the next five years and thereafter with the use of a Portwide measure (HC-1), as tugboats operate independent of proposed terminal developments and associated lease renewals. Additionally, terminals may not have the infrastructure necessary to implement HC-1. All of the measures proposed in comment NRDC-30 and PCAC AQ-15 are included in HC-1. Rather than simulate the effects of HC-1, the air quality analysis in the Draft EIS/EIR more conservatively assumes that the future baseline vessel assist tug boat fleet would be 38 percent Tier 2-compliant in year 2015 and 100 percent compliant in 2030, based upon a slower pre-CAAP fleet turnover rate that has occurred by funding from the ARB Carl Moyer Program.

## Impact AQ-4

The proposed Project operations would contribute to significant levels of 1-hour and annual $NO_2$ and 24-hour $PM_{10}$ and $PM_{2.5}$ concentrations under CEQA. The main contributors to Project operational emissions include (1) terminal equipment (yard tractors and other equipment), (2) on-road trucks, (3) container ships in cruise mode outside of the Port breakwater, and (4) vessels at berth in hotelling mode. A dispersion modeling analysis was performed to estimate the ambient impact of operational emissions from the proposed Project. The analysis focused on year 2010, as Project operational sources would produce the highest amount of daily and annual emissions during this year within and adjacent to the Berths 136-147 terminal. In other words, this scenario would produce the highest Project ambient impacts within the Port region, even in comparison to years 2007 through 2009 and 2015, when Project construction emissions would combine and overlap with operational emissions. Therefore, mitigation measures were added to reduce 2010 operational emissions.

### Finding

Implementation of Mitigation Measures AQ-6 through AQ-18 and AQ-26 would substantially reduce the ambient impact of Project operational emissions from unmitigated levels. Specifically, Mitigation Measures AQ-6 through AQ-18 would reduce all pollutant impacts, but 1-hour and annual $NO_2$ and 24-hour $PM_{10}$ and $PM_{2.5}$ CEQA and NEPA increments would still exceed the SCAQMD ambient thresholds. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce construction emissions below significance.

***MM AQ-6: AMP.*** *Ships calling at Berth 136-147 shall use AMP while hotelling at the Port in the following at minimum percentages: (a) 2009: 25% of ship calls; (b) 2010: 50% of ship calls; (c) 2012: 60% of ship calls; (d) 2015: 80% of ship calls; and (e) 2018: 100% of ship calls. Additionally, by 2010, all ships retrofitted for AMP shall be required to use AMP while hotelling at 100 percent compliance rate, with the exception of circumstances when an AMP-capable berth is unavailable due to utilization by another AMP-capable ship.*

***MM AQ-7: Yard Tractors****. All yard tractors operated at the Berths 136-147 Terminal, including the on-dock rail facility, shall implement the following measures.*

*Beginning in 2007, all new yard tractors shall be either (1) the cleanest available NOx alternative-fueled engine meeting 0.015 Gm/Hp-Hr for PM or (2) the cleanest available NOx diesel-fueled engine meeting 0.015 Gm/Hp-Hr for PM. If there are no engines available that*

*meet 0.015 Gm/Hp-Hr for PM, the new engines shall be the cleanest available (either fuel type) and will have the cleanest Verified Diesel Emissions Controls (VDEC).*

*By the end of 2010, all yard tractors would meet at a minimum the USEPA Tier 4 non-road emission standards.*

***MM AQ-8**: **Yard Equipment.** All diesel-powered terminal equipment other then yard tractors at the Berths 136-147 Terminal, including the on-dock rail facility, shall implement the following measures.*

*Beginning in 2008, all non-yard tractor purchases shall be either (1) the cleanest available NOx alternative-fueled engine meeting 0.015 Gm/Hp-Hr for PM or (2) the cleanest available NOx diesel-fueled engine meeting 0.015 Gm/Hp-Hr for PM. If there are no engines available that meet 0.015 Gm/Hp-Hr for PM, the new engines shall be the cleanest available (either fuel type) and will have the cleanest VDEC.*

*By the end of 2012, all non-yard tractor terminal equipment less than 750 Hp shall meet the USEPA Tier 4 non-road or Tier 4 non-road engine standards.*

*By the end of 2014, all terminal equipment shall meet USEPA Tier 4 non-road engine standards*

***MM AQ-9: Trucks.** Heavy-duty diesel trucks entering the Berths 136-147 Terminal shall achieve the EPA 2007 Heavy-Duty Highway Rule emission standards for on-road heavy-duty diesel engines (USEPA 2001a) in the following percentages: 30% in 2008, 50% in 2009, 70% in 2010, and 100% in 2012 and thereafter.*

***MM AQ-10**: **VSRP.** All ships calling at Berth 136-147 shall comply with the expanded VSRP of 12 knots between 40 nm from Point Fermin and the Precautionary Area in the following implementation schedule: 95% in 2008.*

***MM AQ-11**: **Low Sulfur Fuel** Ships calling at Berth 136-147 shall use low-sulfur fuel (maximum sulfur content of 0.2 percent) in auxiliary engines, main engines, and boilers within 40 nm of Point Fermin (including hotelling for non-AMP ships) at the following annual participation rates: (a) 2009: 20 percent of auxiliary engines, main engines, and boilers; (b) 2010: 30 percent of auxiliary engines, main engines, and boilers; (c) 2012: 50 percent of auxiliary engines, main engines, and boilers; and (d) 2015: 100 percent of auxiliary engines, main engines, and boilers Additionally, by 2012, all frequent caller ships (three or more calls a month) shall use 0.2% in main engines, auxiliary engines and boilers within 40nm of the Port*

***MM AQ-12: Slide Valves** Ships calling at Berth 136-147 shall be equipped with slide valves or equivalent on main engines in the following percentages: (a) 15 percent in 2008; (b) 50 percent in 2010; and (c) 95 percent in 2015. By 2012, all frequent caller ships (three or more calls a month) shall comply with this requirement.*

***MM AQ-13: New Vessel Builds.** All new vessel builds shall incorporate $NO_x$, PM and GHG control devices on auxiliary and main engines. These control devices include, but are not limited to the following technologies, where appropriate: (1) selective catalytic reduction (SCR) technology, (2) exhaust gas recirculation, (3) in line fuel emulsification technology, (4) diesel particulate filters (DPFs) or exhaust scrubbers, (5) common rail, (6) Low $NO_x$ burners for boilers, (7)*

*implementation of fuel economy standards by vessel class and engines, and (8) diesel-electric pod-propulsion system.*

*This measure focuses on reducing DPM, $NO_x$, and $SO_x$ emissions from main engines and auxiliary engines. OGV engine standards have not kept pace with other engine standards such as trucks and terminal equipment. New vessels destined for California service should be built with these technologies. As new orders for ships are placed, the Ports believe it is essential that the following elements be incorporated into future vessel design and construction:*

1. *Work with engine manufacturers to incorporate all emissions reduction technologies/options when ordering main and auxiliary engines, such as slide valves, common rail, and exhaust gas recirculation.*
2. *Design in extra fuel storage tanks and appropriate piping to run both main and auxiliary engines on a separate/cleaner fuel.*
3. *Incorporate SCR or an equally effective combination of engine controls. If SCR systems are not commercially available at the time of engine construction, design in space and access for main and auxiliary engines to facilitate installation of SCR or other retrofit devices at a future date.*

*In addition, this measure will also incorporate design changes and technology to reduce GHG emissions where available.*

***MM AQ-14: Clean Rail Yard Standards.*** *The new Berth 136-147 on-dock rail yard would incorporate the cleanest locomotive technologies/measures. These include use of diesel-electric hybrids, multiple engine generator sets, alternative fuels, DPFs, SCR, idling shut-off devices, and idling exhaust hoods. The on-dock rail yard would utilize "clean" CHE and HDVs and comply with the CAAP's Technology Advancement Program. Additionally, the Port shall require diesel particulate traps (DPTs) on all PHL switcher locomotives that operate within the Project rail yard beginning in 2015.*

***MM AQ-15: Reroute Cleaner Ships.*** *The Berths 136-147 Terminal operator shall use ships meeting IMO MARPOL Annex VI $NO_x$ emissions limits for Category 3 engines to the greatest extent possible when scheduling ship visits.*

***MM AQ-16: Truck Idling Reduction Measures.*** *The Berths 136-147 Terminal operator shall ensure that truck idling is reduced at the Terminal. Potential methods to reduce idling include, but are not limited to, the following: (1) operator shall maximize the durations when the main gates are left open, including during off-peak hours, (2) operator shall implement a container tracking and appointment-based truck delivery and pick-up system to minimize truck queuing, and (3) operator shall design gate to exceed truck flow capacity to ensure queuing is minimized.*

***MM AQ-17:*** *The Port shall require the Berths 136-147 tenant to review, in terms of feasibility, any Port-identified or other new emissions-reduction technology, and report to the Port. Such technology feasibility reviews shall take place at the time of the Port's consideration of any lease amendment or facility modification for the Berths 136-147 property. If the technology is determined by the Port to be feasible in terms of cost, technical and operational feasibility, the tenant shall work with the Port to implement such technology.*

*As partial consideration for the Port's agreement to issue the permit to the tenant, tenant shall implement not less frequently than once every 7 years following the effective date of the permit,*

*new air quality technological advancements, subject to the parties mutual agreement on operational feasibility and cost sharing which shall not be unreasonably withheld.*

***MM AQ-18B**: For any of the above mitigation measures (MM AQ-6 through AQ-16), 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 the Port*

***MM AQ-26**: **Throughput Tracking**. If the project exceeds project throughput assumptions/projections anticipated through the years 2015 and 2025, and 2030, then staff would evaluate the effects of this on the emission sources (ship calls, locomotive activity, backland equipment, and truck calls) relative to the EIR. If it is determined that these emission sources exceed EIR assumptions, staff would evaluate actual air emissions for comparison with the EIR and if the criteria pollutant emissions exceed those in the EIR, then new/additional mitigations would be applied through MMAQ-17.*

## Rationale for Finding

Changes or alterations in the form of mitigation measures have been incorporated into the project in the form of AQ-1 through AQ-5, AQ-18B and AQ-25 which lessen significant annual $NO_2$ and 24-hour $PM_{10}$ and $PM_{2.5}$ emissions in 2010. Although reduced as a result of the mitigation measures, emissions remain significant and unavoidable. A discussion of potential mitigation to decrease $NO_2$, $PM_{10}$ and $PM_{2.5}$ emissions is included below.

Ocean Going Vessels

Comments were received on ocean going vessel mitigations from SCAQMD (SCAQMD-14, 19, 20, & 21), NRDC (NRDC-19, 23, 24, & 27) and the PCAC Air Quality Subcommittee (PCAC AQ-10, 11 & 13) (Attachment 1). A number of comments requested that the phase-in schedule for AMP and low sulfur fuel use be accelerated to further reduce emissions from ocean going vessels and that the Port require new technology to reduce emissions from the main engines.

*Alternative Maritime Power (AMP)*

AMP reduces $NO_2$, $PM_{10}$ and $PM_{2.5}$ and is currently phased-in between 2009 and 2018 through MM AQ-6. MM AQ-6 was amended in the Final EIR to increase AMP participation in 2010 and 2012. In regards to further accelerating AMP, the current phase-in schedule takes into consideration the tenant's business plan. Mitsui O.S.K. Lines Ltd (MOL) is TraPac's parent company and they have committed to retrofitting MOL ships dedicated to the Los Angeles service with AMP technology. The phase-in schedule assumes that 100 percent of MOL's P-Class vessels will be AMP-capable and will use AMP by 2010. These P-class vessels will be the most frequent callers at the terminal that provide weekly service between the US West Coast and Asia and they are assumed to make up approximately 50 percent of TraPac's ship calls. The longer phase-in schedule is to accommodate MOL's APX class vessels and third-party invitees. MOL's APX service provides monthly service to Europe, the US East Coast, and connections to the US West Coast through the Panama Canal. These ships are not dry-docked as frequently as the P-class vessels, due to their long vessel transits, and therefore they will require a longer phase-in to achieve AMP retrofits. The APX service is only expected to call at the terminal monthly. While MOL represents TraPac primary business partner, TraPac will also contract with other shipping lines, referred to as third-party invitees, to fill extra wharf capacity. TraPac has recently lost a majority of their third-party invitees due, in part, to

terminal upgrades delays and costs associated with expected future environmental requirements. While TraPac anticipates they will be able to attract new third-party invitees with the terminal upgrades assumed as part of the proposed project, the actual customer mix is not yet known and costs associated with environmental requirements remain an issue. Currently, AMP retrofits cost approximately $800,000 per vessel. Through future lease amendments and the CAAP, all Port container terminals and shipping lines are expected to comply with AMP in the future. However, until most or all of the other container terminals and vessels are required to use AMP, with AMP requirements at the Berth 136-147 terminal, TraPac will have difficulty attracting third-party business. The longer phase-in schedule allows TraPac to negotiate environmental upgrades with the invitees and to also to remain competitive with other Port terminals that do not yet have environmental requirements as part of their operating requirements.

*Low Sulfur Fuel*

The Port received a number of comments on MMAQ-11 (low sulfur fuel use) from SCAQMD, NRDC, and the PCAC Air Quality Subcommittee. While largely aimed at reducing SOx emissions, low sulfur fuel use would also reduce $NO_2$, $PM_{10}$ and $PM_{2.5}$. The comments requested a shorter phase-in schedule and using 0.1% instead of 0.2% low sulfur fuel in order to reduce emissions from vessels while transiting. In response, the Port amended MM AQ-11's phase-in schedule to increase participation in 2009 and 2010. However, further reductions are not feasible. Low Sulfur fuel is phased-in over time due to technical issues, availability and the tenant's business plan. MOL has committed to using low sulfur (0.2%) fuel in MOL ships dedicated to a Los Angeles service. This phase-in schedule assumes 100% of MOL's P-Class vessels will use low sulfur fuel in auxiliary engines, main engines, and boilers by 2012. These P-class vessels will be the most frequent callers at the terminal providing a weekly service between the US West Coast and Asia and are assumed to make up approximately 50% of TraPac's ship calls. The longer phase-in schedule is to accommodate third-party invitees. TraPac has recently lost a majority of their third-party invitees due, in part, to terminal upgrades delays and costs associated with expected future environmental requirements. While TraPac anticipates they will be able to attract new third-party invitees with the terminal upgrades assumed as part of the proposed project, the actual customer mix is not yet known and costs associated with environmental requirements remain an issue.

Currently, ships that frequent the Port burn heavy fuel oil (HFO) that has a sulfur content ranging from 1.0 to 4.5%, with an average of 2.7%, in their main and auxiliary engines, and boilers. At today's cost, low sulfur (0.2%) costs approximately $350 more per ton than bunker fuel (currently, bunker fuel is approximately $400 per ton, while low sulfur fuel is $750 [www.bunkerworld.com accessed 10/10/07]). Assuming a round trip voyage from 40 nm to Berth 136-147 at 12 knots an hour and hotelling, a 5,000 TEU ship would use approximately 22 tons of fuel in main and auxiliary engines and boilers. Based on this scenario, low sulfur fuel (0.2%) will cost approximately $7,700 as compared to for HFO. Additionally, there may be retrofits associated with using low sulfur fuel. Recently, Maersk, another shipping company at the Port, began using 0.2% low sulfur fuel. Maersk reported that the ship retrofits cost approximately $300,000 per vessel. Through future lease amendments and the CAAP, all Port container terminals are expected to comply with low sulfur fuel regulations in the future. However, until most or all of the other container terminals and shipping lines are required to use low sulfur fuel, with 0.2% sulfur requirements at the Berth 136-147 terminal, TraPac will have difficulty attracting third-party business. The longer phase-in schedule allows TraPac to negotiate environmental upgrades with the invitees and to also to remain competitive with other Port terminals that do not yet have environmental requirements as part of their operating requirements. Additionally, as part of the CAAP, the Ports are developing a low sulfur fuel tariff that would apply to all container vessels entering the San Pedro Bay. This tariff would both remove any

competitive disadvantages among the different container terminals competing for third-party business and accelerate emissions reductions. This tariff would supersede the proposed environmental mitigation.

While the phase-in schedule is largely to accommodate financial considerations, there are also feasibility issues with fuel availability and potential ship retrofits. As a whole, most container ships will require minimal upgrades to use 0.2% sulfur fuel, especially newer ships designed with low sulfur fuel in mind. However each ship must be looked at on a case-by-case basis to ensure safe vessel functions. MOL is currently performing retrofits and safety testing on all ships dedicated to the Berth 136-147 terminal. Third-party customers will also require time to address their ship fleets. According to the *Evaluation of Low Sulfur Marine Fuel Availability- Pacific Rim* (2005) and further investigations by the San Pedro Bay Ports, low sulfur fuel is available in most Japanese ports (the origin of most MOL ships dedicated to the Berth 136-147 terminal), Singapore and Hong Kong. However, low sulfur fuel is not readily available in China (most of TraPac's former third-party business originated in China). These vessels could take on fuel in Los Angeles, but use of low sulfur fuel in their inbound leg cannot be guaranteed at this time. As part of the CAAP, the Ports are working with local port authorities and fuel suppliers in areas that low sulfur fuel is not readily available to remove this hurdle.

In regards to the request to mandate fuel with a fuel content of 0.1% instead of 0.2%, the Port has found that requiring 0.1% is infeasible due to availability issues. In order to allow for some margin of error and product contamination in the distribution system, when a shipping line orders 0.2% sulfur fuel, they are actually receiving a fuel with a lower sulfur content of between 0.13% and 0.16%. Therefore, if the mitigation measure required 0.1% fuel, the fuel supplier would have to provide fuel at a lower than 0.1% content, which may not be possible in current refineries. Additionally, 0.2% is consistent with the CAAP. In developing and approving the CAAP, the Ports of Los Angeles and Long Beach met and collaborated with agencies (including CARB, SCAQMD, and USEPA), environmental and community groups, and the shipping industry. As a result of this collaborative process, 0.2% sulfur fuel was found to be feasible from port-wide perspective.

*Slide Valves*

Currently, slide valves are being phased-in between 2009 and 2015 through MM AQ-12. Comments were received from the PCAC Air Quality Subcommittee (PCAC AQ-11) regarding slide valves. Accelerating the slide valves phase-in schedule is another potential mitigation measure that may reduce emissions from ships in 2008. However, slide valves are also being phased-in to accommodate technical issues and the tenant's business plan. MOL has committed to retrofitting MOL ships with slide valves. This phase-in schedule assumes 100% of MOL's P-Class vessels will be retrofitted with slide valves within 2 years of Project approval (2010). These P-class vessels will be the most frequent callers at the terminal providing a weekly service between the US West Coast and Asia and are assumed to make up approximately 50% of TraPac's ship calls. The longer phase-in schedule is to accommodate third-party invitees. While MOL represents TraPac primary business partner, TraPac will also contract with other shipping line, referred to as third-party invitees, to fill extra wharf capacity. TraPac has recently lost a majority of their third-party invitees due terminal upgrades delays and costs associated with expected future environmental requirements. While TraPac anticipates they will be able to attract new third-party invitees with the terminal upgrades assumed as part of the proposed project, the actual customer mix is not yet known and costs associated with environmental requirements remain an issue. While slide valves are relatively easy to install, not overly expensive, and provides good $NO_x$ and PM reductions, slide valves are specific to Man B&W engines. Other engine manufactures are working on equivalent technologies and preliminary tests

appear promising. Because the third-party invites mix is not yet known, slide valves are being phased-in over time to allow for this research and development.

*Main Engine Control Technology*

The Port received a number of comments (SCAQMD-20 & 21, NRDC-24 & 27 and PCAC AQ-13) requesting additional mitigation measures to reduce ship emissions, namely main engine control devices, such as SCR, Exhaust Gas Water Treatment, Water Injection, and Injection Timing Delay. NRDC also requested that the Port require ships to meet the "Blue Sky Series" standards. Many of these measures would potentially reduce $NO_2$, $PM_{10}$ and $PM_{2.5}$, however, as discussed below, because most of the measures are still in the research and development phases, emission reductions are theoretical. New main engine control devices may decrease emissions in 2010; however the main engine technology identified in comments are not feasible at this time. For example, although SCR technology has been demonstrated on four new vessels carrying scrap/steel between the Bay Area and Korea, the applicability of low-emissions technologies like SCR to large ocean-going vessels such as container ships needs to be further evaluated and demonstrated. There are still a number of feasibility questions in regards to SCR, namely spatial needs, reactant (ammonia) availability and byproduct issues. At this time, SCR is not feasible. Therefore, accelerating this mitigation measure would not reduce 2008 emissions. In regards to the "Blue Sky Series", the Blue Skies Series Category 3 engines refer to a theoretical ship retrofit program developed for the No Net Increase (NNI) Plan being considered by the Port. NNI was never adopted by the Port or the City of Los Angeles. However, the Draft EIS/EIR discussed on page B-4 of Appendix B, the Blue Sky Series engines are not yet available and therefore not feasible at this time.

SCR and the other control devices listed above are expected to be available in the future and therefore are currently being tested as part of the TAP. Mitigation Measures AQ-17 is designed to, in conjunction with the lease measures below, provide a process to consider and implement new technology identified in the TAP throughout the lease period.

> *As partial consideration for the Port's agreement to issue the permit to the tenant, tenant shall implement not less frequently than once every 7 years following the effective date of the permit, new air quality technological advancements, subject to the parties mutual agreement on operational feasibility and cost sharing which shall not be unreasonably withheld*.

Additionally, MM AQ-13 has been modified to include additional future technologies:

> ***MMAQ-13 New Vessel Builds.*** *All new vessel builds shall incorporate $NO_x$ PM_and GHG control devices on auxiliary and main engines. These control devices include, but are not limited to the following technologies, where appropriate: (1) selective catalytic reduction (SCR) technology, (2) exhaust gas recirculation, (3) in line fuel emulsification technology, (4) diesel particulate filters (DPFs) or exhaust scrubbers, (5) common rail, (6) Low $NO_x$ burners for boilers, (7) implementation of fuel economy standards by vessel class and engines, and (8) diesel-electric pod-propulsion system.*
>
> *This measure focuses on reducing DPM, $NO_x$, and $SO_x$ emissions from main engines and auxiliary engines. OGV engine standards have not kept pace with other engine standards such as trucks and terminal equipment. New vessels destined for California service should be built with these technologies. As new orders for ships are placed, the Ports believe it is essential that the following elements be incorporated into future vessel design and construction:*

1. *Work with engine manufacturers to incorporate all emissions reduction technologies/options when ordering main and auxiliary engines, such as slide valves, common rail, and exhaust gas recirculation.*
2. *Design in extra fuel storage tanks and appropriate piping to run both main and auxiliary engines on a separate/cleaner fuel.*
3. *Incorporate SCR or an equally effective combination of engine controls. If SCR systems are not commercially available at the time of engine construction, design in space and access for main and auxiliary engines to facilitate installation of SCR or other retrofit devices at a future date.*

*In addition, this measure will also incorporate design changes and technology to reduce GHG emissions where available.*

Terminal Equipment

Yard tractors and equipment represent another source of $NO_2$, $PM_{10}$ and $PM_{2.5}$ emissions on the terminal that could be targeted to reduce 2010 emissions. NRDC (NRDC-20 &21) specifically requested limits on idling and that yard equipment be required to run on alternative fuel. An idling limitation is unnecessary, as typically equipment crews are developed to operate efficiently and if excessive idling occurs, a crew will stop operation of a hostler. In regards to alternative fuels, MM AQ-7 and Are fuel neutral, consistent with the CAAP, and require yard equipment to meet certain standards. Therefore, switching to alternative fuels would not reduce $NO_x$ and PM emissions further than what is already assumed. In addition, biofuel use at the Port is not being heavily pursued due to reported increases in $NO_x$ emissions. Accordingly yard equipment using biofuel are not expected to meet the percent $NO_x$ reduction assumed in the DEIS/EIS. As discussed on page 3.2-3, while the South Coast Air Basin has been in attainment for $NO_x$ since 1991, the region is now considered a maintenance area for $NO_x$ and local air agencies are pursuing further reductions prevent regional increases from increased population SCAQMD and others suggested that the yard equipment be electrified to reduce emissions.

A number of comments were received regarding electric terminal equipment (SCAQMD-16, NRDC-21). TraPac has stated that they intend to electrify their RMGs in the new intermodal yard. TraPac also indicates that they are interested in electric RTGs on their backland, but that they plan to evaluate the results of Port tests before they commit to this measure due to a number of operational issues. Currently, diesel powered RTGs can be moved around the backlands. Electric RTGs must be plugged-in, thereby limiting mobility. Port tests will examine the best physical terminal layout and whether overhead or trenched electricity provides the most flexible backlands operation.

Rail and Truck Transport

A number of comments were received on MM AQ-14 (Clean Rail Standards) and MM AQ-16 (Truck Idling) to reduce emissions from transporting containers on and off the terminal on the landside (SCAQMD-17, 22 & 23; NRDC-22, 26, & 28; and PCAC AQ-9 & 14). In regards to trucks, the comments requested idling limits. In regards to rail, comments requested cleaner rail standards and compliance with the CAAP.

*Clean Rail Standards*

The Port has amended MM AQ-14 in response to comments from SCAQMD, NRDC and PCAC. MM AQ-14 has been revised in the Final EIR to state:

> ***MM AQ-14: Clean Rail Yard Standards.*** *The new Berth 136-147 on-dock rail yard would incorporate the cleanest locomotive technologies/measures. These include use of diesel-electric hybrids, multiple engine generator sets, alternative fuels, DPFs, SCR, idling shut-off devices, and idling exhaust hoods. The on-dock rail yard would utilize "clean" CHE and HDVs and comply with the CAAP's Technology Advancement Program. Additionally, the Port shall require diesel particulate traps (DPTs) on all PHL switcher locomotives that operate within the Project rail yard beginning in 2015. Because many of these systems are not yet available, but are expected to be available within the next few years, the air quality analysis only quantifies the implementation of DPTs on PHL locomotives that operate in the Project on-dock rail yard and relocated Pier A rail yard beginning in year 2015. These devises would reduce DPM from these sources by 90 percent from uncontrolled levels.*

The Port will implement MM AQ-14 with respect to line haul locomotives using the new on-dock rail yard through ongoing negotiations with Class 1 railroads, consistent with the schedule set forth in CAAP measures RL2 and RL3. However, because the on-dock rail yard will take approximately three years to build, additional rail and rail equipment mitigation would not reduce 2008 emissions further than what is assumed in the Final EIR.

Comments were also received regarding CAAP compliance. Relocating the Pier A PHL rail yard does not trigger CAAP measure RL3. RL3 does apply to new and redeveloped rail facilities, but, in this instance, cannot be applied to PHL given the language of RL3, which states that a list of cleanest available locomotive technologies "will be provided for project proponents to consider…and the measures will be formalized in lease requirements." (CAAP). PHL is a third-party, independent rail company that provides rail transportation, yard switching, maintenance and dispatching services to the San Pedro Bay Ports. PHL manages all rail dispatching and switching functions at the on-dock rail yards at the two ports. In addition to switching and scheduling services for the on-dock facilities, PHL also serves as a go-between for trains carrying supplies from various parts of the United States to be delivered directly to Los Angeles- and Long Beach-area businesses. For this carload function, PHL handles tank cars, automobile carriers, box cars, hopper cars and various other types of cars. PHL currently operates with a base at Pier A in the Port. This base serves as a classification yard, crew on duty point, and locomotive service facility. Because the PHL rail yard is being relocated at the discretion of the Port, PHL is not a project proponent. Furthermore, TraPac is not responsible for PHL's relocation or operation. Nor does TraPac have any ability, directly or indirectly, to control PHL's operations. Accordingly, RL3 cannot be applied to PHL at this time. PHL entered into an agreement with the Ports of Los Angeles and Long Beach in January 2006 to replace their switch locomotive engines with cleaner engines that meet the Tier 2 locomotive standards. The replacement is scheduled to occur between the 3rd quarter of 2006 and the 3rd quarter of 2007, per CAAP measure RL1. This agreement is discussed in the Draft EIS/EIR Section 3.2.3.3, Local Regulations and Agreements. The Final EIRdoes, however, propose to implement diesel particulate traps (DPTs) on PHL locomotives beginning in 2015. This control measure is a strategy of RL-3 and it would reduce diesel particulate matter (DPM) emissions from these locomotives by about 90 percent from uncontrolled levels.

*Trucks*

Further reducing emissions from on road truck would further reduce emissions in 2010. Currently, 70% of all trucks would be required to meet USEPA's 2007 -Heavy Duty Highway Rule in 2010.

MM AQ-16 has been amended to increase idling restrictions consistent with SCAQMD and NRDC's comments. In addition, all trucks that call at the Berths 136-147 terminal will be CAAP-compliant. MMAQ-9 incorporates the Port's Clean Truck tariff into the TraPac terminal. On November 1, 2007 the Board of Harbor Commissioners adopted a tariff to implement the progressive banning of older trucks from operation at the Ports. Under the progressive ban, trucks will only be granted entry to Port terminals if they (1) are registered with the Ports, (2) meet the model-year requirements of the schedule banning dirty trucks, and (3) have a RFID tag that will provide information about each truck to the Ports. The truck registry information will include the truck owner, model year, and emissions level as indicated by the truck's status of compliance with USEPA's 2007 -Heavy Duty Highway Rule emissions standards and/or CARB VDECS retrofit status. Port marine terminal operators will be required to equip their terminals with RFID tag readers to manage access of drayage trucks and improve security at their facilities. MMAQ-9 will ensure required gate modifications are completed to support the Clean Trucks tariff, and will prohibit the applicant from permitting access to the terminal any truck not compliant with the CTP truck ban schedule.

*Alternative Rail System*

To reduce emissions as a whole, SCAQMD (SCAQMD-24) recommended that the Final EIR include a mitigation measure that would implement a Green Container Transport System. NRDC (NRDC-32) also requested that the Port analyze an alternative rail transport system. Such a mitigation measure would not be feasible in a project specific EIR. Due to the complexity and cost of implementing new low-emission technologies, such as rail electrification, development and implementation of these technologies are best handled on the Ports-wide basis. The TAP is a process to achieve this objective. As stated in SCAQMD-21, the opportunity exists to require such technologies if the tenant proposed a lease amendment or facility modification.

Harbor Craft (tugs):

Comments were also received on including mitigation for harbor craft used during operation from NRDC (NRDC-30) and PCAC (PCAC AQ-15). The CAAP proposes to reduce harbor craft emissions within the next 5 years and thereafter with the use of a Portwide measure (HC-1), as tugboats operate independent of proposed terminal developments and associated lease renewals. Additionally, terminals may not have the infrastructure necessary to implement HC-1. All of the measures proposed in comment NRDC-30 and PCAC AQ-15 are included in HC-1. Rather than simulate the effects of HC-1, the air quality analysis in the Draft EIS/EIR more conservatively assumes that the future baseline vessel assist tug boat fleet would be 38 percent Tier 2-compliant in year 2015 and 100 percent compliant in 2030, based upon a slower pre-CAAP fleet turnover rate that has occurred by funding from the ARB Carl Moyer Program.

## Impact AQ-8

In each future project year, annual construction and operational greenhouse gas (GHG) emissions would increase relative to the CEQA baseline. For the purposes of this EIR, any emissions above the CEQA baseline were considered significant under CEQA. Gases that trap heat in the atmosphere are called GHGs. GHGs are emitted by natural processes and human activities. Examples of GHGs that are produced both by natural processes and industry include carbon dioxide ($CO_2$), methane ($CH_4$), and nitrous oxide ($N_2O$). Examples of GHGs created and emitted primarily through human activities include fluorinated gases (hydrofluorocarbons and perfluorocarbons) and sulfur hexafluoride. The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without these natural GHGs,

the Earth's surface would be about 61°F cooler (AEP, 2007). However, emissions from fossil fuel combustion for activities such as electricity production and vehicular transportation have elevated the concentration of GHGs in the atmosphere above natural levels. According to the Intergovernmental Panel on Climate Change (IPCC), 2007, the atmospheric concentration of $CO_2$ in 2005 was 379 ppm compared to the pre-industrial levels of 280 ppm. In addition, The Fourth U.S. Climate Action Report concluded, in assessing current trends, that $CO_2$ emissions increased by 20 percent from 1990-2004, while $CH_4$ and $N_2O$ emissions decreased by 10 percent and 2 percent, respectively. There appears to be a close relationship between the increased concentration of GHGs in the atmosphere and global temperatures. For example, the California Climate Change Center reports that by the end of this century, temperatures are expected to rise by 4.7 to 10.5°F due to increased GHG emissions. Scientific evidence indicates a trend of increasing global temperatures near the earth's surface over the past century due to increased human induced levels of GHGs.

GHGs differ from criteria pollutants in that GHG emissions do not cause direct adverse human health effects. Rather, the direct environmental effect of GHG emissions is the increase in global temperatures, which in turn has numerous indirect effects on the environment and humans. For example, some observed changes include shrinking glaciers, thawing permafrost, later freezing and earlier break-up of ice on rivers and lakes, a lengthened growing season, shifts in plant and animal ranges, and earlier flowering of trees (IPCC, 2001). Other, longer term environmental impacts of global warming may include sea level rise, changing weather patterns with increases in the severity of storms and droughts, changes to local and regional ecosystems including the potential loss of species, and a significant reduction in winter snow pack (for example, estimates include a 30-90% reduction in snowpack in the Sierra Mountains). Current data suggests that in the next 25 years, in every season of the year, California will experience unprecedented heat, longer and more extreme heat waves, greater intensity and frequency of heat waves, and longer dry periods.

The main contributors to GHG construction emissions include: (1) transit and hotelling of general cargo vessels during crane and sheet-piles deliveries; (2) tugboats that deliver dike rock and transport dredge sediments; (3) clamshell dredge equipment; (4) barge equipment used to place rip-rap and wharf pilings; and (5) earth-moving equipment. The main contributors to operational GHG emissions include: (1) terminal equipment (yard tractors and other equipment); (2) on-road trucks; (3) container ships in cruise mode outside of the Port breakwater; and (4) vessels at berth in hotelling mode.

In addition to GHG, the Project could also potentially contribute black carbon. Black Carbon is a form of carbon produced by incomplete combustion of fossil fuel and wood that may also contribute to climate change. Black carbon aerosols absorb, rather than reflect, solar radiation, which shades the Earth's surface, but warms the atmosphere. In the proposed Project, black carbon would be formed as part of diesel combustion and is a part of DPM. As part of this Project, DPM levels will be reduced below baseline levels there

## Finding

Although mitigation measures reduce GHG emissions, emissions remain significant and unavoidable. In the Final EIR, AQ-1 through 4, AQ-6, AQ-10, AQ-13, AQ-14, AQ-16 and AQ-19 through 24 were included to reduce GHG emissions from construction and operation. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce construction emissions below significance.

***MMAQ-1: Crane and Sheet-pile Deliveries and Construction Harbor Craft.*** *All cargo ships used for terminal crane and sheet pile deliveries shall comply with the expanded VSRP of 12 knots from 40 nm from Point Fermin to the Precautionary Area. In addition, ships used for sheet pile deliveries in Phase II construction (post 2015) shall 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 measure shall also require all harbor craft used during the construction phase of the project to, at a minimum, be repowered to meet the cleanest existing marine engine emission standards or U.S. EPA Tier 2. Additionally, where available, harbor craft shall meet the proposed U.S. EPA Tier 3 (which are proposed to be phased-in beginning 2009) or cleaner marine engine emission standards. In addition, all dredging equipment shall be electric.*

*The above harbor craft 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:*

1. *A piece of specialized equipment is unavailable in a controlled form within the state of California, including through a leasing agreement.*
2. *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.*
3. *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.*

***Mitigation Measure AQ-2: Fleet Modernization for On-Road Trucks.*** *All on-road heavy-duty diesel trucks with a gross vehicle weight rating (GVWR) of 33,000 pounds or greater used on-site or to transport materials to and from the site shall comply with EPA 2007 on-road PM emission standards and be the cleanest available NOx for Phase I. In addition, for Phase II construction (post January 2015), all on-road heavy-duty diesel trucks with a gross vehicle weight rating (GVWR) of 33,000 pounds or greater used on-site or to transport materials to and from the site shall comply with year 2010 emission standards where available. Trucks hauling materials such as debris or fill shall be fully covered while operation off Port property.*

*The above on-road truck measures shall be met, unless one of the following circumstances exists and the contractor is able to provide proof that any of these circumstances exists:*

1. *A piece of specialized equipment is unavailable in a controlled form within the state of California, including through a leasing agreement.*
2. *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.*
3. *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.*

***Mitigation Measure AQ-3: Fleet Modernization for Construction Equipment.*** *All off-road diesel-powered construction equipment greater than 50 hp, except derrick barges and ocean cargo vessels, shall meet the cleanest off-road diesel emission levels available but no greater than Tier 2 emission standards for projects starting construction prior to December 2011. Tier 3 emission standards shall be applied to projects starting construction between December 2011 and January 2015. The contractor could meet Tier 3 equivalent PM10 emission limits through the use of new or repowered engines designed to meet Tier 2 PM standards and/or the use of ARB approved diesel particulate traps. For Phase II construction (post 2015), equipment shall meet the Tier 4 emission standards where available. In addition, construction equipment shall incorporate, where feasible, emissions savings technology such as hybrid drives and specific fuel economy standards.*

*The above construction equipment measures shall be met, unless one of the following circumstances exists and the contractor is able to provide proof that any of these circumstances exists:*

1. *A piece of specialized equipment is unavailable in a controlled form within the state of California, including through a leasing agreement.*
2. *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.*
3. *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: Best Management Practices (BMPs).*** *Port shall implement a process by which to select additional BMPs to further reduce air emissions during construction if it is determined that the proposed construction equipment exceed any SCAQMD significance threshold. The following types of measures would be required on construction equipment: (a) use of diesel oxidation catalysts and catalyzed diesel particulate traps; (b) maintain equipment according to manufacturers' specifications; (c) restrict idling of construction equipment to a maximum of 5 minutes when not in use; and (d) install high-pressure fuel injectors on construction equipment vehicles. The Port shall determine the BMPs once the contractor identifies and secures a final equipment list.*

***MM AQ-6: AMP****. Ships calling at Berth 136-147 shall use AMP while hotelling at the Port in the following at minimum percentages: (a) 2009: 25% of ship calls; (b) 2010: 50% of ship calls; (c) 2012: 60% of ship calls; (d) 2015: 80% of ship calls; and (e) 2018: 100% of ship calls. Additionally, by 2010, all ships retrofitted for AMP shall be required to use AMP while hotelling at 100 percent compliance rate, with the exception of circumstances when an AMP-capable berth is unavailable due to utilization by another AMP-capable ship*

***MM AQ-10****: **VSRP.** All ships calling at Berth 136-147 shall comply with the expanded VSRP of 12 knots between 40 nm from Point Fermin and the Precautionary Area in the following implementation schedule: 95% in 2008.*

***MM AQ-13: New Vessel Builds.*** *All new vessel builds shall incorporate $NO_x$, PM and GHG control devices on auxiliary and main engines. These control devices include, but are not limited to the following technologies, where appropriate: (1) selective catalytic reduction (SCR) technology, (2) exhaust gas recirculation, (3) in line fuel emulsification technology, (4) diesel particulate filters (DPFs) or exhaust scrubbers, (5) common rail, (6) Low $NO_x$ burners for boilers, (7) implementation of fuel economy standards by vessel class and engines, and (8) diesel-electric pod-propulsion system.*

*This measure focuses on reducing DPM, $NO_x$, and $SO_x$ emissions from main engines and auxiliary engines. OGV engine standards have not kept pace with other engine standards such as trucks and terminal equipment. New vessels destined for California service should be built with these technologies. As new orders for ships are placed, the Ports believe it is essential that the following elements be incorporated into future vessel design and construction:*

1. *Work with engine manufacturers to incorporate all emissions reduction technologies/options when ordering main and auxiliary engines, such as slide valves, common rail, and exhaust gas recirculation.*
2. *Design in extra fuel storage tanks and appropriate piping to run both main and auxiliary engines on a separate/cleaner fuel.*
3. *Incorporate SCR or an equally effective combination of engine controls. If SCR systems are not commercially available at the time of engine construction, design in space and access for main and auxiliary engines to facilitate installation of SCR or other retrofit devices at a future date.*

*In addition, this measure will also incorporate design changes and technology to reduce GHG emissions where available.*

***MM AQ-14: Clean Rail Yard Standards.*** *The new Berth 136-147 on-dock rail yard would incorporate the cleanest locomotive technologies/measures. These include use of diesel-electric hybrids, multiple engine generator sets, alternative fuels, DPFs, SCR, idling shut-off devices, and idling exhaust hoods. The on-dock rail yard would utilize "clean" CHE and HDVs and comply with the CAAP's Technology Advancement Program. Additionally, the Port shall require diesel particulate traps (DPTs) on all PHL switcher locomotives that operate within the Project rail yard beginning in 2015. Because many of these systems are not yet available, but are expected to be available within the next few years, the air quality analysis only quantifies the implementation of DPTs on PHL locomotives that operate in the Project on-dock rail yard and relocated Pier A rail yard beginning in year 2015.*

***MM AQ-16: Truck Idling Reduction Measures.*** *The Berths 136-147 Terminal operator shall ensure that truck idling is reduced at the Terminal. Potential methods to reduce idling include, but are not limited to, the following: (1) operator shall maximize the durations when the main gates are left open, including during off-peak hours, (2) operator shall implement a container tracking and appointment-based truck delivery and pick-up system to minimize truck queuing, and (3) operator shall design gate to exceed truck flow capacity to ensure queuing is minimized.*

***MM AQ-19**: **LEED.** The main terminal building shall obtain the Leadership in Energy and Environmental Design (LEED) gold certification level. LEED certification is made at one of the following four levels, in ascending order of environmental sustainability: certified, silver, gold, and platinum. The certification level is determined on a point-scoring basis, where various points are given for design features that address the following areas (U.S. Green Building Council, 2005):*

- *Sustainable Sites*
- *Water Efficiency*
- *Energy & Atmosphere*
- *Materials & Resources*
- *Indoor Environmental Quality*
- *Innovation & Design Process*

*As a result, a LEED-certified building will be more energy efficient, thereby reducing GHG emissions compared to a conventional building design.*

***MM AQ-20**: **Compact Fluorescent Light Bulbs**: All interior terminal building lighting shall use compact fluorescent light bulbs. Fluorescent light bulbs produce less waste heat and use substantially less electricity than incandescent light bulbs.*

***MM AQ-21 Energy Audit**: The tenant shall conduct a third party energy audit every five years and install innovative power saving technology where feasible, such as power factor correction systems and lighting power regulators. Such systems help to maximize usable electric current and eliminate wasted electricity, thereby lowering overall electricity use.*

***MM AQ-22: Solar Panels**. The Port shall install solar panels on the main terminal building. Solar panels would provide the terminal building with a clean source of electricity to replace some of its fossil fuel-generated electricity use. In addition, the Port shall install stanchions equipped with solar power cells throughout the parking lot and backlands to further capture solar power.*

***MM AQ-23: Recycling.** The terminal buildings shall achieve a minimum of 40 percent recycling by 2012 and 60 percent recycling by 2015. Recycled materials shall include:*

- *White and colored paper*
- *Post-it notes*
- *Magazines*
- *Newspaper*
- *File folders*
- *All envelopes including those with plastic windows*
- *All cardboard boxes and cartons*
- *All metal and aluminum cans*
- *Glass bottles and jars*
- *All plastic bottles*

***MM AQ-24**: **Tree Planting.** The applicant shall plant shade trees around the main terminal building*

### Rationale for Finding

Climate change, as it relates to man-made GHG emissions, is by nature a global impact. An individual project does not generate enough GHG emissions to significantly influence global climate change by itself (AEP, 2007). The issue of global climate change is, therefore, a cumulative impact. Nevertheless, for the purposes of this EIS/EIR, the Port has opted to address GHG emissions as a

project-level impact. As shown below in Table 5, GHG emissions are significant and unavoidable for all Project years (see also Figures 7 and 8 in the Statement of Overriding Considerations).

**Table 5:** GHG Emissions

| *Project Scenario/Source Type* | METRIC TONS PER YEAR | | | | | | |
|---|---|---|---|---|---|---|---|
| | *$CO_2$* | *$CH_4$* | *$N_2O$* | *HFC-125* | *HFC-134a* | *HFC-143a* | *$CO_2e$* |
| **Year 2008** | | | | | | | |
| Project Emissions No Mitigation | 378,374 | 31.5 | 7.3 | 0.06 | 0.13 | 0.07 | 381,901 |
| Project Emissions With Mitigation | 378,374 | 31.5 | 7.3 | 0.06 | 0.13 | 0.07 | 381,901 |
| CEQA Baseline | 302,223 | 25.2 | 5.9 | 0.05 | 0.11 | 0.05 | 305,073 |
| Project Minus CEQA Baseline | **76,151** | **6.3** | **1.4** | **0.01** | **0.02** | **0.01** | **76,829** |
| Mitigated Project Minus CEQA Baseline | **76,151** | **6.3** | **1.4** | **0.01** | **0.02** | **0.01** | **76,829** |
| **Year 2015** | | | | | | | |
| Project Emissions No Mitigation | 619,210 | 47.8 | 12.4 | 0.09 | 0.22 | 0.11 | 625,003 |
| Project Emissions With Mitigation | 563,892 | 39.7 | 11.9 | 0.09 | 0.22 | 0.11 | 569,364 |
| CEQA Baseline | 302,223 | 25.2 | 5.9 | 0.05 | 0.11 | 0.05 | 305,073 |
| Project Minus CEQA Baseline | **316,986** | **22.6** | **6.5** | **0.04** | **0.11** | **0.05** | **319,931** |
| Mitigated Project Minus CEQA Baseline | **261,669** | **14.5** | **6** | **0.04** | **0.11** | **0.06** | **264,291** |
| **Year 2025** | | | | | | | |
| Project Emissions No Mitigation | 765,777 | 61.0 | 14.7 | 0.12 | 0.29 | 0.15 | 772,919 |
| Project Emissions With Mitigation | 692,475 | 49.9 | 14.1 | 0.12 | 0.29 | 0.15 | 699,175 |
| CEQA Baseline | 302,223 | 25.2 | 5.9 | 0.05 | 0.11 | 0.05 | 305,073 |
| Project Minus CEQA Baseline | **463,554** | **35.9** | **8.8** | **0.08** | **0.18** | **0.09** | **467,846** |
| Mitigated Project Minus CEQA Baseline | **390,252** | **24.70** | **8.20** | **0.07** | **0.18** | **0.10** | **394,102** |
| **Year 2038** | | | | | | | |
| Project Emissions No Mitigation | 766,037 | 61.1 | 14.8 | 0.12 | 0.29 | 0.15 | 773,189 |
| Project Emissions With Mitigation | 692,735 | 49.9 | 14.1 | 0.12 | 0.29 | 0.15 | 699,445 |
| CEQA Baseline | 302,223 | 25.2 | 5.9 | 0.05 | 0.11 | 0.05 | 305,073 |
| Project Minus CEQA Baseline | **463,814** | **35.9** | **8.8** | **0.08** | **0.18** | **0.09** | **468,116** |
| Mitigated Project Minus CEQA Baseline | **390,512** | **24.70** | **8.20** | **0.07** | **0.18** | **0.10** | **394,372** |

One metric ton equals 1000 kilograms, 2205 lbs, or 1.1 U.S. (short) tons.
$CO_2e$ = the carbon dioxide equivalent emissions of all GHGs combined. The carbon dioxide equivalent emission rate for each GHG represents the emission rate multiplied by its global warming potential (GWP). The GWPs are 1 for $CO_2$; 21 for $CH_4$; 310 for $N_2O$; 2800 for HFC-125; 1300 for HFC-134a; and 3800 for HFC-143a.

The construction sources for which GHG emissions were calculated include off-road diesel equipment, on-road trucks, marine cargo vessels used to deliver equipment to the site, and worker commute vehicles. The emission sources for which GHG emission were calculated include ships, tugboats, terminal and rail yard equipment, on-road trucks, trains, fugitive refrigerant losses from reefers, on-terminal electricity usage, and worker commute vehicles. Changes or alterations in the form of mitigation measures have been incorporated into the project in the form of AQ-1 through 4, AQ-6, AQ-10, AQ-13, AQ-14, AQ-16 and AQ-19 through 24, which lessen significant construction emissions. The effects of MM AQ-6 and AQ-10 were quantified in the emission estimates. The potential effects of the remaining mitigation measures are described qualitatively in the EIR. The Final EIR has accelerated implementation and/or modified of some mitigation measures proposed in the Draft EIS/EIR to further reduce GHG emissions. However, as shown above, while the mitigation

measures presented in the Final EIR reduce emissions, GHG emissions remain significant and unavoidable. The discussion below includes more details on potential mitigation measures.

Regarding GHG mitigations, comments were received on the Draft EIS/EIR from the Center for Biological Diversity (CBD-11 through 16 & 18 through 21), NRDC (NRDC-13, 35 through 39 & 41) and the Attorney General's Office (AG-2, 5, & 7 through 31) (Attachment 1). Comments were largely restricted to operational emissions and suggested reducing the phase in schedule for MMAQ-6 (AMP), adding additional measures to reduce idling, incorporating efficiency and/or low emissions standards into emission sources, increasing the use of electric equipment, and increasing green building standards.

Construction:

Comments on construction mitigation fell into three main categories: (1) incorporating efficiency and/or low emissions standards into construction equipment (CBD-13, NRDC-13, and AG-28); (2) increasing recycling rates (CBD-20, AG-30); and (3) including green building measures (AG-11 through 14, 26 & 29).

*Construction Equipment*

Comments from the PCAC Air Quality Subcommittee (PCAC AQ-16 and 17), the Northwest San Pedro Neighborhood Council (NWSP-4), NRDC (NRDC-12), and others requested that the construction mitigation measures be amended to use electric or alternative fuel-powered equipment. It is infeasible at this time to require alternative fuels or electric power for construction equipment, due to lack of availability. In consideration of this comment, the Port queried a number of construction contractors and determined that none of them currently use alternative fuels or electric powered on or off-road construction equipment. In addition, biodiesel use at the Port is not being heavily pursued due to reported increases in $NO_x$ emissions. Construction equipment using biodiesel are not expected to meet the percent $NO_x$ reduction assumed in the Draft EIS/EIR. As discussed on page 3.2-3, while the South Coast Air Basin has been in attainment for $NO_2$ since 1991, the region is now considered a maintenance area for $NO_2$ and local air agencies are pursuing further reductions in $NO_x$ emissions to offset regional increases in population.

Dredge equipment represents one type of equipment that could be electrified. For example, the Port used a fixed electrical dredger for the Channel Deepening project. While the type of wharf work in the proposed Project requires a clamshell dredger that requires more movement and therefore is more difficult to electrify, electric clamshell dredgers do exist. Therefore, the Port will require the use of an electric dredger and this measure has been added to MM AQ-1.

*Recycling*

Currently, MM AQ-23 requires recycling during operation and Mitigation Measure PS-2 requires recycling and use of materials with recycled content during construction. Use of recycled content is a standard requirement of Port contracts. For example, construction materials such as concrete and asphalt are reused in construction at the facility or elsewhere in the Port. The Port presently has its own crusher facility for this purpose.

*Green Building Measures*

Comments on the DEIR included adding new solar panels, green building designs and adding trees. As part of the proposed project, the building will be designed as a LEED certified Gold Level building which will include light-colored, reflective roof materials. In accordance with the Port's Leasing Policy, the operator will be required to implement an environmental management system approach to activities at their terminal, including their own office operations. This will include the operator to set goals for office recycling with the rates identified in MM AQ-23 set as the minimum. The Port shall work with the tenant to identify methods to first reduce and reuse office products prior to recycling. In addition, the Port will install energy efficient lighting that the tenant will have to maintain over the life of the lease.

Where the existing lighting does not meet current POLA standards; fixtures would be replaced during proposed Project construction with more efficient lamps. The existing and replacement laps would both be high pressure sodium lights at 10,000 watts per fixture. However, the new lamps would be 20% more efficient than the existing lamps, as they do not waste input energy by producing non-useable light in the form of glare (See Draft EIS/EIR Section 3.12, Utilities and Public Service). In addition, the following two mitigation measures are included in the project.

> *MM AQ-20: Compact Fluorescent Light Bulbs: All interior terminal building lighting shall use compact fluorescent light bulbs. Fluorescent light bulbs produce less waste hear and use substantially less electricity than incandescent light bulbs.*
>
> *MMAQ-22: Energy Audit: The tenant shall conduct a third party energy audit every five years and install innovative power saving technology where feasible, such as power factor correction systems and lighting power regulators. Such systems help to maximize usable electric current and eliminate wasted electricity, thereby lowering overall electricity use.*

Comments were also received regarding additional solar panels in the terminal. The Port agrees that additional solar panels can be added and Mitigation Measure AQ-22 has been amended as follows:

> ***MM AQ-22:** Solar Panels: The Port shall install solar panels on the main terminal building. Solar panels would provide the terminal building with a clean source of electricity to replace some of its fossil fuel-generated electricity use. In addition, as part of construction, the Port shall install stanchions equipped with non-reflective solar power cells throughout the parking lot and backlands to further capture solar power.*

The project will include planting and maintaining shade trees around the terminal, such as around the terminal building, near the gate structure, and along the facility's perimeter. It is not possible to plant trees in many parts of a container terminal where they would interfere with terminal operations. As part of the Project, the Port is also building a 30-acre landscaped buffer, which will include trees. Additional tree planting/landscaping has been provided for around the relocated Pier A Yard and MM NOI-2 provides that a landscaped buffer along the northwest side of the proposed Pier A Yard between the yard and Alameda Street will be incorporated into the project. The buffer area will include mature trees and shrubs and shall be maintained for the life of the Project.

One comment (AG-29) also requested that the Port and tenant contract with green contractors. As a Department of the City of Los Angeles, the Port is somewhat restricted in its contracting methods, which include under other restrictions, need to select the lowest responsive bidder. However, the project construction procurement process will include a selection system that favors bidders with clean construction equipment.

Operation:

Comments on operation mitigation fell into four categories: (1) incorporating efficiency and/or low emissions standards into vessels, terminal equipment, trucks and rail (CBD-11, 12 & 19; NRDC-36 through 39 & 41; and AG-2, 5, 7 through 10, 15, 16, 18, 19, & 25); (2) refrigerants (CBD-15; NRDC-36; AG-21 through 24); (3) purchasing offsets and developing user fees (CBD-14 & 21, AG-17, 20 & 31); and (4) developing alternative transport systems (NRDC-38 & 41).

*Incorporating efficiency and/or low emissions standards*

In regards to vessels, comments regarding additional mitigation to reduce GHG emissions from vessels included fuel standards, new technology, and changes to vessel design. One of the proposed changes from the Center for Biological Diversity suggested including GHG emission control devices on vessels. The Port supports this addition and amended MMAQ-13 as follows:

> ***Mitigation Measure AQ-13: New Vessel Builds.*** *All new vessel builds shall incorporate $NO_x$ ~~and~~ PM and GHG control devices on auxiliary and main engines. These control devices include, but are not limited to the following technologies, where appropriate: (1) selective catalytic reduction (SCR) technology, (2) exhaust gas recirculation, (3) in line fuel emulsification technology, (4) diesel particulate filters (DPFs) or exhaust scrubbers, (5) common rail, (6) Low $NO_x$ burners for boilers, (7) implementation of fuel economy standards by vessel class and engines, and (8) diesel-electric pod-propulsion system.*
>
> *This measure focuses on reducing DPM, $NO_x$, and $SO_x$ emissions from main engines and auxiliary engines. OGV engine standards have not kept pace with other engine standards such as trucks and terminal equipment. New vessels destined for California service should be built with these technologies. As new orders for ships are placed, the Ports believe it is essential that the following elements be incorporated into future vessel design and construction:*
>
> 1. *Work with engine manufacturers to incorporate all emissions reduction technologies/options when ordering main and auxiliary engines, such as slide valves, common rail, and exhaust gas recirculation.*
> 2. *Design in extra fuel storage tanks and appropriate piping to run both main and auxiliary engines on a separate/cleaner fuel.*
> 3. *Incorporate SCR or an equally effective combination of engine controls. If SCR systems are not commercially available at the time of engine construction, design in space and access for main and auxiliary engines to facilitate installation of SCR or other retrofit devices at a future date.*
>
> *In addition, this measure will also incorporate design changes and technology to reduce GHG emissions where available.*

MOL also has a program to address and implement measures for maintaining and improving the vessel performance (fuel efficiency, speed, etc.). Examples include operational changes such as reducing navigation speed and select optimum routes depending on the situation and technological changes such as energy-saving designed vessels and Propeller Boss Cap Fins (PBCF) systems. Shipping companies also perform regular vessel and hull maintenance to ensure fuel efficiency and vessel speed. For example, because ships spend most of their time in the water, shipping companies

invest research and design funds into developing bottom paint that prohibits algal or organism growth. Such growth could slow the ship, thereby costing the shipping company more in fuel.

Comments were received on increasing AMP participation rates through an incentive program (AG-2). The use of electricity from the power grid would reduce GHG emissions during hotelling because electricity can be produced more efficiently at centralized power plants than from auxiliary engines on ships or from renewable generation sources. As discussed earlier in this document, the Port has reduced the phase-in schedule for AMP. However, incentives would not achieve earlier AMP implementation. Mitsui O.S.K. Lines Ltd (MOL) is TraPac's parent company and they have committed to retrofitting MOL ships dedicated to the Los Angeles service with AMP technology. The phase-in schedule assumes that 100 percent of MOL's P-Class vessel string will be AMP-capable and will use AMP by 2010. These P-class vessels will be the most frequent callers at the terminal that provide weekly service between the US West Coast and Asia and they are assumed to make up approximately 50 percent of TraPac's ship calls. The two year phase-in schedule allows time for AMP retrofits to be made on the entire vessel string during the vessel's scheduled dry-dock period. These retrofits are being done without financial incentives. The phase-in schedule also allows time for the AMP infrastructure to be constructed on the wharf. As discussed in Chapter 2 of the Draft EIS/EIR, wharf improvements will take approximately 2 years to construct. Shore-side AMP infrastructure will be installed as part of the AMP improvements. The current schedule calls for installing AMP at Berth 145- 147 within the first year with installation at Berths 136-139 during the second year. This construction schedule also includes the lead-time necessary for obtaining transformers from the Los Angeles Department of Water and Power.

The longer phase-in schedule (post-2010) is to accommodate MOL's APX class vessels and third-party invitees. MOL's APX service provides monthly service to Europe, the US East Coast, and connections to the US West Coast through the Panama Canal. These ships are not dry-docked as frequently as the P-class vessels, due to their long vessel transits, and therefore they will require a longer phase-in to achieve AMP retrofits. The APX service is only expected to call at the terminal monthly. As discussed above, TraPac will also contract with other shipping lines, referred to as third-party invitees, to fill extra wharf capacity. TraPac has recently lost a majority of their third-party invitees in part due terminal upgrades delays and costs associated with expected future environmental requirements. While TraPac anticipates they will be able to attract new third-party invitees with the terminal upgrades assumed as part of the proposed project, the actual customer mix is not yet known. The schedule assumes that these yet to be identified customers comply with the AMP requirements without financial incentives.

The Attorney General's Office also requested mandatory VSRP reporting (AG-5). All mitigation measures will be the subject of a Mitigation Monitoring and Reporting Program (MMRP) to be approved by the Board of Harbor Commissioners if they elect to approve the proposed Project. For VSRP, the MMRP will state that vessel calls shall be monitored by the Environmental Management Division and the Marine Exchange, which is presently providing compliance data to the Ports on the ship arrivals and departures. In addition, the tenant will have to prepare annual reports. 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 to disclose VSRP compliance rates. There were also a number of requests to further modify MM AQ-10 (VSRP). VSRP involves ships slowing to 12 knots/hour from 40nm outside the San Pedro breakwater to the precautionary zone (5 miles outside the breakwater) where they have to slow to 9 knots/hour. Twelve knots represents the most efficient speed for an average ship (much like how highway speed limits are often pegged to vehicle efficiencies). Without VSRP, vessels average approximately 20 knots/hour. VSRP therefore increases transit time from 1.7 hours to 2.9 hours. Increases to the program's distance would further slow

vessel arrivals into Port, potentially jeopardizing sailing schedules. Shipping companies deploy vessel strings based on set scheduled. Containers are scheduled to arrive and depart from Ports at set times to coordinate pick-up and drop-off by truck and rail companies and to meet manufacture and retailers deadlines. Further reductions in speed may actually increase ship calls as a shipping line would potentially deploy additional ships with smaller loads (thereby reducing turnaround time at Port).
Mitigations such as increasing fuel economy, using alternative fuel, reducing idling, and reducing truck trips would also reduce GHG emissions. A number of comments were received on truck operations. MM AQ-9 incorporates the Port's Clean Truck Program into the TraPac terminal. The Port approved the Program on November 1, 2007. This mitigation measure will ensure required gate modifications are completed to support the Clean Truck Program. In regards to alternative fuels, the Ports CAAP already contains a significant alternative fuel component particularly for the use of LNG as part of the Clean Trucks Program including incentive program. The first step of this Program includes the approved progressive ban on older trucks. The reduction in emission as a result of this program would also contribute to reduction in GHGs (see above). The Clean Truck Program is presently valued at $1.8 billion. The Port is contributing over $100 Million over the next five years, and to date has sponsored truck replacements through the Gateway City Program totalling over $15 Million. The Clean Truck Program also includes an LNG program. Recently the two Ports invested over $20 million in contracts to fund the start-up of an LNG fleet to serve the Port terminals. The CAAP also includes the TAP for developing and testing new technology. Included in this to date is the testing of an electric drayage truck that could be use for short trips to the near dock rail yards. The port may also be testing of a hybrid drayage truck associated with this program. Biodiesel use at the Port is not being heavily pursued due to reported increases in $NO_x$ emissions. In a study done by Mc Cormick et al (2006), biodiesel use in trucks increased emissions 2% to 3%. Accordingly, trucks using biodiesel are not expected to meet the percent $NO_x$ reduction assumed in the DEIS/EIS. As discussed on page 3.2-3 of the Draft EIS/EIR, while the South Coast Air Basin has been in attainment for $NO_x$ since 1991, the region is now considered a maintenance area for $NO_x$ and local air agencies are pursuing further reductions prevent regional increases from increased population.

In regards to other truck measures recommended in NRDC-37, MM AQ-9 incorporates the Ports' Clean Truck Program into the TraPac terminal. The Truck Program includes replacing older trucks to new 2007 trucks. The Truck Program will accomplish many of the suggested measures including Improved Aerodynamics. Other measures, such as Low Viscosity Lubricants, Hybrid Vehicle Technology, and Improved Freight Logistics will be looked at as part of the Port Truck Program. However, the Truck Program is being developed on a Port-wide basis. Additionally, as discussed previously, the Port is performing a GHG inventory and will be developing GHG reduction strategies as part of the CAAP. Maintenance and upkeep of trucks should be the responsibility of the truck owner. In this regard, the Port's Clean Truck Program will include a requirement for maintenance of drayage trucks calling at the Port. Further, including mandatory tire checking at the terminal would have to be weighed against emissions created by additional truck idling to carry this out. Presently, the terminal operator is responsible for chassis maintenance including tire maintenance

A number of the Attorney General's comments focused on reducing idling while on the terminal (AG-7-9). Specifically, one comment suggested installing plug in facilities on the terminal. This measure is not feasible for Port operations as it would not reduce emissions. Truck stops provide plug-ins for trucks that are stopped for an extended period of time for example, when the truck is parked overnight. During overnight stops, truck drivers often idle their engines to operate air conditioning or heat in their sleeper cabs, or on-board appliances. Plug-in facilities allow the truck to turn its engine off and draw electricity from the grid to operate heating and/or cooling systems and on-board appliances. The trucks at the TraPac terminal do not park or idle in one place long enough to plug-in. In regards to general idling restrictions, TraPac's new terminal design, plus a container

optical character recognition scanning system, eliminates the need for queuing at the gate. Once in the terminal, the truck idles only to yield to other traffic and when hooking or un-hooking loads. These movements are short-term and occur at various locations making plug-in receptacles impractical. Therefore, this is not a feasible measure. At present, the availability/feasibility of requiring idling restrictions on terminal equipment and its effect on terminal operations is unknown. The Port will review the feasibility of such measures through the TAP, and if warranted, include such measures in the next revision to the CAAP.

*Refrigerants*

The Center for Biological Diversity, NRDC and the Attorney General's Office all proposed mitigation regarding refrigerant use to further reduce GHG emissions (CBD-15, NRDC-35, AG 21-24). Currently, all new MOL vessel builds include AMP retrofits and MOL has adopted use of the refrigerant R134a, which has an ozone depletion coefficient of zero. In regards to refrigerant use, CFC refrigerants were traditionally used on ships for air conditioning systems and refrigeration of food, as well as to refrigerate cargo containers, and Halon was used in onboard fire extinguishing systems. MOL adopted R-22 (HCFC), which has a smaller ozone depletion coefficient than R-12 (CFC) on vessels launched after the late 1970s. In 2002, MOL began to use R-404A, eliminated Halon fire-extinguishing equipment in favor of carbon dioxide systems, stopped using R-12 and adopted R134a, which has an ozone depletion coefficient of zero. Additionally, according to TraPac, refrigerated containers are checked 2-3 times a day for leaks repaired immediately if a leak is detected. Due to the very high value of refrigerated containers (ranging from $20,000 to $50,000/container) shippers conduct a pre-departure inspection of all containers. In addition, the use of HFC is rapidly disappearing from use in container shipping. The Port has confirmed this with TraPac as well as APM Terminals at the Port. Inspections at the terminal are conducted frequently to ensure no loss of cargo. The literature cited in this publication (Drewry 1996) is now 11 years old and does not reflect existing operations. Therefore, the value for emission reduction of creating a new monitoring program and fee structure on International Carriers is not warranted

Offsets and Credits

As a way to reduce GHG in general, comments were received suggesting the Port purchase carbon credits and/or offsets and develop user mitigation fees (CBD-21, AG-17, 20 & 31). As discussed on in the Draft EIS/EIR, GHGs are a global issue. Unlike criteria pollutants that have mainly localized effects and therefore require local reductions, increased emissions of greenhouse gases are resulting in global effects, namely climate change, and reductions do not need to be local to reduce environmental impacts. As such, a number of organizations and companies have begun to offer voluntary carbon offset or carbon trading programs in the hopes of being "carbon neutral". Under such systems, the Port could purchase offsets, which are emission reductions elsewhere, to compensate for the greenhouse gas emissions at the Port, resulting in global GHG reductions and net neutrality for the project. Additionally, a number of carbon exchange markets, based on cap-and-trade system, have also been established. These markets are mainly based in Europe, but there is one US system, the Chicago Climate Exchange (CCX). CCX trades carbon credits among members similar to a stock market. Currently, only CCX members can buy credits on the exchange. Companies joining the exchange must first prepare a carbon inventory and then commit to reducing their aggregate emissions by a certain amount by future years. Members that reduce emissions below target levels can then sell these credits to other companies.

While the Port agrees with carbon offset programs in concept, currently, voluntary carbon offset programs are not strictly regulated and the Port cannot verify or guarantee that the credits actually

result in GHG emission reductions. There are currently no widely accepted standards on carbon offsets or credits. In a study done for Clean Air Planet (December 2006), Trexler Climate and Energy Services and found that over 30 companies offer different types of offset programs, all with different types of credits, at different prices, and largely without any type of standardized third-party verification process. While the CCX does represent a method of trading verifiable credits, the Port is not a member. As discussed in the Draft EIS/EIR, the Port is an active member of the California Climate Action Registry (CCAR). CCAR is developing a Project registry to provide high quality, verifiable offsets for its members. This registry is expected to be available within the year. The Port, through its Port-wide GHG inventory, expects to participate in this program when it is finalized.

The Port believes that, at this point in time, emission reductions will be greater by implementing on-site measures because of significant costs associated with existing clean air programs, and the concurrent benefits of reducing criteria pollutants and diesel PM which are the most critical environmental issue facing our communities. In regards to use fees or financial programs, the Port is taking primary financial and implementation responsibilities for cleaning up of the dirty trucks calling at the Port. This is estimated at a $2 billion program over the next five years. The Port is a landlord port. Through leases, the Port imposes environmental measures on the tenant based on the CAAP, the Port's Leasing Policy, and CEQA analysis. As such, environmental "fees" are a part of every new lease or renewal at the Port. While the Port is pursuing port-wide measures through the CAAP, including potential market-based solutions, these measures would be applied Port wide and not through an individual lease. Mitigation measures identified in the EIR relating to ships and terminal equipment are already considered a financial cost to the customer. While the Port may consider some level of incentive associated with certain specific activities aimed at reducing emissions port-wide, these provisions will be limited due to the need of the Port to utilize funds received by customers to maintain and upgrade of Port facilities. Such programs would be implemented through a port-wide tariff.

Intelligent Container Design and Alternative Rail Transport

One way to reduce GHG emission would be to eliminate unnecessary truck and rail trips. As such, NRDC recommended adding two measures, an Intelligent Container Design and a Green Container System (NRDC-38 & 41). While the Port supports Intelligent Container Design, such mitigation is not feasible or appropriate on a project specific level. As discussed in Section 1.1.2 of the Draft EIS/EIR, there are a number of entities involved in the goods movement chain. TraPac is a terminal operator and is responsible for unloading and loading cargo, accepting truck visits and storing containers. TraPac does not own the containers it handles. Containers are owned by the shipping line and/or manufacturers. Additionally, as discussed in Chapter 1, containerization is a standardized shipping method. Changing container design would effect the global goods movement chain. Such changes are better implemented on a regional basis through a larger governing body, like the State, or directly through shipping consortiums. Due to the complexity and cost of implementing new low-emission technologies, such as rail electrification, development and implementation of these technologies are best handled on the Port-wide basis. The CAAP's Technology Advancement Program is a process to achieve this objective. In addition to evaluating zero-emission container handling systems (POLA, POLB, and Cambridge Systematics 2007), the Port is conducting a demonstration project with the SCAQMD to test the feasibility of an electric tow-tractor for use in hauling containers between the Port and local warehouses and rail yards. As stated in Mitigation Measure AQ-17, the opportunity exists to require such technologies if the tenant proposed a lease amendment or facility modification.

# Biological Resources

As discussed in Section 3.3 of the Draft EIS/EIR, there would be one significant and unavoidable impact to Biological Resources as a result of the proposed Project.

## Impact BIO-4c

Operation of the new, proposed facilities in the West Basin has a low potential to introduce non-native species into the Harbor that could substantially disrupt local biological communities The amount of ballast water discharged into the West Basin and, thus, the potential for introduction of invasive exotic species (Port 1999) could increase since more and larger container ships would use the Port as a result of the proposed Project.

### Finding

No feasible mitigation is currently available to totally prevent introduction of invasive species via vessel hulls or even ballast water, due to the lack of a proven technology. New technologies are being explored, and if methods become available in the future, they would be implemented as required at that time. No comments were received during public review suggesting mitigation or alternatives to reduce this significant unavoidable impact. The Board hereby finds that specific technological considerations make infeasible additional mitigation measures or project alternatives, which would reduce these impacts to less-than-significant levels, as explained below.

### Rationale for Finding

While unlikely, operation of the proposed Project facilities has the potential to result in the introduction of non-native species into the Harbor via ballast water or vessel hulls and thus could substantially disrupt local biological communities. Impacts would, therefore, be significant under CEQA. Vessels would come primarily from outside the EEZ and would be subject to regulations to minimize the introduction of non-native species in ballast water as described in Section 3.3.3.8. In addition, container ships coming into the Port loaded would be taking on local water while unloading and discharging when reloading. This would also diminish the opportunity for discharge of non-native species. Thus, ballast water discharges during cargo transfers in the Port would be unlikely to contain non-native species but is still a possibility.

Non-native algal species can also be introduced via vessel hulls. The California State Lands Commission has issued a report on commercial vessel fouling in California (Takat, Falkner and Gilmore, April 2006). The Commission recommended that the state legislature broaden the state's program and adopt regulations to prevent non-indigenous species introductions by ship fouling. Of particular concern is the introduction of an alga, *Caulerpa taxifolia*. As discussed in Section 3.3.2.7, this species is most likely introduced from disposal of aquarium plants and water and is spread by fragmentation rather than from ship hulls or ballast water; therefore, risk of introduction is associated with movement of plant fragments from infected to uninfected areas by activities such as dredging and/or anchoring. The Port conducts surveys, consistent with the Caulerpa Control Protocol (NMFS and CDFG 2006) prior to every water related construction project to verify that Caulerpa is not present. This species has not been detected in the Harbors (MEC and Associates 2002) and has been eradicated from known localized areas of occurrence in southern California (http://swr.nmfs.noaa.gov/hcd/caulerpa/factsheet203.htm); therefore, there is little potential for additional vessel operations from the proposed Project to introduce the species. *Undaria pinnatifida*, which was discovered in the Los Angeles/Long Beach Harbors in 2000 (MEC and Associates 2002),

may be introduced and/or spread as a result of hull fouling or ballast water, and therefore has the potential to increase in the Harbor via vessels traveling between ports within the EEZ. Invertebrates that attach to vessel hulls could also be introduced in a similar manner.

The new facilities in the West Basin would result in a small increase (88 vessels per year for CEQA and 84 per year for NEPA, or approximately 3 percent) in vessel traffic compared to the total number of vessels entering the Port (approximately 2,800). Considering, the small discharge of non local water from container ships (see above) and the ballast water regulations currently in effect, the potential for introduction of additional exotic species via ballast water would be low from vessels entering from outside the EEZ. The potential for introduction of exotic species via vessel hulls would be increased in proportion to the increase in number of vessels. However, vessel hulls are generally coated with antifouling paints and cleaned at intervals to reduce the frictional drag from growths of organisms on the hull (Global Security 2007b), which would reduce the potential for transport of exotic species. For these reasons, the proposed Project has a low potential to increase the introduction of non-native species into the Harbor that could substantially disrupt local biological communities, but such effects still occur.

# Geology

As discussed in Section 3.5 of the Draft EIS/EIR, there would be four significant impacts to geology as a result of the proposed Project relating to ground shaking**.** As there is no known measure to eliminate the potential effects of ground shaking in an earthquake-prone area, these impacts remain significant and unavoidable.

## Impact Geo-1a

Seismic activity along the Palos Verdes Fault Zone, or other regional faults, could produce fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure that would expose people and structures to substantial risk during the construction period (through 2025).

### Finding

Design and construction in accordance with applicable laws and regulations pertaining to seismically induced ground movement would minimize structural damage in the event of an earthquake. However, increased exposure of people and property during construction to seismic hazards from a major or great earthquake cannot be precluded even with incorporation of modern construction engineering and safety standards. Therefore, impacts due to seismically induced ground failure would remain significant and unavoidable. No comments were received during public review suggesting mitigation or alternatives to reduce this significant unavoidable impact. The Board hereby finds that specific technological considerations make infeasible additional mitigation measures or project alternatives which would reduce these impacts to less-than-significant levels, as explained below.

### Rationale for Finding

Seismic activity along the Palos Verdes Fault Zone, or other regional faults, could produce fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure. Seismic hazards are common to the Los Angeles region and are not increased by the proposed Project. However, because the proposed Project area is potentially underlain by strands of the active Palos

Verdes Fault and liquefaction-prone hydraulic fill, there is a substantial risk of seismic impacts. Seismic upgrades would be completed on existing wharves, resulting in beneficial impacts. However, because construction of new wharves, buildings, and related infrastructure would occur over an extended period (through 2025), increased exposure of people and property during construction to seismic hazards from a major or great earthquake cannot be precluded, even with incorporation of modern construction engineering and safety standards. Therefore, impacts due to seismically induced ground failure are significant and unavoidable under CEQA.

## Impact Geo-2a

Construction on the proposed Project within the Port area would expose people and structures to substantial risk involving tsunamis or seiches.

### Finding

Emergency planning and coordination between the Terminal operator and Port, as outlined in Mitigation Measure GEO-1, would contribute in reducing injuries to on-site personnel during a tsunami. However, even with incorporation of emergency planning and construction in accordance with current City and State regulations, substantial damage and/or injury would occur in the event of a tsunami or seiche. While MM Geo-1 would reduce potential impacts, impacts remain significant and unavoidable. . Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that lessen the significant environmental effect identified in the final EIR. Incorporation of this mitigation measures, however, would not reduce construction geological impacts below the level of significance. Specific technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

> ***GEO-1: Emergency Response Planning***. *The Terminal operator shall work with Port engineers and Port police to develop tsunami response training and procedures to assure that construction and operations personnel will 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.*

### Rationale for Finding

Designing new facilities based on existing building codes may not prevent substantial damage to structures from coastal flooding. In addition, projects in construction phases are especially susceptible to damage due to temporary conditions, such as unfinished structures, which are typically not in a condition to withstand coastal flooding. Impacts due to tsunamis and seiches are typical for the entire California coastline and would not be increased by construction of the proposed Project. However, because the proposed Project elevation is located within 10 to 15 feet (3 to 4.6 m) above MLLW, there is a substantial risk of coastal flooding due to tsunamis and seiches. As a result, impacts during the construction phase would be significant and unavoidable under CEQA. No comments were received during public review suggesting mitigation or alternatives to reduce this significant unavoidable impact.

## Impact Geo-1b

Seismic activity along the Palos Verdes Fault Zone, or other regional faults, could produce fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure that would expose people and structures to substantial risk during the operations period (through 2038).

### Finding

There are no mitigation measures available that would reduce impacts below significance associated with seismically induced ground failure. Design and construction in accordance with applicable laws and regulations pertaining to seismically induced ground movement would minimize structural damage in the event of an earthquake. However, increased exposure of people and property during operations to seismic hazards from a major or great earthquake cannot be precluded even with incorporation of modern construction engineering and safety standards. Therefore, impacts due to seismically induced ground failure would remain significant and unavoidable. No comments were received during public review suggesting mitigation or alternatives to reduce this significant unavoidable impact. The Board hereby finds specific technological considerations make infeasible additional mitigation measures or project alternatives which would reduce these impacts to less-than-significant levels, as explained below.

### Rationale for Finding

Seismic activity along the Palos Verdes Fault Zone, or other regional faults, could produce fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure. Seismic hazards are common to the Los Angeles region and are not increased by the proposed Project. However, because the proposed Project area is potentially underlain by strands of the active Palos Verdes Fault and liquefaction-prone hydraulic fill, there is a substantial risk of seismic impacts. Increased exposure of people and property during operations to seismic hazards from a major or great earthquake cannot be precluded, even with incorporation of modern construction engineering and safety standards. Therefore, impacts due to seismically induced ground failure are significant and unavoidable under CEQA.

## Impact Geo-2b

Proposed Project operations within the Port area would expose people and structures to substantial risk involving tsunamis or seiches. Local or distant seismic activity and/or offshore landslides could result in the occurrence of tsunamis or seiches within the proposed Project area and vicinity

### Finding

Emergency planning and coordination between the Terminal operator and Port, as outlined in Mitigation Measure GEO-1, would contribute in reducing injuries to on-site personnel during a tsunami. However, even with incorporation of emergency planning and construction in accordance with current City and State regulations, substantial damage and/or injury could occur in the event of a tsunami or seiche. While MM Geo-1 would reduce impacts, impacts remain significant and unavoidable. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that lessen the significant environmental effect identified in the final EIR. Incorporation of this mitigation measure, however, would not reduce construction geological impacts below the level of significance. Specific technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

***GEO-1: Emergency Response Planning***. *The Terminal operator shall work with Port engineers and Port police to develop tsunami response training and procedures to assure that construction and operations personnel will 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.*

### Rationale for Finding

Designing new facilities based on existing building codes may not prevent substantial damage to structures from coastal flooding. Impacts due to seismically induced tsunamis and seiches are typical for the entire California coastline and would not be increased by construction of the proposed Project. However, because the proposed Project elevation is located within 10 to 15 feet (3 to 4.6 m) above MLLW, there is a substantial risk of coastal flooding due to tsunamis and seiches. As described above, impacts from the theoretical maximum worst-case wave action would be significant and unavoidable for the site under CEQA. No comments were received during public review suggesting mitigation or alternatives to reduce this significant unavoidable impact.

## Noise

As discussed in Section 3.9 of the Draft EIS/EIR, there would be one significant impact in regards to Noise as a result of the proposed Project during construction. This impact will be significant and unavoidable.

### Impact NOI-1

Construction activities during Phase I and Phase II would temporarily and periodically generate noise, and noise levels during Phase I would substantially exceed existing ambient daytime noise levels at sensitive receivers near the new Pier A rail yard and along "C" Street during construction of the Buffer Area.

### Finding

Considering the distances between the construction noise sources and receivers, the standard controls, and temporary noise barriers may not be sufficient to reduce the projected increase in the ambient noise level to the point where it would no longer cause a substantial increase. With implementation of these measures, construction equipment noise levels generated at the buffer area and rail yard sites could substantially exceed existing ambient noise levels. Thus, impacts to "C" Street residents resulting from buffer construction, as well as impacts to marina residents from construction of the Pier A rail yard, will remain significant even after mitigation. While MM NOI-1 would reduce potential impacts, impacts remain significant and unavoidable. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that lessen the significant environmental effect identified in the final EIR. Incorporation of this mitigation measure, however, would not reduce noise impacts during construction impacts below the level of significance. Specific technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

***NOI-1:*** *The following mitigation measures would reduce impact of noise from construction activities:*

a) ***Construction Hours.*** *Limit construction to the hours of 7:00 AM to 9:00 PM on weekdays, between 8:00 AM and 6:00 PM on Saturdays, and prohibit construction equipment noise anytime on Sundays and holidays as prescribed in the City of Los Angeles Noise Ordinance.*

b) ***Construction Days.*** *Do not conduct noise-generating construction activities on weekends or holidays unless critical to a particular activity (e.g., concrete work).*

c) ***Temporary Noise Barriers.*** *When construction is occurring within 500 feet of a residence or park, temporary noise barriers (solid fences or curtains) shall be located between noise-generating construction activities and sensitive receptors.*

d) ***Construction Equipment.*** *Properly muffle and maintain all construction equipment powered by internal combustion engines.*

e) ***Idling Prohibitions.*** *Prohibit unnecessary idling of internal combustion engines near noise sensitive areas.*

f) ***Equipment Location.*** *Locate all stationary noise-generating construction equipment, such as air compressors and portable power generators, as far as practical from existing noise sensitive land uses.*

g) ***Quiet Equipment Selection.*** *Select quiet construction equipment whenever possible. Comply where feasible with noise limits established in the City of Los Angeles Noise Ordinance.*

h) ***Notification.*** *Notify residents adjacent to the proposed Project site of the construction schedule in writing.*

i) ***Reporting.*** *The Port shall clearly post the telephone number where complaints regarding construction related disturbances can be reported and proper steps taken to determine the source of the complaint and a remedy.*

## Rationale for Finding

The construction activities at the Harry Bridges Buffer Area would cause temporary and periodic noise levels substantially above existing ambient noise levels in the Wilmington neighborhood north of "C" Street, resulting in a significant impact. The construction activities at the proposed Pier A rail yard near the Berth 200-202 Marinas would generate construction noise levels that would cause temporary and periodic noise levels substantially above existing ambient noise levels in nearby marinas where people live, resulting in a significant impact. These significant impacts would be short-term. Construction activities would typically last more than 10 days in any 3-month period for all of the construction activities listed in Tables 3.9-6, 3.9-7, and 3.9-8. Following the thresholds for significance, an impact would be considered significant if noise from these construction activities would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use.

The proposed Project would include construction of a buffer area between Harry Bridges Boulevard and "C" Street. Construction equipment required for this project element would include but not be limited to dozers, loaders, backhoes, trucks, graders, compactors and trenchers. Construction activities would be occurring as close as within approximately 50-75 feet of residences along "C" Street. Typically, construction activities would be occurring within distances of between 50 and 200 feet of these residences. Maximum noise levels would intermittently reach 80-90 dBA and average noise levels would reach 88 dBA $L_{eq}$, the levels shown in the tables above at the reference distances. On a worst case day, when construction in the buffer area is immediately adjacent to a residence, the CNEL could be up to 86 dBA CNEL. It should be noted that pile driving, which is included for information purposes, is the noisiest individual source of construction noise and would not occur as part of buffer construction. Construction noise levels would exceed ambient noise levels discussed in

the preceding paragraph by 5 dBA or more. This would occur intermittently and would depend upon the staging of the work as the buffer construction proceeds. Construction activities in the buffer area will be located at an even greater distance from the residences in San Pedro than the Harry Bridges Boulevard construction activities, so as discussed in the previous paragraph, these construction activities would not exceed ambient noise levels in other sensitive neighborhoods and would cause a less-than-significant impact there.

The next nearest construction area to the Wilmington neighborhoods would be located in the Northwest Slip. Northwest Slip construction activities are proposed to take place during Phase II between the years 2015 and 2025. Riprap placement and dredging would occur at a distance of approximately 1,500 feet from the closest Wilmington neighborhoods along "C" Street. Maximum hourly average noise level would intermittently reach 54-59 dBA $L_{eq(h)}$. The calculated construction-generated CNEL from these construction activities would be 52-57 dBA CNEL. Noise from the construction activities occurring at the closest point to the neighbors in the Northwest Slip would not exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use. Pile driving would occur during wharf construction in the Northwest Slip. Wharf construction with pile driving is the noisiest construction activity that would occur. Pile driving would occur at a distance of approximately 2,100 feet from the nearest noise sensitive residence along "C" Street. Hourly average noise levels from pile driving and wharf construction, based on calculated noise levels and actual measured noise levels during wharf construction including pile driving, are estimated to range from 90-95 dBA $L_{eq(h)}$ at a distance of 100 feet. Hourly average noise levels are calculated to range from 58-62 dBA $L_{eq(h)}$ at the nearest residences, located along "C' Street in the Wilmington District. Assuming continuous pile driving during the daytime hours, as previously discussed for other construction activities, the CNEL is calculated to range from 56-60 dBA CNEL. Noise from wharf construction would not exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use. This is a less-than-significant impact. Other construction activities that would be necessary to implement the proposed Project include backland development at Berths 136-147, wharf demolition and wharf construction at Berths 145-147, rip rap placement and dredging at Berths 145-147, and construction of the intermodal container transfer facility. A review of the data in Table 3.9-6 shows that source construction noise levels are similar to and fall within the range of construction noise levels assessed in the previous paragraphs. These construction activities would all occur at locations at distances equivalent to or greater than the distances between the construction activities discussed in the previous paragraphs. Predicted construction noise levels would, therefore, be less than the construction noise levels assessed and found to be less than significant for worst case construction activities discussed in previous paragraphs. Construction activities for the balance of all work necessary to implement the proposed Project would, therefore, cause a less-than-significant impact at noise sensitive receiver locations.

The Pier A rail yard would be moved to a new location northeast of the TraPac Terminal near the Berth 200-202 Marinas. The new rail yard would be constructed within 5 months after a 1-month mobilization period. It would take 3 months for utilities (drainage system, electricity, water, gas, sewer, and lighting) to be provided to the site. It would take 5 months to prepare the site and lay tracks. Sources of construction noise that are unique to railroad yard construction include a rail saw, spike driver, tie cutter, tie handler, and tie inserter. Otherwise, general construction equipment would be the same. Typical A-weighted noise levels resulting from this additional equipment typically ranges from about 77 to 90 dBA, measured at a distance of 50 feet (USDOT 1995). The (total) source noise level would be 89 dBA $L_{eq(h)}$ at 100 feet from the construction activity. Sensitive receivers near the rail yard include live-aboards located in marinas across the channel from the new rail yard site. Residents in the Wilmington and San Pedro neighborhoods are located more than 3,000 feet from this construction area and would not be affected by construction noise because the noise would be inaudible at this distance. Construction activities would be located within approximately 500 to 800 feet of the nearest noise sensitive marina areas. Hourly average noise levels could reach 70dBA $L_{eq(h)}$ during busy construction

periods. The CNEL could reach 68 dBA CNEL. Existing baseline noise levels in the marinas range from about 50 to 60 dBA $L_{eq(h)}$ during the daytime and the baseline CNEL is 61 dBA CNEL. During construction at the new Pier A rail yard, construction activities lasting more than 10 days in a 3-month period would exceed existing ambient exterior noise levels by 5 dBA or more. This is a significant impact.

One comment was received during public review suggesting mitigation or alternatives to reduce this significant unavoidable impact (CSE(B)-31 Attachment 1) . The comment proposed including a noise complaint hotline for residents to call. This proposal has been incorporated into the Project in the form of Mitigation Measure NOI-1(i), identified above.

## Transportation and Circulation

As discussed in Section 3.10 of the Draft EIS/EIR, there would be one significant impact to Transportation and Circulation as a result of the proposed Project during operation. This impact remains significant and unavoidable.

### Impact Trans-5

Proposed Project operations would cause an increase in rail activity, causing delays in regional traffic.

#### Finding

There would be a significant, unavoidable transportation/ circulation impact at the Henry Ford Avenue and Avalon Boulevard grade crossings as a result of the proposed Project. No mitigation is available to reduce this impact. No comments were received during public review suggesting mitigation or alternatives to reduce this significant unavoidable impact. The Board hereby finds that specific technological considerations make infeasible additional mitigation measures or project alternatives which would reduce these impacts to less-than-significant levels, as explained below.

#### Rationale for Finding

Rail activity causes delay at crossings where the trains pass and cause auto and truck traffic to stop. The amount of delay is related to the length of the train, the speed of the train and the amount of auto and truck traffic that is blocked. The proposed Project would cause an increase in either the number of trains or the amount of auto and truck traffic; however, the increase in auto and truck traffic would only affect some of the at-grade crossings. In the case of this proposed Project, the affected at-grade crossings are at Avalon Boulevard and Henry Ford Avenue. Although proposed Project operations alone would not result in an additional train during the peak hour on a regular basis, it is possible that the cumulative development of the West Basin (Berths 97-109, Berths 121-131, Berths 136-147) may together result in an added train during the peak hour. Therefore, it is assumed that one additional train would occur during the peak hour. This is a very conservative analysis methodology since the proposed Project itself would not regularly result in a full train added during the peak hour.

An additional train would result in additional vehicle delay at the two crossing locations. Vehicular traffic must stop at these crossings and wait while the trains pass by, and the duration of the traffic delay is dependent upon the speed and length of the train. For example, a typical train in the Port is a 28-car

train and is approximately 8,760 feet long and travels at an average speed of about 14 km per hour (9 miles per hour) outside the port. Assuming that the automatic gates at each crossing would close 28 seconds prior to the arrival of a train and that they would open 8 seconds after the train clears the crossing, each train passage would block a given street for 11.7 minutes. These assumptions are based on typical train lengths and speeds that occur in the Port.

The severity of impact created by a train blockage depends upon the time of day that the blockage occurs and, correspondingly, the volume of traffic that is affected by the blockage. For example, if a blockage occurs during the peak periods of traffic flow, the resulting delays and the number of stopped vehicles would be greater than if the blockage occurred at a non-peak time. Also, the total amount of delay would be greater at locations with high traffic volumes as compared to low-volume locations because the train crossing would stop more vehicles. There are no adopted or standard guidelines for determining whether an impact due to rail blockage of a roadway is significant. In the case of the proposed Project, the two at-grade crossings are located on relatively low-volume minor arterial roadways, which serve primarily port traffic. As discussed in the Draft EIS/EIR, the delay calculations were performed at crossings at Avalon Boulevard and Henry Ford Avenue. The results indicate that the added average vehicle delay would range up to a maximum of 91 seconds per vehicle at Henry Ford Avenue with the proposed Project. Based on the threshold of significance of 55 seconds of average vehicle delay, the proposed Project would have a significant impact at both locations.

## Water Quality

As discussed in Section 3.13 of the Draft EIS/EIR, there would be one significant impact to Water Quality as a result of the proposed Project during operation. This impact remains significant and unavoidable.

### Impact WQ-1e

Operation of proposed Project facilities could create pollution, contamination, or a nuisance as defined in Section 13050 of the CWC or cause regulatory standards to be violated in harbor waters because there is potential for an increase in incidental spills and illegal discharges due to increased vessel calls at the facility. Leaching of contaminants such as copper, from anti-fouling paint could also cause increased loading in the harbor which is listed as impaired with respect to copper.

#### Finding

Residual impacts for upland spills and stormwater would be less than significant. There will be a significant unavoidable impact from in-water vessel spills, illegal discharges and leaching of contaminants. Although the impact from upland spills and stormwater is less than significant, the following measures are included in the proposed Project as conditions of approval and are subject to monitoring provisions for enforcement and compliance purposes. Beyond legal requirements, there are no available mitigations to eliminate in-water vessel spills and leaching of contaminants. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce impacts to water quality below significance. Specific legal and technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

***MM WQ-2 (Condition of Approval)****: The tenant shall conform to applicable requirements of the Non-Point Source (NPS) Pollution Control Program. The tenant shall design all terminal facilities whose operations could result in the accidental release of toxic or hazardous substances (including sewage and liquid waste facilities, solid and hazardous waste disposal facilities) in accordance with the state Non-Point Source Pollution Control Program administered by the State Water Resources Control Board (SWRCB). As a performance standard, the measures shall be selected and implemented using the Best Available Technology that is economically achievable such that, at a minimum, relevant water quality criteria as outlined by the California Toxics Rule and the Basin Plan are maintained, or in cases where ambient water quality exceeds these criteria, maintained at or below ambient levels. The applicable measures include:*

- *Solid Waste Control - Properly dispose of solid wastes to limit entry of these wastes to surface waters.*
- *Liquid Material Control - Provide and maintain the appropriate storage, transfer, containment, and disposal facilities for liquid materials.*
- *Petroleum Control - Reduce the amount of fuel and oil that leaks from container and support vessels.*

***MM WQ-3(Condition of Approval):*** *The tenant shall develop an approved Source Control Program with the intent of preventing and remediating accidental fuel releases. Prior to their construction, the tenant shall develop an approved Source Control Program (SCP) in accordance with Port guidelines established in the General Marine Oil Terminal Lease Renewal Program. The SCP shall address immediate leak detection, tank inspection, and tank repair.*
*As a condition of their lease, the tenant will be required to submit to the Port an annual compliance/performance audit in conformance with the Port's standard compliance plan audit procedures. This audit will identify compliance with regulations and BMPs recommended and implemented to ensure minimizing of spills that might affect water quality, or soil and groundwater.*

## Rationale for Finding

Upland operations associated with the proposed Project would not result in direct discharges of wastes. However, stormwater runoff from the project site could contain particulate debris from operation of the project facilities. Discharges of stormwater would comply with the NPDES discharge permit limits. However, there is potential for an increase in incidental spills and illegal discharges due to increased vessel calls at the facility. Leaching of contaminants such as copper, from anti-fouling paint could also cause increased loading in the harbor which is listed as impaired with respect to copper. Therefore, the impact to water quality from in-water vessel spills, discharges and leaching is significant under CEQA.

Operation of the proposed Project facilities would not involve any direct point source discharges of wastes or wastewaters to the harbor. However, stormwater runoff from the Project site would be collected onsite by the storm drain system and discharged to the harbor, similar to existing conditions. Transport of these materials by runoff from the site could contribute incrementally to changes in receiving water quality. However, the facilities associated with the proposed Project would be operated in accordance with the industrial SWPPP that contains monitoring requirements to ensure that the quality of the stormwater runoff complies with the permit conditions. Also, stormwater runoff associated with terminal operations would be governed by SUSMP requirements that would be incorporated into the project plan that must be approved prior to issuance of building and grading permits. The SUSMP for the Los Angeles County

Urban Runoff and Stormwater NPDES Permit (www.swrcb.ca.gov/rwqcb4/html/programs/storwater/susmp/susmp_details.html) requires "minimization of the pollutants of concern" by incorporating "a BMP or combination of BMPs best suited to maximize the reduction of pollutant loadings in that runoff to the maximum extent possible." Examples of BMPs used for minimizing the introduction of pollutants of concern from site runoff include oil/water separators, catch basin inserts, storm drain inserts, and media filtration. These BMPs must meet specified design standards to mitigate (infiltrate or treat) stormwater runoff and control peak flow discharges. If structural or treatment control BMPs are included in the project plan, the tenant would be required to provide verification of maintenance provisions. Regulatory controls for runoff and storm drain discharges are designed to reduce impacts to water quality and would be fully implemented for the proposed Project. Tenants will be required to obtain and meet all conditions of applicable stormwater discharge permits as well as meet all Port pollution control requirements.

The amount of vessel traffic in the West Basin would increase by 88 and 84 annual ship calls (for Year 2025) compared to the CEQA and NEPA baselines as a result of the proposed Project. Discharges of polluted water or refuse directly to the harbor are prohibited. Discharges to the harbor of clean ballast waters are not prohibited; however, during 2006 only 13 percent of container ships discharged ballast waters while in port. Thus, the increased vessel traffic and terminal operations associated with proposed Project would not result in increased waste discharges from vessels. Project-related increases in vessel traffic could result in higher mass loadings of contaminants such as copper that are released from vessel hull anti-fouling paints. Portions of the Los Angeles Harbor are impaired with respect to copper; thus increased loadings associated with increases in vessel traffic relative to baseline conditions could exacerbate water and sediment quality conditions for copper.

The other potential operational source of pollutants that could affect water quality in the West Basin is accidental spills on land that enter storm drains and accidental spills or illegal discharges from vessels while in the West Basin. Potential releases of pollutants from a large spill on land to harbor waters and sediments would be minimized through existing regulatory controls and are unlikely to occur during the life of the proposed Project. As described in Section 3.7, activities that involve hazardous liquid bulk cargoes at the Port are governed by the Los Angeles Harbor District Risk Management Plan (RMP) (Port 1983). This plan provides for a methodology for assessing and considering risk during the siting process for facilities that handle substantial amounts of dangerous cargo, such as liquid bulk facilities. The Release Response Plan prepared in accordance with the Hazardous Material Release Response Plans and Inventory Law (California Health and Safety Code, Chapter 6.95), which is administered by the City of Los Angeles Fire Department (LAFD), also regulates hazardous material activities within the Port. For the proposed Project, the contractor would prepare a SPCC Plan and an Oil Spill Contingency Plan (OSCP), which would be reviewed and approved by the California Department of Fish and Game Office of Spill Prevention and Response, in consultation with other responsible agencies. The SPCC Plan would detail and implement spill prevention and control measures to prevent oil spills from reaching navigable waters. The OSCP would identify and plan as necessary for contingency measures that would minimize damage to water quality and provide for restoration to pre-spill conditions. The increased number of ship calls associated with the proposed Project could contribute to a comparatively higher number of spills compared to baseline conditions. Accidental spills of petroleum hydrocarbons, hazardous materials, and other pollutants from proposed Project-related operations are expected to be limited to small volume releases because large quantities of those substances are unlikely to be used, transported, or stored on the site. Regardless, any spill event would be addressed according to procedures described in the SPCC Plan.

The number or severity of illegal discharges, and corresponding changes to water and sediment quality, from increased vessel traffic cannot be quantified because the rate and chemical composition of illegal discharges from commercial vessels are unknown. It is reasonable to assume that increases in the

frequency of illegal discharges would be proportional to the change in numbers of ship visits. In this case, loadings from illegal discharges from the proposed Project operations would increase over baseline conditions. However, there is no evidence that illegal discharges from ships presently are causing widespread problems in the harbor. Over several decades, there has been an improvement in water quality despite an overall increase in ship traffic. In addition, the Port Police are authorized to cite any vessel that is in violation of Port tariffs, including illegal discharges.

# Cumulatively Considerable Impacts

The State CEQA Guidelines (Section 15130) require an analysis of the project's contribution to significant and unavoidable cumulative impacts. Cumulative impacts include "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (State CEQA Guidelines, Section 15355).

The discussion below identifies cumulatively significant and unavoidable impacts. The Board has determined that certain proposed mitigation measures and/or alternatives that may reduce these impacts below significance are infeasible in light of specific economic, legal, social, technological, and other considerations and, therefore, have not been incorporated into the Project. The evidence of such infeasibility is explained below.

## Air Quality

### Cumulative Impact AQ-1

As a result of the proposed Project, there is a potential for construction to produce a cumulatively considerable increase of a criteria pollutant for which the Project region is in non-attainment under a National or State ambient air quality standard.

### Finding

Mitigated construction emissions under CEQA would exceed the (1) VOC, $NO_x$, $SO_x$, $PM_{10}$, and $PM_{2.5}$ SCAQMD emission thresholds during Phase 1 and (2) $NO_x$ and $PM_{2.5}$ SCAQMD emission thresholds during Phase 2. As a result, mitigated proposed Project construction emissions under CEQA would produce cumulatively considerable and unavoidable contributions to (1) $O_3$, $SO_2$, $PM_{10}$, and $PM_{2.5}$ pollutant levels during Phase 1 and (2) $O_3$ and $PM_{2.5}$ levels during Phase 2. Mitigation Measures identified Impact AQ-1 and Impact AQ-2 (page 35 and 41 respectively) above (would reduce construction emissions but cumulative impacts would remain significant and unavoidable. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the Final EIR. Incorporation of these mitigation measures, however, would not reduce impacts to cumulative air quality below significance. Specific technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

### Rationale for Finding

Due to its substantial amount of emission sources and topographical/meteorological conditions that inhibit atmospheric dispersion, the SCAB is a "severe-17" nonattainment area for 8-hour $O_3$, a "serious" nonattainment area for both CO and $PM_{10}$, and a nonattainment area for $PM2_{.5}$ in regard to the National Ambient Air Quality Standards (NAAQS). The SCAB is in attainment of the NAAQS for $SO_2$, $NO_2$, and lead. The *2007 Air Quality Management Plan* (AQMP) predicts attainment of all NAAQS within the SCAB, including $PM_{2.5}$ by 2014 and O3 by 2020. In regard to the California Ambient Air Quality Standards (CAAQS), the SCAB is presently in "extreme" nonattainment for $O_3$, "severe" nonattainment for CO, and nonattainment for $PM_{10}$. The SCAB is in attainment of the CAAQS for $SO_2$, $NO_2$, sulfates, and lead, and is unclassified for hydrogen sulfide and visibility reducing particles. These pollutant nonattainment conditions within the project region are therefore cumulatively significant. In the time period between 2008 and 2011, a number of large construction

projects will occur at the two Ports and surrounding areas (see Table 4-1 in Chapter 4.0 of the Draft EIS/EIR) that will overlap and contribute to significant cumulative construction impacts.

### Cumulative Impact AQ-2

Cumulative Impact AQ-2 assesses the potential for proposed Project construction along with other cumulative projects to produce emissions that exceed an ambient air quality standard or substantially contribute to an existing or projected air quality standard violation

### Finding

With mitigation, impacts from Project Phase 1 construction would exceed the SCAQMD 1-hour $NO_2$ and 24-hour $PM_{10}/PM_{2.5}$ ambient thresholds. As a result, emissions from Project construction would produce cumulatively considerable and unavoidable contributions to ambient $NO_2$, $PM_{10}$, and $PM_{2.5}$ levels under CEQA and NEPA. Mitigation Measures identified in Impact AQ-1 and Impact AQ-2 (page 35 and 41 respectively) would reduce construction emissions but cumulative impacts would remain significant and unavoidable. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce impacts to cumulative air quality below significance. Specific technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

### Rationale for Finding

Due to its substantial amount of emission sources and topographical/meteorological conditions that inhibit atmospheric dispersion, the SCAB is a "severe-17" nonattainment area for 8-hour $O_3$, a "serious" nonattainment area for both CO and $PM_{10}$, and a nonattainment area for $PM2_{.5}$ in regard to the National Ambient Air Quality Standards (NAAQS). The SCAB is in attainment of the NAAQS for $SO_2$, $NO_2$, and lead. The *2007 Air Quality Management Plan* (AQMP) predicts attainment of all NAAQS within the SCAB, including $PM_{2.5}$ by 2014 and O3 by 2020. In regard to the California Ambient Air Quality Standards (CAAQS), the SCAB is presently in "extreme" nonattainment for $O_3$, "severe" nonattainment for CO, and nonattainment for $PM_{10}$. The SCAB is in attainment of the CAAQS for $SO_2$, $NO_2$, sulfates, and lead, and is unclassified for hydrogen sulfide and visibility reducing particles. These pollutant nonattainment conditions within the project region are therefore cumulatively significant. In the time period between 2008 and 2011, a number of large construction projects will occur at the two Ports and surrounding areas (see Table 4-1 in Chapter 4.0 of the Draft EIS/EIR) that will overlap and contribute to significant cumulative construction impacts.

### Cumulative Impact AQ-3

Cumulative Impact AQ-3 assesses the potential for proposed Project operation along with other cumulative projects to produce a cumulatively considerable increase in criteria pollutant emissions for which the project region is in nonattainment under a national or state ambient air quality standard.

### Finding

During an average or peak day of activity under CEQA, mitigated Project operations would produce emissions that exceed all SCAQMD daily thresholds in 2007 and remain below all thresholds in 2015 and thereafter. Any concurrent emissions-generating activity that occurs in the vicinity of the Project

site would add additional air emission burdens to these significant levels. As a result, emissions from Project operations under CEQA would produce cumulatively considerable and unavoidable contributions to $O_3$, CO, $SO_2$, $PM_{10}$, or $PM_{2.5}$ pollutant levels during all Project years. Mitigation Measures identified in Impact AQ-3 (page 47) would reduce operational emissions but cumulative impacts would remain significant and unavoidable. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the Final EIR. Incorporation of these mitigation measures, however, would not reduce impacts to cumulative air quality below significance. Specific technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

### Rationale for Finding

Due to its substantial amount of emission sources and topographical/meteorological conditions that inhibit atmospheric dispersion, the SCAB is a "severe-17" nonattainment area for 8-hour $O_3$, a "serious" nonattainment area for both CO and $PM_{10}$, and a nonattainment area for $PM2_{.5}$ in regard to the National Ambient Air Quality Standards (NAAQS). The SCAB is in attainment of the NAAQS for $SO_2$, $NO_2$, and lead. The *2007 Air Quality Management Plan* (AQMP) predicts attainment of all NAAQS within the SCAB, including $PM_{2.5}$ by 2014 and O3 by 2020. In regard to the California Ambient Air Quality Standards (CAAQS), the SCAB is presently in "extreme" nonattainment for $O_3$, "severe" nonattainment for CO, and nonattainment for $PM_{10}$. The SCAB is in attainment of the CAAQS for $SO_2$, $NO_2$, sulfates, and lead, and is unclassified for hydrogen sulfide and visibility reducing particles. These pollutant nonattainment conditions within the project region are therefore cumulatively significant. In the time period between 2008 and 2011, a number of projects will occur at the two Ports and surrounding areas (see Table 4-1 in Chapter 4.0 of the Draft EIS/EIR) that will overlap and contribute to significant cumulative operational impacts.

### Cumulative Impact AQ-4

Cumulative Impact AQ-4 assesses the potential for proposed Project operation along with other cumulative projects to produce emissions that exceed an ambient air quality standard or substantially contribute to an existing or projected air quality standard violation

### Finding

With mitigation, impacts from Project operation would exceed the 1-hour and annual $NO_2$ and 24-hour $PM_{10}$/$PM_{2.5}$ SCAQMD ambient thresholds. As a result, emissions from Project operation would produce cumulatively considerable and unavoidable contributions to ambient $NO_2$, $PM_{10}$, and $PM_{2.5}$ levels under CEQA. Mitigation Measures identified in Impact AQ-4 (page 47) would reduce construction emissions but cumulative impacts would remain significant and unavoidable. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce impacts cumulative air quality below significance. Specific technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

### Rationale for Finding

Due to its substantial amount of emission sources and topographical/meteorological conditions that inhibit atmospheric dispersion, the SCAB is a "severe-17" nonattainment area for 8-hour $O_3$, a "serious" nonattainment area for both CO and $PM_{10}$, and a nonattainment area for $PM2_{.5}$ in regard to the National Ambient Air Quality Standards (NAAQS). The SCAB is in attainment of the NAAQS for $SO_2$, $NO_2$, and lead. The *2007 Air Quality Management Plan* (AQMP) predicts attainment of all NAAQS within the SCAB, including $PM_{2.5}$ by 2014 and O3 by 2020. In regard to the California Ambient Air Quality Standards (CAAQS), the SCAB is presently in "extreme" nonattainment for $O_3$, "severe" nonattainment for CO, and nonattainment for $PM_{10}$. The SCAB is in attainment of the CAAQS for $SO_2$, $NO_2$, sulfates, and lead, and is unclassified for hydrogen sulfide and visibility reducing particles. These pollutant nonattainment conditions within the project region are therefore cumulatively significant. In the time period between 2008 and 2011, a number of projects will occur at the two Ports and surrounding areas (see Table 4-1 in Chapter 4.0 of the Draft EIS/EIR) that will overlap and contribute to significant cumulative operational impacts.

### Cumulative Impact AQ-5

Cumulative Impact AQ-5 assesses the potential of the proposed Project operation along with other cumulative projects to create objectionable odors at the nearest sensitive receptor.

### Finding

Implementation of Project mitigations MM AQ-6 through AQ-12 would reduce odor emissions from Project operations. After mitigation, Project operations would produce cumulatively considerable and unavoidable contributions to ambient odor levels within the Project region. Mitigation Measures identified in Impact AQ-4 (page 47) would reduce construction emissions but cumulative impacts would remain significant and unavoidable. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce cumulative air quality below significance. Specific technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

### Rationale for Finding

There are temporary and semi-permanent sources of odors within the Port region, including mobile sources powered by diesel and residual fuels and stationary industrial sources, such as petroleum storage tanks. Some individuals may sense that diesel combustion emissions are objectionable in nature, although quantifying the odorous impacts of these emissions to the public is difficult. Due to the large number of sources within the Port that emit diesel emissions and the proximity of residents (sensitive receptors) adjacent to Port operations, odorous emissions in the Project region are cumulatively significant.

### Cumulative Impact AQ-6

Cumulative Impact AQ-6 assesses the potential of the proposed Project construction and operation along with other cumulative projects to produce TACs that exceed acceptable public health criteria.

### Finding

With mitigation, proposed Project construction and operational emissions of TACs would increase cancer risks as follows:

+ Relative to CEQA Baseline levels, proposed Project emissions would make a cumulatively considerable contribution to cancer risks for residential and occupational receptors in proximity to the Project terminal, although the increases from the proposed Project would not exceed 10 cases in a million.
+ Relative to No Federal Action/NEPA Baseline levels, proposed Project emissions would make a cumulatively considerable contribution to cancer risks for all types of receptors (residential, occupational, sensitive, student, and recreational). The increases from the proposed Project would exceed the 10 cases in a million risk at residential, occupational, and sensitive receptors.

With mitigation, proposed Project construction and operational emissions of TACs would increase acute non-cancer effects from the CEQA Baseline in proximity to the Project terminal. Although these increases would not exceed the 1.0 hazard index significance criterion at any receptor type, since the mitigated proposed Project construction and operation would increase acute non-cancer effects in the Project region, the proposed Project would make a cumulatively considerable and unavoidable contribution to ambient non-cancer effects under CEQA.

The contribution of the mitigated proposed Project to chronic non-cancer risk was not analyzed quantitatively, since the unmitigated proposed Project contribution to non-cancer risk would not be individually significant. However, since construction and operational emissions of TACs would increase chronic non-cancer risks (even after mitigation) and the risk is already cumulatively significant in the vicinity of the proposed Project, the proposed Project would make a cumulatively considerable and unavoidable contribution to chronic non-cancer risks.

Members of the public and organizations have requested that the Berth 136-147 Container Terminal EIS/EIR include a discussion of the potential for diesel emissions from Port operations to cause health effects to people who use the proposed Harry Bridges Buffer Area (buffer area). Creation of the buffer area would allow the public to utilize an area directly adjacent to Port operations and associated truck traffic on Harry Bridges Boulevard. The air quality analysis in section 3.2 determined that the mitigated Project would produce less than significant health impacts (cancer and acute and chronic non-cancer) to users of the buffer area. As stated above, due to emissions from Port operations and other area roadways and industries, airborne cancer and non-cancer levels within the project region are cumulatively significant. This condition also applies to the buffer area.

Levels of air pollution from both Port facilities and Port related trucks traveling along Harry Bridges Boulevard will diminish in future years with the implementation of the recently approved CAAP and current and future rules adopted by the CARB and USEPA. Specifically, DPM emissions from trucks are anticipated to diminish by approximately 80 percent over the next five years with the implementation of the CAAP. It is unknown at this time whether these future emission reductions would reduce the cumulative health impacts in the Port region to less than significant levels. However, the Port is in the process of developing a Portwide HRA that will define the cumulative health impacts of Port emissions in proximity to the Port and in particular the buffer area.

An alternative to avoiding significant cumulative health effects to users of the buffer area would be a buffer area design that prohibits public access to the area. Constructing the buffer area is consistent with the Harbor-Wilmington Community Plan and helps to physically separate sensitive receptors in the Wilmington community, including residential areas and schools, from Harry Bridges Boulevard and Port facilities

Mitigation Measures identified in Impact AQ-6 (page 58) would reduce construction emissions but cumulative impacts would remain significant and unavoidable. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce impacts to cumulative air quality below significance. Specific technological considerations make infeasible additional mitigation measures or project alternatives.

### Rationale for Finding

The *Multiple Air Toxics Exposure Study* (MATES-II) conducted by the South Coast Air Quality Management District in 2000 estimated the existing cancer risk from toxic air contaminants in the South Coast Air Basin to be 1,400 in a million (SCAQMD 2000). In the *Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach*, the CARB estimates that elevated levels of cancer risks due to operational emissions from the Ports of Los Angeles and Long Beach occur within and in proximity to the two Ports (CARB 2006). Based on this information, airborne cancer and non-cancer levels within the project region are therefore cumulatively significant.

The Port has approved port-wide air pollution control measures through their San Pedro Bay Ports Clean Air Action Plan (CAAP) (LAHD et al. 2006). Implementation of these measures will reduce the health risk impacts from the Project and future projects at the Port. Currently adopted regulations and future rules proposed by the ARB and USEPA also will further reduce air emissions and associated cumulative health impacts from Port operations. However, because future proposed measures (other than CAAP measures) and rules have not been adopted, they have not been accounted for in the emission calculations or health risk assessment for the Project. Therefore, it is unknown at this time how these future measures would reduce cumulative health risk impacts within the Port project area.

### Cumulative Impact AQ-8

Cumulative Impact AQ-8 represents the potential of the proposed Project along with other cumulative projects to contribute to global climate change.

### Finding

With mitigation, the Project would produce higher GHG emissions in each future project year, compared to baseline levels. As a result, emissions from Project construction and operation would produce significant and unavoidable cumulative GHG emissions. Mitigation Measures identified Impact AQ-8 (page 68) would reduce construction and operational emissions but cumulative impacts would remain significant and unavoidable. Therefore, the Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce impacts to air quality below significance. Specific technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

### Rationale for Finding

The cumulative increase in GHG concentrations in the atmosphere has resulted in and will continue to result in increases in global average temperature and associated shifts in climatic and environmental conditions. Multiple adverse environmental effects are attributable to global climate change, such as sea level rise, increased incidence and intensity of severe weather events (e.g., heavy rainfall, droughts), shrinking glaciers, thawing permafrost, shifts in plant and animal ranges, and extirpation or extinction of plant and wildlife species. These and other effects would have environmental, economic, and social consequences on a global scale. Given the significant adverse environmental effects linked to global climate change induced by GHGs, the emission of GHGs is considered a significant cumulative impact. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (California Energy Commission 2006a). Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth.

### Cumulative Impact BIO-4

Cumulative Impact BIO-4 represents the potential of the proposed Project along with other projects to cause a cumulatively substantial disruption of local biological communities (e.g., from the introduction of noise, light, or invasive species).

### Finding

No mitigation measures are currently feasible, and residual cumulative impacts of the proposed Project would be considerable under CEQA. The Board hereby finds that specific technological considerations make infeasible additional mitigation measures or project alternatives which would reduce these impacts to less-than-significant levels, as explained below.

### Rationale for Finding

*Dredging and Wharf Work*. Construction of past projects in the Harbor has involved in-water disturbances such as dredging and wharf construction that removed surface layers of soft bottom habitat as well as temporarily removed or permanently added hard substrate habitat (e.g., piles and rocky dikes). These disturbances altered the benthic habitats present at the location of the specific projects, but effects on benthic communities were localized and of short duration as invertebrates recolonized the habitats. Because these activities affected a small portion of the Harbor at a time and recovery has occurred or is in progress, biological communities in the Harbor have not been degraded. Similar construction activities (e.g., wharf construction/reconstruction and dredging) would occur for these cumulative projects that are currently under way and for some of those that would be constructed in the future: San Pedro Waterfront (#3), Channel Deepening (#4), Cabrillo Way Marine (#5), Evergreen Improvements (#7), Pier 400 Oil Marine Terminal (#11), Berths 97-109 (#15), Berths 212-214 (#25), Berths 121-131 (#29), Middle Harbor Terminal Redevelopment (#66), Piers G & J (#67), Pier T (#70), Pier S (#71), and Sound Energy Solutions (#73). Because recolonization of dredged areas and new riprap and piles begins immediately and provides a food source for other species, such as fish, within a short time, multiple projects spread over time and space within the Harbor would not substantially disrupt benthic communities. Construction disturbances at specific locations in the water and at different times that are caused by the cumulative projects, which can cause fish and marine mammals to avoid the work area, are not expected to substantially alter the distribution and abundance of these

organisms in the Harbor and thus would not substantially disrupt biological communities. Turbidity that results from in-water construction activities occurs in the immediate vicinity of the work and lasts just during the activities that disturb bottom sediments. Effects on marine biota are thus localized to relatively small areas of the harbor and of limited duration for each project. Those projects that are occurring at the same time but which are not in close proximity would thus not have additive effects.

Furthermore, based on biological baseline studies described in Section 3.3, the benthic marine resources of the Harbor have not declined during Port development activities occurring since the late 1970s. The biological baseline conducted by MEC (2002) identified healthy benthic communities in the Outer Harbor despite major dredging and filling activities associated with the Port's Deep Draft Navigation Project (USACE and LAHD 1992). However, between 2002 and 2005, the USACE and the Port dredged most of the Inner Harbor channels and basins from -45 ft to -53 ft (Channel Deepening Project, #4). In addition, additional Channel Deepening dredging may be occurring in 2008 around selected berths in the West Basin. While these activities do not overlap physically with the Berth 136-147 dredging, they are adjacent and the aerial extent of this activity includes a large portion of the Inner Harbor including the East Basin Channel, the Main Channel and West Basin Channel and West Basin. Recolonization of disturbed marine environments begins rapidly and is characterized by high production rates of a few colonizing species. However, establishment of a climax biological community typical of the West Basin and Inner Harbor could take from 2 to 5 years.

*Landfilling*. Landfilling has removed and would continue to remove marine habitat and to disturb adjacent habitats in the Harbor. The projects from Table 4-1 in Chapter 4.0 of the Draft EIS/EIR involving land fill construction are: Pier 400 (#1), Channel Deepening (#4), Berths 97-109 (#15), Berths 302-305 APL (#23), Middle Harbor Terminal redevelopment (#66), Piers G & J (#67), and Pier T (#70). Numerous other projects in the past (prior to those listed in Table 4-1) also included landfill construction. These included Pier 300 and the remaining terminal land areas that were not build on land that existed prior to port development. During the filling process, suspension of sediments would result in turbidity in the vicinity of the work with rapid dissipation upon completion of the fill to above the water level. Water column and soft bottom habitats are lost while riprap habitats are gained. Although the total amount of marine habitat in the Harbor has decreased, a large amount remains, and the biological communities present in the remaining Harbor habitats have not been substantially disrupted as a result of those habitat losses. All marine habitat loss impacts from landfill construction have been mitigated to insignificance through on-site (shallow water habitat construction) and off-site (Batiquitos and Bolsa Chica restorations) mitigation since implementation of the agreement with the regulatory agencies.

*Backland Construction and Operations*. Runoff from construction activities on land has reached Harbor waters at some locations during past project construction, particularly for projects implemented prior to the 1970s when environmental regulations were passed. The past projects included Pier 300, Pier J, and the remaining terminal land areas within the Los Angeles-Long Beach Harbor. Runoff also has the potential to occur during present and future projects (all projects in Table 4-1 in Chapter 4.0 of the Draft EIS/EIR because all drainage in the area containing the cumulative projects listed is ultimately to the Harbor). Construction runoff would only occur during construction activities so that projects that are not concurrent would not have cumulative effects. Construction runoff would add to ongoing runoff from operation of existing projects in the Harbor at specific project locations and only during construction activities. For past, present, and future projects, the duration and location of such runoff would vary over time. Measures such as berms, silt curtains, and sedimentation basins are used to prevent or minimize runoff from construction, and this keeps the concentration of pollutants below thresholds that could measurably affect marine biota.

Runoff from past construction projects (e.g., turbidity and any pollutants) has either dissipated shortly after construction was completed or settled to the bottom sediments. For projects more than 20 years in the past, subsequent settling of suspended sediments has covered the pollutants, or the pollutants have been removed by dredging projects. Runoff from operation of these past projects continues but is regulated. Biological baseline surveys in the Harbor (MEC 1988, MEC and Associates 2002) have not shown any disruption of biological communities resulting from runoff. Effects of runoff from construction activities and operations would not substantially disrupt local biological communities in the Harbor.

Much of the development in the Harbor has occurred and continues to occur on landfills that were constructed for that purpose. As a result, those developments did not affect terrestrial biota. Redevelopment of existing landfills to upgrade or change backland operations temporarily affected the terrestrial biota (e.g., landscape plants, rodents, and common birds) that had come to inhabit or use these industrial areas. Future cumulative developments such as hotels and other commercial developments on lands adjacent to the Harbor would be in areas that do not support natural terrestrial communities or are outside the region of analysis. Projects in Table 4-1 in Chapter 4.0 of the Draft EIS/EIR that are within the geographical region of analysis and could affect terrestrial biological resources are: San Pedro Waterfront (#3), Channel Deepening (#4), Evergreen Expansion (#7), SSA Outer Harbor Fruit Facility Relocation (#9), Crescent Warehouse Company Relocation (#10), Ultramar (#12), Berths 97-109 (#15), Berths 171-181 (#16), Berths 206-209 (#17), South Wilmington Grade Separation (#24), Avalon Boulevard Corridor Project (#25), "C" Street/Figueroa Street Interchange (#26), Port Transportation Master Plan (#27), Berths 212-224 (#28), Berths 121-131 (#29), Banning Elementary School #1 (#55), East Wilmington Greenbelt Community Center (#56), Pier A West Remediation (#68), Pier A East (#69), and Schuyler Heim Bridge Replacement (#77).

*Vessel Traffic*. Cumulative marine terminal projects (e.g., San Pedro Waterfront, Channel Deepening, Evergreen Improvements, Pier 400 Oil Marine Terminal, Ultramar, China Shipping, LAXT Crude Oil, YTI, Yang Ming, Middle Harbor, Piers G & J, Pier T TTI, and Pier S) that involve vessel transport of cargo into and out of the Harbor have increased vessel traffic in the past and would continue to do so in the future. These vessels have introduced invasive exotic species into the Harbor through ballast water discharges and via their hulls. Ballast water discharges are now regulated so that the potential for introduction of invasive exotic species by this route has been greatly reduced. The potential for introduction of exotic species via vessel hulls has remained about the same, and use of antifouling paints and periodic cleaning of hulls to minimize frictional drag from growth of organisms keeps this source low. While exotic species are present in the Harbor, there is no evidence that these species have disrupted the biological communities in the Harbor. Biological baseline studies conducted in the Harbor continue to show the existence of diverse and abundant biological communities. However, absent the ability to eliminate the introduction of new species through ballast water or on vessel hulls, it is possible that additional invasive exotic species could become established in the Harbor over time, even with these control measures.

### Cumulative Impact Cultural-1

Cumulative Impact CR-**1** represents the potential of the proposed Project along with other projects to disturb, damage, or degrade listed, eligible, or otherwise unique or important archaeological, or ethnographic resources.

### Finding

The Board hereby finds that changes or alterations have been incorporated into the project that avoid or substantially lessen the significant environmental effect identified in the final EIR. Incorporation of this mitigation measures, however, would not reduce impacts to cultural resources below significance. Specific legal and technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

Mitigation Measure CR-1, has been incorporated into the Project to reduce the significant impact to culture resources identified in the in final EIR. MM-CR-1 provides that work shall be immediately stopped and relocated from the area in the unlikely event that potentially significant, intact cultural resources are encountered during construction. The referenced section provides additional information about this mitigation measure. However, even with application of this mitigation and the extent of previous soil disturbances throughout the proposed Project area, the incremental contribution of the proposed Project to cumulative impacts on archaeological and ethnographic resources cannot be eliminated. Mitigation of an archaeological resource (e.g., defining the resource and sampling a portion of the area to be destroyed) that is encountered during construction must be done expeditiously, resulting in the ability to collect or salvage only enough information to characterize the nature of the find. As with any non-renewable archaeological site, it is impossible to retain all information that is represented in a given assemblage of prehistoric site remains. Similarly, the destruction of any archaeological site, regardless of its condition (i.e., previously disturbed, or intact) represents a loss of heritage values to contemporary Native Americans. Thus, the contribution of the proposed Project would be cumulatively considerable and unavoidable with mitigation under CEQA.

### Rationale for Finding

Archaeologists estimate that past and present projects within urban areas including the project vicinity have destroyed over 80 percent of all prehistoric sites without proper assessment and systematic collection of information beforehand. As prehistoric sites are non-renewable resources, the cumulative direct and indirect impacts of these actions are significant. Such projects have eliminated our ability to study sites that may have been likely to yield information important in prehistory. In other words, the vast majority of the prehistoric record has been already lost.

Construction activities (i.e., excavation, dredging, and land filling) associated with present and future Port projects, including the Pier 400 Container Terminal Project (#11), Ultramar Lease Renewal Project (#12), Channel Deepening Project (#4), Pier 400 Oil Marine Terminal Project (#11), Berths 97-109 Container Terminal Project (#15), and Evergreen Backlands Improvements Project (#7) would potentially require excavation. These activities, however, would be in areas of historical estuary habitats and recent landfills, and therefore would not be within the landforms inhabited by Native American populations. Although much of the area has been previously disturbed, there is the potential for other related upland Port projects including the South Wilmington Grade Separation (#24), Avalon Boulevard Corridor Development (#25), and "C" Street/Figueroa Street Interchange (#26) on the periphery of the Port (i.e., in upland areas) to disturb unknown, intact subsurface prehistoric or historic archaeological resources. Reasonably foreseeable future projects within upland areas, i.e. the Community of San Pedro (#43, #45, #49, #50, #51, #52, #53, #54), Community of Wilmington (#57), Harbor City, Lomita, and Torrance (#61, #62, #63, #65), and City of Long Beach (#80), would also potentially contribute to this impact.

### Cumulative Impact GEO-1

Cumulative Impact Geo-1 addresses the degree to which the proposed Project, along with other cumulative projects, places structures and/or infrastructure in danger of substantial damage or exposes people to substantial risk following a seismic event.

### Finding

Southern California is recognized as one of the most seismically active areas in the United States. The region has been subjected to at least 52 major earthquakes (i.e., of magnitude 6 or greater) since 1796. Earthquakes of magnitude 7.8 or greater occur at the rate of about two or three per 1,000 years, corresponding to a 6 to 9 percent probability in 30 years. Therefore, it is reasonable to expect a strong ground motion seismic event during the lifetime of any proposed project in the region.

Ground motion in the region is generally the result of sudden movements of large blocks of the earth's crust along faults. Numerous active faults in the Los Angeles region are capable of generating earthquake-related hazards, particularly in the harbor area, where the Palos Verdes Fault is present and hydraulic and alluvial fill are pervasive. Also noteworthy, due to its proximity to the site, is the Newport-Inglewood Fault, which has generated earthquakes of magnitudes ranging from 4.7 to 6.3 Richter scale (LAHD 1991a). Large events could occur on more distant faults in the general area, but the effects at the cumulative geographic scope would be reduced due to the greater distance.

Seismic groundshaking is capable of providing the mechanism for liquefaction, usually in fine-grained, loose to medium dense, saturated sands and silts. The effects of liquefaction may result in structural collapse if total and/or differential settlement of structures occurs on liquefiable soils.

The Port of Los Angeles uses a combination of probabilistic and deterministic seismic hazard assessment for seismic design prior to any construction projects. Structures and infrastructure planned for areas with high liquefaction potential must have installation or improvements comply with regulations to ensure proper construction and consideration for associated hazards.

However, even with incorporation of modern construction engineering and safety standards, no mitigation is available that would reduce impacts to less than cumulatively considerable in the event of a major earthquake. Therefore, the proposed Project would result in a cumulatively considerable and unavoidable impact. The Board hereby finds that specific technological considerations make infeasible additional mitigation measures or project alternatives, which would reduce these impacts to less-than-significant levels, as explained below.

### Rationale for Finding

Past, present, and reasonably foreseeable future projects (and the proposed Project) would not change the risk of seismic ground shaking. However, past projects have resulted in the backfilling of natural drainages at Port of Los Angeles berths with various undocumented fill materials. In addition, dredged materials from the harbor area were spread across lower Wilmington from 1905 until 1910 or 1911 (Ludwig 1927). In combination with natural soil and groundwater conditions in the area (i.e., unconsolidated, soft, and saturated natural alluvial deposits and naturally occurring shallow groundwater), backfilling of natural drainages and spreading of dredged materials associated with past development at the Port has resulted in conditions with increased potential for liquefaction following seismic ground shaking.

In addition, past development has increased the amount of infrastructure, structural improvements, and the number of people working onsite in the POLA/POLB Harbor area (i.e., the cumulative geographic scope). This past development has placed commercial, industrial and residential structures and their occupants in areas that are susceptible to seismic ground shaking. Thus, these developments have had the effect of increasing the potential for seismic ground shaking to result in damage to people and property.

All of the present and reasonably foreseeable future projects listed in Table 4-1 in Chapter 4.0 of the Draft EIS/EIR, with the exception of the Channel Deepening Project (#4) and the Artificial Reef Project (#6), as these do not involve existing or proposed structural engineering or onsite personnel, would also result in increased infrastructure, structure, and number of people working onsite in the cumulative geographic scope.

### Cumulative Impact GEO-2

Cumulative Impact Geo-2 addresses the degree to which the proposed Project, along with other cumulative projects, exposes people and structures to substantial risk from local or distant tsunamis or seiches.

### Finding

Tsunamis are a relatively common natural hazard, although most of the events are small in amplitude and not particularly damaging. As has been shown historically, the potential loss of human life following a tsunami or seiche can be great if a large submarine earthquake or landslide occurs in a populated area. As discussed in Chapter 3.5.2.1.4, abrupt sea level changes associated with tsunamis in the past had a great impact on human life. Tsunamis also have reportedly caused damage to moored vessels within the outer portions of the Los Angeles Harbor. Gasoline from damaged boats have caused a major spill in the Harbor waters and created a fire hazard following a seiche. Currents of up to 8 knots and a 6-ft (1.8-m) rise of water in a few minutes have been observed in the West Basin.

For on-site personnel, the risk of tsunami or seiches is a part of any ocean-shore interface, and hence personnel working in the cumulative effects area cannot avoid some risk of exposure. Similarly, berth infrastructure, cargo/containers, and tanker vessels would be subject to some risk of damage as well. Designing new facilities based on existing building codes may not prevent substantial damage to structures from coastal flooding.

The Board hereby finds that changes or alterations have been incorporated into the Project, which avoid or substantially lessen the significant environmental effect as identified in the final EIR. MM Geo-1 has been added to the Project to reduce impacts. However, even with incorporation of emergency planning, substantial damage and/or injury could occur in the event of a tsunami or seiche. No mitigation is available that would reduce impacts to less than cumulatively significant, or the contribution of the proposed Project to less than cumulatively considerable, in the event of a major tsunami. Therefore, the proposed Project would result in a cumulatively considerable and unavoidable impact, and the Board finds that specific technological considerations make infeasible additional mitigation measures or project alternatives, as explained below.

> ***Mitigation Measure GEO-1****: The Terminal operator shall work with Port Engineers and Port Police to develop tsunami response training and procedures to assure that construction and operations personnel will 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.*

### Rationale for Finding

Past, present, and reasonably foreseeable future projects (and the proposed Project) would not change the risk of tsunamis or seiches. However, past projects have resulted in the backfilling of natural drainages and creation of new low-lying land areas, which are subject to inundation by tsunamis or seiches. In addition, past development has increased the amount of infrastructure, structural improvements, and the number of people working onsite in the POLA/POLB Harbor area. This past development has placed commercial and industrial structures and their occupants in areas that are susceptible to tsunamis and seiches. Thus, these developments have had the effect of increasing the potential for tsunamis and seiches to result in damage to people and property.

All of the present and reasonably foreseeable future projects listed in Table 4-1 in Chapter 4.0 of the Draft EIS/EIR, with the exception of the Channel Deepening Project (#4) and the Artificial Reef Project (#6), as these do not involve existing or proposed structural engineering or onsite personnel, would also result in increased infrastructure, structure, and number of people working onsite in the cumulative geographic scope.

### Cumulative Impact NOI-1

Cumulative Impact NOI-1 represents the potential of construction activities of the proposed project along with other cumulative projects to cause a substantial increase in ambient noise levels at sensitive receivers within the cumulative geographic scope.

### Finding

Considering the distances between the construction noise sources and receivers, the standard controls and temporary noise barriers may not be sufficient to reduce the projected increase in the ambient noise level to the point where it would no longer cause a cumulatively significant impact. The impacts to Wilmington District residents and possibly to marina residents from construction of the Pier A rail yard will remain cumulatively significant with mitigation. Mitigation Measures NOI-1, set forth above, would reduce noise impacts but cumulative impacts would remain significant and unavoidable. The Board hereby finds that changes or alterations have been incorporated into the project that lessen the significant environmental effect identified in the final EIR. Incorporation of these mitigation measures, however, would not reduce cumulative noise impacts below significance. Specific legal and technological considerations make infeasible additional mitigation measures or project alternatives.

### Rationale for Findings

The list of related and cumulative projects was reviewed to determine if construction activities associated with any of these projects could, in combination with the proposed Project, cause a cumulative construction noise impact.

The "C" Street/Figueroa Street Interchange (#26) would be located immediately adjacent to the Harry Bridges Boulevard widening element of the proposed project and the Harry Bridges Buffer Area. It is likely that construction activities associated with the "C" Street/Figueroa Street interchange would either be concurrent with construction activities necessary for the Harry Bridges Boulevard widening and Harry Bridges Buffer Area, or would occur in about the same timeframe either shortly before or after extending the period of elevated noise levels. While a detailed assessment of construction noise levels that could result from this related project has not been completed, it is likely that construction activities and associated noise levels would be similar to those expected from the equipment necessary to construct the project elements. There are other projects in the related and cumulative projects list that could also affect sensitive receivers within the cumulative geographic scope. The New Dana Strand Development (#58) currently under construction is located on "C" Street adjacent to sensitive receivers. The Avalon Boulevard Corridor Development (#25) would include development of Avalon Triangle Park and improvements at Banning's Landing Cultural Center. Development of the China Shipping Terminal at Berths 97-109 (#15) would occur below the San Pedro residences located west of Knoll Hill.

One comment was received during public review suggesting mitigation or alternatives to reduce this significant unavoidable impact (CSE (B)-31). The comment proposed including a noise complaint hotline for residents to call. This proposal has been incorporated into the Project in the form of Mitigation Measure NOI-1(i), identified above.

### Cumulative Impact TRANS-1

Cumulative Impact TRANS-1 represents the potential of the proposed Project along with other cumulative projects to result in a short-term, temporary increase in construction truck and auto traffic.

### Finding

The Board finds that that changes or alterations have been incorporated into the project that lessen the significant environmental effect identified in the final EIR. Incorporation of Mitigation Measure Trans-1, identified above, will require the construction contractor to prepare a detailed traffic management plan as described above. This plan will ensure that project specific impacts to the study area roadway system as a result of Project construction will be less than significant. However, the Project's contribution to cumulatively significant impacts on intersection LOS due to construction traffic would remain cumulatively considerable and unavoidable. Incorporation of these mitigation measures, however, would not reduce cumulative impacts below significance.

### Rationale for Finding

Past construction activities resulted in short-term, temporary impacts at selected roadway links, intersections and ramps. Construction period traffic handling measures were implemented to mitigate these impacts.

The construction worker and truck trips were assessed cumulatively for all three West Basin Container Terminals at all study intersections during the AM and PM peak hours. Thus for the AM peak hour there would be an assumed 225 inbound worker trips and 40 truck trips (400 daily truck trips divided into 10 hour work shift), and during the PM peak hour there would be 225 outbound worker trips and 40 truck trips. These truck trips were estimated based on other similar Port construction projects. While construction would likely occur in phases for each of the three West Basin Container Terminals, the

construction analysis assumes that construction would occur at all three West Basin Terminals simultaneously to represent a conservative construction analysis. Based on the results of the construction traffic analysis the construction scenario would result in significant circulation system impacts at five study intersections.

Specifically, the LOS at the Alameda Street/Anaheim Street intersection would experience a significant traffic impact during the A.M. peak hour during the construction phase and the level of Project-related construction traffic would exceed the City of Los Angeles threshold for significant impact.

The LOS at the Harbor Boulevard/SR-47 Westbound On-Ramp intersection would experience a significant traffic impact during the P.M. peak hour during the construction phase and the level of Project-related construction traffic would exceed the City of Los Angeles threshold for significant impact.

The LOS at the Figueroa Street/C-Street/I-110 Ramp intersection would experience a significant traffic impact for both the A.M. and P.M. peak hours during the construction phase and the level of Project-related construction traffic would exceed the City of Los Angeles threshold for significant impact.

The LOS at the Broad Avenue/Harry Bridges Boulevard intersection would experience a significant traffic impact during the P.M. peak hour during the construction phase and the level of Project-related construction traffic would exceed the City of Los Angeles threshold for significant impact.
The LOS at the Navy Way/Seaside Avenue intersection would experience a significant traffic impact during the P.M. peak hour during the construction phase and the level of Project-related construction traffic would exceed the City of Los Angeles threshold for significant impact.

### Cumulative Impact TRANS-5

Cumulative Impact TRANS-5 represents the potential of the proposed Project along with other cumulative projects to cause an increase in rail activity, causing delay in traffic.

### Finding

The proposed Project would make a cumulatively considerable and unavoidable contribution to cumulative transportation/circulation impacts at the Henry Ford Avenue and Avalon Boulevard grade crossings as a result of the proposed Project contribution to rail traffic. No mitigation is available that would reduce impacts to less than cumulatively considerable. Therefore, the proposed Project would result in a cumulatively considerable and unavoidable impact. The Board hereby finds that specific legal and technological considerations make infeasible additional mitigation measures or project alternatives, which would reduce these impacts to less-than-significant levels.

### Rationale for Finding

The only at-grade crossings potentially affected by the proposed Project are at Avalon Boulevard and Henry Ford Avenue. The grade crossing at Fries Avenue would be eliminated as part of the South Wilmington Grade Separation project (#24 in Table 4-1 in Chapter 4.0 of the Draft EIS/EIR). Impacts from the proposed Project along with other cumulative projects on the regional rail corridors north of the proposed Project site would not be significant since the Alameda Corridor project has

been completed. The completion of the corridor has eliminated all of the regional at-grade rail/highway crossings between the Port and the downtown rail yards; therefore, there would be no change in vehicular delay at any of those crossings due to proposed Project-related rail activity (they are now all grade separated). Significant cumulative impacts would occur at Avalon Boulevard and Henry Ford Avenue crossings. Cumulatively, there would also be a significant impact on the at-grade rail crossings east of downtown Los Angeles. This cumulative impact would be due to the overall growth in rail activity that would occur to serve the added cargo throughput in the Southern California region and the nation.

### Cumulative Impact PS-4

Cumulative Impact PS-4 represents the potential of the proposed Project along with other cumulative projects to generate substantial solid waste, water, and/or wastewater demands that would exceed the capacity of existing facilities.

### Finding

The Board hereby finds that changes or alterations have been incorporated into the Project, which substantially lessen the Project's contribution to the significant environmental effect identified in the final EIR. Mitigation Measures PS-1 through PS-3, as described in Section 3.12.4.3.1 and set forth above, provide that: 1) demolition and/or excess construction materials shall be separated on-site for reuse/recycling or proper disposal and separate bins for recycling of construction materials shall be provided on-site, 2) materials with recycled content shall be used in project construction and chippers on site shall be used to further reduce excess wood for landscaping cover, and 3) the applicant shall implement a Solid Waste Management Program to achieve a 50 percent reduction in waste generation and ensure compliance with the California Solid Waste Management Act (AB 939). The referenced section provides additional information about these mitigation measures. The implementation of Mitigation Measures PS-1 through PS-3 would reduce the proposed Project specific impacts on solid waste generation to less than cumulatively considerable under CEQA or NEPA.

Additionally, Mitigation Measure PS-5 would reduce the Project's impact on water supply. However, the proposed Project's impact on water supply would remain cumulatively considerable.

> ***Mitigation Measure PS-5****: The new LEED certified administrative building shall incorporate additional water conservation measures, such as low-flow toilets. Additionally, the terminal operator shall plant drought-resistant planting and restrict watering to the evening hours.*

Mitigation Measures identified PS-1through PS-3 and PS-5 would reduce significant impacts; however, the residual contribution of the proposed Project would remain cumulatively considerable and unavoidable. The Board hereby finds that specific technological considerations make infeasible additional mitigation measures or project alternatives, which would reduce these impacts to less-than-significant levels.

### Rationale for Finding

Construction and operation of past projects has resulted in existing demands for water and generations of wastewater and solid waste. These demands and generations are currently accommodated by existing facilities. In order to properly plan for water supply, the LADWP determines water demands using factors such as demographics, weather, economy, and trends in

development. The LADWP determined an existing water demand of 680,000 acre-feet per year within the DWP service area which can be accommodated by the planned water supply of the same amount (LADWP 2005). The LADWP Urban Water Management Plan (UWMP) projects overall water supply reliability within the DWP service area through 2030. LADWP expects it will be able meet the demand through 2030 with a combination of existing supplies, planned supplies and MWD purchases (existing and planned). The TITP wastewater treatment plant is currently operating at 54 percent of its daily capacity of 30 million gallons per day, resulting in an available capacity of 13.8 million gallons of additional wastewater flow per day (personal communication, Dave Fumaer 2007). The two landfills that serve the Port area are the Bradley Landfill and the Sunshine Canyon Landfill. As described in Section 3.12.2.2.4, Bradley Landfill is has an allotted daily throughput capacity of 10,000 tons and is currently operating at 12 percent capacity. The Sunshine Canyon Landfill has a daily throughput capacity of 5,500 tons allotted for City use and is expected to accommodate demands until 2011 (Sunshine Landfill 2006).

Many of the projects identified in Table 4-1 in Chapter 4.0 of the Draft EIS/EIR are Port redevelopment projects within the proposed Project vicinity, and generally do not require any expansion of facilities. Therefore, it is expected that water consumption, and wastewater and solid waste generations would remain similar to current levels. However, several of the projects involve new or expanded land uses or throughput operations that may result in additional utility demands and generations. These projects include the Pier 400 Container Terminal and Transportation Corridor Project (#1), Evergreen Improvements Project (#7), Berths 121-131 Yang Ming Container Terminal (#29), Middle Harbor Terminal Redevelopment (POLB) (#66), Berths 97-109 China Shipping Development Project (#15), Berths 171-181 Pasha Marine Terminal Improvements (#16), Berths 302-305 APL Container Terminal Expansion (#23), Ponte Vista (#63), and Dana Strand (#58). The number of related projects would increase the demands for water as well as generation of wastewater and solid waste. Further, because of the finite capacities and supplies of applicable facilities, reasonably foreseeable development may result in increased demands and generations that would contribute to the depletion of the remaining facility capacities.

### Cumulative Impact WQ-1

Cumulative Impact WQ-1 represents the potential of the proposed Project, along with other cumulative projects, to create pollution, cause nuisances, or violate applicable standards.

### Finding

Best management practices to prevent or minimize contaminant loadings to the harbor from stormwater runoff from past, present, and future projects, including the proposed Project, are required by the Standard Urban Stormwater Mitigation Plan (SUSMP), which is incorporated into the Los Angeles County Urban Runoff and Stormwater NPDES Permit issued by the RWQCB. SUSMP requirements must be incorporated into the project plan and approved prior to issuance of building and grading permits. Specifically, the SUSMP requires that each project incorporate BMPs specifically designed to minimize stormwater pollutant discharges. While adopted BMPs will vary by project, all BMPs must meet specific design standards to mitigate stormwater runoff and control peak flow discharges. The SUSMP also requires implementation of a monitoring and reporting program to ensure compliance with the constituent limitations in the permit. These BMPs and compliance monitoring would reduce the residual cumulative impacts from runoff to less than considerable.

As discussed in Section 3.13, safety measures specified in the Los Angeles Harbor District Risk Management Plan and in project-specific SPCC plans minimize the risks of a large, accidental spill

from impacting the harbor. However, these plans cannot completely eliminate the risk of a spill. Consequently, the proposed Project's contribution to the cumulative impact would be significant and unavoidable. The Board hereby finds that specific technological considerations make infeasible additional mitigation measures or alternatives, which would reduce these impacts to less-than-significant levels, as explained below.

### Rationale for Finding

Water and sediment quality within the geographic scope are affected by activities within the harbor (e.g., shipping and wastewater discharges from the Terminal Island Treatment Plant [TITP]), inputs from the watershed including aerial deposition of particulate pollutants, and effects from historical (legacy) inputs to the harbor. As discussed in Section 3.13, portions of the Los Angeles/Long Beach harbor complex are identified on the current 303(d) list as impaired for a variety of chemical and bacteriological stressors and effects to biological communities. For those stressors causing water quality impairments, TMDLs will be developed that will specify load allocations from the individual input sources, such that the cumulative loadings to the harbor would be below levels expected to adversely affect water quality and beneficial uses of the water body. However, these TMDL studies are not planned until the year 2019 (see Section 3.13.2.1). Thus, in the absence of restricted load allocations, the impairments would be expected to persist.

Present and reasonably foreseeable future projects with in-water construction components, such as dredging and pier upgrades, would result in temporary and localized effects to water quality that would be individually comparable to those associated with proposed Project. Changes to water quality associated with in-water construction for the other cumulative projects would not persist for the same reasons discussed in Section 3.13. Therefore, cumulative impacts would occur only if the spatial influences of concurrent projects overlapped. Of the cumulative projects listed in Table 4-1 in Chapter 4.0 of the Draft EIS/EIR, only the Channel Deepening (#4), China Shipping Development (#15) and Berths 121-131 Development (#29) are located in the vicinity of the proposed Project and involve in-water construction activities. Dredging for the Channel Deepening Project (#4) and Phase I construction for Project #15 has been completed, whereas Project #29 is still in the planning phase. A number of projects within the Port of Long Beach, including the Middle Harbor Development (#66), Piers G and J Redevelopment (#67), Pier T (#70), and Pier S (#71), would involve dredging and/or in-water construction. However, water quality effects from these projects would be limited to the immediate dredging or construction area and would not extend into the West Basin.

Wastewater discharges associated with project operations and runoff from project sites would be regulated by NPDES or stormwater permits. The permits would specify constituent limits and/or mass emission rates that are intended to protect water quality and beneficial uses of receiving waters.

Development of port facilities associated with the cumulative projects, including Port 400 (#1), Evergreen Improvements (#7), Berths 97-109 (#15), Berths 302-305 APL Terminal (#23), Berths 212-224 Upgrades (#28), Berths 121-131 Reconfiguration (#29), Middle Harbor Terminal (#66), Piers G & J Terminal (#67), Pier T Terminal (#70), and Pier S Terminal (#71), are expected to contribute to a greater number of ship visits to the Ports of Los Angeles and Long Beach. Assuming that the potential for accidental spills and illegal vessel discharges would increase in proportion to the increased vessel traffic, waste loadings to the harbor would also be expected to increase. The significance of this increased loading would depend on the volumes and composition of the releases, as well as the timing and effectiveness of spill response actions. However, as noted for the proposed Project (Section 3.13.4.3.1.2), there is no evidence that illegal discharges for ships are causing widespread impacts to water quality in the harbor.

# Finding Regarding Responses to Comments on the Draft EIS/EIR

The Board of Harbor Commissioners finds that all information added to the EIR after public notice of the availability of the Draft EIS/EIR for public review but before certification merely clarifies or amplifies or makes insignificant modifications in an adequate EIR and does not require recirculation.

# III. Alternatives to the Proposed Project

## Alternatives Considered

Eighteen alternatives, including the proposed Project and the No Project Alternative, were considered and evaluated in regards to how well each could feasibly meet the basic objectives of the Project and avoid or substantially lessen any of the significant effects of the project. Twelve of these alternatives were eliminated from detailed consideration either because they could not feasibly meet the basic objectives of the Project and/or because they would not avoid or substantially lessen any of the significant effects of the project, as discussed in Section ES.6.3 and in Section 2.5.2 of the Draft EIS/EIR. Five of the alternatives were carried forward for further analysis to determine whether they could feasibly meet most of the Project objectives but avoid or substantially lessen any of the significant effects of the project. These five alternatives are evaluated co-equally with the proposed Project for all environmental resources in Chapter 3 in the Draft EIS/EIR. See Section ES.6.2, below, for a summary evaluation. Chapter 6 of the Draft EIS/EIR (as summarized in Section ES.7.3) compares the proposed Project and these four alternatives and identifies the environmentally preferred and environmentally superior alternative. The five alternatives that were carried through the analysis of impacts in Chapter 3 are:

- Alternative 1: No Project Alternative;
- Alternative 2: Reduced Project, Project without the 10-Acre Fill;
- Alternative 3: Reduced Wharf;
- Alternative 4: Omni Terminal; and
- Alternative 5: Landside Improvements/CEQA No Project Variant

## Alternatives Eliminated from Further Consideration

Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered (CEQA Guidelines, Section 15126[f][2]). Alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid any significant environmental effects (CEQA Guidelines, Section 15126.6[c]). The following alternatives were determined to be infeasible and were eliminated from further consideration in the Draft EIS/EIR (additional details regarding reasons for rejection are included in Chapter 5 of the Draft EIS/EIR):

- Use of other ports;
- Expansion of terminals within Southern California but outside the Los Angeles Harbor District;
- Lightering;
- Off-site backland alternatives;
- Development of new landfills and terminals outside the Berths 136-147 Terminal area and the adjoining the West Basin area;
- Shallower dredge depth;
- Alternative shipping use of the terminal;
- Other sites within the Los Angeles Harbor District;

- Non-shipping use of the terminal;
- Harry Bridges Boulevard relocated to provide additional container storage area;
- Development and operation of a smaller terminal; and
- Alternative designs for the Harry Bridges Boulevard Buffer Area.

## Alternatives Analyzed in the Draft EIS/EIR

Chapter 6 of the Draft EIS/EIR contains a detailed comparative analysis of the alternatives that were found to achieve the project objectives, are considered ostensibly feasible, and may reduce environmental impacts associated with the proposed project. Table 6 provides a summary of the alternatives.

**Table 6: Summary of proposed Project and Alternatives at Full Buildout (2025-2038†)**

| | *Terminal Acres* | *Annual Ship Calls* | *Annual TEUs (in millions)* | *Cranes* | *Total Fill (cubic yards)* | *New Wharves (linear feet)* |
|---|---|---|---|---|---|---|
| Poposed Project | 243 | 334 | 2.389 | 12 | 800,000 | 1,105 |
| No Project (Alternative 1) | 176 | 250 | 1.697 | 13# | 0 | 0 |
| Reduced Project: Project Without the 10-Acre Fill (Alternative 2) | 233 | 334 | 2.389 | 12 | 0 | 705 |
| Reduced Wharf (Alternative 3) | 233 | 300 | 2.035 | 12 | 0 | 0 |
| Omni Terminal (Alternative 4) | 202 | 83 | 0.566 | 13# | 0 | 0 |
| Landside Improvements (Alternative 5+) | 233 | 250 | 1.697 | 13# | 0 | 0 |

† Throughput is maximized at 2025 and remains static through 2038.

# This number reflects the baseline conditions in December of 2003. Two 50-gauge cranes along Berths 145 and 146 were removed in the spring of 2007.

+ Alternative 5 functions as the No Federal Action Alternative.

Table 7 presents a summary of the impact analysis for the proposed Project and the Alternatives. Table 8 presents a comparison of the Alternatives to the proposed Project.

**Table 7: Summary of CEQA Significance Analysis by Alternative**

| *Environmental Resource Area** | *proposed Project* | *Alt. 1 No Project* | *Alt. 2 Project Without 10-Acre Fill* | *Alt. 3 Reduced Wharf* | *Alt. 4 Omni Terminal* | *Alt 5 Landside Improvements* |
|---|---|---|---|---|---|---|
| Air Quality/Meteorology | S | S | S | S | S | S |
| Biological Resources | S | S | S | S | N | N |
| Cultural Resources | M | N | M | M | M | M |
| Geology | S | S | S | S | S | S |
| Land Use | L | S | L | L | L | L |
| Noise | S | N | S | S | S | S |
| Transportation/Circulation | M | S | M | M | L | M |

*Notes:*
** Only environmental resources with unavoidable significant impacts or significant but mitigable impacts are included in the table and the analysis used to rank alternatives; the analysis includes project-level impacts, not cumulative effects*
S = Unavoidable significant impact
M = Significant but mitigable impact
L = Less than significant impact (not significant)
N = No impact

**Table 8: Comparison of Alternatives to the proposed Project**

| *Environmental Resource Area** | *Alt. 1 No Project* | *Alt. 2 Project Without 10-Acre Fill* | *Alt. 3 Reduced Wharf* | *Alt. 4 Omni Terminal* | *Alt 5 Landside Improvements* |
|---|---|---|---|---|---|
| Air Quality/Meteorology | 2 | 0 | 0 | -2 | -2 |
| Biological Resources | -1 | 0 | -1 | -2 | -2 |
| Cultural Resources | -1 | 0 | 0 | 0 | 0 |
| Geology | 0 | -1 | -1 | 0 | 0 |
| Land Use | 2 | 0 | 0 | 0 | 0 |
| Noise | -2 | 0 | -1 | -2 | -1 |
| Transportation/Circulation | 2 | 0 | 0 | -2 | -1 |
| Total | 0 | -1 | -3 | -8 | -6 |

*Notes:*
(-2) = Impact considered to be substantially less when compared with the proposed Project.
(-1) = Impact considered to be somewhat less when compared with the proposed Project.
( 0) = Impact considered to be equal to the proposed Project.
(1) = Impact considered to be somewhat greater when compared with the proposed Project.
(2) = Impact considered to be substantially greater when compared with the proposed Project.

## Environmentally Superior Alternative

As shown in Table 8 the Omni Terminal Alternative is deemed to be the environmentally superior alternative under CEQA, although this alternative does not meet all Project objectives. Specifically, although its cargo-handling purpose is consistent with the project purpose and it would handle container cargo, the fact that only one-third of the proposed Omni Terminal would be used for container cargo (565,700 TEUs per year in 2025 through 2038) means that this alternative would not

accommodate foreseeable containerized cargo volumes through the Port, increase container handling efficiency and create sufficient backland area for container terminal operations, construct container ship berthing and infrastructure capacity to accommodate projected containerized cargo volumes through the Port, or provide on dock-rail capabilities to promote direct transfer of cargo between ship and rail. The Landside Improvements/ CEQA No Project Variant Alternative is rated somewhat lower in terms of environmental superiority, compared to the Project, than the Omni Terminal, and then the Reduced Wharf, Project Without 10-acre Fill, and No Project.

# CEQA Findings for Alternatives Analyzed

## Project Purpose:

The overall purpose of the proposed Project is to increase and optimize the cargo-handling efficiency and capacity of the Port at Berths 136-147 in the West Basin to address the need to optimize Port lands and terminals for current and future containerized cargo handling. The proposed Project seeks to do this by improving facilities and expanding an existing operating 176-acre marine terminal at Berths 136-147.

The Port operates under the legal mandates of the Port of Los Angeles Tidelands Trust (Los Angeles City Charter, Article VI, Sec. 601) and the Coastal Act (PRC Div 20 S30700 et seq.), which identify the Port and its facilities as a primary economic/coastal resource of the State and an essential element of the national maritime industry for promotion of commerce, navigation, fisheries and harbor operations. According to the Tidelands Trust, Port-related activities should be water dependent and should give highest priority to navigation, shipping and necessary support and access facilities to accommodate the demands of foreign and domestic waterborne commerce.

## Project Objectives:

The following Project objectives were considered for the Alternatives analysis:

1. Expand and modernize existing container terminal facilities at the Port to the extent required to:
    - Optimize the use of existing land and waterways and be consistent with the Port's overall use of available shoreline;
    - Accommodate foreseeable containerized cargo volumes through the Port;
    - Increase container handling efficiency and create sufficient backland area for container terminal operations, including storage, transport, and on/offloading of container ships in a safe and efficient manner;
    - Provide access to land-based rail and truck infrastructure capable of minimizing surface transportation congestion or delays while promoting conveyance to and from both local and distant cargo destinations; and
    - Improve or construct container ship berthing and infrastructure capacity where necessary to accommodate projected containerized cargo volumes through the Port.
2. Provide on dock-rail capabilities to promote direct transfer of cargo between ship and rail.
3. Apply the foregoing principles to improvement of the existing terminal facilities at Berths 136-147.

4. In connection with improvement and expansion of the Berths 136-147 terminal, provide a landscaped area as a community amenity and to provide physical separation between Port operations and residential areas.

The findings below are based on the entirety of the record and the Board's particular interest in prioritizing the reduction of air pollution and risk to the community over other environmental considerations, while maximizing Port efficiency and capacity for handling containerized cargo.

## Alternative 1: No Project

This alternative is what would reasonably be expected to occur on the site if no Port or Federal action would occur. The Port would not issue any permits or discretionary approvals, and would take no further action to construct and develop additional backlands or any aspect of the proposed Project. This alternative would not allow implementation of the proposed Project or other physical improvements at Berths 136-147. The terminal would remain at its current size of 176 acres and in its current configuration (Table 6). Forecasted increases in cargo throughput would still occur as greater operational efficiencies are made.

### Finding

The Board hereby finds that the No Project/No Build alternative is infeasible, will result in worse environmental conditions than occur with the Proposed Project and will therefore not be adopted in lieu of the proposed project.

### Facts in Support of Finding

If the No Project alternative were implemented, the Port would not be able to efficiently meet real and projected increases in container cargo demand. As discussed in EIS/EIR Section 1.1.3, the Port of Los Angeles anticipates that there is and will be a significant growth in international shipping and subsequent demand for terminal space at the Port because the large population base in Los Angeles, the Southwestern U.S. and the strong transportation connections to the rest of the country that make the two San Pedro Bay ports prime destinations for foreign trade. Anticipating the continued importance of containerized shipping, the ports of Los Angeles and Long Beach and the USACE conducted a series of studies to forecast cargo volumes through the year 2020 and to evaluate the capacity of the combined port complex in San Pedro Bay to accommodate those cargo volumes (e.g., Port et al. 1985; WEFA 1987, 1989, 1991). The cargo forecasts predicted significant increases in containerized cargo from Pacific Rim countries to the Pacific West Coast and the San Pedro Bay ports. These forecasts were used as a basis for development of an Operations, Facilities and Infrastructure (OFI) Study (VZM 1988). That study concluded that the ports needed to provide substantial additional physical facilities and make operational improvements in order to provide the necessary capacity. The importance of this cargo and related port expansion to the Nation, and the economic benefits of navigation improvements, have been supported by both project authorizations and financial authorizations from the U.S. Congress, notably through the Water Resources Development Act. These include: Resolution of the Senate Committee on Public Works – 1967; Resolution of the House Committee on Public Works – 1968; Water Resources Development Act of 1986 Public Law 99-662 – 1986; Water Resources Development Act – 1988 (USACE 1992, pp. I-1 – I-3), Water Resources Development Act – 2000, and Energy and Water Appropriation Bill – FY2004.

The No Project Alternative would not meet any of the project objectives identified in the Draft EIS/EIR. The No Project assumes that the Berth 136-147 terminal would continue to be operated by TraPac under the current holdover lease. There would be no on-dock rail yard or new cranes under this alternative. This alternative would result in a maximum throughput of 1,697,000 TEUs, versus the 2,389,000 TEUs assumed for the proposed Project. As a result, the No Project alternative would not meet the basic Project objective (Project Objective Number 1), which is to expand and modernize existing container terminal facilities at the Port to the extent required to: (a) optimize the use of existing land and waterways and be consistent with the Port's overall use of available shoreline; (b) accommodate foreseeable containerized cargo volumes through the Port; (c) increase container handling efficiency and create sufficient backland area for container terminal operations, including storage, transport, and on/offloading of container ships in a safe and efficient manner; (d) provide access to land-based rail and truck infrastructure capable of minimizing surface transportation congestion or delays while promoting conveyance to and from both local and distant cargo destinations; and (e) improve or construct container ship berthing and infrastructure capacity where necessary to accommodate projected containerized cargo volumes through the Port.

Because the No Project would also not include the new on-dock rail facility, the No Project would not meet Project Object Number 2: to provide on dock-rail capabilities to promote direct transfer of cargo between ship and rail.

Project Objective 3 deals with improving the Berth 136-147 Terminal to accommodate future cargo instead of improving another terminal in the Port. As discussed in Chapter 1, cargo forecasts done for the Port of Los Angeles and Long Beach predicted significant increases in containerized cargo from Pacific Rim countries to the Pacific West Coast and the San Pedro Bay ports. To supplement the cargo forecast findings, the Draft EIS/EIR also considered alternative locations for the Project both within the Port of Los Angeles and at other West Coast ports. These alternatives were rejected because, as discussed in Chapter 2, the Port of Los Angeles does not have any other large tracts of land within the Port of Los Angeles with water access and with a minimum of -53-foot channel depth available at this time that have the potential to support container terminal operation and other West Coast ports face future increases in cargo volumes similar to those forecast for Los Angeles and have embarked on their own program of modernization and expansion of container terminals. By not improving the Berth 136-147 Terminal, the No Project Alternative does not meet Project Objective Number 3.

In addition, the No Project would not include construction of the Harry Bridges Buffer Area, thereby not meeting the Project Objective Number 4: to provide a landscaped area as a community amenity and to provide physical separation between Port operations and residential areas. In addition to not meeting the Project Objectives described above, as illustrated in Table 2, the No Project would result in greater operational impacts than the proposed Project. Under the No Project, cargo ships that currently berth and load/unload at the terminal would continue to do so, terminal equipment would continue to handle cargo containers, and trucks would continue to pick up and deliver containers to local and national destinations and regional intermodal facilities. No environmental controls beyond those imposed by local, state, and federal regulatory agencies would be implemented. The No Project Alternative has the highest unavoidable significant air quality impacts during operations because the No Project Alternative has no mitigation measures associated with it (see Figure 1). The No Project Alternative is the only alternative that results in significant unavoidable cancer risk impacts from toxic air contaminants (TACs) (see Figure 2). The No Project Alternative would cause significant, unmitigable impacts under CEQA because it would be inconsistent with the City of Los Angeles General Plan Objective of accommodating the orderly and continued development of the Port so as to meet the needs of maritime commerce, navigation, the commercial fishing industry, and public recreational needs (Section 3.8).

## Alternative 2: Project Without 10-Acre Fill

This alternative is the same as the proposed Project except that the 10-acre Northwest Slip would not be filled for additional backland storage area, which would result in decreased container movement efficiency when compared with the proposed Project. Because the Phase II fill would not be built, terminal size would remain constant at 233 acres. Other Project components, such as the relocation of the Pier A rail yard, construction of the new on-dock rail yard, widening of Harry Bridges Boulevard, and development of the Harry Bridges Buffer Area would occur as described in Section 2.4.2. Construction of Alternative 2 would also include constructing a new LEED-certified administration building, and new, modern maintenance and ancillary buildings and demolishing existing buildings; constructing two new gates to improve truck ingress/egress to the facility; and installing utilities, paving, fencing, and lighting as necessary.

### Finding

The Board hereby finds that the Project Without 10-Acre Fill Alternative is infeasible and would result in decreased container movement efficiency, additional air emissions and energy utilization and will therefore not be adopted in lieu of the proposed project.

### Facts in Support of the Finding

Alternative 2 has the same cargo throughput, but is 10 acres smaller than the proposed project. The Proposed Project is "berth limited" meaning that the terminal capacity is controlled by ability to bring cargo over the wharf (e.g. the number and size of the ships that can be accommodated.) As a result, addition of more land does not add to the overall terminal maximum capacity (DRAFT EIS/EIR Section 2.5.1.2). However, additional land can increase the efficiency of a terminal, which is also part of the overall Project purpose (Project Objective 1.c). The presence of additional land at the proposed location would allow for more efficient terminal operations by either allowing for overall lower/less dense stacking of containers at the terminal, or by allowing additional space for chassis/wheeled operation. Some implications of a higher density terminal could include more top picks and side picks or gantry cranes to stack containers and sort through containers (call shuffling or digging) for placement on stacks; more yard hostler trips to bring containers to be stacked; more hostler and truck congestion in the driving aisles; and longer wait times. This activity results in the expenditure of more energy and more air emissions. As an extreme, it is estimated that a stacked operation, would require eight times the energy, and would generate approximately 80 percent more terminal equipment emissions per box then a wheeled operation. If this were applied to 10 acres at Berth 136-147 Terminal, the terminal would be five percent more grounded and result in a four percent reduction in emissions (see Final EIR Response to Comments pp. 2-15 and 2-16). However, it is not guaranteed that the 10 acres would be utilized for a wheeled operation. But even under a grounded/stacked condition, the storage density of the yard would be higher because there would be 10 fewer acres of storage for the same amount of throughput. This would result in more equipment, more shuffle or digging moves, more congestion in the driving aisles, and longer wait times for service. As a result, while the fill would result in loss of Inner Harbor aquatic habitat, it would increase terminal efficiency, reduce energy requirements and air emissions, and contribute to reduction of air pollutants. While the fill does reduce aquatic habitat, it is located in an area of lower biological and EFH value than the Outer Harbor, and is not the location of any special aquatic site or of significant value to any federal or state threatened or endangered species. The fill can be totally mitigated through use of a Port mitigation bank. Increased efficiency and reduced air emissions are considered more important consideration than loss of lower quality aquatic resources that can be mitigated. As a result, while this alternative would meet many of the proposed project objectives, it

would diminish Objective 1.c, relating to the terminal efficiency (and energy utilization), and would diminish the Project Purpose of reducing air quality environmental effects.

## Alternative 3: Reduced Wharf

This alternative is the same as the proposed Project except that the proposed new 705-foot wharf at Berth 147 would not be constructed, the 10-acre Northwest Slip would not be filled for additional container storage area, and the 400-foot wharf extension adjacent to it would not be built. This alternative would include expanding the terminal by 57 acres; the backlands improvements and wharf seismic improvements described in Section 2.4.2; relocation of the Pier A rail yard; construction of the new on-dock rail yard; and widening Harry Bridges Boulevard and development of the Harry Bridges Buffer Area. Construction of Alternative 3 would also include constructing a new LEED-certified administration building, and new, modern maintenance and ancillary buildings and demolishing existing buildings; constructing two new gates to improve truck ingress/egress to the facility; and installing utilities, paving, fencing, and lighting as necessary.

### Finding

The Board hereby finds that while the Reduced Wharf Alternative would meet the overall project purpose of accommodating containerized cargo, it does not allow for facility maximum capacity, provide for the most efficient operation of the terminal, provide for as much employment, and significantly, does not provide for any improvement in air quality. Therefore, the Board finds that Alternative 3 is infeasible and will not be adopted in lieu of the Proposed Project.

### Facts in Support of the Finding

The Reduced Wharf Alternative would not meet a number of the project objectives identified in the Draft EIS/EIR. This alternative would result in a maximum throughput of 2,035,00 TEUs, versus the 2,389,000 TEUs assumed for the proposed Project, a 15% reduction. As a result, the Reduced Wharf alternative would not best optimize the use of existing waterways consistent with the Port's overall use of available shoreline (Objective 1.a), accommodate foreseeable containerized cargo volumes through the Port (Objective 1.b) (c) increase container handling efficiency including on/offloading of container ships in a safe and efficient manner (Objective 1.c), and improve or construct container ship berthing and infrastructure capacity where necessary to accommodate projected containerized cargo volumes through the Port (Objective 1.e). Further, a decrease from the maximum capacity at the Berth 136-147 Terminal cannot be accommodated at another terminal at the Port (or at other Ports – see EIS/EIR Section 1.1.3 and Section 2.5.2.1) and therefore is not consistent with Objective 3 (see No Project discussion above). Most significantly, because this alternative does not maximize use of the largest and newest ships, does not result in significant air benefits (Figure 1), has similar or higher cancer risk (Figure 2), and has a slightly higher emissions per TEU for $NO_x$ and $SO_x$ (Figure 3). Finally, the Reduced Wharf Alternative would result in less total operational employment (Figure 4) and less construction employment because 1305 feet of new wharf would not be constructed.

## Alternative 4: Omni Terminal

This alternative would convert the Project area into an omni-cargo handling terminal, similar to the Pasha Stevedoring & Terminals L.P. (Pasha) operation currently operating at Berths 174-181. The Omni

terminal would differ from the proposed Project in several ways. Specifically, under Alternative 4, there would be:

- no seismic upgrades to the existing wharves;
- no new wharf construction;
- no change in existing cranes; and
- no 10-acre fill of the Northwest Slip.

Because no new fill, dredging, or wharf construction would be needed, the omni terminal would require no federal permits for in-water. Backland development would result in a 202-acre terminal. However, there would be no on-dock rail yard and the Pier A rail yard would not be relocated. The backlands redevelopment would include different buildings than those proposed for the proposed Project and the configuration of the utilities, striping, and lighting would be different.

### Finding

The Board hereby finds that the Omni Terminal Alternative would not meet the overall project purpose of accommodating containerized cargo. It would not allow for any significant container handling capacity, provide for the most efficient operation of the terminal, provide for as much employment, and significantly, does not provide for any improvement in air quality or public health. Therefore, the Board finds that Alternative 4 is infeasible and will not be adopted in lieu of the Proposed Project.

### Facts in Support of the Finding

The Omni Terminal Alternative would not meet many of the project objectives identified in the Draft EIS/EIR. There would be no on-dock rail yard or new cranes under this alternative. This alternative would result in a maximum throughput of 500,000 TEUs, versus the 2,389,000 TEUs assumed for the proposed Project, an 80% decrease in containers. As a result, the Omni Terminal alternative would not substantially meet Project Objective 1 to expand and modernize existing container terminal facilities at the Port, to accommodate foreseeable containerized cargo volumes through the Port (Objective 1.b) increase container handling efficiency including on/offloading of container ships in a safe and efficient manner (Objective 1.c), and improve or construct container ship berthing and infrastructure capacity where necessary to accommodate projected containerized cargo volumes through the Port (Objective 1.e). Further, a decrease from the maximum capacity at the Berth 136-147 Terminal cannot be accommodated at another terminal at the Port (or at other Ports –see Draft EIS/EIR Section 1.1.3) and therefore is not consistent with Objective 3 (see No Project Discussion above). This project is identified as the environmentally superior because it has less unavoidable significant impacts than the other alternatives due to construction activity and low terminal operational activities. However, this alternative still has significant unavoidable air quality impacts and does not reduce SOx or PM emissions (Figure 1) or reduce cancer risk (Figure 2) compared to the Proposed Project. The Omni Terminal also has much higher emissions per TEU than the Proposed Project (Figure 3). This is due in part to the fact that containers only make up a portion of the cargo transported through the terminal. Finally, the Omni Alternative would provide very little operational employment relative to any other alternative (Figure 4) and would not include wharf or fill construction and the associated construction employment and tax revenues.

## Alternative 5: Land Side Improvements Only

Alternative 5 is the Landside Improvements Only Alternative and is a variant of the No Project alternative and has the same container volume of 1,697,000 TEUs. Alternative 5 comprises only the upland infrastructure components of the proposed Project, including new terminal buildings, new truck gates, an on-dock rail yard, a new 500 space ILWU parking lot, and the paving, fencing, utilities, and lighting necessary for the infrastructure changes. The Pier A rail yard would be relocated as in the proposed Project, and PHL's operations transferred to the new rail yard. The new terminal area would be 190 acres including area for the new on-dock rail yard, terminal buildings, and gate modifications. This alternative would not include new land for container storage. This alternative includes widening Harry Bridges Blvd. and constructing the Harry Bridges Buffer Area. Under Alternative 5, the terminal would be operated under a new, 30-year lease between the terminal operator and the Port. The new lease would include environmental controls that are not part of the current lease. Those controls would be imposed pursuant to the Clean Air Action Plan, Port Environmental Policy (see Section 1.6) and the Port of Los Angeles Real Estate Leasing Policy (Port 2006; see Section 1.6.3). The lease would include emissions standards for terminal equipment, participation in the vessel speed reduction program, low sulfur fuel requirements, AMP, clean truck requirements, and measures unrelated to air quality such as storm water management. Those measures would be essentially the same as the measures identified as mitigation measures for the proposed Project.

### Finding

The Board hereby finds that while the Landside Improvements Only Alternative would meet the overall project purpose of accommodating containerized cargo, it does not allow for maximum terminal efficiency or capacity, provide for the most efficient operation of the terminal, particularly related to waterside improvements, and does not provide for as much employment as the proposed project. Therefore, the Board finds that Alternative 5 is infeasible and will not be adopted in lieu of the Proposed Project.

### Facts in Support of the Finding

While the Landside Improvements Only Alternative would meet the overall objective of handling containers, at the terminal, it would not meet certain of the project objectives, especially in regards to improving or constructing container ship berthing and infrastructure, and would not reach terminal maximum capacity. This alternative would result in a maximum throughput of 1,697,000 TEUs, versus the 2,389,000 TEUs assumed for the proposed Project, a 29% reduction in terminal capacity. As a result, the Backland Alternative would not best optimize the use of existing waterways consistent with the Port's overall use of available shoreline (Objective 1.a), accommodate foreseeable containerized cargo volumes through the Port (Objective 1.b.) (c) increase container handling efficiency including on/offloading of container ships in a safe and efficient manner (Objective 1.c), and improve or construct container ship berthing and infrastructure capacity where necessary to accommodate projected containerized cargo volumes through the Port (Objective 1.e). Further, a decrease from the maximum capacity at the Berth 136-147 Terminal cannot be accommodated at another terminal at the Port (or at other Ports, see Sections 1.1.3 and 2.5.2 in the Draft EIS/EIR) and therefore is not consistent with Objective 3 (see No Project discussion above). Because of the lack of waterside improvements, this alternative does not maximize use of the largest and newest ships and would result in limited cargo capacity due to berth constraints. This Alternative has the same unavoidable significant impacts (Table 7) but does result in less criteria pollutants (Figure 1), and similar or slightly less cancer risk (Figure 2). Finally, the Backlands Alternative would result in less

total operational employment (Figure 4) and less construction employment because none of the waterside improvements would be constructed.

## Summary

Based on the alternatives discussion provided in the Final EIR and the information above, the Board determines that the Proposed Project is the only feasible alternative that best meets project objectives maximizing Port efficiency and capacity for handling containerized cargo, taking into account environmental and economic factors (see Table 9 in Statement of Overriding Considerations).

# IV. Statement of Overriding Considerations

Pursuant to Section 15093 of the CEQA Guidelines, the Board must balance the benefits of the proposed Project against unavoidable environmental risks in determining whether to approve the project. The proposed project would result in significant unavoidable impacts to Air Quality and Meteorology, Biological Resources, Geology, Noise, Transportation/Circulation and Water Quality Sediments and Oceanography.

## Air Quality:

The proposed project would result in significant unavoidable impacts to air quality during construction and operation even with the adoption and implementation of mitigation measures. Specifically, construction emissions would exceed SCAQMD thresholds for both Phase I and Phase II both with and without mitigation (Impact AQ-1 and AQ-2). In addition, operation emissions would exceed daily SCAQMD thresholds for all years without mitigation (Impacts AQ-3 through AQ-6). With mitigation however, emission are reduced to below significance for all years except for 2008 (Figure 5). This result is because mitigation measures cannot be applied quickly enough to reduce emissions in the first few project years. Due to lack of clear regulatory guidance, the Port adopted for this project a no net increase significance criteria for GHG emissions. Impacts from GHG emissions would be significant for both construction and all years of operation (Impact AQ-8). The Port will implement mitigation measures for direct impacts that will substantially reduce impacts, however, the impacts would still remain significant and unavoidable (Impacts AQ-1 through AQ-8).

As provided in the Findings above, there will be cumulative air quality construction and operational impacts (see Cumulative Impact AQ-1 through AQ-8) that would remain significant and unavoidable. Further, construction of the buffer would provide the opportunity for the public to utilize a presently vacant area as a park, which could expose them to higher levels of emissions. While the proposed project would result in less than significant health impacts (cancer, acute and chronic non-cancer health hazards) to users of the Buffer area, people visiting the park would be entering an area of high existing health risk from air emissions from the Port facilities in general, local roadways and the Harbor Freeway (I-110), which is similar to other areas in Wilmington and surrounding communities (see Draft EIS/EIR pp. 3.2-200 and 3.2-201). In addition, particulate concentrations could be higher adjacent to Harry Bridges Blvd. and affect sensitive uses of the buffer including children and the elderly which is considered a significant cumulative/indirect effect of permitting public use of the public buffer area (Cumulative Impact AQ-6).

## Biological Resources:

The amount of ballast water discharged into the West Basin and, thus, the potential for introduction of invasive exotic species (Port 1999) could increase because more and larger container ships would use the Port as a result of the proposed Project. In addition, it is also possible that exotic species could enter harbor waters on the ship hulls, anchors and anchor chains. These vessels would come primarily from outside the EEZ and would be subject to regulations to minimize the introduction of non-native species in ballast water as described in Draft EIS/EIR Section 3.3.3.8 and most ships utilize bottom paint that is resistant to accumulation of fouling organisms. In addition, container ships coming into the Port loaded would be taking on local water while unloading and discharging when reloading. This would also diminish the opportunity for discharge of non-native species. Thus, ballast water discharges during cargo transfers in the Port would be unlikely to contain non-native

species but is still a possibility as is the potential introduction of non-native species on ship hulls. No feasible mitigation is currently available to totally prevent introduction of invasive species via vessel hulls or even ballast water, due to the lack of a proven technology. New technologies are being explored, and if methods become available in the future, they would be implemented as required at that time through State and Federal regulation. Therefore, as provided in the findings above for Impact BIO-4 and Cumulative Impact BIO-4, the introduction of invasive species in ballast water or on the hulls of ships are significant, unavoidable impacts.

## Geology:

In regards to geology, the project site lies in the vicinity of the Palos Verdes Fault Zone. Strands of the fault may pass beneath the perimeter and immediately west of the proposed Project area, in the vicinity of Berths 131/132 and 147 (Figure 3.5-1 in the DRAFT EIS/EIR ). Strong-to-intense ground shaking, surface rupture, and liquefaction could occur in these areas, due to the location of the fault beneath the proposed Project area and the presence of water-saturated hydraulic fill. An earthquake within this fault zone could cause strong-to-intense ground shaking, and surface rupture. As discovered during the 1971 San Fernando Earthquake and the 1994 Northridge Earthquake, existing building codes are often inadequate to protect engineered structures from hazards associated with liquefaction, ground rupture, and large ground accelerations. Consequently, designing new facilities based on existing building codes may not prevent significant damage to structures from a major or great earthquake on a nearby fault. Therefore, as provided in the findings above for Impact GEO-2, seismic hazards related to future major or great earthquakes are significant, unavoidable impacts.

## Noise:

The proposed Project would result in significant noise impacts during construction (NOI-1). The construction activities at the Harry Bridges Buffer Area would cause temporary and periodic noise levels substantially above existing ambient noise levels in the Wilmington neighborhood north of "C" Street, resulting in a significant impact. The construction activities at the proposed Pier A rail yard near the Berth 200-202 Marinas would generate construction noise levels that would cause temporary and periodic noise levels substantially above existing ambient noise levels in nearby marinas where people live, resulting in a significant impact. These significant impacts would be short-term. Therefore, as provided in the findings above for NOI-1, the Port will implement mitigation measures that would substantially reduce impacts, however, the impacts would still remain significant and unavoidable.

## Transportation and Circulation:

There would be one direct significant, unavoidable operational transportation/circulation impact at the Henry Ford Avenue and Avalon Boulevard grade crossings as a result of the proposed Project (TRANS-5). Between the proposed Project rail yards and the beginning of the corridor, there are two local grade crossings (Avalon Boulevard and Henry Ford Avenue). The rail impact analysis is based on peak hour vehicle delay at those two affected rail crossings. Although proposed Project operations alone would not result in an additional train during the peak hour on a regular basis, it is possible that the cumulative development of the West Basin (Berths 97-109, Berths 121-131, Berths 136-147) may together result in an added train during the peak hour. Therefore, it is assumed that one additional train would occur during the peak hour. An additional train would result in additional vehicle delay at the two crossing locations. Therefore as provided in the findings above for TRANS-5 and Cumulative TRANS-5, there are no feasible mitigation measures for this impact.

Further, during construction, implementation of Mitigation Measure TRA-1 would reduce the contribution of the proposed Project on intersection LOS due to construction traffic. However, as provided in the findings above, the residual contribution of the proposed Project would remain cumulatively considerable and unavoidable when considered together with other construction projects and traffic levels for Cumulative TRA-1.

### Water Quality Sediments and Oceanography:

In regards to impacts on water quality, stormwater runoff from the project site could contain particulate debris from operation of the project facilities. Discharges of stormwater would comply with the NPDES discharge permit limits. However, there is potential for an increase in incidental spills and illegal discharges at the facilities and due to increased vessel calls at the facility. Leaching of contaminants such as copper, from anti-fouling paint could also cause increased loading in the harbor which is listed as impaired with respect to copper. Therefore as provided in the findings above for WQ-1, the impact to water quality from in-water vessel spills, discharges and leaching is significant under CEQA. The Port will implement mitigation measures that would substantially reduce impacts, however, the impacts would still remain significant and unavoidable.

While specific regulatory programs are in place to abate discharge to State and local surface waters, as provided in the findings above, there would be cumulative considerable discharge effects to water and sediment quality (Cumulative WQ-1).

## Project Benefits

The proposed project offers several benefits that outweigh the unavoidable adverse environmental effects of the project. The Board of Harbor Commissioners adopts the following Statement of Overriding Considerations. The Board recognizes that significant and unavoidable impacts will result from implementation of the Project, as discussed above. Having (i) adopted all feasible mitigation measures, (ii) rejected as infeasible alternatives to the Project discussed above, (iii) recognized all significant, unavoidable impacts, and (iv) balanced the benefits of the Project against the Project's significant and unavoidable impacts, the Board hereby finds that the benefits outweigh and override the significant unavoidable impacts for the reasons stated below.

The below stated reasons summarize the benefits, goals, and objectives of the proposed Project and provide the rationale for the benefits of the Project. These overriding considerations justify adoption of the Project and certification of the completed Final EIR. Many of these overriding considerations individually would be sufficient to outweigh the adverse environmental impacts of the Project. These benefits include the following:

- **Fulfills Port legal mandates and objectives.** The proposed Project would fulfill the Port's Tidelands Trust to promote and develop commerce, navigation and fisheries, and other uses of statewide interest and benefit including industrial, and transportation uses (Draft EIS/EIR Table 2-5), The Coastal Act identifies the Port as an essential element of the national maritime industry and obligates the Port to modernize and construct necessary facilities to accommodate deep-draft vessels and to accommodate the demands of foreign and domestic waterborne commerce and other traditional and water dependent and related facilities in order to preclude the necessity for developing new ports elsewhere in the state (see Draft EIS/EIR Table 2-5). Further the Coastal Act provides that the Port should give highest priority to the use of existing land space within harbors for port purposes, including, but not limited to navigational facilities, shipping industries

and necessary support and access facilities. The proposed project meets these requirements by modernizing the channels, wharves and backlands at Berth 136-147 to accommodate/maximize anticipated growth in water dependent maritime cargo (see Draft EIS/EIR Section 1.1.3), and does so by modernizing and existing terminal/land space and by providing facilitated support and access facilities such as truck gates, road improvements and on-dock rail to allow for the effective import and export of maritime cargo. The project would also meet the Mayor's goal and the Port's strategic objectives including the goal to "grow the Port green" (see Draft EIS/EIR Table 2-5) which for this project includes minimization of land use conflicts (e.g. see buffer discussion below) maximizing the efficiency and the capacity of facilities (e.g., on-dock rail, new cranes, improved truck gates and increased terminal throughput) maintaining financial self-sufficiency through the long term lease while raising environmental standards and enhancing public health The strategic plan also calls for developing more and higher quality jobs. The Proposed Project provides significant high quality operational (Figure 5 and employment benefits below) and construction employment while still providing for long-term air quality improvements (Figures 1, 2 and 6) as provided below. While the cargo throughput at the terminal grows from 0.9 million TEUs/year to approximately 2.4 million TEU's per year there will be a long-term reduction in the number of criteria air pollutants (see below) and reduction in estimated cancer risk.

- **Diverts containers from truck to on-dock rail.** The Berth 136-147 Container Terminal is the only container terminal at the Port that does not have direct access to an on-dock rail facility. A portion of the current and future cargo would be diverted from trucks to the new on-dock rail yard avoiding the drayage to near dock yards or downtown. In accordance with Project Objective 2, the project includes an on-dock rail yard to promote the direct transfer of cargo between ship and rail. The on-dock rail facility will be serviced by electric RMGs. The on-dock rail facility is a benefit because it lowers the number of trucks that would otherwise be required to carry discretionary cargo to near-dock rail yards and to downtown rail yards. This reduced roadway congestion at the Port and in and around these rail facilities and reduces the emissions that would come from trucks enroute to these other rail yards. Utilization of electric RMGs reduces emissions of criteria pollutants and GHGs.

- **Improves traffic flow through realignment of Harry Bridges Blvd**. Realignment of Harry Bridges Blvd. will facilitate vehicular traffic along the periphery of the Port, provide easier access to the C Street off ramp, and provide through turn pockets off of Harry Bridges Blvd. Improving traffic flow on Harry Bridges Blvd. will reduce the number of trucks entering residential areas in search of alternative routes to avoid traffic. In addition, a number of streets will be closed between Harry Bridges Blvd. and C Street to accommodate the new Buffer area. The Buffer will therefore create an additional barrier to truck traffic entering residential streets in Wilmington.

- **Removes truck cue on public streets through new terminal gates**. The truck entry and exit at Harry Bridges and Figueroa will be removed which, combined with Harry Bridges Blvd. transition to C Street, will remove the truck queues that occurs at this location during rail movements. These queues can result in blocked intersections, more traffic congestion, and unnecessary vehicle idling, which results in excess air emissions. Removing such queues will therefore improve emissions

- **Includes energy efficiency in building/construction/operation.** The proposed Project includes construction of a Leadership in Energy and Environmental Design (LEED) certified "Gold" administration building and other efficiency measures including: use of compact fluorescent light

bulbs, conducting third-party energy audits, use of solar panels on the main terminal building, implementing recycling and planting trees around the main building. LEED-certified buildings will be more energy efficient, thereby reducing GHG emissions compared to a conventional building design (Draft EIS/EIR p. 3.2-105 -107).

- **Provides a buffer between the terminal and Wilmington**. The proposed Project includes a 30-acre landscaped buffer between the container terminal and the community, which has been designed in concept with the help of the Wilmington Community. This area was originally planned for container storage and is being dedicated to open space. Implementation of this buffer is consistent with Project Objective 3, which is to "provide a landscaped area as a community amenity and to provide physical separation between Port operations and residential areas." Providing such a buffer also implements the Wilmington Community Plan's goal of establishing appropriate buffers between Port operations and the Wilmington Community. The buffer provides opportunity for elevated views of a working port, shields the residential community from direct views of moving traffic on Harry Bridges and ground level container terminal activities, significantly reduces noise incursions in the community, helps eliminate errant Port truck incursions into the community, and provides open space recreational opportunities for the community.

- **Implements the San Pedro Bay Clean Air Action Plan (CAAP)**. Project-specific standards implemented through CEQA are one of several mechanisms for meeting CAAP requirements (see CAAP Executive Summary p. 23). For Project Specific Standards identified in the CAAP (see Executive Summary p. 19), the project meets the 10 in a million excess residential cancer risk threshold (see below), implements feasible mitigation measures to meet SCAQMD significance thresholds for facility operation (see Impacts AQ-1 through AQ-24 and Findings above for feasibility discussion), and will help meet San Pedro Bay Standards. While the San Pedro Bay Standards have not been established, the proposed project results in the long-term reduction of criteria pollutants and health risk below existing levels and therefore will contribute to overall reduction of emissions in San Pedro Bay (see Figures 5 and 7 below). The Project is also in compliance with the CAAP source specific standards for trucks, ships cargo handling equipment, harbor craft and railroad locomotives as described in Final EIR Table 3.2-24.
- **Reduces criteria pollutants from terminal operations.** Approval of the proposed project will reduce criteria pollutant emissions below baseline levels as a result of mitigation during project operations (Figure 5; Section 3.2 of the DRAFT EIS/EIR ). By 2015, project emissions of VOC, NOx, $SO_x$, $PM_{10}$ and $PM_{2.5}$ will be cut approximately 50% relative to the project baseline emissions in 2003 (see Figure 5 below). Benefits of this include reduction in adverse health effects including acute and chronic cardiovascular and respiratory impairments, especially to sensitive groups such as the elderly and children, decrease in deaths and adverse birth outcomes including low birth weight, and resulting reduction in hospitalizations and lost work and school days (see Draft EIS/EIR Table 3.2-1).
- **Reduces estimated health risk from terminal operation**. Project operations will cause a cancer health risk of less than 10 in 1 million, which is the threshold of significance identified in the EIR/EIS. Project operations will also reduce the estimated cancer risk for sensitive, student and recreational receptors below existing levels by increments of 2.5 in a million, 0.1 in a million and 2 in a million respectively, at the maximum predicted impact location (see Final EIR Table 3.2.-30). In addition, based on isopleths of residential cancer risk under the mitigated project, the residential cancer risks are reduced by as much as 50 in a million in a portion of Wilmington and between 50 in a million and 5 in a million in large portions of Wilmington and San Pedro (see

Figure 6). These reductions represent a decrease below the project baseline and therefore reduce emissions below baseline levels (2003).

- **Provides new jobs during the life of the project**. Net changes in employment attributable to terminal operations under the proposed Project could reach 5,433 jobs annually over the No Project conditions by the year 2038 (see EIS/EIR Section 7.3.1.13 and Table 7.3-9 and Figure 4 for a comparison of alternatives). Aggregate wages and salaries would total about $515 million in 2008 and reach about $1,127 million annually by 2038 Draft EIS/EIR Section 7.3.1.5.2). This equates to an average annual wage or salary for each project-related worker (both direct and secondary) of over $60,000 per year (in 2005 dollars) (EIS/EIR Section 7.3.1.5.2).
- **Provides new construction jobs**. Construction would result in a maximum annual employment of over 2,800 jobs (direct and secondary) (EIS/EIR Section 7.3.1.2.1). Aggregate wages and salaries during 2008/2009 would reach over $156 million annually. This equates to an average annual wage or salary for each worker related to the proposed project (both direct and secondary) of $55,500 per year (2005 dollars) (EIS/EIR Section 7.3.1.2.2). Absent construction contract approvals associated with this project, there would be not construction, and therefore there would be no additional jobs or wages.
- **Approval of a lease with terminal operator will provide Harbor Fund Revenues**. The Berth 136-147 container terminal operation will generate approximately $1.5 to $1.8 billion in revenues to the Port of Los Angeles over the life of the project. These funds are included in the Harbor Revenue fund for the purposes of operating, maintaining and improving the Port in accordance with the Tidelands Trust. Revenues from Container Terminal operation also provides for environmental improvements, including incentive programs associated with the CAAP for reduction of truck emissions and advancing clean technology, and form the basis for the ability to construct infrastructure necessary to implement waterfront commercial and recreational improvements in Wilmington and San Pedro.
- **The project would provide indirect tax revenues**. Annual tax revenues contributed to construction workers for the peak activity year would reach $24.1 million in federal taxes, $5.6 million in state taxes, and $2.4 million in local taxes (EIS/EIR Section 7.3.1.2.2).
- **Efficient Accommodation of Increased Throughput**. In accordance with project objectives, the proposed project provides for improved efficiencies in the accommodation of containerized cargo in the following ways: improved gate facilities to facilitate truck ingress and egress from the facility, new on-dock rail facility (see above), new electric container cranes to allow for efficient unloading of the larger container ships, and more berth capacity and deeper berths to maximize the use of the deep channel of the Port by larger container ships (see Draft EIS/EIR Section 1.1.2 and Draft EIS/EIR Figure 1-4). It would not be possible to achieve these efficiencies or to reach maximum terminal capacity absent implementation of these improvements through project approval.

In summary, the Project will allow the Port to meet its legal mandates to accommodate growing international commerce, while reducing Port air emissions, and provide jobs to the local economy. The Board hereby finds that the benefits of the proposed project described above outweigh the significant and unavoidable environmental effects of the project, which are therefore considered acceptable.

**Table 9.** Summary comparison of the Proposed Project and Project Alternatives**.**

| | **Project Alternatives** | | | | | |
|---|---|---|---|---|---|---|
| | | **Alt. 1** | **Alt. 2** | **Alt. 3** | **Alt. 4** | **Alt. 5** |
| | **Proposed Project** | **No Project** | **No Fill** | **Reduced Wharf** | **Omni Terminal** | **Backland Develop.** |
| **Projective Objectives** | Good | Poor | Moderate | Moderate | Poor | Poor |
| **HRA Thresholds** | Good | Poor | Good | Good | Good | Good |
| **Criteria Pollutants** | Good | Poor | Good | Good | Good | Good |
| **Other Environ. Effects** | Moderate | Poor | Moderate | Moderate | Good | Moderate |
| **Economic** | Good | Moderate | Good | Good | Poor | Moderate |

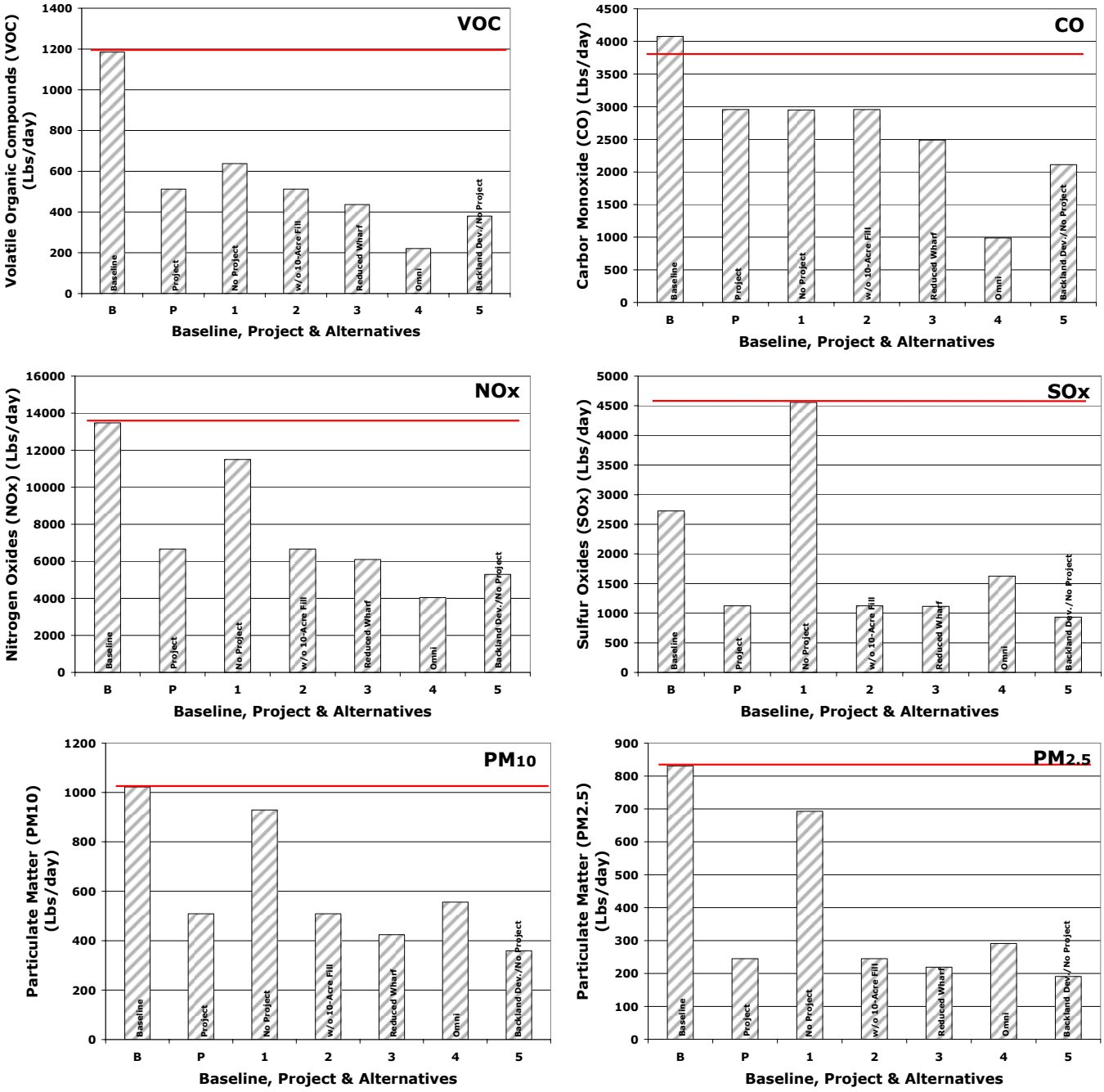


**Figure 1 a-f.** Comparison of mitigated average daily emission of criteria pollutants for the CEQA baseline (B), the proposed Project (P) and Project Alternatives (1-5) in 2025: a. Volatile Organic Compounds; b. Carbon Monoxide; c. Nitrogen Oxides; d. Sulfur Oxides; e. Particulate Matter – 10 micrometers; f. Particulate Matter – 2.5 micrometers (Source: EIS/EIR Tables 3.2-25, 3.2-35, 3.2-43, 3.2-53, 3.2-60).

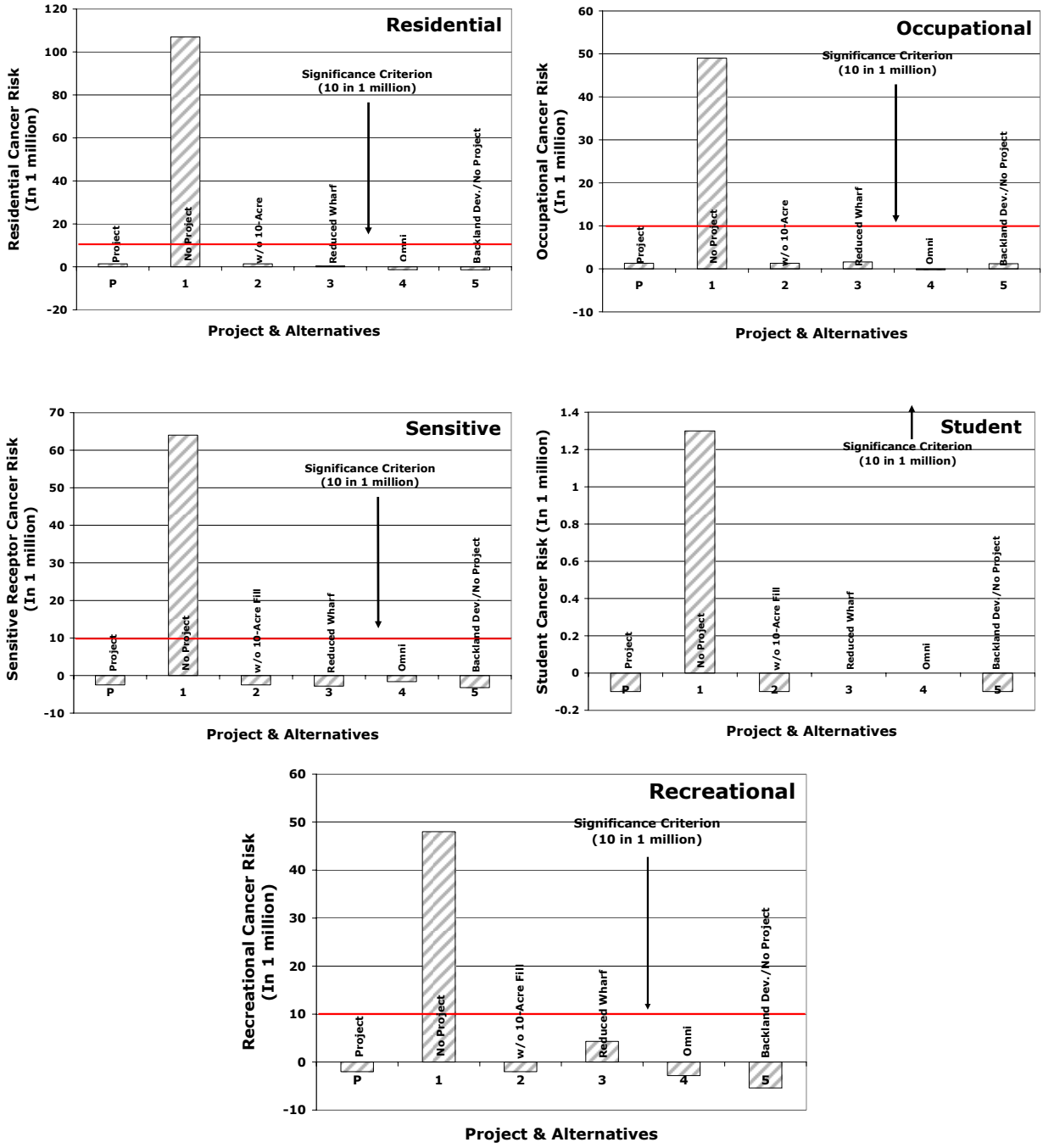


**Figure 2 a-e.** Comparison of cancer risk for the proposed Project and Project Alternatives: a. Recreational Cancer Risk; b. Occupational Cancer Risk; c. Sensitive Receptor Cancer Risk; d. Student Cancer Risk; e. Recreational Cancer Risk (Source: EIS/EIR Tables 3.2-30, 3.2-38, 3.2-48, 3.2-57, 3.2-63).

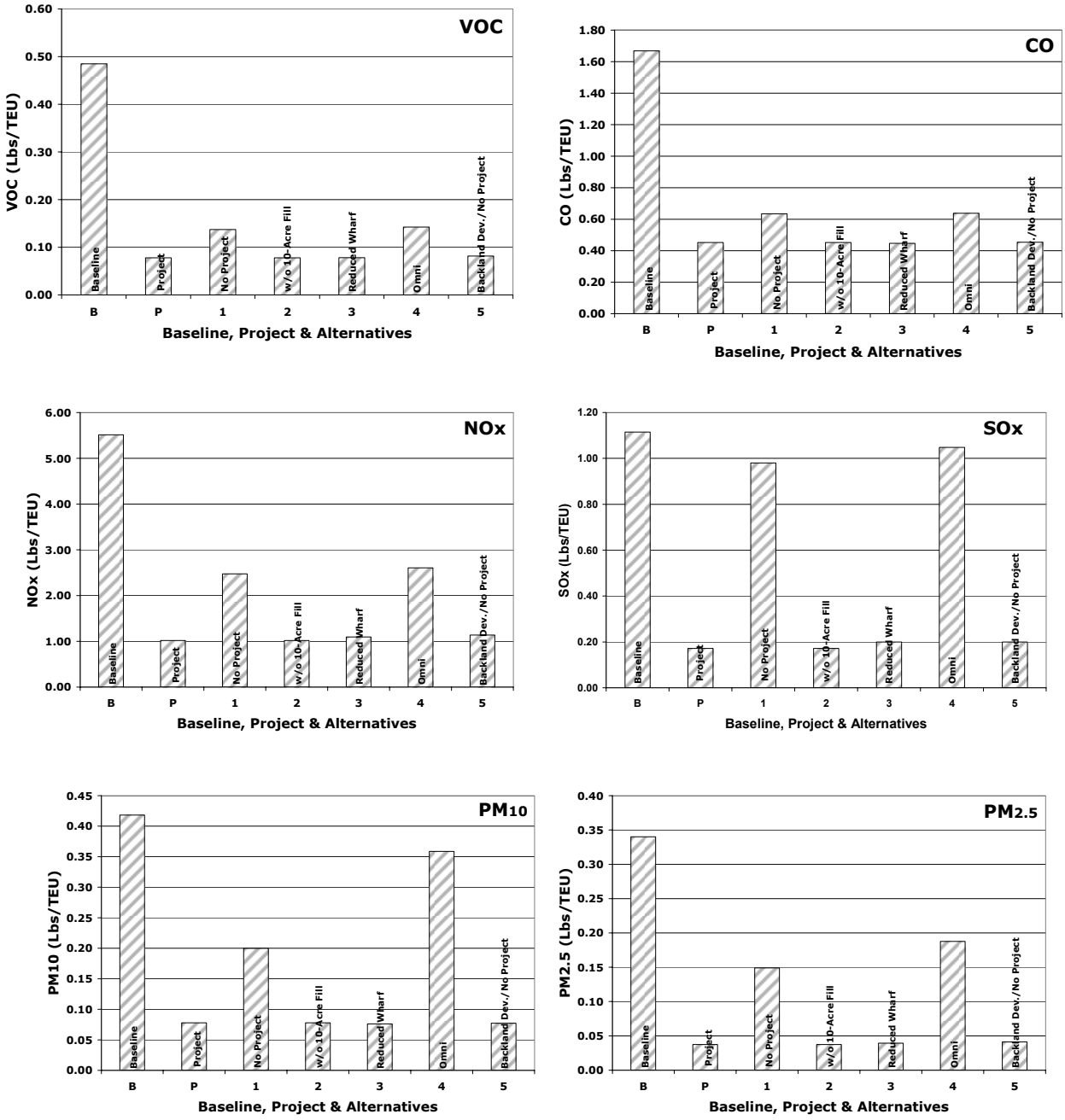


**Figure 3.** Comparison of criteria pollutant per TEU for the Baseline, Proposed Project, and five project alternatives in 2015: a. Volatile Organic Compounds; b. Carbon Monoxide; c. Nitrogen Oxides; d. Sulfur Oxides; e. Particulate Matter – 10 micrometers; f. Particulate Matter – 2.5 micrometers (Source: based on mitigated emissions from EIS/EIR Tables provided in Figure 1, divided by TEUs for each alternative).

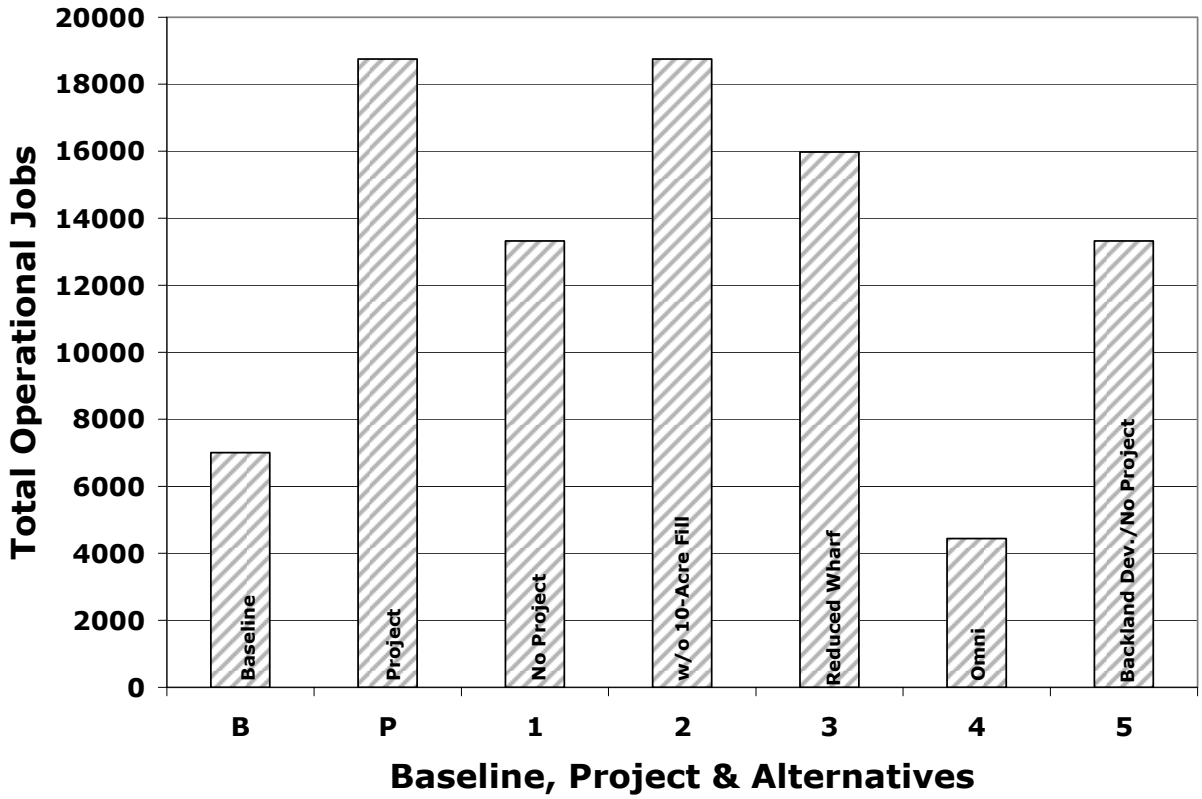


**Figure 4.** Comparison of total direct, indirect and induced operational jobs associated with the CEQA Baseline, Proposed Project and five project alternatives in the year 2038. (Source: EIS/EIR Section 7, Table 7.3-9).

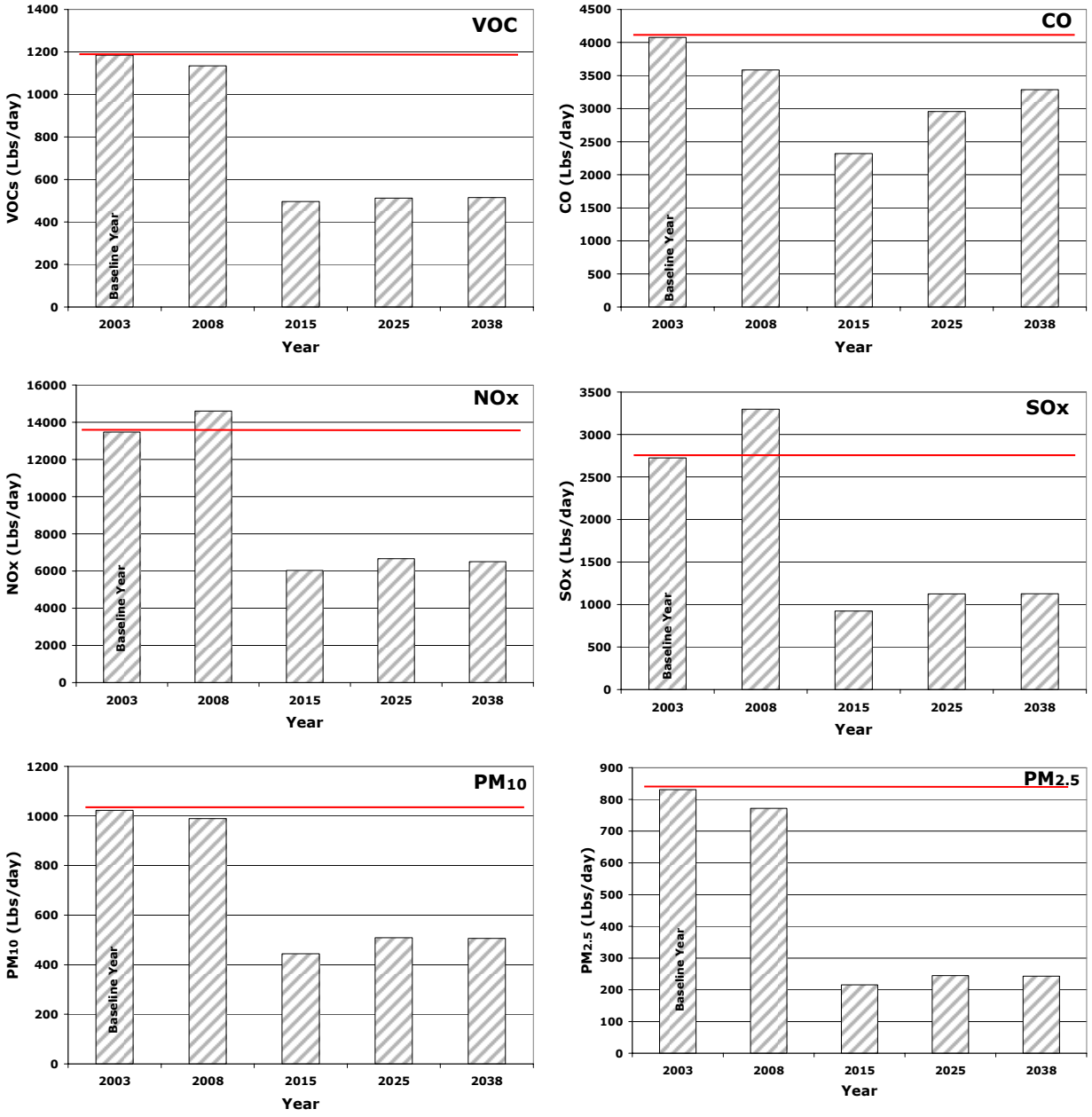


**Figure 5**. Comparison of Proposed Project operational emissions of criteria pollutants relative to the project baseline condition. (Source: EIS/EIR Table 3.2-25).


**Figure 6**. Residential cancer risk estimate for the Proposed Project with mitigation. (Source: EIS/EIR Figure 3.2-2)

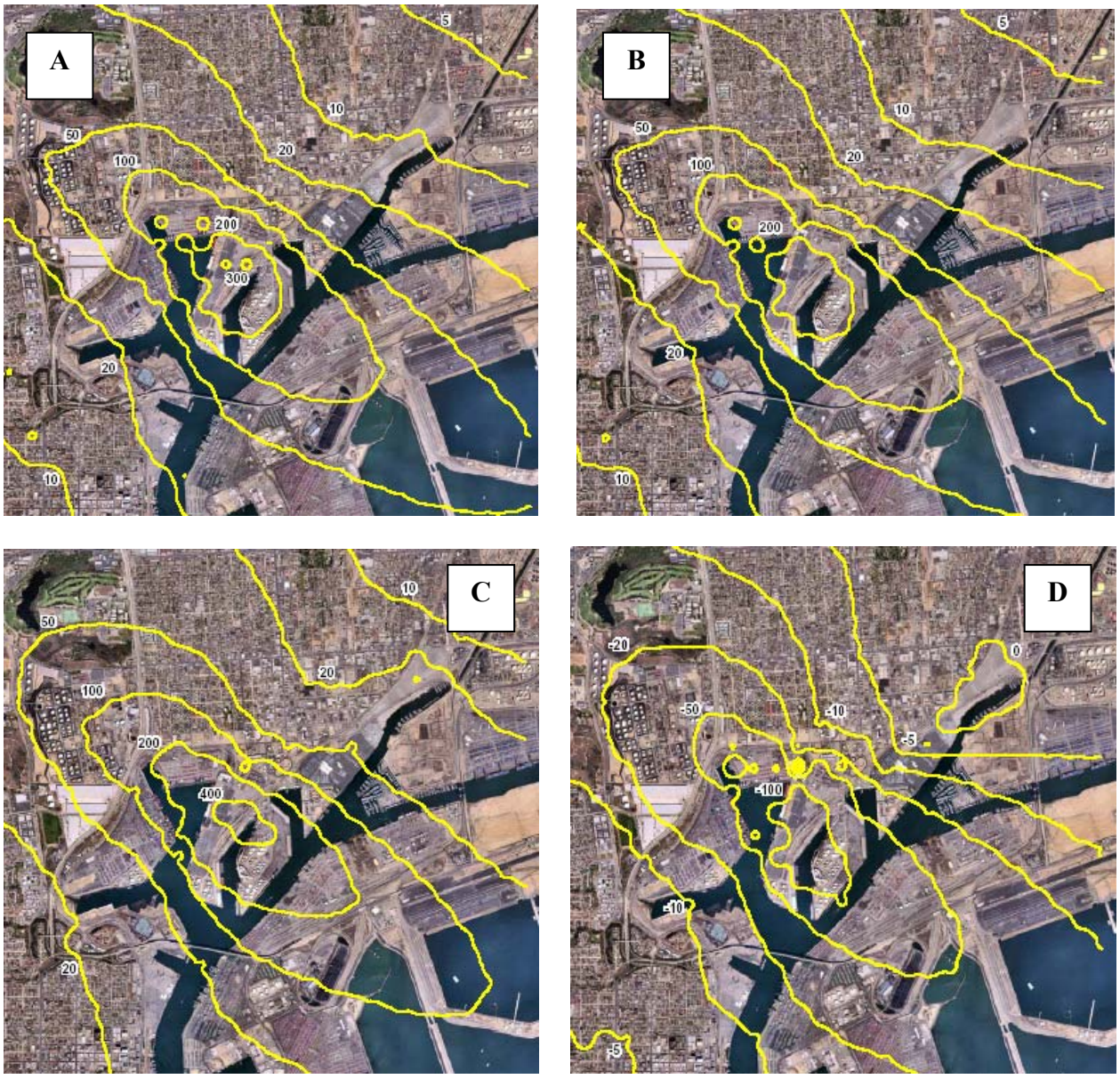


**Figure 6B**: Cancer risk estimate for the **A.** CEQA Baseline, **B.** No Project, **C.** Proposed Project without mitigation & **D.** Proposed Project with mitigation (Source: EIS/EIR)

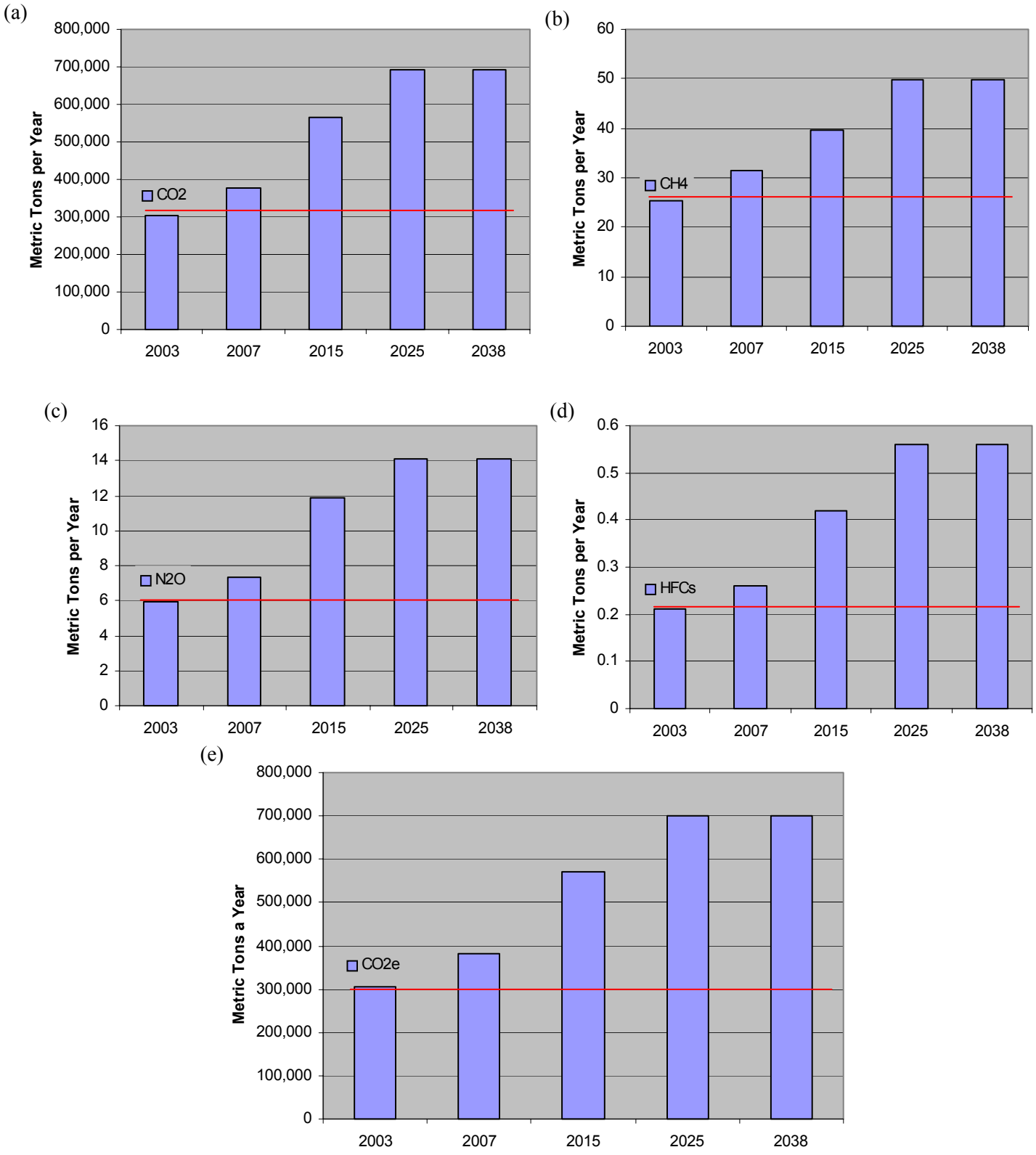


**Figure 7 (a)-(e):** Greenhouse Gas Emissions, Mitigated Proposed Project.
$CO_2e$ = the carbon dioxide equivalents of all green house gas emissions combined (Figure 7(a) through 7(d))

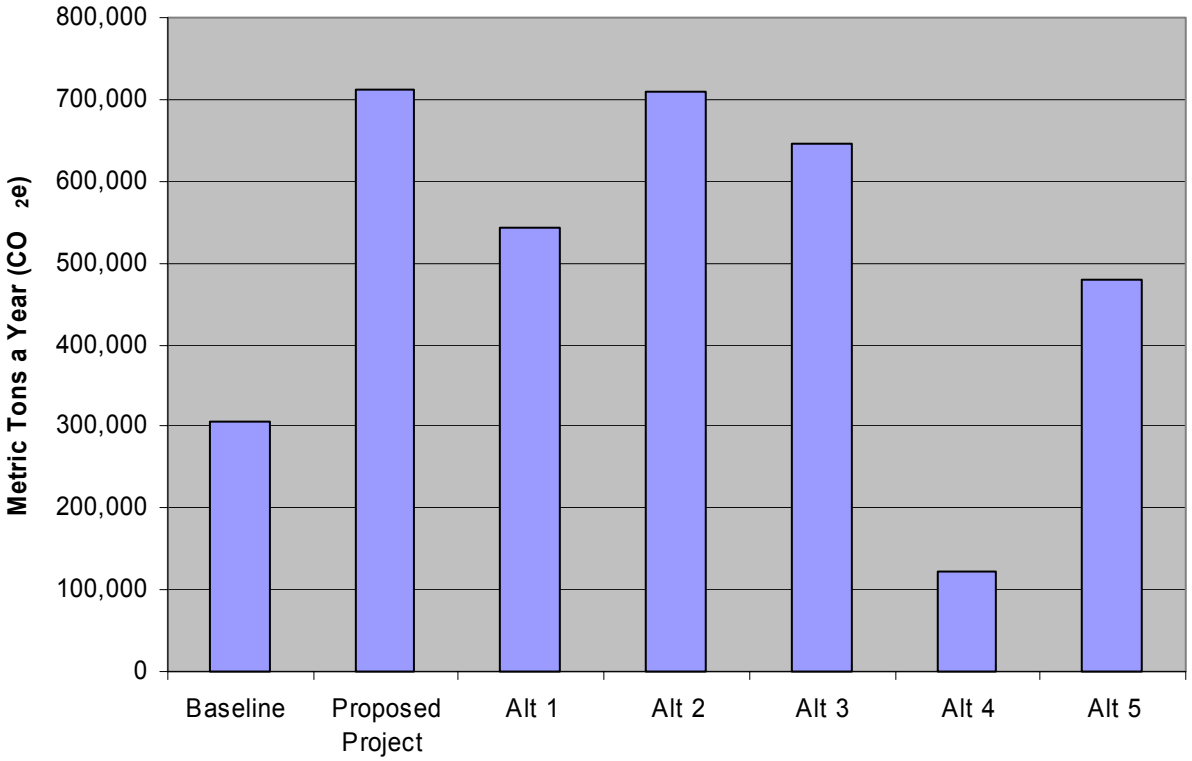


**Figure 8 (a)-(e):** Greenhouse Gas Emissions, Baseline, Proposed Project and Alternatives (2025). $CO_2e$ = the carbon dioxide equivalents of all green house gas emissions combined

# Attachment 1: Proposed Mitigation Measures or Alternatives to Reduce Significant and Unavoidable Impacts

The following is a list of mitigation measures and/or alternatives included in comments received on the Draft EIR. The list included mitigation measures and/or alternatives suggested to reduce specific significant and unavoidable impacts only. Comments were also received suggesting additional or alterative mitigation measures and/or alternatives to the proposed Project on less than significant impacts. These mitigation measures and/or alternatives are discussed in Chapter 2 (response to Comments) of the Final EIR.

## Air Quality

The following is a list of comments received on the Draft EIR that contain suggested mitigation measures (MMs) and/or alternatives suggested to reduce specific significant and unavoidable Air Quality impacts (Impacts AQ-1, 2, 3, 4, and 8).

### Impacts AQ-1 and Impact AQ-2: Construction Emissions

South Coast Air Quality Management District

SCAQMD-9: Use of cleanest emission standards for Harbor Craft used for construction

SCAQMD-11: EPA 2010 standards for Phase II construction

SCAQMD-12: Tier 3 standards for all Phase I construction

Natural Resources Defense Council

NRDC-12: Additional measures for construction equipment, diesel trucks, generators and special precautions near sensitive receptors

NRDC-14: Low sulfur fuel and AMP for construction harbor craft

NRDC-15: Trucks used in construction must be most current model year

NRDC-16: Construction equipment shall use Level 3 CARB verified diesel emissions control systems (VDECS)

NRDC-17: BMPs for generators

NRDC-18: Trucks hauling dirt from construction sites must be covered

PCAC Air Quality Subcommittee

PCAC AQ-16: Standards for trucks

PCAC AQ-17: Standards for construction equipment

Northwest San Pedro Neighborhood Council Board

NWSP-4: Use of low sulfur diesel fuel, limit idling times, use diesel particulate filters, and use electrical or natural gas equipment in construction

## Impact AQ-3and Impact AQ-4: Operational Emissions

South Coast Air Quality Management District

SCAQMD-8: Throughput tracking

SCAQMD-14: Accelerated AMP phase-in schedule

SCAQMD-16: Electric rail mounted gantry cranes

SCAQMD-17: Stricter on road truck emissions standards

SCAQMD-19: Accelerated low sulfur fuel use phase in and use of 0.1% vs. 0.2% sulfur content

SCAQMD-20: Main engine control devices for vessels

SCAQMD-21: Performance standards main engines in new vessel builds

SCAQMD-22: Clean rail standards

SCAQMD-23 Limit truck idling to 5 minutes

SCAQMD-24: Alternative green-container transport system

Natural Resources Defense Council

NRDC-19: Accelerated AMP phase-in schedule

NRDC-20: Alternative fuel and idling restrictions for yard tractors

NRDC-21: Alternative fuel, best available control technology, and idling restrictions for yard equipment

NRDC-22: Emission standards phase-in for on road trucks

NRDC-23: Accelerated low sulfur fuel use phase in and use of 0.1% vs. 0.2% sulfur content

NRDC-24: Main engine control devices for vessels

NRDC-26: Clean rail standards

NRDC-27: Ships must meet "Blue Sky Series" standards

NRDC-28 Truck idling requirements

NRDC-30: Mitigation for harbor craft

NRDC-31: Funding new technology demonstration projects

NRDC-32: Additional on-dock rail alternative

NRDC-33: Sensitive site mitigation

PCAC Air Quality Subcommittee

PCAC AQ-9: Emission standards phase-in for on road trucks

PCAC AQ-10: Accelerated low sulfur fuel use phase in and use of 0.1% vs. 0.2% sulfur content

PCAC AQ-11: Accelerated phase-in for slide valves

PCAC AQ-13: Main engine control devices for vessels

PCAC AQ-14: Clean rail standards

PCAC AQ-15: Mitigation for harbor craft

### Impact AQ-8: Greenhouse gas emissions

Center for Biological Diversity

CBD-11: Incorporation of efficiency/Low emissions standards into new vessel construction

CBD-12: Incorporation of efficiency/Low emissions standards into fleet modernization of on-road trucks

CBD-13: Incorporation of efficiency/Low emissions standards into construction and operational equipment

CBD-14: Differentiated port fees based on vessel greenhouse gas emissions

CBD-15: Limits and controls on use of greenhouse gas refrigerants

CBD-16: Preferential contracting with the cleanest carriers

CBD-18: Increased use of renewable power for electricity generation

CBD-19 Use of low sulfur fuel or biofuels

CBD-20: Use of recycled materials in construction and operation

CBD-21: Purchase offsets or carbon credits

Natural Resources Defense Council

NRDC13: Recommendations to limit global warming pollution from construction

NRDC-35: Development of a low carbon fuel program, and collect refrigerants and monitor HFC leaks

NRDC-36: Electrification for tugs, cranes, locomotives, terminal equipment

NRDC-37: Truck efficiency standards to improve fuel economy, measures to improve aerodynamics, automatic tire inflation systems, single wide base tires, weight reduction, low viscosity lubricants, hybrid vehicle technology, improved freight logistics and fuel additives

NRDC-38: Intelligent container design

NRDC-39: Locomotive and ship efficiency measure

NRDC-41: Green container system

Attorney General

AG-2: Add incentives for vessels to convert to AMP and add or fund solar source for AMP

AG-5: Mandatory reporting for VSRP compliance

AG-7 & 8: Mandate anti-idling measures and prohibit non-essential idling

AG-9: Provide in-terminal truck electrification

AG-10: Implement Fuel Economy standards by vessel class

AG-11: Add solar panels in parking lot

AG-12: Require “cool-roof” designs

AG-13: Increased recycling rates

AG-14: Increase tree planting rates

AG-15: Convert diesel rail equipment to electric or fuel cell powered equipment

AG-16: Idling restrictions for yard tractors, terminal equipment

AG-17: Terminal user greenhouse gas mitigation fee

AG-18: Fleet modernization incentives

AG-19: Mandatory tire check/tire inflation program

AG-20: Environmentally differentiated port fee

AG-21: Coolants used in refrigerated vessels/containers

AG-22: Fees on vessels that leak HFCs

AG-23: Mechanisms to require or incentivize the use of alternative refrigerants

AG-24: Provide HFC recovery service

AG-25: Include idling restrictions for locomotives

AG-26: Install and use the most energy efficient lighting available

AG-27: Reduce commuter vehicles

AG-28: Incorporation of efficiency/low emissions standards into construction equipment

AG-29: Consider environmentally preferential contracting with “green” contractors

AG-30: Use of recycled materials in construction and operation

AG-31 Purchase offsets or carbon credits

## Biology

No comments were received on the Draft EIR that contained suggested mitigation measures and/or alternatives to reduce significant and unavoidable Biological impacts (Impact BIO-4c).

## Geology

No comments were received on the Draft EIR that contained suggested mitigation measures and/or alternatives to reduce significant and unavoidable Geological impacts (Impacts GEO-1a, 2a, 1b and 2b).

## Noise

The following is a list of comments received on the Draft EIR that contain suggested mitigation measures and/or alternatives suggested to reduce significant and unavoidable Noise impacts (Impact NOI-1).

Coalition for a Safe Environment**:**

**CSE(B)-31:** Establish a Noise Complaint Hotline

## Transportation and Circulation

No comments were received on the Draft EIR that contained suggested mitigation measures and/or alternatives to reduce the significant and unavoidable Transportation and Circulation impact (Impact Trans-5).

## Water Quality

No comments were received on the Draft EIR that contained suggested mitigation measures and/or alternatives to reduce the significant and unavoidable Water Quality impact (Impact WQ-1e).