AGENDA ITEM NO. 6

The Port of LONG BEACH

Memorandum

BOARD OF HARBOR COMMISSIONERS
Meeting of APR 13 2009
Action Approved
Resolution No. HD-2498

Date: April 13, 2009

To: Board of Harbor Commissioners

From: Richard Cameron, Director of Environmental Planning

Subject: Port of Long Beach, Middle Harbor Redevelopment Project: Recommended Adoption of a Resolution Certifying the Final EIR, Making Findings, Adopting a Statement of Overriding Considerations, Adopting a Mitigation Monitoring and Reporting Program, Approving the Project, Adopting the Application Summary Report, and Approving a Level III Harbor Development Permit #03-121

Requested Action

The Board is asked to (i) receive this report from the staff and its environmental consultants and carefully consider all written and oral comments received on this item, and (ii) if the Board concurs that the Final Environmental Impact Report (Final EIR) has been completed in compliance with the provisions of the California Environmental Quality Act (CEQA) and that the Project should be approved, adopt a resolution certifying the Final EIR for the Middle Harbor Redevelopment Project, making certain findings, adopting a Statement of Overriding Considerations, adopting a Mitigation Monitoring and Reporting Program, approving the Project, adopting the Application Summary Report, and approving a Level III Harbor Development Permit (Attachment 1).

Prior to taking this action, the Board is requested to carefully review and consider the Final EIR, including all the comments and the responses to comments. The Final EIR was distributed to the Board under separate cover on April 2, 2009. The Draft EIS/EIR was previously transmitted to the Board, and is now superseded by the Final EIS/EIR. For ease of reference, Table ES.8-1, which summarizes the environmental impacts of the Project and the corresponding mitigation, and identifies whether or not the impact remains significant after mitigation, is included as Attachment 2 to this report.

Background

The Middle Harbor Redevelopment Project (Project) involves Piers D, E, and F. Piers D and E were constructed in the 1940s, and Pier F in the 1960s. While the uses of the site have changed over time, their basic configuration has not changed.

Since 1970, containerized shipping has increased twenty-fold through U.S. West Coast ports, which have invested billions of dollars optimizing their facilities to accommodate this growth. The Port of Long Beach Port Master Plan has a primary goal of providing adequate water and landside marine terminal facilities to accommodate a portion of the increasing containerized cargo throughput volumes and the modern cargo vessels that transport these goods to and from the Port. The existing terminals on the Project site are out-of-date and need to be rehabilitated, modernized, and brought into compliance with the Green Port Policy and the Clean Air Action Plan (CAAP). The fundamental purposes of the Project are to (i) consolidate the common operations and wharves of two terminals (Piers E and F) into one terminal; (ii) rehabilitate and modernize existing primary Port facilities, including replacement of obsolete and deteriorated

wharf structures; (iii) provide for channels and berths of sufficient width, depth, and length to allow access to the docks by existing and future cargo vessels and provide for the replacement of obsolete gantry cranes with new generation cranes that are able to reach across the new, larger vessels; (iv) modernize equipment and make the terminal operate more efficiently by providing for efficient terminal traffic flow and cargo-handling facilities; and (v) link new and improved dock and wharf operations to planned and existing intermodal rail yard facilities, and separate on-dock intermodal terminal lead track operations (loading/unloading and switching) from mainline track operations. In addition, the Project will provide the Port with the opportunity to achieve the goals of the CAAP, including installation of the equipment necessary to ensure that all ships calling on the terminal will cold-iron.

On December 19, 2005, the Port, in cooperation with the U.S. Army Corps of Engineers (USACE), issued a Notice of Intent/Notice of Preparation (NOI/NOP) to prepare an Environmental Impact Statement/Environmental Impact Report/Application Summary Report (EIS/EIR) for the Project. Two public scoping meetings for the Project were held, the first on January 30, 2006, at the Long Beach City Hall Council Chambers, and the second on February 6, 2006, at Cabrillo High School. Fourteen written and oral comments were received during the scoping period. The comments received are summarized in the Executive Summary to the Final EIR in Table ES-7-1.

Taking into account the comments they received in response to the NOI/NOP and during the scoping period, the Board and USACE released the Draft EIS/EIR on May 19, 2008, and followed-up by holding two public hearings on the Draft. One hearing was held on June 11, 2008, at Long Beach City Hall Council Chamber, and the second on June 18, 2008, at Silverado Park. The public comment period on the Draft EIS/EIR was extended by four weeks and ended on August 8, 2008. A total of 81 people spoke at the public hearings on the Draft EIS/EIR. In addition, a total of 61 agencies/individuals commented on the Draft EIS/EIR during the comment period, including four federal government agencies, five state government agencies, two regional government agencies, five local government agencies, one national organization, six community groups, 19 industry and business groups, and 19 individuals. Some groups submitted multiple letters, resulting in a total of 66 comment letters received. There were 584 individual comments. Port staff and the environmental consultants have now responded in writing to all comments received on the Draft EIS/EIR, which responses were circulated 10 days prior to this hearing as required by CEQA (Public Resources Code § 21092.5(a)).

The Alternatives

Alternative 1 – The 345-Acre Alternative (the Project). To accomplish the purposes described above, the Project would: expand the existing 294-acre site to 345 acres, including 54.6 net acres of new land which would be created by filling Slip 1 between Piers E and F (Berths E12-E14 and F1-F4) and a portion of the East Basin; consolidate the two existing terminals into one terminal that would be designed to load and unload containerized cargo to and from marine vessels, accommodating approximately 3,320,000 TEUs (Twenty-foot Equivalent Unit) per year; include dredge/fill operations and wharf construction to create three deep water berths with -55 feet Mean Lower Low Water (MLLW) depths; improve rail infrastructure (*e.g.*, mainline track realignment at Ocean Boulevard/Harbor Scenic Drive, Pier F Avenue storage yard and tracks,

Pier F tail track, and expansion of the existing Pier F intermodal railyard); construct a 66kV electrical substation (Pier E substation) to provide power to support Middle Harbor container terminal operations, including supplying shore-to-ship power and the future power needs for other Port facilities. Construction would occur in two phases over 10 years, and would be scheduled for completion in 2019. The proposed terminal would be fully optimized at maximum capacity by 2025.

Alternative 2 – The 315-Acre Alternative. This alternative would add 24.7 net acres of newly created land to the existing 294-acre Project site by filling Slip 1. This alternative would include terminal expansion on adjacent areas of existing and newly created land, dredge and fill operations, and new wharf construction. A new wharf would be constructed to handle increased cargo throughput and accommodate deep-draft container ships, and to replace existing, insufficient wharves. The new 2,900-foot wharf would consist of two deep water berths with -55 feet MLLW depth. Buildout under this alternative would include the rail improvements identified for Alternative 1. The proposed 66kV Pier E Substation would also be constructed, as described for Alternative 1. This alternative would consist of one consolidated container terminal that would accommodate approximately 2,870,000 TEUs per year. Under this alternative, however, the 34.3-acre East Basin area would not be filled and the Berth E23 wharf would not be constructed, which would decrease container movement efficiency compared to the Project. Moreover, under this design the available area along the expanded Pier F intermodal railyard would be substantially limited in width and, consequently, would not support efficient access by trucks transporting containerized cargo. Therefore, under Alternative 2 the proposed terminal areas would not support the activities and modern equipment necessary to efficiently and safely handle the anticipated containerized cargo volumes. Although Alternative 2 would be less environmentally damaging than the Project; it would not meet the overall Project purpose and need of increasing container terminal efficiency to accommodate a portion of the predicted future containerized cargo throughput volumes.

Alternative 3 – The Landside Improvements Alternative. This alternative would redevelop existing terminal areas on Piers E and F and convert underutilized land north of the Gerald Desmond Bridge and Ocean Boulevard within the Project site to a container yard. The alternative would include construction of the following upland site improvements: redevelopment and backland expansion on existing lands within the Project site (the Berth E23 oil area would be abandoned and redeveloped as container yard area); construction of the Pier E substation and shore-to-ship infrastructure to cold-iron vessels while at berth. This alternative would also include construction of a mainline track realignment at Ocean Boulevard/Harbor Scenic Drive and expand the existing Pier F intermodal railyard to six tracks. This alternative would consist of a consolidated container terminal that would be operated by one terminal operator, and would accommodate approximately 2,910,000 TEUs per year. Under this alternative, there would be no in-water activities (e.g., dredging, filling Slip 1 and the East Basin, new wharf construction), no wharf upgrades would occur (except the provisions for shore-to-ship power), and channel and berth deepening would not occur. This alternative is equivalent to a No Federal Action Alternative because it would not require issuance of federal permits, and thus there would be no significance determination under the National Environmental Policy Act (NEPA) for this alternative. However, this alternative would not meet the overall Project purpose of increasing and optimizing the cargo-handling efficiency and capacity of the Port by

constructing sufficient berthing and infrastructure capacity to accommodate a proportional share of foreseeable increases in containerized cargo. Nor would it allow for improving marine terminal operational efficiencies that would expand the use of existing waterways for international maritime commerce.

Alternative 4 – No Project Alternative. This alternative considers what would reasonably be expected to occur on the site if the Port did not implement the proposed Project. The Port would take no further action to construct additional backlands or redevelop the 294 acres that currently exist. The USACE would not issue permits for dredge and fill or wharf construction activities. This alternative would maintain the current California United Terminals (CUT) and Long Beach Container Terminal (LBCT) container terminals at a combined size of 294 acres and in their current configuration, and forecasted increases in cargo would still occur as greater operational efficiencies are implemented. The two terminals would continue to generate operational impacts, and would result in a maximum throughput of approximately 2,600,000 TEUs per year. However, because no rail improvements would be constructed under this alternative, the majority of the intermodal cargo to and from the two terminals would continue to be hauled by truck. In addition, the Pier E substation would not be constructed, which would eliminate the potential for vessels to cold-iron. Moreover, existing site conditions would constrain the ability of Middle Harbor to function as modern and efficient primary Port facilities. The lack of waterside and upland improvements would mean that the current inefficiency of cargo movement through the site's existing marine terminals would continue. As Pier E has minimal rail capability (i.e., Slip 1 separates Pier E docks and backlands from existing intermodal rail facilities) and the existing intermodal Pier F railyard is too small to accommodate regular service of modern intermodal trains, this alternative would not provide sufficient rail infrastructure to handle intermodal containerized cargo. Additionally, without the necessary dredging to deepen the channels and berths in the Middle Harbor to the planned -55-foot MLLW depth, the existing marine terminals would be limited in their ability to service modern, large, deep-draft cargo ships.

Attachment 3 to this report contains Tables 4.1-1 and 4.3-1 from the Final EIS/EIR that compare the alternatives at full buildout and the CEQA significance analysis for each alternative.

Project Impacts

Although most potentially significant environmental impacts of the Project will be rendered insignificant through project design features, environmental controls, and the imposition of mitigation measures, some Project impacts, although lessened to the extent feasible by such features, controls, and measures, are considered to be significant and unavoidable impacts. These unavoidable impacts are as follows:

1. Air Quality.

Despite the imposition of mitigation measures, Project construction activities would result in emissions and in offsite ambient air pollutant concentrations that exceed SCAQMD emission significance thresholds. The operation of the Project would produce offsite impacts that exceed SCAQMD ambient thresholds of significance for 1-hour and annual NO_2. However, isopleths,

which are available from Port staff, demonstrate that the offsite impacts to ambient air quality do not represent disproportionately high and adverse impacts on minority or low-income populations, as those impacts occur almost exclusively in highly industrial areas.

It should be noted that there were several revisions to the Air Quality section of the Draft EIS/EIR. Subsequent to release of the Draft EIS/EIR in May 2008, new regulations were adopted and several updated assumptions became available that were used to prepare updated air quality analyses for the Final EIS/EIR. Based on these updated analyses, (i) the Final EIS/EIR did not identify any new significant air quality impacts for any alternatives; (ii) for all analyzed Project years, the net change in peak daily sulfur oxide (SOx) operational emissions between the mitigated Project and NEPA Baseline was deemed to be an insignificant impact due to implementation of low-sulfur fuel regulation and revised mitigation measures; (iii) for years 2020 and 2030 analyses, the net change in annual average daily carbon monoxide (CO) operational emissions between the mitigated Project and NEPA Baseline was deemed to be an insignificant impact due to updated vehicle miles traveled (VMT) data and updated emission factors; (iv) for year 2015 analysis, the net change in annual average daily volatile organic compound (VOC) operational emissions between the mitigated Project and NEPA Baseline was deemed to be an insignificant impact due to updated VMT and updated emission factors; and (v) the mitigated Project cancer risk under NEPA for occupational receptors was deemed to be less than significant. See Introduction to Chapter 3.2 of the Final EIR for a full explanation.

2. Greenhouse Gas Emissions.

Project construction and operation would produce GHG emissions that would exceed the CEQA threshold. Despite the imposition of 28 mitigation measures, these impacts would remain significant.

In the Draft EIS/EIR, the discussion of GHG impacts included an analysis that estimated GHG emissions within the state of California. The Port received several comments, including from the State of California Department of Justice, that suggested that the analysis should not be limited to California. The commenters recommended that GHG emissions include emissions that cover trip lengths to the origin/destination (e.g., vessel emissions would be estimated from the last port of call and to the next port of call). After considering the comments, staff concluded that the original analysis was the correct approach, with staff's reasoning contained in response to comment DOJ-4. However, in the interest of disclosure, staff did include an expanded analysis for informational purposes in the response to comment DOJ-4.

3. Biological Resources.

Project operations could disrupt local biological communities through the introduction of non-native species in ballast water. Regulations (PRC Section 71200 et seq.) require ballast water management practices for all vessels, domestic and foreign, carrying ballast water into waters of the state after operating outside the Exclusive Economic Zone (EEZ). Specifically, the regulation prohibits ships form exchanging ballast water within port waters. Alternatively, ships may retain water while in port. Vessels are required to report the ballast water management activities to the California State Lands Commission (CSLC). The amount of ballast water

discharged and, thus, the potential for introduction of invasive exotic species could increase since more and larger container ships would use the Port as a result of the Project. Because these vessels would come primarily from outside the EEZ, they would be subject to regulations to minimize the introduction of non-native species in ballast water, such as discharging to approved receivers and not exchanging ballast water within ports. Non-native algal species and invertebrates can also be spread via vessel hull and external machinery. Although the potential for introduction or spread of non-native species is low, any introduction of a non-native species would be considered significant.

4. Ground Transportation.

Additional traffic generated by construction activities and the operation of the Project would have significant impacts on certain highway locations in the study area. If Caltrans either adopts a fair share based program to collect funds for mitigation that Caltrans commits itself to implement, or otherwise obtains the funds needed to improve the impacted highway segments, the Port has committed to paying its fair share contribution into that program (the Port has already committed $5 million to the I-710 Corridor EIS/EIR to address impacts there). However, because the Port does not own, control, or maintain any of the impacted highway segments, which are under the jurisdiction of Caltrans, the Port cannot unilaterally implement any of the mitigation measures on those highway segments; nor can the Port guarantee that Caltrans will implement the fair share programs. Accordingly, the regional cumulative impact on these highway segments would remain significant.

The City of Riverside and the Riverside County Transportation Commission asserted the Project's truck and rail traffic would significantly impact their constituents. Port staff prepared and reviewed studies to corroborate that the Project would have minimal impacts on the Inland Empire highway and at-grade rail crossings due to Project traffic. Please see Response to Comment RCTC-2 for a detailed explanation of these analyses.

5. Noise.

Project construction activities would increase ambient noise levels by over three dBA and would exceed City of Long Beach Municipal Code maximum noise levels. Due to the difficulty in mitigating noise from construction impacts, the project would result in a significant impact due to pile-driving activities. Mitigation measure NOI-1.1a has been modified to place temporary noise barriers between noise-generating construction equipment and Cesar Chavez School. In addition, the Project Control dealing with notification has been modified to ensure that the Port would coordinate with schools and other affected agencies to ensure construction activities would not substantially interfere with facilities operations. Incorporation of these changes to the mitigation measure and project control, however, would not reduce noise impacts during construction below the level of significance. Specific economic, legal, social, technological, or other considerations make infeasible additional mitigation measures. Please see Response to Comment LBUSD-19.

6. Cumulative Impacts.

The proposed project would also result in cumulatively considerable construction and operational air and greenhouse gas impacts, biota relating to invasive species and whale strikes, traffic on the I-710, and construction noise.

The Port has developed two programs with corresponding guidelines in an effort to mitigate potential cumulative air quality and noise impacts of projects in the San Pedro Bay Ports[2] area (including marine terminal expansions/modernizations for the ports of Long Beach and Los Angeles and related transportation projects). In particular, the programs are designed to (1) reduce emissions (e.g., school bus diesel particulate matter (DPM) filters) and/or (2) exposure to air emissions and noise impacts directly (e.g., high-efficiency particulate air [HEPA] filters, noise berms, etc.) or though prevention, education, and outreach programs. The programs are specifically aimed at sensitive populations (i.e., school-age children, senior citizens, and persons with specific respiratory illnesses), which have been identified by state and local air agencies as particularly sensitive to air pollutants. One program is focused on school-age children; the Port has prepared *Schools and Related Sites Guidelines for the Port of Long Beach Grant Programs* that identify eligible applicants as schools, preschools, and daycare centers where children spend a significant portion of their waking hours. The other program is focused on specific prevention, education, and outreach programs, as well as direct mitigation projects for hospitals, healthcare facilities, retirement homes, senior centers, and convalescent homes. The Port has prepared *Healthcare and Seniors Facility Program Guidelines for the Port of Long Beach Grant Programs*, which includes funding opportunities for prevention/education/outreach programs to help sensitive receptors which include children, senior citizens, and people with respiratory illnesses in areas determined to be most affected by cumulative air impacts near the ports as well as direct mitigation projects for certain facilities described previously. These measures are designed to supplement source reduction measures in the near term when cumulative impacts are predicted to be highest. Implementation of Final EIS/EIR **Mitigation Measure AQ-29** (Cumulative Air Quality Impact Reduction Program) would ensure the proposed Project's participation in the Port-wide programs. Staff and Environ are recommending that the Port require this Project to provide funding for each program in the amount of $5 million.

To partially address the cumulative GHG impacts of the Middle Harbor Project, staff is also recommending that the Port require this Project to provide funding for the GHG Program in the amount of $5 million. This money will be used to pay for measures pursuant to the GHG Emission Reduction Program Guidelines, and include, but is not limited to, generation of green power from renewable energy sources, goods movement efficiency measures, cool roofs to reduce building cooling loads and the urban heat island effect, building upgrades for operational efficiency, tree planting for biological sequestration of CO_2, energy-saving lighting, and purchase of renewable energy certificates (RECs). GHG emissions from the proposed Project would be reduced due to the implementation of **Mitigation Measures AQ-5, AQ-7a,** and **AQ-9** through **AQ-28.** Use of **Mitigation Measures AQ-5, AQ-7a, AQ-12,** and **AQ-13** would reduce Project emissions of CO_2e by 16 to 18 percent from unmitigated levels, depending on the Project year. Although not quantified in this analysis, implementation of **Mitigation Measures AQ-9 through AQ-11, and AQ-14 through AQ-28** would further reduce Project GHG emissions.

Port staff would like to clarify that the funds contributed to the GHG Emission Reduction Program cannot be spent for any of the mitigation measures specified for the proposed Project or any future proposed project. These funds are intended to be available for projects that are in addition to the mitigation measures specified in EIRs. In response to concerns expressed by the State of California Department of Justice on this issue, a revision to the GHG Emission Reduction Program Guidelines will be brought to the Board for approval as soon as possible to clarify this point as follows:

1. grants may not be used for mitigation measures specified in an EIRs for a proposed project;
2. grants will be used for activities that reduce GHG emissions beyond what would have happened in the absence of the grant;
3. grants will be used for activities needing grant funding to occur in a timely and successful manner; and
4. grant recipients shall agree that they will not seek credit towards any obligations imposed pursuant to the California Global Warming Solutions Act of 2006, California Health and Safety Code Section 38,500 and following or seek any credit or offset under any emissions averaging, banking, marketing or trading program.

Mitigation

Mitigation measures have been developed for the Project to reduce the significance level of the identified impacts as outlined in the attached Mitigation Monitoring and Reporting Program (Attachment 1), and each mitigation measure shall be a condition of project approval. However the air quality, greenhouse gas, biota, traffic, and noise impacts will remain significant after all feasible mitigation measures are applied to the proposed project (e.g., shore-to-ship electrification, rail-mounted gantry cranes and solar panels on terminal buildings).

Overriding Considerations

Port staff finds that there are specific overriding economic, legal, social, technological, and other benefits of the proposed Project that outweigh the significant impacts and provide sufficient reasons for approving the proposed Project, and thus the attached Statement of Overriding Considerations has been transmitted herewith for the Board's review and consideration (Attachment 1).

Previous Approvals

The Board of Harbor Commissioners authorized the distribution of the Draft EIR for the proposed project on May 19, 2008.

ATA Litigation

The recent Ninth Circuit Court of Appeals decision in American Trucking Association, Inc. v. City of Los Angeles, Case No. CV08-04920, as well as any subsequent partial or total injunction issued by the United States District Court on remand, will not limit or restrict any of the environmental controls or mitigation measures included in the Project. Although the United

States District Court on remand will reconsider the concession agreements of both the Port of Long Beach and the Port of Los Angeles, the Port's concession agreement is not necessary for any of the Project's environmental controls or mitigation measures. Moreover, the Port's concession agreement has 15 "concession requirements," and nine of those requirements, including five relating to air quality, are existing laws. The concession agreement merely gives the Port an additional contractual right to ensure that trucks and drivers accessing Port property are complying with those existing laws. With or without that additional contractual right, those laws are all enforceable.

Thus, even were the Port's concession agreement enjoined, (i) trucks would still have to comply with the tariff truck ban deadlines; (ii) licensed motor carriers would still have to prove that their trucks were clean through the Drayage Truck Registry tariff and the unique truck identifier tariff to gain access to the ports; (iii) truck owners would still have to maintain the emissions control equipment on their vehicles; and (iv) cargo owners would still have to pay the Clean Truck Fee. That fee could still be used to fund the purchase of new trucks. Moreover, the grant and loan documents governing publicly-funded trucks are entirely different and separate from the concession agreement. For these reasons, the outcome of this litigation will not impact the Project.

Recommendation

The Environmental Planning staff recommends that the Board of Harbor Commissioners take the following action on this project:

1. Adopt the resolution certifying the Final EIR pursuant to the California Environmental Quality Act, making certain findings, adopting the Statement of Overriding Considerations, adopting the Mitigation Monitoring and Reporting Program, approving the Project, adopting the Application Summary Report, and approving a Level III Harbor Development Permit.

Recommended by:

Robert Kanter

Robert Kanter, Ph.D.
Managing Director of Environmental Affairs
and Planning

Approved by:

Richard D. Steinke
Executive Director

SEC:s

Attachments:
Attachment 1 – Middle Harbor Board Resolution
Attachment 2 – Table ES.8-1 Summary of Environmental Impacts and Mitigation Measures
Attachment 3 – Table 4.2-1 Comparison of Proposed Project and Alternatives at Full Buildout and Table 4.3-1 Comparison of CEQA Significance Analysis by Alternative

ATTACHMENT 1

MIDDLE HARBOR RESOLUTION

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RESOLUTION NO. HD-

A RESOLUTION OF THE BOARD OF HARBOR COMMISSIONERS OF THE CITY OF LONG BEACH: CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE MIDDLE HARBOR REDEVELOPMENT PROJECT (SCH No. 2004091010); MAKING CERTAIN FINDINGS AND DETERMINATIONS RELATIVE THERETO; ADOPTING A STATEMENT OF OVERRIDING CONSIDERATIONS; ADOPTING A MITIGATION MONITORING AND REPORTING PROGRAM; APPROVING THE PROJECT; ADOPTING THE APPLICATION SUMMARY REPORT AND APPROVING A HARBOR DEVELOPMENT PERMIT

WHEREAS, the City of Long Beach, acting by and through its Board of Harbor Commissioners (Board) has authority over the City of Long Beach's Harbor District, commonly known as the Port of Long Beach; and

WHEREAS, on November 5, 2003, the Deputy Chief Harbor Engineer of the Long Beach Harbor Department submitted an application for a Harbor Development Permit (HDP) for the Port of Long Beach Middle Harbor Redevelopment Project (Project); and

WHEREAS, the Project concerns Piers D, E, and F and would rehabilitate or replace obsolete terminal facilities; provide deeper water at berths and in basins and channels; create new land; modernize marine terminal facilities; and implement environmental controls, including the Port's Green Port Policy and Clean Air Action Plan, expanding the existing 294-acre site, consisting of the Pier E terminal, the Pier F terminal, 18 acres of underutilized land north of the Gerald Desmond Bridge and Ocean Boulevard, and the Berth E24 subsided oil area, into a single, modern 345-acre terminal;

and

WHEREAS, in addition to the HDP, the Project would require the issuance of permits by the U.S. Army Corps of Engineers (USACE) authorizing work and structures in the navigable waters of the United States and the discharge of fill in those waters; and

WHEREAS, the Board is the lead agency for California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000 *et seq.*) compliance for the Project, and USACE is the federal lead agency for National Environmental Policy Act (NEPA) (42 USC §§ 4341 *et seq.*) compliance for the Project; and

WHEREAS, the Board determined that because the Project could have a significant effect on the environment, an Environmental Impact Report (EIR) should be prepared to assess the environmental impacts associated with the construction and operation of the Project; and

WHEREAS, USACE determined that an Environmental Impact Statement (EIS) should be prepared to assess the environmental impacts associated with the issuance of the federal permits authorizing work and structures in the navigable waters of the United States and the discharge of fill in those waters; and

WHEREAS, the Board and USACE jointly prepared a combined Draft EIS/EIR in the interest of efficiency and to avoid duplication of effort; and

WHEREAS, USACE will consider certification and approval of the EIS separate from the Board's consideration of the EIR; and

WHEREAS, a Notice of Preparation (NOP) of the Draft EIS/EIR was mailed to public agencies, organizations, and persons likely to be interested in the potential impacts of the proposed Project on December 19, 2005, and two public scoping meetings were thereafter held on January 30, 2006, and February 6, 2006, to gather public and agency comments concerning the preparation of the Draft EIS/EIR; and

WHEREAS, the Board and USACE thereafter jointly caused the Draft EIS/EIR to be prepared, which took into account the comments received on the NOP,

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described the Project, the environmental impacts resulting therefrom, and the proposed mitigation measures; and

WHEREAS, on May 19, 2008, the Draft EIS/EIR was circulated for public and agency review and comment; and

WHEREAS, public hearings were held on the Draft EIS/EIR on June 11, 2008 and June 18, 2008, which hearings were noticed by publications in the Press-Telegram, a newspaper of general circulation, and by news releases in the Press Telegram, the Business Journal, and the Gazettes, as well as through letters, e-mail blasts, postings on the City's website, and contacts with over 100 organizations; and

WHEREAS, the public comment period, as extended, closed on August 8, 2008; and

WHEREAS, the comments received on the Draft EIS/EIR were reviewed, and full and complete responses thereto were prepared and distributed on April 2, 2009, in accordance with Public Resources Code section 21092.5; and

WHEREAS, the Final Environmental Impact Report (Final EIR) for the Project was presented to the Board, as the decision making body of the lead agency, for certification as having been completed in compliance with the provisions of CEQA and the State and local CEQA Guidelines; and

WHEREAS, the Board has carefully reviewed and considered all environmental documentation comprising the Final EIR, including the Draft EIS/EIR and the comments and the responses thereto, and has found that the Final EIR considers all potentially significant environmental impacts of the proposed project and is complete and adequate, and fully complies with all requirements of CEQA and the State and local CEQA Guidelines; and

WHEREAS, prior to action on this Project, the Board considered all significant impacts, mitigation measures, and Project alternatives identified in the Final EIR and found that all potentially significant impacts of the Project have been lessened or avoided to the extent feasible; and

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WHEREAS, CEQA and the CEQA Guidelines provide that no public agency shall approve or carry out a project for which an EIR has been completed that identifies one or more significant effects of the project unless the public agency makes certain written findings for each of the significant effects, accompanied by a statement of facts supporting each finding; and

WHEREAS, CEQA and the CEQA Guidelines require that where an agency approves a project that would allow the occurrence of significant environmental effects which are identified in an EIR, but are not mitigated to a level of insignificance, the agency state in writing the specific reasons supporting its action based on the Final EIR and/or other information in the record; and

WHEREAS, the Board has balanced the benefits of the Project against its unavoidable environmental risks in determining to approve the Project as necessary to serve the existing and future needs of the Port of Long Beach, and has determined that any remaining unavoidable significant impacts are outweighed by specific economic, legal, social, technological or other benefits of the Project.

NOW, THEREFORE, the Board of Harbor Commissioners of the City of Long Beach resolves as follows:

Section 1. Certification. Based on its review and consideration of the Final EIR and all written communications and oral testimony regarding the Project which have been submitted to, and received by, the Port, the Board certifies that the Final EIR for the Project has been completed in compliance with CEQA and the State and local CEQA Guidelines. The Board, having final approval authority over the Project, finds that the Final EIR reflects the Board's independent judgment and analysis as lead agency under CEQA, and hereby adopts and certifies the Final EIR as complete and adequate. The Board further certifies that the Final EIR was presented to the Board and that the Board reviewed and considered the information contained in it prior to approving the Project.

Section 2. CEQA Findings and Statement of Facts. Pursuant to Public

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Resources Code section 21081 and CEQA Guidelines section 15091, the Board has reviewed, and hereby makes and adopts, the CEQA Findings of Fact for the Project, attached as and included in Exhibit "A," which is incorporated herein by reference as though set forth in full.

Section 3. Statement of Overriding Considerations. Pursuant to Public Resources Code section 21081 and CEQA Guidelines section 15093, the Board has reviewed and hereby makes and adopts the Statement of Overriding Considerations for the Project, attached as and included in Exhibit "A," which is incorporated herein by reference as though set forth in full.

Section 4. Mitigation Plan Approval. Although the Final EIR identifies certain significant environmental effects that would result from approval of the Project, most environmental effects can feasibly be avoided or mitigated and will be avoided or mitigated by imposition of mitigation measures included in the Final EIR and the Mitigation Monitoring and Reporting Program. Pursuant to Public Resources Code section 21081 and CEQA Guidelines section 15097, the Board hereby adopts and approves the Mitigation Monitoring and Reporting Program for the Project, attached hereto as Exhibit "B," which is incorporated herein by reference as though set forth in full. The Board further finds that the mitigation measures identified in the Final EIR are feasible, and specifically makes each mitigation measure a condition of Project approval.

Section 5. No Significant New Information Added to Draft EIS/EIR. The information provided in the various reports submitted in connection with the Project and in the responses to comments on the Draft EIS/EIR, the information added to the Final EIS/EIR, and the evidence presented in written and oral testimony at public hearings on the Project and the Draft EIS/EIR, do not constitute significant new information that would require recirculation of the Draft EIS/EIR pursuant to Public Resources Code section 21092.1 and CEQA Guidelines section 15088.5.

Section 6. Conformity with Port Master Plan. The Board finds on the basis of the whole record before it that the Project is in conformity with the Port Master

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Long Beach, CA 90802-4664

Plan and is consistent with the goals and objectives of the plan.

Section 7. Location and Custodian of Record of Proceedings. The Director of Environmental Planning of the Long Beach Harbor Department, whose office is located at 925 Harbor Plaza, Long Beach, California 90802, is hereby designated as the custodian of the documents and other materials which constitute the record of proceedings upon which the Board's decision is based, which documents and materials shall be available for public inspection and copying in accordance with the provisions of the California Public Records Act (Government Code §§ 6250 *et seq.*).

Section 8. Notice of Determination. The Director of Environmental Planning shall file a notice of determination with the County Clerk of the County of Los Angeles and with the state Office of Planning and Research within five (5) working days after this approval.

Section 9. Approval of Project, Adoption of Application Summary Report and Approval of Harbor Development Permit. The Board hereby approves the Project, adopts the Application Summary Report, and approves a Level III Harbor Development Permit pursuant to the California Coastal Act, the certified Port Master Plan, and Article XII, Section 1215 of the Long Beach City Charter.

Section 10. Certification, Posting and Filing. The Secretary of the Board shall certify the passage of this Resolution by the Board, shall cause the same to be posted in three (3) conspicuous places in the City of Long Beach, and shall cause a certified copy of this Resolution to be filed forthwith with the City Clerk, at which time it shall take effect.

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I hereby certify that the foregoing Resolution was adopted by the Board of Harbor Commissioners of the City of Long Beach at its meeting of April 13, 2009 by the following vote:

Ayes: Commissioners: _____

_____

Noes: Commissioners: _____

Absent: Commissioners: _____

Not Voting: Commissioners: _____

_____

Secretary

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BJM:arh 04/08/09 #A09-01088

Middle Harbor Redevelopment Project

Findings of Fact and Statement of Overriding Considerations

Prepared By

The Port of LONG BEACH

The Port of Long Beach
925 Harbor Plaza
Long Beach, CA 90802

With Assistance From

SAIC
From Science to Solutions

Science Applications International Corporation
5464 Carpinteria Avenue, Suite K
Carpinteria, CA 93013

April 2009

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Middle Harbor Redevelopment Project

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MIDDLE HARBOR REDEVELOPMENT PROJECT
FINDINGS OF FACT and STATEMENT OF OVERRIDING CONSIDERATIONS

1.0 INTRODUCTION

These Findings of Fact have been prepared by the City of Long Beach acting by and through its Board of Harbor Commissioners (POLB or Port) in its capacity as lead agency pursuant to the California Environmental Quality Act (CEQA) to support a decision on the Middle Harbor Redevelopment Project (Project or proposed Project).[1] Section 21081 of the California 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 works, 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 Statement of Overriding Considerations set forth below 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.

2.0 MIDDLE HARBOR REDEVELOPMENT PROJECT

2.1 Project Objectives

CEQA requires that an EIR state the objectives of a proposed project to explain the reasons for project development and why this particular solution is being recommended. Additionally, the project objectives are instrumental in determining which alternatives should be considered in the EIR.

The Port's overall goal for the proposed Project is to provide a portion of the facilities needed to accommodate the projected growth in volume of containerized cargo through the Port and to maximize the efficiency and capacity of terminals, while mitigating the impacts of projected growth on the local communities by implementing pollution control measures and all feasible mitigation measures. In order to accomplish these basic goals in a manner consistent with the Port's public trust responsibilities, the objectives of the proposed Project are to:

1. Consolidate common operations and wharves of two terminals (Piers E and F) into one terminal;
2. Rehabilitate and modernize existing primary Port facilities, including replacement of obsolete and deteriorated wharf structures with adequate, well-equipped wharf areas, along with channels and berths of

[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 POLB prepared a joint EIS/EIR in the interest of efficiency and to avoid duplication of effort. The USACE will consider the EIS separate from the Board of Harbor Commissioner's consideration of this EIR.

sufficient width, length, and depth to allow access to the docks by existing and future cargo vessels, and provide for replacement of obsolete gantry cranes with new generation cranes that are able to reach across the new, larger vessels;

3. Implement the Green Port Policy and the San Pedro Bay Ports Clean Air Action Plan (CAAP);
4. Provide for efficient terminal traffic flow and cargo handling operations; and
5. Link new and improved dock and wharf operations to planned and existing on-dock intermodal railyard facilities and separate on-dock intermodal terminal lead track operations (i.e., loading/unloading and switching) from mainline track operations.

2.2 Project Overview

The Project would rehabilitate or replace deteriorated and obsolete terminal facilities; provide deeper water (-55 feet Mean Lower Low Water [MLLW]) at berths and in basins and channels; create new land; modernize marine terminal facilities; and implement environmental controls, including the Port's Green Port Policy and CAAP, to accommodate a portion of the predicted future increases in containerized cargo volume and the modern, larger cargo vessels that are expected to transport these goods to and from the Port. The existing 294-acre Project site would be increased to 345-acres, including 54.6 net acres of newly created land. The Project includes terminal consolidation, redevelopment, and expansion on areas of existing and newly created land, dredge and fill operations, wharf construction to create three deep water berths with -55 feet MLLW depths, and rail infrastructure improvements (e.g., mainline track realignment at Ocean Boulevard/Harbor Scenic Drive, Pier F Avenue storage yard and tracks, Pier F tail track, and expanding the existing Pier F intermodal railyard). The Project also would include construction of a 66kV substation (Pier E Substation) to provide power that would support Middle Harbor container terminal operations, including supplying shore-to-ship power, and future power needs for other Port facilities.

Project construction would occur in two phases, the first phase in five stages and the second in four stages, and would be scheduled for completion in 2019 (i.e., Project build-out year). However, the proposed Middle Harbor container terminal is forecasted to be fully optimized at maximum capacity by 2025.

When completed, the Project would consist of one consolidated container terminal that would be designed to load and unload containerized cargo to and from marine vessels. When optimized at maximum throughput capacity (by year 2025), the consolidated container terminal would be designed to accommodate approximately 3,320,000 TEUs per year. The proposed expanded Pier F intermodal railyard would handle approximately 26.3 percent (873,160 TEUs per year) of the terminal's expected throughput. Middle Harbor container terminal operations would result in a maximum of approximately 364 vessel calls per year. Truck trips to and from the Middle Harbor container terminal would increase from the 2005 baseline average of 6,528 trips per day to an average of approximately 10,112 trips per day in the year 2030. Approximately 2,098 annual train trips would be required at maximum capacity in 2025 to support Middle Harbor container terminal operations. The terminal would operate under a new lease between the terminal operator and the Port that would include environmental controls imposed pursuant to the Port's Green Port Policy and the CAAP. The proposed Project would include participation in the POLB/POLA Vessel Speed Reduction Program (VSRP) (CAAP measure OGV1) and compliance with applicable U.S. Environmental Protection Agency (EPA), California Air Resource Board (ARB), and South Coast Air Quality Management District (SCAQMD) regulations.

3.0 CEQA FINDINGS

The Findings of Fact are based on information contained in the Final EIS/EIR for the proposed 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. The Director of Environmental Planning of the Long Beach Harbor Department, whose office is located at 925 Harbor Plaza, Long Beach, California 90802, is designated as the custodian of the documents and other materials which constitute the record of proceedings upon which the Board's decision is based, which documents and materials shall be available for

public inspection and copying in accordance with the provisions of the California Public Records Act (Government Code §§ 6250 *et seq.*).

The Draft EIS/EIR addresses the Project's potential effects on the environment, and was circulated for public review and comment pursuant to the CEQA Guidelines. Comments were received from a variety of public agencies, organizations, and individuals. The Final EIS/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 EIS/EIR, and provides written findings for each of the significant effects, which are accompanied by a brief explanation of the rationale for each finding.

While the findings set forth below identify certain specific facts supporting the various determinations and conclusions, additional facts supporting the conclusions are set forth in the corresponding sections of the of the Final EIS/EIR, and these findings specifically incorporate those facts. In addition, the Board incorporates the facts set forth in the Record of Proceedings on the Middle Harbor Project to the extent they relate to and support the findings set forth herein.

3.1 Environmental Impacts of the Proposed Project

Less Than Significant Impacts

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

1. Geology, Groundwater, and Soils;
2. Air Quality;
3. Hydrology and Water Quality;
4. Biota and Habitats;
5. Ground Transportation;
6. Vessel Transportation;
7. Land Use;
8. Public Services/Health and Safety;
9. Noise;
10. Hazards and Hazardous Materials;
11. Recreation;
12. Socioeconomics;
13. Cultural Resources; and
14. Aesthetics/Visual Resources.

Significant Impacts That Will Be Mitigated

The EIS/EIR determined that some impacts in the following environmental resource areas would be significant but feasibly mitigated with adoption of mitigation measures if the proposed Project were implemented:

1. Air Quality;
2. Biota and Habitats;
3. Ground Transportation;
4. Public Services/Health and Safety; and

5. Cultural Resources.

Significant and Unavoidable Impacts

The EIS/EIR determined that some impacts in the following environmental resource areas would be significant and unavoidable if the proposed Project were implemented:

1. Air Quality;
2. Biological Resources;
3. Ground Transportation; and
4. Noise.

3.2 Findings Regarding Environmental Impacts Determined to be Not Significant or Less Than Significant

The Board of Harbor Commissioners hereby finds that the following environmental impacts of the 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	Board Finding
Geology, Groundwater, and Soils	**GEO-1**: The Project would not substantially alter the topography beyond that resulting from natural erosion and depositional processes.	This impact will be less than significant because the topography in the vicinity of the Project site is flat and not subject to landslides or mudflows, and the Project would not result in alteration of the topography, beyond that resulting from natural erosion and depositional processes.
Geology, Groundwater, and Soils	**GEO-2:** The Project would not disturb or otherwise adversely affect unique geologic features (e.g., paleontological resources) or geologic features of unusual scientific value.	The Project area is relatively flat and paved, with no prominent geologic or topographic features. The Project would not result in any distinct and prominent geologic, paleontological, or topographic features being destroyed, permanently covered, or materially and adversely modified. Therefore, for the reasons described in Final EIS/EIR Section 3.1.2.3, impacts will be less than significant.
Geology, Groundwater, and Soils	**GEO-3:** The Project would not accelerate geologic processes, such as erosion.	This impact will be less than significant because runoff of soil during Project construction would be controlled by use of BMPs, as required by either the General Construction Activity Stormwater Permit or a site-specific SWPPP for the Project, issued by the RWQCB. This would minimize the amount of soil runoff and deposition in the harbor.
Geology, Groundwater, and Soils	**GEO-4:** The Project site is underlain by the Wilmington Oil Field.	Two oil production areas are present on existing Pier E. Although one of these areas would be abandoned during Project construction, the second area would remain active. Petroleum reserves beneath the site could be accessed from remote locations, using directional (or slant) drilling techniques. Therefore, for the reasons described in Final EIS/EIR Section 3.1.2.3, impacts will be less than significant.
Geology, Groundwater, and Soils	**GEO-5:** Construction activities may encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (du-	This impact will be less than significant because the contractor would remediate and/or dispose undocumented oil field equipment and/or contaminated soil and

Resource Area	Impact	Board Finding
	ration of construction) to construction personnel.	groundwater encountered during construction in accordance with all federal, state, and local regulations.
Geology, Groundwater, and Soils	**GEO-6:** No active faults are located beneath the Project site.	No impact will occur because there are no known active or potentially active faults crossing the Project area that might result in ground rupture and attendant damage to structures, limiting their use due to safety considerations or physical condition.
Geology, Groundwater, and Soils	**GEO-7:** Seismic activity along numerous regional faults could produce seismic ground shaking, liquefaction, differential settlement, or other seismically induced ground failure that would expose people and structures to greater than normal risk.	This impact will be less than significant because Project construction would be in accordance with the City of Long Beach Building Code requirements and State-mandated MOTEMS, which would limit the probability of occurrence and the severity of consequences from severe seismically induced ground movement during operations.
Geology, Groundwater, and Soils	**GEO-8:** Project construction and operation in the Middle Harbor area would not likely expose people and structures to greater than normal risk involving tsunamis or seiches.	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 Project elevation is located within 10 to 16 feet above MLLW, there is a risk of coastal flooding due to tsunamis and seiches. Regardless, the likelihood of such an occurrence is extremely low. Therefore, for the reasons described in Final EIS/EIR Section 3.1.2.3, impacts will be less than significant.
Air Quality	**AQ-3:** The proposed Project would result in operational emissions that exceed SCAQMD thresholds of significance.	Annual average daily emissions from operations of the proposed Project would be less than significant in all project years. The peak daily emissions from operations would be less than significant for all pollutants except NO_x in 2010, which is mitigated to be less than significant.
Air Quality	**AQ-5:** The proposed Project would not create objectionable odors to sensitive receptors.	This impact will be less than significant because in all future years, the operation of the proposed Project would produce lower diesel combustion products (mainly VOC and PM) and associated odors compared to the CEQA Baseline. Project operational activities would generate air pollutants from the combustion of diesel fuels.
Air Quality	**AQ-6:** The proposed Project would not expose receptors to significant levels of TACs.	The proposed Project would result in a reduction in cancer risk for all receptor types compared to the CEQA Baseline. While the proposed Project also would result in an increase in non-cancer chronic health effects at the maximum occupational receptor location, the increase would be less than significant. Therefore, for the reasons described in Final EIS/EIR Section 3.2.2.3, this impact will be less than significant.
Air Quality	**AQ-7:** The proposed Project would not conflict with or obstruct implementation of the applicable AQMP.	This impact will be less than significant because the proposed Project would comply with the 2007 AQMP emission reduction measures that are designed to bring the

Resource Area	Impact	Board Finding
		SCAB into attainment of the national and state ambient air quality standards. It would not conflict with or obstruct implementation of the SIP. See also the conformity analysis in Appendix A-4.
Hydrology and Water Quality	**WQ-1.1:** Wharf demolition, dredging, and excavation in Slip 3 and Berth F201, and fill in Slip 1 and the East Basin could result in violation of regulatory standards or guidelines.	This impact will be less than significant because in-water construction activities would not create pollution, contamination, a nuisance, or violate any water quality standards. All in-water work would be conducted in accordance with Project-specific permits that include measures to minimize impacts to water quality and monitoring to verify the performance of those measures. Therefore, for the reasons described in Final EIS/EIR Section 3.3.2.3, impacts will be less than significant.
Hydrology and Water Quality	**WQ-1.2:** Backland construction activities could result in violation of regulatory standards or guidelines.	This impact will be less than significant because implementation of BMPs (e.g., daily equipment inspection, designated/contained refueling areas, use of drip pans under stationary equipment, all drip pans would be covered during rainfall, and BMP monitoring to ensure compliance) to control runoff of soils and pollutants from general construction activities means that the proposed Project would have only short-term, localized impacts on water quality.
Hydrology and Water Quality	**WQ-2:** Construction activities would not substantially alter harbor water circulation.	Circulation patterns, tides, and wave action in the Middle to Inner Harbor would change very little as a result of the Project dredging and filling activities. Therefore, for the reasons described in Final EIS/EIR Section 3.3.2.3, impacts will be less than significant.
Hydrology and Water Quality	**WQ-3.1:** Project construction would not result in increased flooding that would have the potential to harm people or damage property or sensitive biological resources.	Project site elevations would remain generally the same as a result of Project construction, and runoff would be directed to storm drains. This impact will be less than significant because flooding would not be increased by Project construction.
Hydrology and Water Quality	**WQ-4.1:** Construction activities have the potential to accelerate natural processes of wind and water erosion and sedimentation, resulting in substantial soil runoff or deposition which could not be contained or controlled onsite.	Construction activities would generally not accelerate natural processes of wind and water erosion resulting in soil runoff or deposition that could not be contained or controlled onsite through implementation of BMPs to control runoff. This impact will be less than significant because runoff from general construction activities would have short-term, localized impacts on water quality.
Hydrology and Water Quality	**WQ-1.3:** Operation of Project facilities could result in violation of regulatory standards or guidelines.	Existing regulatory controls for runoff and storm drain discharges, as implemented by the Port's Stormwater Program, are designed to reduce impacts to water quality; the terminal operator would be required to implement pollution control measures in compliance with the Port's Stormwater Program. Potential runoff of pollutants from a large

Resource Area	Impact	Board Finding
		accidental spill to marine waters and sediments would be minimized through existing regulatory controls, which minimize the likelihood of a large spill reaching the marine waters and sediments. 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 LBFD, also regulates hazardous material activities within the Port. These activities are conducted under the review of a number of agencies and regulations including the USCG, fire department, and state and federal departments of transportation (49 CFR Part 176). The small amount of pollutants in discharges from Project vessels would be controlled by existing regulations. Therefore, for the reasons described in Final EIS/EIR Section 3.3.2.3, impacts will be less than significant.
Hydrology and Water Quality	**WQ-3.2:** Operation of Project facilities would not result in increased flooding, which would have the potential to harm people or damage property or sensitive biological resources.	Impacts will be less than significant because the likelihood of flooding would not be increased by operations at Project facilities.
Hydrology and Water Quality	**WQ-4.2:** Operations have a low potential to accelerate natural processes of wind and water erosion and sedimentation, resulting in substantial soil runoff or deposition which would not be contained or controlled onsite.	This impact will be less than significant because the reduction in unpaved surface area and the implementation of BMPs to control soil runoff as required by existing regulations would minimize erosion and soil runoff from the Project site.
Biota and Habitats	**BIO-1.1:** Construction activities would not substantially affect any rare, threatened, or endangered species or their habitat.	Construction activities would result in no loss of individuals or habitat for rare, threatened, or endangered species. Implementation of proposed environmental controls that would require construction contractors to use sound abatement techniques, implement a "soft start" technique, and biological monitoring in the vicinity of pile driving techniques would ensure that sound pressure waves from construction activities in the water would not injure marine mammals. Project-related vessel strikes of blue whales, gray whales, and sea turtles would be unlikely to occur. Therefore, for the reasons described in Final EIS/EIR Section 3.4.2.3, impacts will be less than significant.
Biota and Habitats	**BIO-2.1:** Construction activities would not interfere with wildlife movement/migration corridors.	No impact will occur because no wildlife movement or migration corridors would be affected by the Project.
Biota and Habitats	**BIO-5.1:** Dredging, filling, and wharf construction activities would not substantially disrupt local biological communities.	This impact will be less than significant because local benthic, fish, and plankton communities would not be substantially disrupted by the small change in the amount of hard substrate habitat present at the Project site relative to that in the harbor. Short duration turbidity in the water would not exceed water quality standards, and

Resource Area	Impact	Board Finding
		impacts to aquatic biota would be less than significant due to the short duration and small area likely to be affected. Runoff of pollutants from backland construction activities would have localized, short-term, and less than significant effects on marine organisms in the vicinity of drain outlets due to implementation of runoff control measures that are part of the Project. Accidental spills from equipment during dredging are unlikely to occur, and any small spills would be cleaned up immediately, resulting in only localized effects. Therefore, for the reasons described in Final EIS/EIR Section 3.4.2.3, impacts will be less than significant.
Biota and Habitats	**BIO-1.2:** Operations would not substantially affect any endangered, threatened, or rare species or their habitat.	This impact will be less than significant because operational activities would result in no loss of individuals or habitat for rare, threatened, or endangered species, and underwater sound from Project-related vessels would affect few, if any, marine mammals. Vessel collisions with whales or sea turtles in offshore waters are unlikely.
Biota and Habitats	**BIO-2.2:** Operations activities would not interfere with wildlife movement/migration corridors.	No impact will occur because no wildlife movement or migration corridors would be affected by the Project.
Biota and Habitats	**BIO-3.2:** Operation of Project facilities would not substantially reduce or alter marine habitat.	This impact will be less than significant because no marine habitat would be lost or substantially altered as a result of Project operations.
Biota and Habitats	**BIO-4.2:** Operations of Project facilities could substantially affect a natural habitat or plant community.	Increased vessel traffic and runoff from the terminal during operations would have less than significant impacts on EFH. Operations would have no impacts on natural communities such as kelp, eelgrass beds, salt marsh, and freshwater wetlands. Therefore, for the reasons described in Final EIS/EIR Section 3.4.2.3, impacts will be less than significant.
Biota and Habitats	**BIO-5.2:** Operation of Project facilities would not substantially disrupt local biological communities.	This impact will be less than significant because operations would not substantially disrupt local biological communities as a result of runoff of contaminants, increased vessel traffic, or lighting.
Ground Transportation	**TRANS-3.1:** Construction would not increase the demand for transit services.	The only public transit in the vicinity of the Project site is a tourist-oriented line that runs from downtown Long Beach to the Queen Mary. Due to the lack of available public transit options, impacts will be less than significant because use of public transit by construction workers would be negligible.
Ground Transportation	**TRANS-4.1:** Construction would not result in any increases in rail activity.	This impact will be less than significant because construction-related activities would not use rail services, including the two grade crossings in the Port vicinity. Because the contractor would be required to use construction truck routes that avoid the grade crossings in order to minimize

Resource Area	Impact	Board Finding
		delays (**Mitigation Measure TRANS-1.1a**), the additional traffic associated with construction would be negligible at the grade crossings.
Ground Transportation	**TRANS-3.2:** Project operations would not increase the demand for transit services.	This impact will be less than significant because the additional onsite employees would not affect public transit in the Project vicinity. The public does not travel to the Project site. The vehicle traffic generated by the Project will be largely truck traffic that would not involve public transit, and terminal operators currently operate shuttles to transport longshoremen to the terminals when ships arrive. This practice will continue and is part of the Clean Air Action Plan that the Port will continue to enforce through leases with the terminal operators.
Ground Transportation	**TRANS-4.2:** Project operations would not result in any significant rail impacts.	This impact will be less than significant because the Project-related increase in train trips can be easily accommodated by the Alameda Corridor and regional rail facilities without causing any significant impact. Also, the proposed Project would have a negligible impact on vehicular delays at the two grade crossings in the vicinity of the Project site and at grade crossings in the Inland Empire.
Vessel Transportation	**VT-1.1:** Project construction-related marine traffic would not interfere with normal navigational activities within and near the POLB.	This impact will be less than significant because all in-water construction vessel traffic would be subject to established regulatory conditions ensuring safety of users in Long Beach Harbor waters, and activities would be scheduled to avoid existing marine container terminal traffic.
Vessel Transportation	**VT-1.2:** Project operations would not result in a substantial increase in vessel traffic or a change in patterns of vessel movements that would impair the level of safety for vessels navigating in the Middle Harbor area and/or the precautionary areas.	This impact will be less than significant because the estimated number of Project-related vessel accidents would increase the overall annual average accident rate within the POLB and POLA by only 2.3 percent.
Land Use	**LU-1.1:** Project construction would be consistent with the adopted goals, objectives, and/or policies of applicable land use plans.	This impact will be less than significant because Project construction would be consistent with the adopted environmental goals and policies contained in the POLB Master Plan (PMP)/California Coastal Act (CCA) and the Coastal Zone Management Act (CZMA).
Land Use	**LU-2.1:** Project construction would be consistent with the adopted goals, objectives, and/or policies of applicable land use plans.	This impact will be less than significant because Project construction activities would be consistent with surrounding Port-industrial land uses.
Land Use	**LU-1.2**: Project operations would be consistent with the adopted goals, objectives, and/or policies of the PMP.	This impact will be less than significant because proposed Middle Harbor terminal activities would be consistent with the environmental goals and policies identified in the PMP and the CCA.
Land Use	**LU-2.2:** Proposed Middle Harbor container terminal activities would be consistent with surrounding Port-related industrial land	This impact will be less than significant because proposed Middle Harbor terminal activities would be consistent with the per-

Resource Area	Impact	Board Finding
	uses.	mitted Port-related industrial land uses identified in the PMP and the CCA/CZMA.
Public Services/Health and Safety	**PHS-1.1:** Project construction activities would not sufficiently burden existing staff levels and facilities whereby the LBPD would not be able to maintain an adequate level of service.	Standard Maritime Transportation Security Act (MTSA) security measures would remain in place throughout the duration of Project construction, therefore minimizing the burden on Long Beach Police Department (LBPD) staff levels and facilities during proposed container terminal construction activities. Additionally, as the construction activities requiring roadway modifications would be conducted in accordance with the proposed Traffic Management Plan and subject to review and approval by the LBPD, the proposed Project would not impede law enforcement services in the Project area. Therefore, for the reasons described in Final EIS/EIR Section 3.8.2.3, impacts will be less than significant.
Public Services/Health and Safety	**PHS-3.1:** Project construction would not substantially increase demands on USCG staff levels and facilities.	This impact will be less than significant because the Project would implement standard existing safety precautions governing POLB navigation on all support vessels in the Project area. Proposed Project construction activities would be located within the same operating distance of other facilities served by the USCG and, therefore, would not increase emergency response times.
Public Services/Health and Safety	**PHS-4.1:** Project construction would not result in a substantially diminished level of public protection services provided by the SCCC.	This impact will be less than significant because standard security measures would be implemented during construction that would reduce the likelihood of an event occurring that would require Security Command and Control Center (SCCC) services. Implementation of the proposed Traffic Management Plan would ensure advanced coordination with LBPD and Long Beach Fire Department (LBFD) to establish alternative response routes, ensuring continuous access to surrounding areas.
Public Services/Health and Safety	**PHS-5.1:** Construction activities would not substantially interfere with an existing emergency response or evacuation plan, capable of increasing risk of injury or death.	Project contractors would be required to adhere to all LBFD emergency response and evacuation regulations, ensuring compliance with existing emergency response plans. Therefore, for the reasons described in Final EIS/EIR Section 3.8.2.3, impacts will be less than significant.
Public Services/Health and Safety	**PHS-1.2:** Project operations would not sufficiently burden existing staff levels and facilities such that the LBPD would not be able to maintain an adequate level of service.	This impact will be less than significant because provisions for security features including terminal security personnel, gated entrances, perimeter fencing, terminal and backlands lighting, camera systems, and additional security feature mandated by the MTSA would reduce the demand for law enforcement.
Public Services/Health and Safety	**PHS-3.2:** Project operations would not substantially increase demands on USCG staff levels and facilities such that the ade-	This impact will be less than significant because the proposed Project would be located within the same operating distance of other facilities served by the USCG and,

Resource Area	Impact	Board Finding
	quate service levels would be maintained.	therefore, would not increase emergency response times.
Public Services/Health and Safety	**PHS-4.2:** Project operations would not result in a substantially diminished level of public protection services provided by the SCCC.	Standard security measures would be implemented during Project operation that would reduce the likelihood of an event occurring that would require SCCC services. As land based emergency response does not originate from the SCCC facility, the permanent relocation of site access would not affect SCCC emergency coordination services; all waterside access would be maintained during Project operations. Therefore, for the reasons described in Final EIS/EIR Section 3.8.2.3, impacts will be less than significant.
Public Services/Health and Safety	**PHS-5.2:** Project operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans.	This impact will be less than significant because the terminal would continue to operate as a container terminal, proposed road improvements would provide additional emergency access, and Project operations would be subject to emergency response and evacuation systems implemented by the LBFD. Project operations would not interfere with any emergency response or emergency evacuation plans.
Noise	**NOI-1.2:** Project operations would not generate noise levels that would increase ambient noise levels by three dBA.	This impact will be less than significant because operational noise levels associated with the Project (not including contributions from non-Project related growth in traffic) would increase ambient noise levels by a maximum of 0.5 dBA.
Noise	**NOI-2.2:** Project operations would not exceed City of Long Beach Municipal Code maximum noise levels.	This impact will be less than significant because future increases in traffic noise levels would not be significantly influenced by the Project. Therefore, Project-related traffic would not result in noise levels that exceed the maximum thresholds allowed by the LBMC.
Noise	**NOI-3.1:** Project operations would not generate ground vibration levels that would exceed ANSI S3.29-1983 acceptability limits.	Vibration measurements at Site 3 did not indicate a significant difference between ambient ground vibration and ground vibration during train movements on the Port mainline tracks. Measured vibration levels are well below the acceptability curve prescribed by ANSI S3.29-1983. Train movements on the Port mainline tracks associated with Project operations would have a less than significant vibration impact on sensitive receptors at or near Cesar Chavez Park. Therefore, for the reasons described in Final EIS/EIR Section 3.9.2.3, impacts will be less than significant.
Noise	**NOI-4.1:** Project operations would not increase the number of vibration events that would exceed ANSI S3.29 acceptability limits.	Project operations would substantially increase rail traffic in and out of the Port. Measurements from Site 3 show that ground vibration levels in Cesar Chavez Park produced by each train movement would not exceed the limits prescribed by ANSI S3.29-1983. Therefore, train movements associated with Project operations on the Port mainline tracks would not generate substantial vibration impacts on sen-

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		sitive receptors at or near Cesar Chavez Park. Therefore, for the reasons described in Final EIS/EIR Section 3.9.2.3, impacts will be less than significant.
Hazards and Hazardous Materials	**HAZ-1:** Construction activities would not result in an accidental release of hazardous materials from onshore facilities or from vessels that would adversely affect the health and safety of the general public or workers.	This impact will be less than significant because the Project would ensure implementation of standard BMPs, proper use and storage of hazardous materials and petroleum products, and proper removal of ACMs, lead-based paint, and PCBs, in accordance with applicable federal, state, and local regulations.
Hazards and Hazardous Materials	**HAZ-2:** The Project would not result in noncompliance with state guidelines associated with abandoned oil wells.	Associated oil field infrastructure, such as oil separation facilities, storage tanks, and pipelines (oil, gas, and water) continue to be used on Pier E to support oil and gas production. However, implementation of standard DOGGR measures would reduce adverse health and safety impacts to construction and operational personnel. Therefore, for the reasons described in Final EIS/EIR Section 3.10.2.3, impacts will be less than significant.
Hazards and Hazardous Materials	**HAZ-3:** Project operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of accidental release of a petroleum product or hazardous substance.	This impact will be less than significant because 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. Therefore, proposed 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.
Hazards and Hazardous Materials	**HAZ-4:** The Project would comply with Risk Management Program policies guiding development within the Port.	No impact will occur because liquid bulk storage facilities are not proposed as part of the Project.
Recreation	**REC-1.1:** Project construction would not result in a substantial loss or diminished quality of recreational, educational, or visitor-oriented opportunities, facilities, or resources.	This impact will be less than significant because Project construction would not remove or affect existing recreational facilities, including parks and marine recreational opportunities.
Recreation	**REC-2.1:** Project construction would not result in a demand for recreation and park services that exceeds the available resources.	This impact will be less than significant because no substantial influx of workers in the local communities is anticipated due to the existing sizable local and regional labor pool in the Long Beach area.
Recreation	**REC-1.2:** Project operation would not result in a substantial loss or diminished quality of recreational, educational, or visitor-oriented opportunities, facilities, or resources.	The Project site is located in an industrial area that is not generally used for recreational purposes, and the potential for interference with pleasure craft traffic located in the immediate Project area would be nominal. Therefore, for the reasons described in Final EIS/EIR Section 3.11.2.3, impacts will be less than significant.
Recreation	**REC-2.2:** Project operation would not result in a demand for recreation and park servic-	Indirect impacts from the Project on recreational resources resulting from increased employment and housing in the Gateway

Resource Area	Impact	Board Finding
	es that exceeds the available resources.	Cities subregion would be incrementally mitigated through the local housing project permitting process. Therefore, for the reasons described in Final EIS/EIR Section 3.11.2.3, impacts will be less than significant.
Socioeconomics	**SOCIO-1.1:** The Project would not increase employment in the five-county region by 0.5 percent or more.	This impact will be less than significant because construction-related employment associated with the Project would comprise between 0.003 percent and 0.005 percent of regional employment.
Socioeconomics	**SOCIO-2.1:** The Project would not increase population in the Gateway Cities subregion by 0.5 percent or more.	This impact will be less than significant because it is likely that most of the construction workers involved already reside in the Gateway Cities subregion and would not migrate to the area and increase the population.
Socioeconomics	**SOCIO-3.1:** The Project would not increase the demand for housing units in the Gateway Cities subregion by 0.5 percent or more.	This impact will be less than significant because the construction labor force in the region would be sufficient to complete the construction projects without workers migrating to the region. Therefore, no new housing units would be necessary and the construction spending would not impact housing demand.
Socioeconomics	**SOCIO-1.2:** The Project would not increase employment in the five-county region by 0.5 percent or more.	This impact will be less than significant because the share of employment generated by the Project would only range between zero percent and 0.25 percent.
Socioeconomics	**SOCIO-2.2:** The Project would not increase population in the Gateway Cities subregion by 0.5 percent or more.	This impact will be less than significant because the additional population through the Gateway Cities would comprise at most 0.3 percent of the total population in each individual city. Therefore, the additional population would not comprise 0.5 percent or more of the region's population,
Socioeconomics	**SOCIO-3.2:** The Project would not increase the demand for housing units in the Gateway Cities subregion by 0.5 percent or more.	This impact will be less than significant because the additional housing units that would be demanded in the Gateway Cities subregion would comprise between 0.1 percent in 2010 and 0.4 percent in 2020 and 2025 of the total number of housing units.
Utilities and Service Systems	**UTIL-1.1:** Project construction activities would result in the extension of new utility line connections to Project sites.	This impact will be less than significant because all demolition of existing utility infrastructure and construction of new infrastructure would be conducted in a manner designed to prevent service interruptions for adjacent tenants, and new construction would be in conformance with current design standards.
Utilities and Service Systems	**UTIL-2.1:** Proposed Project construction activities would not exceed existing water supply, wastewater, or landfill capacities.	This impact will be less than significant because the proposed Project would result in minimal demands on municipal utilities/service systems during construction activities, including water services, wastewater, and solid waste, that would not exceed existing capacities.

Resource Area	Impact	Board Finding
Utilities and Service Systems	**UTIL-1.2:** Project operations would result in the extension of new utility line connections to the Project site.	This impact will be less than significant because the number of new Project employees and increased terminal electrical demand would not be substantial relative to the existing and projected regional electrical supply.
Utilities and Service Systems	**UTIL-2.2:** Project operations would not exceed existing water supply, wastewater, or landfill capacities.	This impact will be less than significant because Project operations would represent minimal increases in demands on water supply, wastewater treatment, and solid waste disposal that would no exceed existing capacities.
Cultural Resources	**CR-1.1:** Project ground disturbances would not impact potentially significant archaeological resources.	Project construction would not reasonably be expected to disturb, damage, or degrade unknown, intact, potentially significant archaeological resources. As the potential for damaging unknown prehistoric remains is remote, potential impacts on ethnographic resources considered significant to contemporary Native Americans are also not reasonably expected. However, in the unlikely event that any archaeological material is discovered during construction, all work would be halted within the vicinity of the archaeological discovery until an assessment of the significance by a qualified archaeologist is completed (**Mitigation Measure CR-1.1.1**). Therefore, for the reasons described in Final EIS/EIR Section 3.14.2.3, impacts will be less than significant.
Cultural Resources	**CR-2.1:** The Project would not result in the permanent loss of or loss of access to a paleontological resource.	The artificial fill material within the upland portion of the Project area has no potential to contain intact vertebrate fossils. Similarly, the Middle Harbor in-water area has been historically dredged, and it is reasonable to assume that any intact vertebrate fossils within these dredged areas would have been removed or severely disturbed. Therefore, for the reasons described in Final EIS/EIR Section 3.14.2.3, impacts will be less than significant.
Cultural Resources	**CR-1.3:** Industrial reuse of the three potentially relocated historic properties would be consistent with their original Port-related function.	If the two historic properties (i.e., 1953 Smoke Houses/Offices) were relocated within the Port and reused for similar industrial activities, they would be consistent with their original function. If the structures were used for other interpretive purposes illustrating the development of the Port after WWII, this use would also be consistent with their historic significance. Therefore, for the reasons described in Final EIS/EIR Section 3.14.2.3, impacts will be less than significant.
Aesthetics/Visual Resources	**VIS-1.1:** Project construction activities would not substantially contrast with the existing industrial visual quality of the Project area.	This impact will be less than significant because no substantial contrast with the existing visual quality of the Project site and vicinity would occur during Project construction activities.
Aesthetics/Visual Resources	**VIS-2.1:** Project construction activities would not adversely impact the existing	This impact will be less than significant because the presence of vessel and land-

Resource Area	Impact	Board Finding
	visual industrial character and quality of the Project site and its surroundings.	based equipment over the approximate 10-year construction period would be compatible with the existing industrial character and visual quality of the Project site and surroundings.
Aesthetics/Visual Resources	**VIS-3.1:** Project construction activities would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.	Project construction activities would not occur during the evening hours. Additionally, construction equipment including vessels and land based vehicles would not have reflective surfaces capable of increasing sunlight glare. Therefore, for the reasons described in Final EIS/EIR Section 3.16.2.3, impacts will be less than significant.
Aesthetics/Visual Resources	**VIS-1.2:** Project development would not substantially contrast with the visual industrial quality of the Project area.	This impact will be less than significant because the change in visual industrial quality of background views from public vantage points would be minor relative to the existing highly industrialized inner Port complex perceived in distant background and closer foreground public views.
Aesthetics/Visual Resources	**VIS-2.2:** Project development would not substantially degrade the existing industrial character or quality of the site and its surroundings.	This impact will be less than significant because Project development would be consistent with the general industrial nature of the Port and would not introduce incompatible visual characteristics.
Aesthetics/Visual Resources	**VIS-3.2:** Project development would introduce new glare sources that would potentially degrade existing visual conditions.	The implementation of proposed Environmental Lighting Controls including photo cells/timers, low energy fixtures, and light-spillover reduction features into new terminal lighting would result in less than substantial increases in night light over the Project site and surrounding areas compared to existing levels. Any increase in potential daytime glare resulting from increased massing of terminal structures and containers on the Project site would be minimal. Therefore, for the reasons described in Final EIS/EIR Section 3.16.2.3, impacts will be less than significant.

3.3 Findings Regarding Environmental Impacts Determined to be Mitigated to Less Than Significant Levels

The EIS/EIR identified certain potentially significant effects that could result from the proposed Project. However, the Port finds for each of the significant or potentially significant impacts defined in this section, based upon substantial evidence in the record, that changes or alterations have been required or incorporated into the proposed Project that avoid or substantially lessen the significant effect as identified in the EIS/EIR. As a result, adoption of the mitigation measures set forth below would reduce the identified significant effects to a less than significant level.

3.3.1 Biota and Habitats

As discussed in Final EIS/EIR Section 3.4.2.3, there would be two significant impacts to biota and habitats that would be mitigated to less than significant levels as a result of mitigation measures that have been incorporated into the proposed Project. The impacts and mitigation measures are discussed below.

Impact BIO-3.1: Construction would result in a substantial loss or alteration of marine habitat through filling (in Slip 1, for the Berth E24 extension, and in a portion of the East Basin) and excavation (widening Slip 1 and at Berth F201) for a net loss of 54.6 acres.

Placement of fill would cause a loss of marine habitat, including water surface, water column, soft bottom, and hard substrate. Based on preliminary design, approximately 65.3 acres of marine habitat would be permanently lost (Table 3.3-1) due to fill placement in Slip 1 and the East Basin. Widening Slip 3 would create approximately 6.3 acres of marine habitat, and excavation at Berth F201 would create about 4.4 acres of marine habitat. The net loss of marine habitat would be an estimated 54.6 acres (Table 3.3-1). The exact amount of habitat gain and loss would be calculated by the Port and the agencies who are signatories to the Inter-Agency Bolsa Chica Memorandum of Agreement (MOA) after completion of the Project, on the basis of the "as-built" surveys. Those final figures would not be expected to vary from the above estimates by more than a few acres, so that the final

Table 3.3-1. Middle Harbor Project Habitat Impact Summary (in acres)

Construction Phase	Location	Marine Habitat Loss/Gain[1]	Inner Harbor	Outer Harbor
1	Slip 1 fill	-25.6	-25.6	--
2	East Basin fill	-34.3	-10.0	-24.3
1	Pier E Extension	-5.4	--	-5.4
Total Habitat Loss		65.3	-35.6	-29.7
1	Slip 3 widening	+6.3	+6.3	--
2	Berth F201 excavation	+4.4	--	+4.4
Total Habitat Created		+10.7	+6.3	+4.4
Net Habitat Loss		-54.6	-29.3	-25.3

Notes:
1. Water column, soft bottom, and hard substrate.
Acreages are approximate. + = gain and - = loss.

loss of habitat could range from 50 to 60 acres. For this analysis, however, the estimates from the preliminary design are used.

The rocky dike constructed along Pier D and at Berths E23-E26 would create approximately 14.4 acres of new hard substrate that would partially offset the 16.1-acre loss from the fill placement in Slip 1 and East Basin for a net loss of 1.7 acres. Hard substrate habitat in the form of pilings associated with the wharves in Slip 1 (1,746 piles and fenders), in Slip 3 (805 piles and fenders), and along Pier F (1,071 piles and fenders) in East Basin would also be lost, but 2,707 new pilings would be installed for Berths E23-E26 with over half in the water. The vertical bulkhead in the water along Pier D and Pier E in Slip 3 and along Pier F in Slip 1 would also be removed or covered with fill (total of 5,897 linear feet), and 410 linear feet of bulkhead would be constructed in the water along Pier E. The net effect of these changes would be a loss of hard substrate habitat. The permanent net loss of 54.6 acres of marine habitat in Long Beach Harbor would be a potentially significant impact.

Finding

Unavoidable losses of marine habitat in the Long Beach/Los Angeles Harbor complex are mitigated by the use of habitat credits from mitigation banks created by the two ports. This policy was developed by the USACE, USFWS, NOAA Fisheries, and CDFG in consultation with the ports and has been applied to Port development projects for the past 20 years. The goal of the mitigation policy is "no net loss of in-kind habitat value," where in-kind refers to marine tidal water of value to fish and birds. Given the infeasibility of undertaking any substantial onsite mitigation and the public interest mandate of accommodating maritime cargo conferred upon the Port by the California Coastal Act, offsite mitigation is allowed between Pt. Conception and the Mexican border (area of ecological continuity). Implementation of mitigation measures shall occur prior to or concurrent with Project impact. The preferred mitigation is the restoration of coastal embayment habitat (i.e., tidal wetlands).

Accordingly, the two ports have undertaken several wetlands restoration projects (e.g., Anaheim Bay and Batiquitos Lagoon) that generated habitat mitigation credits. The most recent credits have been generated by funding a multi-agency project to restore tidal wetland habitats in the Bolsa Chica lowlands in Orange County. The credits were vested via the Inter-Agency Bola Chica MOA that was negotiated in 1996 and amended in 2003 to provide in-kind credits for Port fills. The parties to the MOA include NMFS, USFWS, CDFG, USACE, California Coastal Conservancy, Ports of Los Angeles and Long Beach, EPA, California Resources Agency, and CSLC; thus the MOA incorporates all applicable federal and state agencies and their associated mitigation policies.

Recognizing that the credits would be applied to a harbor complex in which habitat quality varies, the Inter-Agency Bolsa Chica MOA also defined how those credits were to be used. Under the MOA, areas of the harbor designated as "Inner Harbor" for habitat mitigation purposes require the application of 0.5 credit to offset each acre of lost habitat, whereas areas designated as "Outer Harbor" require the application of 1.0 credit per acre of loss. The delineation of Inner and Outer Harbor is contained in Exhibit C of the MOA (Figure 3.4-1).

For the proposed Project, habitat credits from restoration of Bolsa Chica would be used to offset the 54.6-acre loss of marine habitat in accordance with the MOA. The entire Slip 1 fill (25.6 acres) and 10.0 acres of the East Basin 34.3-acre fill would constitute Inner Harbor habitat (Table 3.3-2), while the remaining 24.3 acres of East Basin Fill and the 5.4-acre Pier E extension fill would constitute Outer Harbor habitat. Widening Slip 3 would result in the creation of 6.3 acres of Inner Harbor habitat leaving a net loss of 29.3 acres of Inner Harbor habitat. Excavation at Berth F201 would result in the creation of 4.4 acres of Outer Harbor habitat, leaving a net loss of 25.3 acres of Outer Harbor habitat.

To mitigate these losses, Bolsa Chica credits would need to be applied as follows: 14.7 credits to mitigate 29.3 acres of Inner Harbor fill at a ratio of 0.5 credit:1 acre of fill and 25.3 credits to mitigate the Outer Harbor fill at a ratio of 1:1, for a total of 40.0 credits. As noted above, the completed Project could result in the use of more or fewer credits, but the difference would only be four or five credits at most, meaning that actual mitigation credits needed would be between 35 and 45. Currently, the Port has approximately 270 Bolsa Chica credits remaining in its account (Table 3.3-2). Therefore, sufficient credits remain in the Port's account to mitigate the marine habitat lost due to construction of the Project even if the as-built survey results show the need for as many as 45 credits.

Table 3.3-2. Available Bolsa Chica Mitigation Credits (through ~2007)

Project	Credits[1]	Debits[2]	Balance
Projects Prior to 1997	195.2	194.5	0.7
Release of Escrow (1997)	14.0		14.7
Bolsa Chica Initial (1997)	227.0		241.7
Bolsa Chica Subsequent (1997)	40.0		281.7
Slip 2 Pier E 29-acre Fill		14.5	267.2
Pier S/T Mole 22-acre Fill		22.0	245,2
Pier G/J Phase I 10.1-acre Fill		10.1	235.1
Pier T Navy Mole Fill		2.4	232.7
Bolsa Chica 3rh Agreement (2005)	38.0		270.7
Pier G/J Phase 2 39.8-acre fill		19.9[3]	250.8
Middle Harbor 54.6-acre fill		40.0	210.8
Pier S Wharf (dike cut)	9.2		220.0

Notes:

1. Credits are estimated and may change based on as-built surveys.
2. As of 1997, pursuant to Exhibit C of the Bolsa Chica Interagency MOA, mitigation credits utilized for harbor fills will be deducted at the ratio of 1.0 credit:1.0 acre of fill in the outer harbor, and at the rate of 0.5 credit:1.0 acre of fill in the inner harbor.
3. Mitigated as Inner Harbor per Bolsa Chica MOA.

Changes or alterations have been incorporated into the Project that avoid or substantially lessen the significant environmental effect as identified in the Final EIS/EIR. These changes are set forth in **Mitigation Measure BIO-3** below.

Mitigation Measure BIO-3: The Port would apply approximately 40 credits available in the Bolsa Chica bank to compensate for loss of fish and wildlife habitat due to construction of fill in Slip 1 and East Basin. Implementation of this mitigation measure would occur upon completion of construction of the Project, although permits to begin construction would normally not be issued until the permitting agencies (USACE and POLB for this Project) have received assurance that sufficient mitigation is or will be available. The Final EIS/EIR constitutes that assurance.

Rationale for Finding

Implementation of **Mitigation Measure BIO-3** would fully mitigate the significant loss of marine habitat for aquatic species by replacing the lost habitat. Therefore, impacts to biota and habitats would be less than significant.

Impact BIO-4.1: Construction activities would substantially affect a natural habitat or plant community.

The Project could have effects on Fishery Management Plan (FMP) species that are rare or uncommon, such as California skate, big skate, California scorpionfish, and black rockfish (MEC Analytical Systems, Inc. 2002), although few if any individuals would likely be in the disturbance area. The net loss of marine habitat due to placement of fill and excavation (54.6 acres), however, would result in a substantial loss of habitat for the FMP species that use Middle Harbor, including water column and benthic habitats. Both habitats provide food sources for FMP species occurring in the Project region. Dredging, pile removal, and wharf construction/reconstruction at Berths E23-E27 along with excavation at Berths D29-D31 and F201 also could affect FMP species through habitat disturbance; turbidity and resuspension of contaminants from sediments; and vibration from pile and sheetpile driving and stone column installation. These effects would be temporary and would occur at intervals throughout the construction period, with a return to baseline conditions following construction. Therefore, no permanent loss of habitat would occur from the wharf work, and few, if any, individual fish would be lost because most individuals could avoid the work area.

Construction activities on land would have no direct effects on EFH, which is located in the water. Runoff of sediments from such construction, however, could enter harbor waters. As discussed in Final EIS/EIR Section 3.3.2.3, Hydrology and Water Quality, implementation of sediment control measures would avoid or minimize such runoff.

No kelp, eelgrass beds, salt marsh, or freshwater wetlands are present in the Project area, and those in other parts of the harbor would not be affected by construction activities in the Middle Harbor Project area due to their distance from Middle Harbor and the localized effects of sediment suspended during dredging and filling (Section 3.3). No designated Significant Ecological Areas (SEA), including the least tern nesting site on Pier 400, would be affected by the Project.

Filling of Slip 1 and part of East Basin would result in a permanent loss of EFH in Middle Harbor, a significant impact

Finding

Mitigation Measure BIO-3 would apply to this impact. Mitigation of the fill impacts would be by the use of approximately 40 existing mitigation credits. This mitigation measure would fully offset Project impacts to sustainable fisheries.

Rationale for Finding

Implementation of **Mitigation Measure BIO-3** would fully mitigate the significant loss of EFH by replacing the lost habitat. Therefore, impacts to biota and habitats would be less than significant.

3.3.2 Ground Transportation

As discussed in Final EIS/EIR Section 3.4.2.3, there would be one significant impact to ground transportation that would be mitigated to a less than significant level as a result of mitigation measures that have been incorporated into the proposed Project. The impacts and mitigation measures are discussed below.

Impact TRANS-1.1: Construction would result in short-term, temporary increases in auto and truck traffic at certain study intersections.

Construction would have significant impacts at the following study intersections:

- Pico Avenue/Pier G Avenue and Harbor Plaza (2010);
- Pico Avenue and Pier E Street/Ocean Blvd. EB On- and Off-Ramps (2020); and
- Pico Avenue and Pier D Street (2020)

Finding

Changes or alterations have been incorporated into the Project that avoid or substantially lessen the significant environmental effect as identified in the Final EIS/EIR. These changes are set forth in **Mitigation Measure TRANS-1.1a through TRANS-1.1e** below. Implementation of **Mitigation Measure TRANS-1.1a** further refines the environmental control identified in Final EIS/EIR Section 1.7.3.

Mitigation Measure TRANS-1.1a: Prior to beginning construction, the construction contractor shall prepare a detailed traffic management plan, which in addition to work shift start/end times, shall include the following: detour plans, coordination with emergency services, coordination with adjacent property owners and tenants, advanced notice of temporary parking loss, identification of 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 Port of Long Beach for approval before beginning construction.

Mitigation Measure TRANS-1.1b: Consistent with City of Long Beach Public Works Department practice, the construction-related traffic to/from the Project site shall be restricted during morning and afternoon peak commute hours. Furthermore, no closure of major road corridors shall be permitted as a result of construction activities.

Mitigation Measure TRANS-1.1c: The Port shall install a signal at the intersection of Pico Avenue and Pier E Street/Ocean Blvd EB On- and Off-Ramps.

Mitigation Measure TRANS-1.1d: The Port shall install a signal at the intersection of Pico Avenue and Pier D Street.

Mitigation Measure TRANS-1.1e: The Port shall install a signal at the intersection of Pico Avenue/Pier G Avenue and Harbor Plaza.

Because **Mitigation Measures TRANS-1.1c** through **TRANS-1.1e** are local measures, construction work related to these improvements could be completed primarily during the off-peak hours. Therefore, there would not be any secondary impacts associated with the construction of these mitigation measures.

Rationale for Finding

Implementation of **Mitigation Measures TRANS-1.1a through TRANS-1.1e** would fully mitigate significant impacts on intersections. Therefore, impacts would be less than significant.

Impact TRANS-1.2: Additional traffic generated by the Project would have significant impacts at certain study area intersections.

The proposed Project would have significant impacts at the following four study area intersections:

- Pico Avenue/Pier G Avenue and Harbor Plaza;
- Pico Avenue and Pier E Street/Ocean Blvd EB On- and Off-Ramps;
- Pico Avenue/Ocean Blvd WB Off-Ramp; and
- Pico Avenue and Pier D Street.

Finding

Changes or alterations have been incorporated into the Project that avoid or substantially lessen the significant environmental effect as identified in the Final EIS/EIR. These changes are set forth in **Mitigation Measure TRANS-1.1c** through **TRANS-1.1e** and **TRANS-1.2** below.

> **Mitigation MeasureTRANS-1.1c:** The Port shall install a signal at the intersection of Pico Avenue and Pier E Street/Ocean Blvd EB On- and Off-Ramps.
>
> **Mitigation MeasureTRANS-1.1d:** The Port shall install a signal at the intersection of Pico Avenue and Pier D Street.
>
> **Mitigation MeasureTRANS-1.1e:** The Port shall install a signal at the intersection of Pico Avenue/Pier G Avenue and Harbor Plaza.
>
> **Mitigation Measure TRANS-1.2:** The Port shall install a signal at the intersection of Pico Avenue and Ocean Blvd WB Off-Ramp.

Rationale for Finding

Implementation of **Mitigation Measures TRANS-1.1c through TRANS-1.1e** and **TRANS-1.2** would fully mitigation significant impacts on intersections. Therefore, impacts would be less than significant.

3.3.3 Public Services/Health and Safety

As discussed in Final EIS/EIR Section 3.8.2.3, there would be two significant impacts to public services/health and safety that would be mitigated to less than significant levels as a result of mitigation measures that have been incorporated into the proposed Project. The impacts and mitigation measures are discussed below.

Impact PHS-2.1: Project construction activities would require upgrades to existing antiquated fire protection facilities to maintain acceptable emergency response times.

Development of the proposed Project would not substantially increase the occurrence or risk of fire or other emergencies. It would, however, require the removal and relocation of fire hydrants and water supply trunk lines and distribution mains in the Project area. This would have the potential to temporarily interrupt fire water supplies in the Project area. However, utility relocations frequently occur during POLB terminal developments; these activities are typically conducted with minimal, if any, disruptions in service. Prior to Project construction, removal and relocation of fire hydrants and water supply trunk lines and distribution mains would be subject to review and approval by the LBFD and/or jurisdictional agencies to ensure that adequate fire flow water supplies within the Project vicinity would be provided. The LBFD would be notified in advance and afforded the opportunity to review and comment on Project features affecting fire suppression infrastructure. In addition, the Project would be designed and constructed according to all applicable state and local codes and ordinances to ensure adequate fire protection. The LBFD would conduct a fire-life-safety review during the design review process to assess the required fire flow for the Project. However, as the existing antiquated facilities at Stations 15 and 20 affect LBFD's ability to provide acceptable emergency response times, Project construction activities would further exacerbate inadequate fire service response times.

Proposed roadway modifications would restrict and/or temporarily remove access to roadways in the Project vicinity. These roadway modifications would include realignment of Harbor Scenic Drive, construction of mainline track under Ocean Boulevard, modification to Pier F Avenue, and construction of a loop road around the track on Pier F. The proposed Pier F loop road would provide an alternate vehicular emergency access route. However, proposed construction activities requiring roadway modifications would potentially result in the temporary interruption and/or delays for fire emergency response services.

The Port would prepare a Traffic Management Plan (Final EIS/EIR Section 1.7.3) as part of the proposed Project. This plan would ensure advanced coordination with LBFD to establish alternative fire and emergency response access routes, ensuring continuous access to surrounding areas. Although construction activities requiring roadway modifications would not substantially burden LBFD, proposed construction activities would

further exacerbate existing inadequate emergency response times. Therefore, impacts on fire services would be potentially significant.

Finding

Changes or alterations have been incorporated into the Project that avoid or substantially lessen the significant environmental effect as identified in the Final EIS/EIR. These changes are set forth in **Mitigation Measure PHS-2.1** below.

> **Mitigation Measure PHS-2.1**: The Port shall enter into a mitigation agreement to upgrade existing facilities at Stations 15 and 20. The Port shall submit proof to the City of Long Beach that an agreement has been executed prior to commencement of construction activities.

Rationale for Finding

Implementation of **Mitigation Measure PHS-2.1** would ensure upgrades to existing LBFD facilities that would be required to ensure acceptable LBFD emergency response times. Accordingly, construction activities would not substantially burden the LBFD, and adequate emergency response services would occur during construction. Therefore, impacts would be less than significant.

Impact PHS-2.2: Project operations would require upgrades to existing antiquated fire protection facilities to maintain acceptable emergency response times.

Proposed Project fire infrastructure would be designed in accordance with applicable City of Long Beach Fire Codes and state codes. Fire protection features (e.g., fire hydrants and water supply trunk lines) would be incorporated into the design process of the proposed terminal, Project operations would not substantially increase the demand for fire protection services. Furthermore, construction of the Pier F tail track would result in a loop road that extends around the track on Pier F. This roadway would provide an alternate vehicular emergency access route, therefore improving fire and emergency access during Project operation. However, the existing antiquated facilities at Stations 15 and 20 would affect LBFD's ability to provide acceptable emergency response times. Although the proposed Project would not result in substantial operational demands on fire protection services, Middle Harbor container terminal operations would further exacerbate inadequate emergency response times in the Project area. Therefore, impacts would be potentially significant.

LBFD would be notified in advance and afforded the opportunity to review and comment on proposed Project design plans to ensure adequate provisions for emergency circulation throughout Middle Harbor, including roadway width, turning radii, and staging areas for emergency equipment.

Finding

Mitigation Measure PHS-2.1 would apply to this impact.

Rationale for Finding

Implementation of **Mitigation Measure PHS-2.1** would ensure upgrades to existing LBFD facilities that would be required to ensure acceptable LBFD emergency response times. Accordingly, Middle Harbor container terminal activities would not substantially burden the LBFD, and adequate emergency response services would occur during Project operations. Therefore, impacts would be less than significant.

3.3.3 Cultural Resources

As discussed in Final EIS/EIR Section 3.14.2.3, there would be one significant impact to cultural resources that would be mitigated to a less than significant level as a result of a mitigation measure that has been incorporated into the proposed Project. The impact and mitigation measure is discussed below.

Impact CR-1.2: Construction activities would adversely impact potentially significant historic architectural resources.

Two potentially significant historic architectural resources, including the two 1953 Smoke Houses/Offices, are located within the proposed terminal area. Both resources would be relocated during Project construction. This would be a significant impact on historic 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 EIS/EIR. These changes are set forth in **Mitigation Measure CR-1.2.1** below.

> **Mitigation Measure CR-1.2.1**: The two historic architectural resources shall be temporarily moved during construction and then relocated to another suitable location within the Project area subsequent to construction under the direction of a qualified Architectural Historian. A survey shall be conducted after the relocation to document, identify, and describe any internal and external cracking, condition of walls, and other elements as a result of their movement. The survey shall be undertaken under the direction of a qualified Architectural Historian and shall be in accordance with accepted standard methods. A written report documenting conditions after Project completion shall be prepared under the supervision and approval of a qualified Architectural Historian. The report shall provide any necessary measures to address stabilization and repair of areas that have been disturbed during relocation, including photo-documentation. The repairs shall be undertaken by the Port in a timely manner.

Rationale for Finding

The two Smoke Houses were designed to be moved as needed, so relocating them within the Project area would not result in a loss of their historical context. Therefore, impacts on historic architectural structures would be less than significant with implementation of **Mitigation Measure CR-1.2.1**.

3.3.4 Air Quality

As discussed in Final EIS/EIR Section 3.2.2.3, there would be one significant impact to air quality that would be mitigated to less than significance as a result of mitigation measures that have been incorporated into the proposed Project. The impact and mitigation measures are discussed below.

Impact AQ-3: The proposed Project would result in operational emissions that exceed SCAQMD thresholds of significance.

On a peak day, operation of the proposed Project prior to mitigation would result in NO_x emissions in 2010 (although not in subsequent years) that exceed SCAQMD thresholds. As a result, the unmitigated Project would produce significant peak daily NO_x emissions in 2010.

Finding

Mitigations have been incorporated into the Project that avoid or substantially lessen its significant environmental effect as identified in the Final EIS/EIR. These changes are set forth in **Mitigation Measures AQ-4, AQ-5, AQ-6, AQ-7, AQ-7a, AQ-8, AQ-9, AQ-10, AQ-11, AQ-25,** and **AQ-26** below.

> **Mitigation Measure AQ-4**: Expanded VSRP. All OGV that call at the Middle Harbor container terminal shall comply with the expanded VSRP of 12 knots from 40 nm, that is, from Point Fermin to the Precautionary Area. This measure equates to CAAP measure OGV1.
>
> **Mitigation Measure AQ-5**: Shore-to-Ship Power ("Cold Ironing"). OGV that call at the Middle Harbor container terminal shall utilize shore-to-ship power while at berth. Lease stipulations shall include consideration of alternative technologies that achieve 90 percent of the emission reductions of cold-ironing. Three new berths with the capacity to cold-iron OGV would become available accord-

ing to the following Project construction schedule: (1) December 2009; (2) March 2012; and (3) December 2014. This measure is consistent with CAAP measure OGV2.

Mitigation Measure AQ-6: Low-sulfur Fuels in OGV. All OGV shall use 0.2 percent or lower sulfur MGO fuel in vessel auxiliary and main engines at berth and out to a distance of 40 nm from Point Fermin, or implement equivalent emission reductions. This measure equates to CAAP measures OGV3 and OGV4.

Mitigation Measure AQ-7: Container Handling Equipment. All Project CHE shall meet the following performance standards. This measure equates to CAAP measures CHE1: By the end of 2010, all yard tractors shall meet, at a minimum, the EPA non-road Tier 4 engine standards;

- By the end of 2012, all pre-2007 on-road or pre-Tier 4 non-road top picks, forklifts, reach stackers, RTGs, and straddle carriers less than 750 Hp shall meet, at a minimum, the EPA non-road Tier 4 engine standards; and
- By the end of 2014, all CHE with engines greater than 750 Hp shall meet, at a minimum, the EPA Tier 4 non-road engine standards. Starting in 2009 (until equipment is replaced with Tier 4), all CHE with engines greater than 750 Hp shall install the cleanest available VDEC, as established by the ARB.

Mitigation Measure AQ-7a: High Efficiency Rail Mounted Gantry (RMG) Cranes. The Project terminal operator shall replace all diesel-powered RTGs with electric-powered RMGs, as soon as feasible, but no later than the completion of construction in 2020. Each RMG shall include high efficiency, regenerative drive systems.

Mitigation Measure AQ-8: Heavy-Duty Trucks. Container trucks that call at the Middle Harbor container terminal shall comply with the following replacement schedule as part of the POLB Clean Truck Program tariff. This measure goes beyond the ARB's requirements for reducing truck emissions. It is similar to CAAP measure HDV1 (Clean Trucks Program), however it is more stringent and would result in the following:

- Ban pre-1989 trucks by 10/1/2008;
- Ban 1989-1993 trucks by 1/1/2010;
- Ban un-retrofitted 1994-2003 trucks by 1/1/2010; and
- Ban all trucks that do not meet the EPA 2007 Heavy-Duty Highway Rule emission standards by 1/1/2012.

Under **Mitigation Measure AQ-8**, the truck emission reductions were analyzed assuming all engines would continue to burn diesel. This is conservative as the CTP proposed has a goal that 50 percent of the trucks funded through the CTP be alternative-fueled trucks,, which would result in lower emissions for the mitigated Project than analyzed.

Although not quantified in the analysis of the mitigated Project operational emissions, the following would result in reductions in criteria pollutant emissions from Project operations.

Mitigation Measure AQ-9: Clean Rail yard Standards. The expanded Pier F intermodal rail yard shall incorporate the cleanest locomotive technologies into its operations. Technologies that reduce fuel consumption or use alternative fuels would reduce criteria pollutant emissions. These include diesel-electric hybrids, multiple engine generator sets, use of alternative fuels, and idling shut-off devices. Because some of these systems are not yet available, but are expected to be available within the next few years, this measure has not been quantified. However, implementation of this measure would reduce the Project's criteria pollutant emissions by less than 0.1 percent.

Mitigation Measure AQ-10: Truck Idling Reduction Measures. The Middle Harbor container terminal operator shall minimize on-terminal truck idling and emissions. Potential methods to reduce idling include, but are not limited to (1) maximize the durations when the main gates are left open, including during off-peak hours, and (2) implement a container tracking and appointment-based truck delivery and pick-up system to minimize fuel consumption and resulting criteria pollutant emissions. The estimate of unmitigated on-terminal trucking emissions considered the efficiencies of movement designed into the proposed Middle Harbor container terminal and, therefore, assumed a low rate of on-terminal idling. Nevertheless, additional design measures proposed in Mitigation Measure AQ-10 would further reduce on-terminal truck activities and associated criteria pollutant emissions. However, this measure was not quantified.

Mitigation Measure AQ-11: Slide Valves on OGV Main Engines. OGVs that call at the Project container terminal shall have slide fuel valves installed on their main engines, or implement an equivalent emission reduction technology. This retrofit is most applicable to OGVs with MAN B&W engines. This technology would reduce emissions of VOC, NO_x, and DPM from OGV main engines.

Mitigation Measure AQ-25: Periodic Technology Review. To promote new emission control technologies, the tenant shall implement in 2015 and every 5 years following the effective date of the lease agreement, a review of new air quality technological advancements, subject to mutual agreement on operational feasibility, technical feasibility, and cost-effectiveness and financial feasibility, which agreement shall not be unreasonably withheld. If a technology is determined to be feasible in terms of cost, technical and operational feasibility, the tenant shall work with the Port to implement such technology.

Mitigation Measure AQ-26: Cargo Throughput Monitoring. Every five years, the Port shall compare actual cargo throughput that occurred at the terminal to the cargo assumptions used to develop the Final EIS/EIR. The years used in this analysis shall include 2015, 2020, 2025, and 2030. The Port shall calculate annual air emissions associated with these throughput levels (for OGVs, assist tugs, locomotives, cargo handling equipment, and trucks) and compare them to the annual air emissions presented in the Final EIS/EIR. If actual emissions exceed those presented in the Final EIS/EIR, then new/additional mitigations would be applied through Mitigation Measure AQ-25.

Rationale for Finding

Implementation of **Mitigation Measures AQ-4 through AQ-8** would reduce the emissions from proposed Project operations from unmitigated levels. Although not quantified in the analysis, **Mitigation Measures AQ-7a, AQ-9 through AQ-11, AQ-25, and AQ-26** would further reduce combustive emissions. With these mitigation measures, peak daily Project operations would produce less than significant emissions of NO_x in 2010. Thus, there would be no significant impacts from operations.

3.4 Findings Regarding Significant Environmental Impacts that Cannot be Mitigated to a Less Than Significant Level

The EIS/EIR identified certain potentially significant effects that could result from the proposed Project. The Port finds for each of the significant impacts identified in this section, based upon substantial evidence in the record, that changes or alterations have been required or incorporated into the proposed Project that substantially lessen the significant effects as identified in the Final EIS/EIR. However, even with adoption of the mitigation measures set forth below, Project impacts are not reduced below a level of significance.

Attachment A 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 A and indicates whether the proposed mitigation measures and/or alternatives have been added to the Final EIS/EIR and/or incorporated into the Project. It 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 in Attachment A.

3.4.1 Air Quality

As discussed in Final EIS/EIR Section 3.2, there would be four significant impacts to air quality as a result of the proposed Project during construction and operation that would remain significant and unavoidable.

Impact AQ-1: Proposed Project construction would produce emissions that exceed SCAQMD emission significance thresholds.

During a peak day of activity, Project construction would produce levels of VOC, CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions that exceed SCAQMD daily emission thresholds. These levels would represent significant air quality impacts.

Finding

The Board of Harbor Commissioners 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 EIS/EIR. These changes are set forth in **Mitigation Measures AQ-1, AQ-2, AQ-2a, AQ-2b, AQ-3,** and **AQ-3a** below.

> **Mitigation Measure AQ-1: Additional Fugitive Dust Controls.** The calculation of unmitigated fugitive dust emissions from Project earth-moving activities is based on Project compliance with SCAQMD Rule 403, which is assumed to produce a 75 percent reduction in PM_{10} emissions from uncontrolled levels to simulate rigorous watering of the site and use of other measures. To provide a 90 percent reduction of fugitive dust emissions from uncontrolled levels, the Project construction contractor shall develop and implement dust control methods that shall achieve this control level in a SCAQMD Rule 403 dust control plan; and designate personnel to monitor the dust control program and 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.
>
> Additional control measures to reduce fugitive dust shall include, but are not limited to, the following:
>
> - Apply approved non-toxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas or replace groundcover in disturbed areas;
> - Provide temporary wind fencing around sites being graded or cleared;
> - Cover truck loads that haul dirt, sand, or gravel or maintain at least two feet of freeboard in accordance with Section 23114 of the California Vehicle Code;
> - 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;
> - Suspend all soil disturbance activities when winds exceed 25 mph as instantaneous gusts or when visible dust plumes emanate from the site, and stabilize all disturbed areas;
> - Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM_{10} generation;
> - Sweep all streets at least once a day using SCAQMD Rule 1186.1 certified street sweepers or roadway washing trucks if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water);
> - Apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces;
> - Pave road and road shoulders; and
> - Apply water three times daily or as needed to areas where soil is disturbed.

Mitigation Measure AQ-2: Emission Controls for Non-road Construction Equipment. Although not quantified in the analysis, to reduce combustive emissions, construction equipment shall meet the EPA Tier 4 non-road engine standards, where feasible. The Tier 4 standards become available starting in year 2012.

Mitigation Measure AQ-2a: Best Management Practices (BMPs) for Construction Equipment. The construction contractor shall implement the following BMPs on construction equipment, where feasible, to further reduce emissions from these sources:

- Use of diesel oxidation catalysts and/or catalyzed diesel particulate traps, as feasible;
- Maintain equipment according to manufacturer specifications;
- Restrict idling of equipment and trucks to a maximum of 5 minutes (per ARB regulation);
- Use of high-pressure fuel injectors on diesel-powered equipment; and
- Use of electricity from power poles rather than temporary diesel- or gasoline-powered generators.

Mitigation Measure AQ-2b: Construction Traffic Emission Reductions. The construction contractor shall implement the following measures to further reduce emissions from construction:

- Trucks used for construction (a) prior to 2015 shall use engines certified to no less than 2007 NO_x emissions levels and (b) in 2015 and beyond shall meet USEPA 2010 emission standards;
- Provide temporary traffic control such as flag person, during all phases of construction to maintain smooth traffic flow;
- Schedule construction activities that affect traffic flow on arterial systems to off-peak hour where possible;
- Re-route construction trucks away from congested streets or sensitive receptor areas;
- Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site;
- Configure construction parking to minimize traffic interference;
- Improve traffic flow by signal synchronization;
- All vehicle and equipment will be properly tuned and maintained according to manufacturer specification; and
- Reduce traffic speeds on all unpaved roads to 15 miles per hour or less.

Mitigation Measure AQ-3: Emission Controls for Construction Tugboats. The unmitigated Project analysis assumes partial implementation of Tier 2 engine standards on construction tug boats. Although not quantified in the analysis, to reduce combustive emissions, all tug boats used in construction shall meet the EPA Tier 2 marine engine standards, and if feasible use construction tugs that meet the EPA Tier 3 marine engine standards. The Tier 3 standards become available starting in year 2009.

Mitigation Measure AQ-3a (Added to Final EIS/EIR): Construction Tugboat Home Fleeting. The construction contractor shall require all construction tug boats that home fleet in the San Pedro Bay Ports to (a) shut down their main engines and (b) refrain from using auxiliary engines while they are at docked or to use electrical shore power, if need be.

Although not calculated, **Mitigation Measures AQ-2, AQ-2a, AQ-2b, AQ-3, and AQ-3a** would reduce combustive emissions and their resulting ambient impacts from Project construction. Incorporation of these mitigation measures, however, would not reduce impacts to air quality below significance. Specific legal, economical and technological considerations make additional mitigation measures infeasible, as explained below.

Rationale for Finding

The analysis assumes as part of the Project description that all construction off-road equipment would meet EPA Tier 3 standards. No feasible mitigation measures are available to further reduce combustive emissions from proposed sources. Construction equipment that meets EPA Tier 4 standards will become available starting in year 2012. Mitigation Measure AQ-2 requires construction equipment to meet EPA Tier 4 non-road engine standards, where feasible. It will not be feasible to require compliance with that standard in 2012. Due to the slow penetration of Tier 4 engines into the construction fleet, it would be impractical and economically infeasible to require these engines on all proposed construction equipment until several years after the rule effective date. The USEPA assumes that 100% compliance by the national equipment fleet with these standards will not occur until 2030, based on estimated fleet turn over rates. A 5% annual turnover rate means that it will take a number of years before there will be a meaningful penetration of the new equipment into southern California, thereby making it infeasible to require as part of a Project's bid specifications. In spite of this expected penetration rate, Final EIS/EIR Mitigation Measure AQ-2 requires Tier 4 standard engines in construction equipment, whenever feasible. An assessment of feasibility will need to be made at the time the construction project is bid.

A number of mitigation measures related to Project construction were provided during the comment period of the Draft EIS/EIR. The mitigation matrix included as Attachment A of this report identifies those mitigation measures that were incorporated into the Final EIS/EIR, and it presents the rationale for rejecting other mitigation measures, based upon their infeasibility.

Impact AQ-2: Proposed Project construction would result in offsite ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

For a peak day of Project construction, emissions from fugitive dust and onsite construction equipment and haul trucks would result in maximum ambient offsite concentrations of 24-hour PM_{10} of 40.4 $\mu g/m^3$ that would exceed the SCAQMD significance threshold of 10.4 $\mu g/m^3$. The maximum ambient offsite concentration of all other pollutants would be less than significant prior to mitigation.

Finding

The Board of Harbor Commissioners 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 EIS/EIR. Implementation of **Mitigation Measure AQ-1** would reduce emissions of fugitive dust ($PM_{10}/PM_{2.5}$) during Project construction. Although not assessed, **Mitigation Measures AQ-2, AQ-2a, AQ-2b, AQ-3,** and **AQ-3a** would reduce combustive emissions and their resulting ambient impacts from proposed construction. These mitigation measures are described above (listed in the discussion of **Impact AQ-1**).

With all feasible mitigation measures, the maximum mitigated offsite concentrations of 24-hour PM_{10} would be 17.1 $\mu g/m^3$. This would still exceed the SCAQMD threshold of 10.4 $\mu g/m^3$. As a result, Project construction would remain significant for 24-hour PM_{10} ambient concentration impact.

Rationale for Finding

As described above under **Impact AQ-1, no** additional feasible mitigation measures are available to further reduce PM_{10} emissions, either from fugitive dust or combustive emissions from construction sources. The analysis assumes as part of the Project description that all construction off-road equipment would meet Tier 3 standards, although it is expected that some equipment would meet Tier 4 standards during the later years of Project construction. Additionally, **Mitigation Measure AQ-2a** (BMPs for Construction Equipment) was added in the Final EIS/EIR (but its effects were not quantified) and is expected to future reduce construction equipment emissions.

As discussed above under **Impact AQ-1,** a number of mitigation measures related to Project construction were provided during the comment period of the Draft EIS/EIR. The mitigation matrix, included as Attachment A of this report, identifies those mitigation measures that were incorporated into the Final EIS/EIR, and it presents the rationale for rejecting other mitigation measures, based upon their infeasibility.

Impact AQ-4: Proposed Project operations would result in offsite ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

Proposed Project operational emissions would result in maximum ambient offsite concentrations of 1-hour and annual NO_2 that would exceed the SCAQMD significance thresholds. The maximum ambient offsite concentration of all other pollutants would be less than significant prior to mitigation.

Finding

The Board of Harbor Commissioners hereby finds that changes or alterations have been incorporated into the project that lessen the significant environmental effect identified in the Final EIS/EIR. Implementation of **Mitigation Measures AQ-4 through AQ-8** would reduce the Project's contribution to ambient pollutant concentrations from unmitigated levels. Although not quantified in the analysis, **Mitigation Measures AQ-7a, AQ-9 through AQ-11, AQ-25, and AQ-26** would further reduce operational emissions and their ambient concentrations. These mitigation measures are described in Section 3.3.4 of this document and they represent all feasible means to reduce air emissions and ambient pollutant impacts from Project operations.

With all feasible mitigation measures, maximum mitigated offsite 1-hour and annual NO_2 concentrations would remain in excess of SCAQMD thresholds (refer to discussions on pages 3.2-38 and 3.2-39 of the Final EIS/EIR). As a result, Project operations would have significant and unavoidable impacts on 1-hour and annual NO_2 ambient concentrations.

Rationale for Finding

Ship Emissions

With regard to ship emissions, Project shippers must comply with the IMO MARPOL Annex VI NOx limits that took effect in 2005 and the new standards approved in October 2008 that limit fuel sulfur content and NOx emissions. These requirements include (1) global standards and (2) tighter standards for ships that operate in areas with air quality problems, designated as Emission Control Areas (ECAs). The engine standards include the following:

1. The ECA engine emission standards are Tier 3 for new engines and equate to 80 percent NOx reduction starting January 2016 (based on the use of advanced catalytic after treatment systems). EPA is in the process of preparing an application for ECA status for U.S. coastal waters. The Port is working with the EPA to develop a West Coast ECA and they fully support the establishment of the West Coast as an ECA.

2. The global engine emission standards are (1) Tier 2 for new engines (20 percent NOx reduction starting January 2011) and (2) Tier 1 for existing engines, or equal to those adopted by EPA in 2003 and the current IMO Annex VI standards (15-20 percent NOx reduction from current uncontrolled levels).

The unmitigated Project scenarios would operate according to the ARB Fuel Sulfur Regulation for OGVs, meaning use of 1.5/0.1 percent sulfur fuel in Project year 1/year 2012. The mitigated Project scenarios would implement **Mitigation Measure AQ-6** at the commencement of the lease (Project year 1), which requires the use of 0.2 percent sulfur diesel in OGV auxiliary generators and main engines. Additionally, the new International Maritime Organization (IMO) regulations recently adopted do not require 0.1 percent sulfur until January 2015 and only for the Emission Control Areas. Beginning in year 2012, the mitigated Project scenarios would use 0.1 percent sulfur diesel in auxiliary generators, main engines, and boilers and consistent with the requirements of the ARB Regulation. For the years prior to 2012, the mitigation measure is more stringent than the ARB Fuel Sulfur Regulation. For years prior to 2015, the mitigation measure is more stringent than the IMO Fuel Sulfur limits for ECAs. It is expected that with the implementation of Project **Mitigation Measure AQ-11** (slide valves), **Mitigation Measure AQ-6** (low sulfur fuels in OGVs), and introduction of IMO-compliant

OGVs, the Project OGV fleet would achieve significant reductions in fleet average NOx and PM emissions. Additionally, emission controls in new OGV engines is a topic of research by the CAAP TAP process. Additional emission controls on new OGV builds will be implemented as they become required by regulations or are deemed feasible through the TAP process. Final EIS/EIR **Mitigation Measure AQ-25** requires the terminal tenant in 2015 and every 5 years afterwards to review new air quality technological advancements for the purpose of implementing new feasible mitigations.

Three new berths with the capacity to cold-iron OGV would become available according to the following Project construction schedule: (1) December 2009; (1) March 2012; and (3) December 2014. As each of these berths become available, they would cold-iron one-third of the total annual ship visits at the Middle Harbor container terminal. Therefore, by December 2014, 100 percent of the Project's ship visits would cold-iron. Given the magnitude and scale of proposed construction, this is the earliest that the Project could provide cold-iron capable berths. This schedule complies with the CAAP and exceeds requirements of the ARB At-Berth Ocean-Going Vessels Regulation. Essentially, any Project OGV that is retrofitted to cold-iron would moor at a berth with cold-ironing capabilities unless it is already in use. This requirement would be part of the new lease for the terminal facility.

A number of mitigation measures related to Project ship operations, ship design, and ship maintenance were provided during the comment period of the Draft EIS/EIR. The mitigation matrix included as Attachment A of this report identifies those mitigation measures that were incorporated into the Final EIS/EIR, and it presents the rationale for rejecting other mitigation measures, based upon their infeasibility.

Truck Emissions

With regard to truck emissions, the Port of Long Beach adopted a port-wide approach to dealing with drayage trucks rather than a project by project approach due to a number of complicating factors. As a result, the Port has taken an approach that spreads fleet modernization costs over an accelerated five-year schedule that covers all terminals on port-owned property in the Ports of Long Beach and Los Angeles. Through this approach, the Board of Harbor Commissioners also adopted, as part of the CTP, Clean Truck Fee exemptions that encourage the purchase of alternatively-fueled trucks by industry and adopted a goal that 50% of the CTP-funded trucks be liquefied natural gas (LNG). It is important to note that emissions benefits achieved through the use of LNG-fueled trucks would only provide marginal emissions benefits. Currently, most of the diesel trucks being funded through the CTP program have lower particulate matter emissions than LNG trucks. While LNG trucks do currently have lower emissions of nitrogen oxides, by 2010 new diesel and new LNG trucks will have the same emission rates for nitrogen oxides.

A number of mitigation measures related to Project truck operations were provided during the comment period of the Draft EIS/EIR. The mitigation matrix included as Attachment A of this report identifies those mitigation measures that were incorporated into the Final EIS/EIR, and it presents the rationale for rejecting other mitigation measures, based upon their infeasibility.

Rail Emissions

On March 14, 2008, the EPA adopted Tier 3 and Tier 4 emission standards for diesel line-haul and switcher locomotives. Conversion of the national line haul locomotive fleet to these standards will substantially reduce emissions from these sources as compared to the fleet with only Tier 2 standards. With regard to train emissions, the Final EIS/EIR has been revised to assume that, based on EPA-estimated remanufacturing rates and new purchases, the fleet of locomotives serving the proposed Project and SCAB region would have the equivalent of Tier 3 emissions beginning in 2025. Since locomotive engines with Tier 4 standards will not be available until 2015, it is infeasible to assume the entire fleet could comply with this requirement. Thus, additional emissions reduction which were not quantified in the Final EIS/EIR would be further reduce Project operational emissions.

A number of mitigation measures related to Project rail operations were provided during the comment period of the Draft EIS/EIR. The mitigation matrix included as Attachment A of this report identifies those mitigation measures that were incorporated into the Final EIS/EIR, and it presents the rationale for rejecting other mitigation measures, based upon their infeasibility.

Cargo Handling Equipment

With regard to implementing zero- or near-zero emission transport technologies such as rail electrification, the Alameda Corridor Use and Operating Agreement specifically prohibits the Ports from unilaterally mandating rail electrification. The Port is in the process of reviewing possible zero- or near-zero emission transport technologies as envisioned in the CAAP. In 2007, Cambridge Systematics prepared the Alternative Container Technology Evaluation and Comparison assessment for the Ports of Long Beach and Los Angeles. The Port is exploring feasible technologies and in 2009 will release a Request for Proposals for the design of a zero- or low-emission container movement demonstration project between one marine terminal and a near-dock rail facility. The demonstration project will address certain key issues that will help determine whether this technology can be feasibly employed in Port operations, including the functionality of the system, the availability of rights-of-way to accommodate the system, the capital costs for the construction of the system and the costs of operations and maintenance, and the needed interface between the terminals and the rail yards. Should the Port's demonstration project establish that a zero- or near-zero emission transport technology is operationally and financially feasible, the Port will investigate expanding the system to include the Middle Harbor operations. At this point, the Board finds that t is not financially or operationally feasible to include a zero- or near-zero emission transport technology as a mitigation measure for the Project. However, the Final EIS/EIR includes a new **Mitigation Measure AQ-25** that requires the terminal tenant in 2015 and every 5 years thereafter, to review new air quality technological advancements for the purpose of implementing new feasible mitigations.

The unmitigated Project scenarios include CAAP measures that are Port-wide and would occur regardless of terminal lease agreements. In addition, as part of the Port's commitment to promote the POLB Green Port Policy and implement the CAAP, the mitigated operational activities associated with Alternative 1 include all applicable CAAP control measures and additional clean air technologies. Due to this high level of emission control, few feasible mitigation measures are available to further reduce proposed Project emissions and air quality impacts. As discussed under Impact AQ-3 in Final EIS/EIR Section 3.2.2.3, the unmitigated and mitigated Project would produce lower operational emissions compared to CEQA Baseline levels in 2005. This is the case since due to currently adopted regulations (Table 3.2-11) most unmitigated Project vehicle fleets would turn over to substantially lower emission standards with time, compared to 2005 existing conditions. These lower emission rates would offset throughput increases and activities associated with the Project. Unmitigated scenarios include emission reductions that are associated with the implementation of Port-wide CAAP measures (see Final EIS/EIR Table 3.2-11). However, **Mitigation Measures AQ-4 through AQ-11** that are proposed in the Final EIS/EIR are attributed to implementation of the Project, as these control measures (e.g., Mitigation Measure AQ-5, Shore-to-Ship Power) could not be put in place unless the terminal is redeveloped and new lease is established that includes these mitigation measures.

With regard to Cargo Handling Equipment (CHE), the most feasible and economical way to comply with **Mitigation Measure AQ-7** is to replace current CHE with new equipment that achieve the USEPA nonroad Tier 4 standards. This infusion of new, more fuel efficient engines would minimize emissions from the proposed CHE fleet. Additionally, the Final EIS/EIR includes a new **Mitigation Measure AQ-7a** that would replace all diesel-powered Rubber-tired Gantry (RTG) Cranes with electrified rail-mounted gantry cranes (RMGs) with high efficiency, regenerative drive systems by the end of proposed construction, or year 2020 at the latest. This time lag is needed, as it would be necessary to wait until near completion of Project construction to efficiently install the associated rail system throughout the terminal. However, electrification of other CHE is deemed economically infeasible at this time. Nevertheless, to promote an ongoing evaluation of future air emission control technologies, Final EIS/EIR **Mitigation Measure AQ-25** requires the terminal tenant in 2015 and every 5 years afterwards to review such advancements for the purpose of implementing new feasible mitigations.

A number of mitigation measures related to Project CHE operations were provided during the comment period of the Draft EIS/EIR. The mitigation matrix included as Attachment A of this report identifies those mitigation measures that were incorporated into the Final EIS/EIR, and it presents the rationale for rejecting other mitigation measures, based upon their infeasibility.

No additional feasible measures are available for consideration at this time to reduce ship, train, truck, rail, or CHE emissions.

Impact AQ-8: The proposed Project would produce GHG emissions that would exceed the CEQA threshold.

An individual project does not generate by itself enough GHG emissions to significantly influence global climate change (AEP 2007). Thus, the issue of global climate change is a cumulative impact, such that an appreciable impact on global climate change would only occur when GHG emissions from a project combine with GHG emissions from other man-made activities on a global scale. Nevertheless, for the purposes of this EIS/EIR, the Port has chosen to assess GHG emissions as a project-level impact, as project GHG emissions would incrementally contribute to global effects.

The Project GHG significance criterion states that any increase in GHG emissions above CEQA Baseline levels is significant. The proposed Project would generate GHG emissions during each future year of construction and operation that would exceed CEQA Baseline levels. Therefore, GHG emissions from Project construction and operation would produce a significant impact to global climate change.

Finding

The Board of Harbor Commissioners hereby finds that changes or alterations have been incorporated into the project that would substantially lessen the significant environmental effect identified in the Final EIS/EIR. These changes include implementation of **Mitigation Measures AQ-2 through AQ-11, AQ-25, and AQ-26**, as described in Section 3.3.4 of this document, which would reduce Project contributions of both criteria pollutants and GHG emissions from unmitigated levels. The Middle Harbor Redevelopment Project Draft EIS/EIR proposed additional mitigation measures that would reduce operational GHG emissions. They include the following:

> **Mitigation Measure AQ-12**: **Expanded VSRP for GHG**. All OGV that call at the Middle Harbor container terminal shall comply with the expanded VSRP of 12 knots from the California overwater border to the Precautionary Area.
>
> **Mitigation Measure AQ-13**: **Low-sulfur Fuels in OGV for GHG**. All OGV shall use 0.2 percent or lower sulfur MGO fuel in vessel auxiliary and main engines at berth and within California State Waters, or implement equivalent emission reductions.
>
> **Mitigation Measure AQ-14**: **LEED**. The main terminal building shall obtain the LEED gold certification level.
>
> **Mitigation Measure AQ-15**: **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.
>
> **Mitigation Measure AQ-16**: **Energy Audit**. The Middle Harbor Terminal tenant shall conduct a third party energy audit every five years and install innovative power saving technologies 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.
>
> **Mitigation Measure AQ-17**: **Solar Panels**. The applicant shall install solar panels on the main terminal building.
>
> **Mitigation Measure AQ-18**: **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; and
- All plastic bottles.

Mitigation Measure AQ-19: Tree Planting. The Port shall plant shade trees around the main terminal building. Trees act as insulators from weather, thereby decreasing energy requirements. On-site trees also provide carbon storage (AEP 2007).

Subsequent to publication of the Draft EIS/EIR, the Port conducted a rigorous evaluation to identify feasible measures that could further mitigate GHG emissions from the Project. This included a thorough review of regulatory measures proposed or adopted by state, federal and international governments to reduce GHG emissions, measures being considered by goods movement industry organizations for voluntary implementation, measures adopted by other public agencies in environmental impact statements or reports, master plans, climate action plans, or other environmental programs, and measures requested in public comments on the Project Draft EIS/EIR. In addition, the Port considered other technologies that may not have been used in a maritime port setting but could be transferred to goods movement activities and applied to the Project. The evaluation process to determine the feasibility of measures to reduce GHG emissions from the Project is documented in Final EIS/EIR Section 10, responses to air quality comments (in particular, response to comment DOJ-5) and the mitigation matrix included as Attachment A of this document.

The findings of the GHG mitigation evaluation determined that the following additional measures could feasibly mitigate GHG emissions from the Project, as proposed in the Final EIS/EIR.

Mitigation Measure AQ-17a: Solar Carports. The applicant will install carport-mounted PV solar panels over the employee and visitor parking areas to the maximum extent feasible.

Mitigation Measure AQ-19a: Tree Planting – Transportation Corridors. The Port shall plant new shade trees on Port-controlled lands adjacent to the roads into the Middle Harbor terminal to the extent practicable given safety and other land use considerations.

Mitigation Measure AQ-20: Cool Roofs. Buildings on the Middle Harbor terminal will incorporate cool roofing systems to the extent feasible. Building rooftop areas which are covered with solar panels in accordance with Mitigation Measure AQ-17 shall be exempt from this measure.

Mitigation Measure AQ-21: Energy Efficient Boom Flood Lights. The Port shall install boom flood lights with energy efficient features on existing and new dock cranes to the extent feasible. Such features may include, but are not limited to, use of photo cells/timers, low energy fixtures, and light-spillover reduction features, electronic ballasts, use of double filaments, and applying auto-switch-off controls when the crane boom is up.

Mitigation Measure AQ-22: Reefer Lighting. The terminal tenant shall downsize light fittings and associated electrical power usage at reefer platforms to the extent feasible.

Mitigation Measure AQ-23: Employee Carpooling. The construction contractor and terminal tenant shall encourage construction and terminal employees to carpool or to use public transportation. These employers shall provide incentives to promote the measure, include preferential parking for carpoolers, vanpool subsidies, and they shall provide information to employees regarding the benefits of alternative transportation methods.

Mitigation Measure AQ-24: Mitigation for Indirect GHG Emissions. The terminal tenant shall be required to use green commodities, such as those available from the California Climate Action

Registry's Climate Action Reserve, to offset carbon emissions associated with terminal's electricity consumption subject to the limitation specified below. This measure applies to all electricity consumed at the terminal, including shore-to-ship power usage ("cold ironing"). The terminal-related carbon emissions from electricity consumption will be calculated each year based on the local utility's carbon intensity for that year as recognized by the State of California. The tenant may adjust the carbon intensity value to wholly reflect any carbon offsets provided by the electricity deliverer (i.e., point of generation or point of importation) under applicable California and/or Federal cap-and-trade regulations (i.e., no double offsetting). The maximum expenditure for purchased offsets required under this measure shall not exceed 15 percent of the terminal electricity costs for any given year (i.e., cost of offsets shall not exceed 15 percent of terminal electricity costs (US$ basis).

Mitigation Measure AQ-27: Electrical Regenerative Systems on Dock Cranes. Port will require that the terminal operator to have electric regenerative systems on all Project dock cranes in Project year 1.

The Port is developing a Climate Change/Greenhouse Gas (CC/GHG) Strategic Plan (CC/GHG Plan), whose goal is to reduce the cumulative impact of GHG emissions from Port operations. One element of the CC/GHG Plan is the Greenhouse Gas Emission Reduction Program Guidelines (GHG Guidelines). These Guidelines describe a procedure that the Port will use to select GHG emission reduction programs that meet the CC/GHG Plan reduction goals. Since the Project would produce significant levels of GHG emissions, the GHG Guidelines are included as the following mitigation measure to further reduce Project GHG emissions:

Mitigation Measure AQ-28: Greenhouse Gas Emission Reduction Program Guidelines (GHG Program). To partially address the cumulative GHG impacts of the Middle Harbor Project, the Port will require this Project to provide funding for the GHG Program in the amount of $5 million. This money will be used to pay for measures pursuant to the GHG Emission Reduction Program Guidelines, and include, but are not limited to, generation of green power from renewable energy sources, ship electrification, goods movement efficiency measures, cool roofs to reduce building cooling loads and the urban heat island effect, building upgrades for operational efficiency, tree planting for biological sequestration of CO_2, energy-saving lighting, and purchase of renewable energy certificates (RECs).

Implementation of **Mitigation Measures AQ-5, AQ-7a, AQ-12,** and **AQ-13** would reduce Project emissions of CO_2e by 16 to 18 percent from unmitigated levels, depending on the Project year. Although not quantified in this analysis, implementation of **Mitigation Measures AQ-8 through AQ-11 and AQ-14 through AQ-28** would further reduce Project GHG emissions. Specific legal, economic, and technical considerations, as identified in Final EIS/EIR Section 10 and Attachment A of this document, make additional mitigation measures infeasible. As such, GHG emissions from the Project would remain significant after consideration of all feasible mitigation measures.

Rationale for Finding

The Final EIS/EIR has thoroughly disclosed the potential GHG emissions associated with the Project. The Port has expended considerable effort to identify all feasible measures to mitigate proposed GHG emissions. It would be technologically and economically infeasible to implement any additional measures beyond those described above. Therefore, after mitigation, Project impacts to global climate change would be significant and unavoidable.

In the future, the Port will continue to pursue additional GHG mitigation measures under the CC/GHG Plan. This will result in additional reductions in GHG emissions beyond those that would be achieved through the direct project mitigation measures described above. Future Port-wide greenhouse gas emission reductions are also anticipated through AB 32 rule promulgation. However, the methods of such reductions have not been identified, and the associated reductions have not yet been quantified, as AB 32 implementation is still under development by the ARB. Although the State has yet to formalize GHG regulations for the goods movement sector, the Port has already begun work in this area. In September 2008, the Port's Board of Harbor Commissioners adopted a resolution establishing a framework for reducing GHG emissions. The framework outlined

efforts that are already underway at the Port toward addressing the issue of climate change. These efforts include:

1. The Port collaborated with other City departments to produce the City's first voluntary GHG emissions inventory (calendar year 2007) which was submitted to the California Climate Action Registry (CCAR).

2. The Port joined other City departments in preparing a plan to increase energy efficiency in City-owned facilities, in turn reducing indirect GHG emissions from energy generation. This initiative is known as the Southern California Edison 2009-2011 Local Government Partnership.

3. The Port participates in tree planting and urban forest renewal efforts through its support of the City of Long Beach's Urban Forest Master Plan.

4. Port staff consulted with the Long Beach Gas and Oil Department (LBGO) and Tidelands Oil Production Company (Tidelands) to evaluate potential opportunities for capturing carbon dioxide produced by oil operations in the Harbor District and re-injecting (sequestration) it through wells at the Port back into the subsurface formations.

5. Beginning with the 2006 POLB air emissions inventory, GHG emissions from ocean-going vessels, heavy-duty trucks, cargo-handling equipment, harbor craft, and locomotives are quantified to enable the establishment of GHG reduction goals.

6. The Port's Renewable Energy Working Group is developing strategies to expand renewable energy at the Port. Criteria for emerging technologies will be established so that the technologies can be evaluated in a manner similar to the existing CAAP Technology Advancement Program (TAP).

7. The Port's Renewable Energy Working Group recently finalized a Solar Energy Technology and Siting Study ("Solar Siting Study") that reviewed available solar technologies and the estimated solar energy generation potential for the entire Harbor District. The study determined that there are many sites within the Harbor District where solar energy generating technologies could be developed on building rooftops and at ground-level.

8. Based on the Solar Siting Study, Port staff are developing a program to provide incentive funding to Port tenants for the installation of solar panels on tenant-controlled facilities.

A number of mitigation measures related to Project GHG emissions were provided during the comment period of the Draft EIS/EIR. Many new measures were added to the Final EIS/EIR to further mitigate GHG emissions. The Board specifically identifies and incorporates the facts stated on pages 3.2-64 to 3.2-71 of the Final EIS/EIR supporting its conclusion here. In addition, Board identifies and incorporates the facts set forth in the mitigation matrix included as Attachment A and the facts set forth in the Final EIS/EIR Section 10 responses to air quality comments (in particular, response to comment DOJ-5). Attachment A and Section 10 of the Final EIS/EIR ,identify those mitigation measures that were incorporated into the Final EIS/EIR and present the rationale for rejecting other mitigation measures, based upon their infeasibility.

3.4.2 Biota and Habitats

As discussed in Final EIS/EIR Section 3.4, there would be one significant impact on biota and habitat as a result of the proposed Project during construction and operation. This impact would remain significant and unavoidable.

Impact BIO-5.3: Project operations could disrupt local biological communities through introduction of non-native species.

The amount of ballast water discharged into East Basin and, thus, the potential for introduction of invasive exotic species could increase since more and larger container ships would use the Port as a result of the Project. Because these vessels would come primarily from outside the Economic Exclusion Zone (EEZ), they would be subject to regulations to minimize the introduction of non-native species in ballast water, such as discharg-

ing to approved receivers and not exchanging ballast water within ports. Vessels unloading cargo would need to take on ballast water, while those loading cargo would need to discharge ballast water. Most container vessels entering the Port would be unloading cargo and, thus, not discharging ballast water.

Non-native algal species and invertebrates can also be spread via vessel hulls and external machinery (Final EIS/EIR Section 3.4.1.2). Algal species such as *Undaria pinnatifida*, discovered in Long Beach/Los Angeles Harbor in 2000 (MEC Analytical Systems, Inc. 2002), and *Sargassum filicinum* could be transported to the harbor via vessels traveling between ports within the EEZ. The new facilities in the Middle Harbor would result in a small increase (approximately 3.4 percent) in vessel traffic compared to the total number of vessels entering the harbor. Considering this small increment 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 or going outside the EEZ. For these reasons, the Project has a low potential to increase the introduction of non-native algal and invertebrate species into the harbor. The potential for introduction or spread of the invasive alga, *Caulerpa taxifolia*, as a result of Project operations is very low because the 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.

Operation of the Project facilities has the potential, even though of low probability, to result in the introduction of non-native species into the harbor via ballast water or vessel hulls, thereby substantially disrupting local biological communities. Impacts would, therefore, be significant.

Finding

Ballast water discharges are now regulated, which has significantly reduced the potential for introduction of invasive exotic species. The potential for introduction of exotic species via vessel hulls has been reduced by using antifouling paints and periodic cleaning of hulls to minimize frictional drag from growth of organisms. However, due to the lack of a proven technology, no feasible mitigation measures are available to prevent introduction of invasive species via ballast water and/or vessel hulls. The Board hereby finds that specific technological considerations make additional mitigation measures infeasible that would reduce these impacts to less than significant levels.

Rationale for Finding

Although regulations are currently being developed by the state to address ballast water discharges, 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 appropriate at that time. Therefore, impacts on biota and habitats would be significant and unavoidable.

3.4.3 Ground Transportation

As discussed in Final EIS/EIR Section 3.5, there would be two significant impacts to ground transportation as a result of the proposed Project during construction and operation. These impacts would remain significant and unavoidable.

Impact TRANS-2.1: Additional traffic generated by construction activities would have short-term significant impacts on certain highway locations in the study area.

The proposed Project's construction traffic would have short-term significant impacts on study highway segments up to the horizon year 2020. To be conservative, the same highway segments identified under the operational analysis are assumed to be impacted by the increase in construction-related traffic. The proposed Project would have significant impacts on the following study highway segments:

- I-405 n/o I-710, both Directions (starting 2010);
- I-405 s/o I-710, both directions (starting 2010);
- I-710 between Willow Street and Pacific Coast Highway, both directions (starting 2010);
- SR-91 e/o I-710, both directions (starting 2010); and

- SR-91 w/o I-710, both directions (starting 2015).

Finding

The Board of Harbor Commissioners 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 EIS/EIR. Incorporation of **Mitigation Measure TRANS-2.1**, however, would not reduce impacts to ground transportation below significance. Specific legal, economical, and technological considerations make additional mitigation measures infeasible, as explained below.

The Port does not own, control, or maintain any of the impacted highway segments. These segments fall under the jurisdiction of Caltrans. Therefore, the Port does not have authority to unilaterally implement any mitigation measures on the highway segments. However, implementation of the following measure would minimize impacts on highway segments.

> **Mitigation MeasureTRANS-2.1:** If Caltrans either (a) adopts a fair share based program to collect funds for actual mitigation that Caltrans commits itself to implement, or (b) otherwise obtains the balance of funding needed to improve the impacted study highway segments in a manner that will improve the segments level of operation, POLB shall pay its fair share into that program.

If Caltrans does not implement either of these steps, the impact on these freeway segments would remain significant and unavoidable.

In addition, it should be noted that the POLB is currently participating in the following on-going regional transportation programs, which are intended to address future regional traffic growth and resulting congestion on area freeways.

I-710 Corridor EIS/EIR 2008. The Port is presently working with Caltrans, Metro, SCAG, and Gateway Cities Council of Governments (COG) (of which the Port and City of Long Beach are member agencies) on the I-710 Corridor EIR/EIS and Caltrans Project Report. POLB has committed $5 million to this $34-million, 42-month study, which was commenced in early 2008. This project entails analyzing potential impacts and advancing preliminary engineering of the Locally Preferred Strategy (LPS) adopted by the communities and participating agencies in 2004/2005. The LPS consists of dedicated truck lanes commencing at Ocean Boulevard, additional mixed flows on I-710 between Ocean Boulevard and Washington Street, and numerous freeway to freeway and arterial street interchange improvements. The POLB, City of Long Beach, and Gateway Cities COG are aggressively seeking federal, state, and Metro funds for the I-710 Corridor.

Advanced Transportation Management, Information and Security (ATMIS). The POLB/POLA will also be implementing an Intelligent Transportation Systems (ITS) project by 2009. This $11-million program will provide real-time information to travelers in the Port vicinity and on adjacent regional transportation facilities. The ATMIS System will monitor vehicle traffic conditions through the use of closed circuit television cameras and vehicle detection devices at the terminal gates. The ATMIS System will distribute the traffic information to truck drivers, motorists, other agencies, and intermodal industry information systems through the use of strategically placed changeable message signs, internet video, and appropriate data sharing means. While the ATMIS system will assist in addressing recurring daily congestion, its major benefit will be providing information to inform drivers, including trucks exiting the Port gates, of non-recurring incidents and congestion and to allow them to choose, if possible, alternative routes to avoid congested areas.

The ATMIS System will be a major component in an overall ITS program for the I-710 Corridor/Gerald Desmond Bridge Gateway Program. This planned project will help to mitigate the I-710 impacts of the Project.

SR-91 Corridor Study. The Gateway Cities COG has initiated a SR-91 Corridor Study to explore options that will improve traffic conditions on this freeway. POLB continues to work in cooperation with the COG, Caltrans, and other agencies to find solutions to improving operating conditions on SR–91.

No additional feasible mitigation measures are available at this time.

Rationale for Finding

It can be assumed that until Caltrans implements improvements on the I-710, I-405, and SR-91 highway segments, the Project would have significant impacts at these locations. Therefore, impacts on highway segments would be significant and unavoidable.

Impact TRANS-2.2: Additional traffic generated by operation of the Project would have significant impacts on certain highway locations in the study area.

The operation of the proposed Project would have significant impacts on the following study highway segments:

- I-405 Freeway n/o I-710 Freeway, both Directions (starting 2010, max fair share of one percent in 2020);
- I-405 Freeway s/o I-710 Freeway, both directions (starting 2010, max fair of 5 percent in 2010);
- I-710 Freeway between Willow Street and Pacific Coast Highway, both directions (starting 2010, max fair share of four percent in 2020);
- I-110 Freeway n/o C-Street, northbound (2030, max fair share of 1.5 percent in 2030);
- SR-91 Freeway e/o I-710 Freeway, both directions (starting 2010, max fair share of four percent in 2030); and
- SR-91 Freeway w/o I-710 Freeway, both directions (starting 2015, max fair share of 3.5 percent in 2030).

The Project would cause an impact on more highway segments under this scenario because the CEQA Baseline (2005) traffic levels are compared to future traffic levels that include not only Project traffic, but also all forecasted future traffic on these highway segments resulting from regional growth and other area projects and activities unrelated to this Project. Although total highway traffic would increase substantially in the future, this Project contributes only a small portion of the anticipated future traffic. The Project's maximum share of the future traffic on each individual link ranges from approximately one to five percent.

Finding

The Board of Harbor Commissioners 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 EIS/EIR. Incorporation of **Mitigation Measure TRANS-2.1**, however, would not reduce impacts to ground transportation below significance. Specific legal, economical, and technological considerations make additional mitigation measures infeasible, as explained below.

The Port does not own, control, or maintain any of the impacted highway segments. These segments fall under the jurisdiction of Caltrans. Therefore, the Port does not have authority to unilaterally implement any mitigation measures on the highway segments. However, implementation of **Mitigation Measure TRANS-2.1** would minimize impacts on highway segments.

If Caltrans does not implement either of the steps identified in **Mitigation Measure TRANS-2.1**, including adopting a fair share based program to collect funds for actual mitigation that Caltrans commits itself to implement, or obtaining the balance of funding needed to improve the impacted study highway segments in a manner that will improve the segments level of operation, the impact on these freeway segments would remain significant and unavoidable.

In addition, it should be noted that the Port is currently participating in the on-going regional transportation programs, as described above, which are intended to address future regional traffic growth and resulting congestion on area freeways.

No additional feasible mitigation measures are available at this time.

Rationale for Finding

It can be assumed that until Caltrans implements improvements on the I-710, I-405, and SR-91 highway segments, the Project would have significant impacts at these locations. Therefore, impacts on highway segments would be significant and unavoidable.

Comment CBD-69 suggested increased public transit as a way to mitigate impacts to freeway segments. However, increased public transit would not take Project trips off the road. It is not a technically or economically feasible mitigation measure. The public does not travel to the Project site. The vehicle traffic generated by the Project will be largely truck traffic that would not involve public transit. Terminal operators currently operate shuttles to transport longshoremen to the terminals when ships arrive. This practice will continue and is part of the Clean Air Action Plan that the Port will continue to enforce through leases with the terminal operators. Therefore, increased transit service would not address Project traffic issues.

Comment CBD-70 suggested employee-model truck programs to reduce trips to the Project site. However, employee-model truck programs have not yet been proven to improve truck efficiency and reduce truck traffic. There have not been any comprehensive studies supporting a finding that the employee-model reduces commute-only truck trips. Nor have there been documented findings on efficiency differential since an owner-operated truck could also be used for multiple shifts. In fact, under the POLA concession more personal trips by truck drivers will likely occur as they commute to and from work site for their shifts. Such increase in personal trips would simply shift traffic congestion from one region to another and yield no environmental benefit. Further, the legality of such a program has been questioned in the recent Ninth Circuit decision in *American Trucking Assoc. v. City of Los Angeles* (Case No. CV08-04920). The employee-model truck program is not technically, legally, or socially a viable mitigation measure.

Comment SCAQMD-7 and CBD-20 proposed increasing the amount of cargo that moves from the Project by on-dock rail. Increased use of on-dock rail above and beyond the Project is not a technically feasible mitigation measure. Every effort was made from the design and operation perspective to maximize the rail yard capacity, taking into account the need for the additional container yard capacity necessary to accommodate projected demand. Even were there a legitimate need for more on-dock rail capacity, which there is not, the planned on-dock rail yard could not be expanded into the planned container yard because overall terminal capacity would be reduced, thus creating a less efficient terminal. In light of the physical constraints of the site and the need to provide sufficient container yard capacity to handle the projected cargo throughput, the proposed Project maximizes on-dock rail capacity. The proposed re-use of this site has been carefully planned to ensure adequate space for operations, storage, and trackage that will result in an increase of 613,160 TEUs between the 2030 No Project and 2030 Project alternatives (the only difference in throughput being the design of the site). Moreover, a sizeable amount of the Project throughput will be made up of low-volume destination cargo that must be assembled at the near- and off-dock rail yards throughout the region. Specifically, low-volume-destination containers (i.e. non-Chicago-bound containers) oftentimes cannot wait for a unit train to be built on-dock. Rather, these boxes are assembled off-dock from multiple terminals in order to achieve the appropriate volumes to generate a single train in a timely fashion. Therefore, some direct intermodal containers will always need to be drayed to the Intermodal Container Transfer Facility, Hobart Yards, and other rail yards throughout the region regardless of the size of the on-dock rail yard at Middle Harbor.

Comments SCAQMD-27, CBD-20, CBD-21, CBD-71, CBD-100, CSE(A)-3, CSE(A)-4, CSE(B)-3, and JW-3 suggested Maglev or electrified rail. CBD-71 and CSE(B)-3 also suggested the construction of an intermodal facility on Port property, such as the import car lot off Anaheim Street, as ways to reduce truck trips. However, Maglev and an intermodal facility at the import car lot are not feasible mitigation measures. The Port is in the process of reviewing possible zero- or near-zero emission transport technologies as envisioned in the CAAP. In 2007, Cambridge Systematics prepared the Alternative Container Technology Evaluation and Comparison assessment for the Ports of Long Beach and Los Angeles. The Port is exploring feasible technologies and in 2009 will release a Request for Proposals for the design of a zero- or low-emission container movement demonstration project between one marine terminal and a near-dock rail facility. The demonstration project will address certain key issues that will help determine whether this technology can be feasibly employed in Port operations, including the functionality of the system, the availability of rights-of-way to accommodate the system, the capital costs for the construction of the system and the costs of operations and maintenance, and the needed interface between the terminals and the rail yards. Should the Port's demonstration project establish

that a zero- or near-zero emission transport technology is operationally and financially feasible, the Port will investigate expanding the system to include the Middle Harbor operations. At this point, the Board finds that t is not financially or operationally feasible to include a zero- or near-zero emission transport technology as a mitigation measure for the Project. However, the Final EIS/EIR includes a new **Mitigation Measure AQ-25** that requires the terminal tenant in 2015 and every 5 years thereafter, to review new air quality technological advancements for the purpose of implementing new feasible mitigations. Electrification of the rail corridors is well outside of the scope of the Project. Electrifying the Alameda Corridor has been studied fully and is not being pursued for several reasons, including operational feasibility during loading/unloading of trains and environmental and fiscal impacts of constructing a new power plant that could supply a sufficient source of power. The Southern California Association of Governments conducted a study on electrifying the Southern California rail system in the 1990s and concluded it was prohibitively expensive to do so, and thus infeasible at that time. Electrifying the region's rail system is still being evaluated to address air quality attainment objectives. The cost to electrify rail in Southern California was estimated to be in excess of $6 billion, thus it is an economically infeasible mitigation measure. Regarding construction of a parking structure to free up space for a Maglev system, the cost per parking space for a parking structure ranges from $20,000 to $25,000. Constructing a 4 or 5-story parking structure on Pier B, which is leased terminal space, would greatly limit future lease options and could significantly constrain the future use on this terminal. Not only is Maglev not yet a proven alternative, but the cost of constructing a parking structure for a limited period of time is economically infeasible.

No additional traffic mitigation measures have been identified at this time. Unless Caltrans implements a mechanism to assess a fair share contribution, the Project's traffic impacts will be significant and unavoidable.

3.4.4 Noise

As discussed in Final EIS/EIR Section 3.9, there would be two significant impacts to noise as a result of the proposed Project during construction and operation. These impacts would remain significant and unavoidable.

Impact NOI-1.1: Project construction activities would increase ambient noise levels by three dBA.

The minimum ambient daytime hourly Leq noise level recorded at the closest sensitive receptor site (i.e., Site 1) was 61 dBA. During Project pile driving activities, calculated hourly Leq noise levels at Site 1 would range between 64 – 66 dBA, which would exceed a three dB increase. Pile-driving activities mostly would occur during Construction Phase 1, but also during part of Phase 2. The longest scheduled period of pile-driving would occur for 12 months during Construction Phase 1/Stage 1 for the new Berth E24 extension and redevelopment of the existing berth at Berth E24. Project construction activities would cause ambient noise levels to be increased by more than three dBA at nearby sensitive receptors (i.e., Site 1), resulting in significant short-term impacts. Pile-driving activities would also occur during Construction Phase 1/ Stage 2, Construction Phase 1/Stage 3, and Construction Phase 2/Stage 2 in-water activities associated with new wharf construction at Berth E23 and wharf redevelopment/ improvements at Berths E25, E26, and E27.

At receiver Site 2, levels of existing daytime ambient noise are significantly higher than those at Site 1. Calculated construction noise levels at this location would not exceed the existing daytime ambient noise level by three dBA.

At receiver Sites 3 through 7, increased distance from the Project and the shielding effects of intervening structures and topography would reduce construction noise levels to below the existing ambient level.

Finding

The Project includes the following standard construction noise controls described in Final EIS/EIR Section 1.7.3.

1. *Construction Equipment* – All construction equipment powered by internal combustion engines would be properly muffled and maintained.
2. *Idling Prohibitions* – The idling of internal combustion engines near noise-sensitive areas would be prohibited during Project construction.

3. *Equipment Location* – All stationary noise-generating construction equipment, such as air compressors and portable power generators, would be located as far as practical from existing noise-sensitive land uses.
4. *Quiet Equipment Selection* – Quiet construction equipment would be used during Project construction to the extent feasible.
5. *Notification* – The Port would publish notices in the Press Telegram and all property managers adjacent to the Project site would be notified in advance of the construction schedule. The Port would coordinate with schools and other affected agencies to ensure construction activities would not substantially interfere with facility operations.

The Board of Harbor Commissioners 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 EIS/EIR. These changes are set forth in **Mitigation Measures NOI-1.1a and NOI-1.1b**, set forth below.

> **Mitigation Measure NOI-1.1a:** Temporary noise barriers shall be located between noise-generating construction activities (e.g., pile driving) and hotel/residential buildings and Cesar Chavez School to the east.
>
> **Mitigation Measure NOI-1.1b**: Pile-driving activities shall be limited to the hours of 7:00 am to 7:00 pm on weekdays, between 9:00 am and 6:00 pm on Saturdays, and prohibited anytime on Sundays and holidays as prescribed by Section 8.80.202 of the LBMC.

Incorporation of these mitigation measures will not reduce construction noise impacts to less than significant.

Rationale for Finding

Due to the difficulty of effectively mitigating substantial noise-generating activities, adherence to standard controls and construction of temporary noise barriers would not be sufficient to reduce projected increases in ambient noise levels to the point where it would no longer cause a substantial increase. Therefore, impacts would remain significant after mitigation.

Comment LBUSD-20 suggested limiting construction activities during school hours of operation and testing periods to reduce this significant unavoidable impact. This recommendation has been incorporated into the Project's construction noise controls as a notification requirement. Furthermore, Final EIS/EIR **Mitigation Measure NOI-1.1a** has been modified to require installation of temporary noise barriers between pile driving activities and Cesar Chavez School.

Impact NOI-2.1: Construction activities would exceed City of Long Beach Municipal Code maximum noise levels.

Receiver Site 1 is in the City of Long Beach General Plan Land Use District (LUD) Three, for which the maximum noise level allowed by the Long Beach Municipal Code (LBMC) is 65 dBA (Leq, one-hour) (Final EIS/EIR Table 3.9-6). However, many of the construction activities would invoke the five dBA penalty for impulsive/tonal noise character, which would reduce the maximum allowable noise level in this location to 60 dBA. Calculated hourly average construction noise levels would intermittently exceed 60 dBA at receiver Site 1 until the end of Construction Phase 2.

Receiver Site 2 is in LUD One (Final EIS/EIR Table 3.9-6). Taking existing ambient noise levels into account, as well as the impulsive/tonal noise penalty, the maximum daytime noise level allowed in this location under the LBMC would be 65 dBA (Leq, one-hour). Calculated hourly average construction noise levels at Site 2 would exceed 65 dBA during the noisiest periods of construction.

At receiver Sites 3 through 7, increased distance from the Project site and the shielding effects of intervening structures and topography would reduce construction noise to levels below the maximum allowed by the LBMC.

Project construction activities would cause ambient noise levels to exceed LBMC maximum noise levels at Sites 1 and 2; therefore, significant short-term impacts would occur.

Finding

The Board of Harbor Commissioners 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 EIS/EIR. These changes are set forth in **Mitigation Measures NOI-1.1a and NOI-1.1b**, set forth above. Incorporation of these mitigation measures will not reduce construction noise impacts to less than significant.

Rationale for Finding

Due to the difficulty of effectively mitigating substantial noise-generating activities, adherence to standard controls and construction of temporary noise barriers would not be sufficient to reduce projected increases in ambient noise levels to the point where it would no longer cause a substantial increase. Therefore, impacts would remain significant after mitigation.

3.5 Cumulatively Considerable Impacts

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" (CEQA Guidelines, Section 15355).

The discussion below identifies cumulatively significant and unavoidable impacts. The Board of Harbor Commissioners 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.

3.5.1 Air Quality

Cumulative Criteria Pollutants Impacts

This impact represents the potential of the proposed Project to contribute, in conjunction with other cumulative projects, to significant mass emissions or ambient offsite concentrations of criteria pollutants.

Finding

With regard to **Impacts AQ-1 and AQ-2,** peak daily Project construction activities, with implementation of **Mitigation Measures AQ-1, AQ-2, AQ-2a, AQ-2b, AQ-3, and AQ-3a**, would produce mitigated emissions that would exceed the SCAQMD peak daily emission thresholds for VOC, CO, NO_x, PM_{10}, and $PM_{2.5}$, and the 24-hour PM_{10} ambient thresholds. This Project-specific significant impact would also represent a cumulatively considerable contribution to a significant cumulative impact. No additional mitigation measures beyond those identified in the Final EIS/EIR for project-specific impacts are available to mitigate these significant cumulative impacts, as identified in Attachment A of this document.

With regard to **Impact AQ-4,** Project operations, with implementation of **Mitigation Measures AQ-4 through AQ-8, AQ-9 through AQ-11, AQ-25, and AQ-26**, would produce ambient impacts that would exceed the SCAQMD one-hour and annual NO_2 ambient thresholds. As a result, mitigated Project operations, in combination with existing and future related projects, would produce cumulatively considerable and unavoidable contributions to ambient NO_2 levels. However, these impacts represent lower cumulative NO_2 impacts compared to those produced from existing terminal operations in 2005. No additional mitigation measures beyond those identified in the Final EIS/EIR for project-specific impacts are available to mitigate these significant cumulative impacts, as identified in Attachment A of this document.

The Board hereby finds that changes or alterations have been incorporated into the Project that minimize the significant cumulative environmental effect identified in the Final EIS/EIR. Incorporation of all feasible mitiga-

tion measures and adherence to proposed environmental controls, however, would not reduce criteria pollutant cumulative impacts to below significance. Specific legal, economical, and technological considerations make additional mitigation measures infeasible.

Rationale for Finding

Due to its large population, substantial numbers of emission sources, and geographical/ meteorological conditions that inhibit atmospheric dispersion, the SCAB experiences degraded air quality. As stated in Section 3.2, the region presently does not attain the national and/or state ambient air quality standards for O_3, PM_{10}, and $PM_{2.5}$. These pollutant nonattainment conditions within the Project region are considered to be cumulatively significant. However, the 2007 AQMP predicts attainment of all NAAQS within the SCAB, including $PM_{2.5}$ by 2014 and O_3 by 2024, although these predictions are speculative.

Construction activities resulting from some of the cumulative and related projects (e.g., Pier G & J Terminal Redevelopment Project; Berths 97-109 Container Terminal Project, West Basin; Channel Deepening Project; Berths 136-147 Marine Terminal; Berth 206-209 Interim Container Terminal Reuse Project; Pacific Los Angeles Marine Terminal; Port of Los Angeles Charter School and Port Police Headquarters Project; and San Pedro Waterfront Enhancement Project) would add to the emission levels and ambient concentrations around the Ports due to their construction schedules, which overlap with that of this proposed Project.

Any activity that occurs concurrently in the vicinity of proposed Project terminal operations would add to the significant ambient concentration impact of air pollutants from Project operations. As a result, impacts from mitigated Project operations would produce cumulatively considerable and unavoidable impacts to 1-hour and annual NO_2 levels. Operational activities resulting from projects such as the Pier G & J Terminal Redevelopment Project; Berths 97-109 Container Terminal Project, West Basin; Channel Deepening Project; Berths 136-147 Marine Terminal; Berth 206-209 Interim Container Terminal Reuse Project; Pacific Los Angeles Marine Terminal; Port of Los Angeles Charter School and Port Police Headquarters Project; and San Pedro Waterfront Enhancement Project) would add to the ambient concentrations around the Ports due to their overlapping construction and operation schedules, which overlap with the operation of the proposed Project.

The Final EIS/EIR has thoroughly disclosed potential criteria pollutant emissions and associated cumulative impacts due to the Project and it has expended considerable effort to identify all feasible measures to mitigate these impacts. It would be technologically and economically infeasible to implement any additional measures beyond those described above. Therefore, after mitigation, Project cumulative impacts to criteria pollutant levels would be significant and unavoidable.

In the future, the Project lease agreement would include a condition requiring that every 5 years the Project lease would be re-opened to consider implementation of new feasible mitigations in accordance with Final EIS/EIR **Mitigation Measure AQ-25**. This and Final EIS/EIR **Mitigation Measure AQ-29** (presented below) would mitigate Project cumulative air quality impacts in addition to those presented in the Final EIS/EIR.

In summary, a number of mitigation measures related to air quality were provided during the comment period of the Draft EIS/EIR. Many new measures were added to the Final EIS/EIR to further mitigate air quality impacts. The Board specifically identifies and incorporates the facts stated in Chapter 3.2 of the Final EIS/EIR supporting its conclusion here, as well as the facts identified in the corresponding appendices. In addition, the Board identifies and incorporates the facts set forth in the mitigation matrix included as Attachment A and the facts set forth in the Final EIS/EIR Section 10 responses to air quality comments. Attachment A and Section 10 of the Final EIS/EIR ,identify those mitigation measures that were incorporated into the Final EIS/EIR and present the rationale for rejecting other mitigation measures, based upon their infeasibility.

Cumulative Toxic Air Contaminants Impacts

This impact represents the potential of the proposed Project to contribute, in conjunction with other cumulative projects, to a significant cancer risk or non-cancer chronic or acute health effects on residential, offsite occupational, or sensitive receptors.

Finding

With regard to **Impact AQ-6,** emissions of TACs from Project construction and operation, with implementation of **Mitigation Measures AQ-2 through AQ-12, AQ-25, and AQ-26,** would reduce cancer risks to all receptor types within the Project region compared to the CEQA Baseline. As a result, the mitigated Project would produce less than cumulatively considerable contributions to cancer effects under CEQA. The mitigated Project would increase chronic non-cancer effects at the maximum occupational receptor locations, but all other receptors in the Project region would have chronic non-cancer impacts which are less than those identified at the maximum occupational receptor location. This increase would represent cumulatively considerable contributions of airborne non-cancer effects to occupational receptors.

Since the Project would produce significant cumulative health impacts, the Final EIS/EIR proposes the following mitigation measure to further reduce the effects of this impact on the community. Details of the cumulative guidelines are presented in the Rationale for Finding section below:

> **Mitigation Measure AQ-29: Cumulative Air Quality Impact Reduction Program**. To help reduce cumulative air quality impacts of the Middle Harbor Redevelopment Project, the Port will require the Project to provide funding in support of the Schools and Related Sites Guidelines for the Port of Long Beach Grant Programs and Healthcare and Seniors Facility Program Guidelines for the Port of Long Beach Grant Programs in the amount of $5 million each. The distribution of these funds to potential applicants and projects will be determined through a public evaluation process and by approval of the Board of Harbor Commissioners.
>
> The timing of the payments pursuant to **Mitigation Measure AQ-29** shall be made by the later of the following two dates: (1) the date that the Port issues a Notice to Proceed or otherwise authorizes the commencement of construction on the Phase 1 Construction Contract or (2) the date that the Middle Harbor Final EIR is conclusively determined to be valid, either by operation of Public Resources Code Section 21167.2 or by final judgment or final adjudication.

The Board hereby finds that changes or alterations have been incorporated into the Project that minimize the significant cumulative environmental effect identified in the Final EIS/EIR. Specific legal, economic, and technical considerations, as identified in Attachment A of this document, make additional mitigation measures infeasible. As such, cumulative non-cancer effects from the Project would remain significant after consideration of all feasible mitigation measures.

Rationale for Finding

The SCAQMD in their MATES-II and MATES-III (current draft) reports and the ARB in their *Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach* estimated that elevated levels of cancer risks due to operational emissions from the POLB and POLA occur within and in proximity to the two Ports (SCAQMD 2000 and 2008; ARB 2006). Regarding non-cancer effects, the ARB identifies that elevated levels of air pollution that can occur within the Ports region are associated with adverse health effects, including asthma, bronchitis, reduced lung function, and increased mortality and morbidity (ARB 2006d). Based on this information, the existing and future baseline airborne cancer and non-cancer conditions within the Project region are cumulatively significant.

Emissions of TACs from construction and operation of the mitigated Project would reduce cancer risks to all receptor types within the Project region. As a result, the mitigated Project would produce less than cumulatively considerable contributions to cancer effects.

Emissions of TACs from construction and operation of the mitigated Project would reduce non-cancer health effects to all receptor types within the Project region, except for chronic non-cancer effects to occupational receptors. As a result, the mitigated Project would produce less than cumulatively considerable contributions to non-cancer effects, except for chronic non-cancer effects to occupational receptors. The maximum Project chronic non-cancer effects to occupational receptors would not exceed the 1.0 hazard index significance criterion. However, since the mitigated Project would increase chronic non-cancer effects in the Project region, it would produce a cumulatively considerable and unavoidable contribution of airborne non-cancer effects to occupational receptors.

The Port has developed two programs with corresponding guidelines in an effort to mitigate potential cumulative air quality and noise impacts of projects in the San Pedro Bay Ports' area (including marine terminal expansions/modernizations for the Ports of Long Beach and Los Angeles and related transportation projects). In particular, the programs are designed to (1) reduce emissions (e.g., school bus diesel particulate matter (DPM) filters) and/or (2) exposure to air emissions and noise impacts directly (e.g., high-efficiency particulate air (HEPA) filters, noise berms, etc.) or though prevention, education, and outreach programs. The programs are specifically aimed at sensitive populations (i.e., school-age children, senior citizens, and persons with specific respiratory illnesses), which have been identified by state and local air agencies as particularly sensitive to air pollutants. One program is focused on school-age children; the Port has prepared *Schools and Related Sites Guidelines for the Port of Long Beach Grant Programs* that identify eligible applicants as schools, preschools, and daycare centers where children spend a significant portion of their waking hours. The other program is focused on specific prevention, education, and outreach programs, as well as direct mitigation projects for hospitals, healthcare facilities, retirement homes, senior centers, and convalescent homes. The Port has prepared *Healthcare and Seniors Facility Program Guidelines for the Port of Long Beach Grant Programs*, which includes funding opportunities for prevention/education/outreach programs to help sensitive receptors which include children, senior citizens, and people with respiratory illnesses in areas determined to be most affected by cumulative air impacts near the ports as well as direct mitigation projects for certain facilities described previously. **Mitigation Measure AQ-29.**

The Port will fund mitigation projects and prevention programs for people sensitive to air pollutants, as well as certain noise mitigation projects. Projects/programs would be submitted to the Board of Harbor Commissioners by applicants for review and approval. The Grant Guidelines, adopted on March 23, 2009, establish: (1) the eligibility criteria for applicants and projects/ programs; (2) the ranking criteria for proposed projects/programs if proposal requests exceed available funding; and (3) review and approval procedures. Funding established by the approval of the Middle Harbor Project would enable the expeditious implementation of many cumulative impact mitigation projects and health-related prevention programs in the areas most directly affected by port area sources. These measures are designed to supplement source-reduction measures in the near term when cumulative impacts are predicted to be highest.

The Final EIS/EIR has thoroughly disclosed potential TACs emissions and associated cumulative impacts due to the Project and it has expended considerable effort to identify all feasible measures to mitigate these impacts. It would be technologically and economically infeasible and outside of the control of the Port or Project terminal tenant to implement any additional measures beyond those described above. The facts supporting this conclusion include the facts set forth in Chapter 3.2 and the Appendix A of the Final EIS/EIR, in the responses to the air quality comments in Chapter 10 of the Final EIS/EIR, and the facts set forth in the Attachment A matrix. Therefore, after mitigation, Project cumulative impacts to non-cancer levels would be significant and unavoidable.

Cumulative GHG Impacts

This impact represents the potential of proposed Project construction and operation in conjunction with other cumulative projects to cause a substantial increase in GHG emissions and contribute to climate change.

Finding

As described above (Section 3.4.1), the proposed Project in combination with related and cumulative projects would generate GHG emissions that would contribute to climate change. The Board hereby finds that changes or alterations have been incorporated into the Project that minimize the significant cumulative environmental effect identified in the Final EIS/EIR. Incorporation of **Mitigation Measures AQ-5, AQ-7a, AQ-9 through AQ-28**, however, would not reduce cumulative impacts below significance. Specific legal, economic, and technical considerations, as identified in Final EIS/EIR Section 10 and Attachment A of this document, make additional mitigation measures infeasible.

Rationale for Finding

Any concurrent emissions-generating activity that occurs worldwide would add additional air emission burdens to the GHG emission levels associated with the Project. It is unclear whether GHG emissions from the Project would make a significant contribution to the impact of global climate change when considered with GHG emis-

sions generated by all natural and human activities. However, the Project GHG significance criterion states that any increase in GHG emissions is significant. Therefore, emissions of GHG from construction and operation of the mitigated Project would produce cumulatively considerable and unavoidable contributions to global climate change.

The Port is now in the process of developing a Climate Change/Greenhouse Gas (CC/GHG) Strategic Plan (CC/GHG Plan). This plan, which will be comprehensive in nature, will examine GHG impacts for all activities within the Harbor District, and will identify strategies for reducing the overall carbon footprint of those activities. Similar to the CAAP, the Port's GHG/CC Plan will identify strategies for activities under direct Port control and those that are the controlled by third parties, such as tenants. This Plan will outline the overall approach for mitigating potential project-specific and/or cumulative GHG impacts of projects through the modernization and/or upgrading of marine terminals and other facilities in the Long Beach Harbor District.

One element of the Port's CC/GHG Plan is the Greenhouse Gas Emission Reduction Program Guidelines (Guidelines). The Guidelines describe a procedure for the evaluation and prioritization of GHG emission reduction projects and practices that the Port may fund consistent with the Port's overall CC/GHG reduction goals. The Port has conducted an exhaustive search for additional measures that could feasibly mitigate GHG emissions from the proposed Middle Harbor Redevelopment Project. This included a thorough review of regulatory measures proposed or adopted by state, federal and international governments to reduce GHG emissions, measures being considered by goods movement industry organizations for voluntary implementation, and measures adopted by other public agencies in environmental impact statements or reports, master plans, climate action plans, or other environmental programs. In addition, the Port considered other technologies that may not have been used in a maritime port setting but could be transferred to the goods movement activities and applied to the Project. As discussed, under the Project-specific impacts under Impact AQ-8, new mitigation measures have been implemented in the Project to mitigate project-specific and cumulative GHG impacts from the Project.

The Final EIS/EIR has thoroughly disclosed potential GHG emissions and associated cumulative impacts due to the Project and it has expended considerable effort to identify all feasible measures to mitigate these impacts. It would be technologically and economically infeasible and outside of the control of the Port or Project terminal tenant to implement any additional measures beyond those described above. The facts supporting this conclusion include the facts set forth in Chapter 3.2 and the Appendix A of the Final EIS/EIR, in the responses to the air quality comments in Chapter 10 of the Final EIS/EIR, and the facts set forth in the Attachment A matrix. Therefore, after mitigation, Project cumulative impacts to global climate change would be significant and unavoidable.

3.5.2 Biota and Habitats

Cumulative Impact BIO-1: Special Status Species

This impact represents the potential of the proposed Project in conjunction with other cumulative projects to cause a substantial increase in vessel activity and corresponding potential for vessel strikes with blue whales within the cumulative region of influence.

Finding

The potential for a Project-related support vessel collision with a blue whale while in transit within the Long Beach Breakwater and Outer Harbor would be unlikely due to the infrequent presence of these mammals. Furthermore, all vessels would be required to slow to 12 knots when within 40 nm of Point Fermin as part of the VSRP (**Mitigation Measure AQ-4**). Normal swimming speeds of blue whales are 22 km/hr, which is approximately 10 knots; however, blue whales can swim up to 48 km/hr when alarmed (Wilson and Ruff 1999). Therefore, it is very unlikely that Project-related vessels traveling at 12 knots would increase the potential for whale strikes. No feasible measures are currently available to reduce whale strikes in the open ocean at greater than 40 nm from the harbor. However, in the event that a Project-related vessel strike with a blue whale did occur, it would make a cumulative contribution to significant and unavoidable impacts associated with vessel strikes to that species. The small increase in vessel traffic in the harbor (3.4 percent) caused by the Project would add to that cumulative potential, resulting in a significant cumulative impact.

The Board hereby finds that changes or alterations have been incorporated into the Project that minimize the significant environmental effect identified in the Final EIS/EIR. Incorporation of this mitigation measure and adherence to proposed environmental controls, however, would not reduce cumulative impacts below significance. Specific legal, economical, and technological considerations make additional mitigation measures infeasible.

Rationale for Finding

The list of related and cumulative projects was reviewed to determine if construction and operation activities associated with any of these projects could, in combination with the proposed Project, cause a cumulative increase in vessel activity and associated increase in potential vessel strikes to blue whales, a federally listed endangered species. Mortality of blue whales is a particular concern, and cumulative impacts would be significant and unavoidable for this species.

Cumulative marine terminal projects (e.g., Piers G & J (#2), Pier A East (#5), Pier S (#3) San Pedro Waterfront (#22), Channel Deepening (#15), Evergreen Redevelopment (#13), Pier 400 Oil Marine Terminal (#17), Ultramar (#19), China Shipping (#14), Berths 171-181 (#16) would increase vessel transportation activity in the Long Beach Breakwater and Outer Harbor. The increase in vessel traffic, particularly large vessels travelling at greater than 10 knots, would increase the potential for vessel strikes of whales. Mortality of blue whales is a particular concern, and cumulative impacts would be significant and unavoidable for this species. It is reasonable to assume that cumulative projects would be required to adhere to VSRP regulations requiring vessels to slow to 12 knots within 40 nm of Point Fermin (CAAP Measure OGV1). As blue whales can swim up to 48 km/hr when alarmed (Wilson and Ruff 1999), it is very unlikely that vessels traveling at 12 knots would increase the potential for whale strikes. Although vessel strikes to blue whales would be unlikely to occur, any that did occur would make a cumulatively considerable contribution to significant and unavoidable cumulative impacts associated with vessel strikes to that species. No feasible measures are currently available to reduce whale strikes in the open ocean at greater than 40 nm from the harbor.

Comments USEPA(B)-12 and -34 suggested a sound alarm system be required to warn of the existence of whales. Because whale strikes by Project-related vessels could occur a considerable distance from the harbor, a warning system in nearshore waters would not prevent those strikes. Furthermore, the vessel traffic lanes along the coast are used by vessels that are not travelling to or from the harbor, and the ports have no authority to request those vessels to slow down when whales are present. Based on the reference cited in the comment, the warning system technology is still in the preliminary design stages. Because the location and species of whales (and their behaviors) are different, testing in the vicinity of the Long Beach – Los Angeles Harbor would need to be conducted to determine if this technology would be feasible and effective before it could be installed. Based on currently available information, this technology is not feasible for this Project at this time.

Cumulative Impact BIO-5: Disruption of Local Biological Communities

This impact represents the potential of the proposed Project in conjunction with other cumulative projects to cause a cumulatively substantial disruption of local biological communities (e.g., from the introduction invasive species).

Finding

The Project-related increase in vessel traffic in the harbor (3.4 percent) would add to the cumulative potential of introducing invasive species in the harbor, resulting in a cumulatively considerable effect. Ballast water discharges are now regulated, which has significantly reduced the potential for introduction of invasive exotic species. The potential for introduction of exotic species via vessel hulls has been reduced by using antifouling paints and periodic cleaning of hulls to minimize frictional drag from growth of organisms. However, due to the lack of a proven technology, no feasible mitigation measures are available to prevent introduction of invasive species via ballast water and/or vessel hulls. The Board hereby finds that specific technological considerations make additional mitigation measures infeasible that would reduce these impacts to less than significant levels.

Rationale for Finding

Cumulative marine terminal projects (e.g., Piers G & J (#2), Pier A East (#5), Pier S (#3) San Pedro Waterfront (#22), Channel Deepening (#15), Evergreen Redevelopment (#13), Pier 400 Oil Marine Terminal (#17), Ultramar (#19), China Shipping (#14), Berths 171-181 (#16)) that involve vessel transport of cargo into and out of the harbor would increase vessel traffic in harbor waters. Past, present, and reasonably foreseeable vessel traffic has introduced invasive exotic species into the harbor through ballast water discharges and via their hulls. Ballast water discharges are now regulated, which has significantly reduced the potential for introduction of invasive exotic species. The potential for introduction of exotic species via vessel hulls has been reduced by using antifouling paints and periodic cleaning of hulls to minimize frictional drag from growth of organisms. 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, even with these control measures.

3.5.3 Ground Transportation

Cumulative Impact TRANS-2: Increase the Demand to Capacity Ratio at Study Area Highway Segments

This impact represents the potential of proposed Project construction and operations activities in conjunction with other cumulative projects to substantially impact the existing level of service on highway segments within the cumulative region of influence.

Finding

The Project when considered cumulatively would have significant impacts at certain study highway segments. Additional traffic generated by the Project to the cumulative background traffic conditions would deteriorate existing LOS at certain highway locations in the study area. Therefore, the Project would have a significant cumulative contribution to highway segment impacts.

The Port does not own, control, or maintain any of the impacted highway segments. These segments fall under the jurisdiction of Caltrans. Therefore, the Port does not have authority to unilaterally implement any mitigation measures on the highway segments. Accordingly, the Project's contribution to cumulative impacts during construction and operation would remain significant and unavoidable, even with implementation of **Mitigation Measure TRANS-2.1**, requiring the Project's fair-share contribution to Caltrans highway improvement programs. The Board hereby finds that changes or alterations have been incorporated into the Project that minimize the significant environmental effects identified in the Final EIS/EIR. If Caltrans does not adopt a fair share based program to collect funds for actual mitigation that Caltrans commits itself to implement, or obtain the balance of funding needed to improve the impacted study highway segments in a manner that will improve the segments level of operation, the Project's contribution to regional cumulative impacts on these freeway segments would remain significant and unavoidable. Specific legal, economical, and technological considerations make additional mitigation measures infeasible.

It should be noted that the Port is currently participating in on-going regional transportation programs, which are intended to address future regional traffic growth and resulting congestion on area freeways.

Rationale for Finding

The list of related and cumulative projects was reviewed to determine if construction and operation activities associated with any of these projects could, in combination with the proposed Project, cause cumulative impacts on highway segments in the cumulative region of influence. The Future Year Baseline model used in this analysis includes traffic from the related projects identified in Table 2.1-1 and Regional Transportation Plan projects to be in place as assumed in the SCAG's base model. The San Pedro Bay Ports growth is not an integral part of the SCAG model, but is added on top of the SCAG regional base model. The Ports model was also refined to provide more accurate assignment of special generator trips such as those in downtown Long Beach, San Pedro, and other projects in the Port vicinity. These reasonably foreseeable cumulative

projects were incorporated in the Ports model to assess the cumulative background traffic growth in the study area.

A cumulative impact analysis was conducted to determine if Project-specific impacts on highway segments would together with the effects of other related projects, result in cumulatively significant impacts. The comparison of the Project and alternatives to the Future Year Baseline conditions primarily constitutes the cumulative impact analysis and is presented in Final EIS/EIR Sections 3.5.2.3. Both construction and operation of the Project would contribute to the cumulative significant traffic impacts at certain highway locations.

It can be assumed that until Caltrans implements improvements on the I-710, I-405, and SR-91 highway segments, the Project would have significant impacts at these locations Therefore, impacts on highway segments would be significant and unavoidable.

Comment CBD-69 suggested increased public transit as a way to mitigate impacts to freeway segments. However, increased public transit would not take Project trips off the road. It is not a technically or economically feasible mitigation measure. The public does not travel to the Project site. The vehicle traffic generated by the Project will be largely truck traffic that would not involve public transit. Terminal operators currently operate shuttles to transport longshoremen to the terminals when ships arrive. This practice will continue and is part of the Clean Air Action Plan that the Port will continue to enforce through leases with the terminal operators. Therefore, increased transit service would not address Project traffic issues.

Comment CBD-70 suggested employee-model truck programs to reduce trips to the Project site. However, employee-model truck programs have not yet been proven to improve truck efficiency and reduce truck traffic. There have not been any comprehensive studies supporting a finding that the employee-model reduces commute-only truck trips. Nor have there been documented findings on efficiency differential since an owner-operated truck could also be used for multiple shifts. In fact, under the POLA concession more personal trips by truck drivers will likely occur as they commute to and from work site for their shifts. Such increase in personal trips would simply shift traffic congestion from one region to another and yield no environmental benefit. Further, the legality of such a program has been questioned in the recent Ninth Circuit decision in *American Trucking Assoc. v. City of Los Angeles* (Case No. CV08-04920). The employee-model truck program is not technically, legally, or socially a viable mitigation measure.

Comment SCAQMD-7 and CBD-20 proposed increasing the amount of cargo that moves from the Project by on-dock rail. Increased use of on-dock rail above and beyond the Project is not a technically feasible mitigation measure. Every effort was made from the design and operation perspective to maximize the rail yard capacity, taking into account the need for the additional container yard capacity necessary to accommodate projected demand. Even were there a legitimate need for more on-dock rail capacity, which there is not, the planned on-dock rail yard could not be expanded into the planned container yard because overall terminal capacity would be reduced, thus creating a less efficient terminal. In light of the physical constraints of the site and the need to provide sufficient container yard capacity to handle the projected cargo throughput, the proposed Project maximizes on-dock rail capacity. The proposed re-use of this site has been carefully planned to ensure adequate space for operations, storage, and trackage that will result in an increase of 613,160 TEUs between the 2030 No Project and 2030 Project alternatives (the only difference in throughput being the design of the site). Moreover, a sizeable amount of the Project throughput will be made up of low-volume destination cargo that must be assembled at the near- and off-dock rail yards throughout the region. Specifically, low-volume-destination containers (i.e. non-Chicago-bound containers) oftentimes cannot wait for a unit train to be built on-dock. Rather, these boxes are assembled off-dock from multiple terminals in order to achieve the appropriate volumes to generate a single train in a timely fashion. Therefore, some direct intermodal containers will always need to be drayed to the Intermodal Container Transfer Facility, Hobart Yards, and other rail yards throughout the region regardless of the size of the on-dock rail yard at Middle Harbor.

Comments SCAQMD-27, CBD-20, CBD-21, CBD-71, CBD-100, CSE(A)-3, CSE(A)-4, CSE(B)-3, and JW-3 suggested Maglev or electrified rail. CBD-71 and CSE(B)-3 also suggested the construction of an intermodal facility on Port property, such as the import car lot off Anaheim Street, as ways to reduce truck trips. However, Maglev and an intermodal facility at the import car lot are not feasible mitigation measures. The Port is in the process of reviewing possible zero- or near-zero emission transport technologies as envisioned in the CAAP. In 2007, Cambridge Systematics prepared the Alternative Container Technology Evaluation and Comparison

assessment for the Ports of Long Beach and Los Angeles. The Port is exploring feasible technologies and in 2009 will release a Request for Proposals for the design of a zero- or low-emission container movement demonstration project between one marine terminal and a near-dock rail facility. The demonstration project will address certain key issues that will help determine whether this technology can be feasibly employed in Port operations, including the functionality of the system, the availability of rights-of-way to accommodate the system, the capital costs for the construction of the system and the costs of operations and maintenance, and the needed interface between the terminals and the rail yards. Should the Port's demonstration project establish that a zero- or near-zero emission transport technology is operationally and financially feasible, the Port will investigate expanding the system to include the Middle Harbor operations. At this point, the Board finds that t is not financially or operationally feasible to include a zero- or near-zero emission transport technology as a mitigation measure for the Project. However, the Final EIS/EIR includes a new **Mitigation Measure AQ-25** that requires the terminal tenant in 2015 and every 5 years thereafter, to review new air quality technological advancements for the purpose of implementing new feasible mitigations. Electrification of the rail corridors is well outside of the scope of the Project. Electrifying the Alameda Corridor has been studied fully and is not being pursued for several reasons, including operational feasibility during loading/unloading of trains and environmental and fiscal impacts of constructing a new power plant that could supply a sufficient source of power. The Southern California Association of Governments conducted a study on electrifying the Southern California rail system in the 1990s and concluded it was prohibitively expensive to do so, and thus infeasible at that time.

Electrifying the region's rail system is still being evaluated to address air quality attainment objectives. The cost to electrify rail in Southern California was estimated to be in excess of $6 billion, thus it is an economically infeasible mitigation measure. Regarding construction of a parking structure to free up space for a Maglev system, the cost per parking space for a parking structure ranges from $20,000 to $25,000. Constructing a 4 or 5-story parking structure on Pier B, which is leased terminal space, would greatly limit future lease options and could significantly constrain the future use on this terminal. Not only is Maglev not yet a proven alternative, but the cost of constructing a parking structure for a limited period of time is economically infeasible.

Comment SCAQMD-7 proposed adding unsorted trains as an operational feature of the Project. However, this suggestion would not enhance on-dock rail capacity or mitigate any traffic impact o the Project. It should be understood that Parson's rail yard capacity model assumes that trains are fed constantly with containers, in essence mimicking the effect of building unsorted trains. Consequently, the capacity numbers would not be increased by including unsorted trains as an alternative operating procedure. Further, the Class-1 railroads (UP and BNSF) already have the ability to sort unsorted trains inland, and the railroads will do so if, and when, it makes business and operating sense. This decision involves a change in business operations, and it is not within the control of the Port to unilaterally impose such a condition, especially since the feasibility of such a condition has not yet been established. The Port is currently undertaking a feasibility study to explore other opportunities for inland port operations (not to be confused with maximizing on-dock rail capacity) that would minimize truck trips.

No additional traffic mitigation measures have been identified at this time. Unless Caltrans implements a mechanism to assess a fair share contribution, the Project's traffic impacts will be significant and unavoidable.

3.5.4 Noise

Cumulative Construction Noise Impacts

This impact represents the potential of proposed Project construction activities in conjunction with other cumulative projects to cause a substantial increase in ambient noise levels at sensitive receptors within the cumulative region of influence.

Finding

All of the projects listed in Final EIS/EIR Table 2.1-1 would have some potential for construction noise impacts, with the exception of the projects that do not involve construction activities (i.e., Berths 206-209 Interim Container Terminal Reuse Project and Ultramar Lease Renewal Project). Where project construction schedules overlap, there is the potential for cumulative construction noise impacts because multiple sources could jointly contribute to increases in ambient noise at one or more locations.

Due to the difficulty of effectively mitigating substantial noise-generating activities, adherence to standard controls and construction of temporary noise barriers would not be sufficient to reduce projected increases in ambient noise levels to the point where it would no longer cause a substantial increase. Therefore, during construction, the Project's contribution to cumulative impacts would remain significant and unavoidable, even with implementation of **Mitigation Measures NOI-1.1a and NOI-1.1b**, and adherence to modern construction engineering and safety standards.

To help address the significant cumulative construction noise impacts of the Project, the Port will require this Project to fund the Schools and Related Sites Program that was adopted by the Board of Harbor Commissioners on March 23, 2009, as required by **Mitigation Measure AQ-29.** The funding will be used for eligible noise mitigation projects as specified in the Schools and Related Sites Program Guidelines. The guidelines: (1) establish eligibility criteria for potential applicants based on facility type and proximity to the San Pedro Bay Ports; (2) provide metrics that will be used to assess a proposed project's noise impact mitigation potential based on established regulatory mitigation programs and recent scientific information on noise impacts, and (3) explains how the Port of Long Beach Harbor Commissioners will choose among eligible proposals and approve funding.

The Board hereby finds that changes or alterations have been incorporated into the Project that minimize the significant environmental effect identified in the Final EIS/EIR. Incorporation of these mitigation measures, however, would not reduce cumulative noise impacts below significance. Specific legal, economical, and technological considerations make additional mitigation measures infeasible.

Rationale for Finding

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 Chemoil Marine Terminal Tank Installation Project (#6) would be located immediately adjacent to Pier F container terminal improvements element of the proposed Project. It is likely that construction activities associated with the Chemoil Marine Terminal Tank Installation Project would be concurrent with construction activities necessary for the proposed Pier F improvements, or would occur in about the same timeframe, 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 proposed Project. There are other projects in the related and cumulative project list that could also affect sensitive receptors within the cumulative region of influence. The Administration Building Replacement Project (#8) that was approved in 2008 is located in close proximity to sensitive receptors at the West Coast Long Beach Hotel. The I-710 Major Corridor Study (#36), which is in the conceptual planning stages, is located adjacent to sensitive receptors along the I-710 corridor. The City of Long Beach Shoreline Gateway Project (#11) that would include a mixed-use development north of Ocean Boulevard, between Atlanta Avenue and Alamitos Avenue, would be located east of sensitive receptors at the Long Beach Hilton.

One comment was received during the public review period that suggested mitigation to reduce this significant unavoidable impact (Comment LBUSD-20). The comment proposed limiting construction activities during school hours of operation and testing periods, which has been incorporated into the Project's construction noise controls as a notification requirement. Furthermore, Final EIS/EIR **Mitigation Measure NOI-1.1a** has been modified to require installation of temporary noise barriers between pile driving activities and Cesar Chavez School.

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

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

Recirculation is required only when "significant" new information is added to an EIR after public review and comment on the draft EIR but before certification. (PRC § 21092.1) Not all new information added to an EIR

is "significant." According to the CEQA Guidelines, new information added to an EIR is significant only if "the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such effect (including a feasible project alternative) that the project's proponents have declined to implement." (14 C.C.R. § 15088.5). Examples of significant new information include: (1) a new significant impact of the project or from a new mitigation measure proposed to be implemented; (2) a substantial increase in the severity of an environmental impact for which no mitigation measures are added which reduce the impact to a level of insignificance; or (3) a feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project proponent declines to adopt it. Based on these standards, there is no reason to recirculate the Draft EIS/EIR. Although some new information has been added to the Final EIS/EIR in response to comments, none of the information is significant. No new impacts have been identified, the severity of the impacts identified in the Draft EIS/EIR are not substantially increased over what is described in the document, and no feasible alternatives or mitigation measures were identified which would clearly lessen the environmental impacts of the Project.

4.0 ALTERNATIVES TO THE PROPOSED PROJECT

CEQA Guidelines Section 15126.6 requires that an EIR examine alternatives to a project in order to explore a reasonable range of alternatives that meet most of the basic project objectives, while reducing the severity of potentially significant environmental impacts. CEQA Guidelines Section 15126.6(a) states:

> *An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.*

The alternatives were also assessed in accordance with CEQA Guidelines Section 15126.6(f) which states:

> *The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the Project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.*

Ten alternatives were considered during preparation of this EIS/EIR, including alternative terminal configurations and locations. However, only four alternatives meet most of the proposed Project's objectives and have been selected to be carried forward for detailed analysis (Section 4.2). Alternatives considered but not carried forward are addressed in Section 4.1.

4.1 Alternatives Considered but Not Carried Forward for Analysis

The screening process used in the EIS/EIR to evaluate a reasonable range of alternatives was based on the Project's objectives (Section 2.1). Screening criteria were also used to determine feasibility in accordance with the Port's legal mandates under the state Tidelands Trust and the Long Beach City Charter. The Port is one of only five locations in the State identified in the California Coastal Act (CCA) for the purposes of international maritime commerce. These mandates identify the Port and its facilities as an essential element of the national maritime industry. Port activities should be water dependent and give highest priority to navigation, shipping, and necessary support facilities to accommodate the demands of foreign and domestic waterborne commerce. Based on existing capacity limitations on industrial Port uses, the majority of industrial facilities adjacent to deep water are required to accommodate forecasted increases in containerized cargo.

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 considered but eliminated from further discussion in the EIS/EIR. Additional details regarding the rationale for decisions to eliminate alternatives from detailed analysis are included in Final EIS/EIR Section 1.6.2. Those alternatives are:

- Construction of a new near-dock intermodal container railyard to serve multiple marine terminals;
- Use of other North American ports (i.e., those located on the West, East, and Gulf Coasts) to accommodate the Port's forecasted increases in container cargo;
- Expansion of marine terminals within southern California but outside of the Long Beach Harbor;
- Inland port (an intermodal facility for exclusive handling of international cargo);
- Marine terminal automation; and

- Offsite backlands facility alternative (i.e., using underdeveloped land outside the Port as a container storage and handling facility).

An additional alternative was identified by the U.S. Environmental Protection Agency (EPA) during the Draft EIS/EIR public review period. The proposed alternative would not include any fill activities, but would provide deeper water (-55 feet MLLW) at berths and in basins and channels to accommodate the current and expected future generations of cargo vessels. However, under this alternative the existing terminal areas would remain insufficient to support the activities and modern equipment necessary to efficiently and safely handle the anticipated containerized cargo volumes. Furthermore, Slips 1 and 3 would remain too narrow (395 feet and 364 feet, respectively) for the current larger vessels that require a width of approximately 480 feet to maneuver safely up to and away from the existing berths; and Pier E docks and adjacent backland areas would be separated from the intermodal rail facilities on Pier F, resulting in an existing Pier E terminal that would be inadequately connected to the essential infrastructure required to handle intermodal containerized cargo. Also, as dredged material would not be reused under this alternative, the Port would need to locate new disposal locations and conduct additional sediment characterization. Therefore, this alternative was eliminated from further consideration in the Final EIS/EIR and is considered infeasible.

4.2 Alternatives Analyzed in the Draft EIS/EIR

Four alternatives meet most of the proposed Project's objectives and were selected to be carried forward for detailed analysis in the EIS/EIR. The alternatives carried forward for detailed analysis include:

- Alternative 1 – 345-Acre Alternative (the Project);
- Alternative 2 – 315-Acre Alternative;
- Alternative 3 – Landside Improvements Alternative; and
- Alternative 4 – No Project Alternative.

Final EIS/EIR Chapter 4 presents a comparison of the proposed Project to the alternatives that were considered during preparation of the Final EIS/EIR. The four alternatives are summarized in Table 4.2-1.

Table 4.2-1. Summary of Proposed Project and Alternatives at Full Buildout

	Alternative 1: 345-Acre Alternative (the Project)	Alternative 2: 315-Acre Alternative	Alternative 3: Landside Improvements Alternative	Alternative 4: No Project Alternative
Project Site Gross Acreage	345	315	294	294
Total Container Terminal Acreage[1]	322	292	267	244
Total TEUs[2]	3,320,000	2,870,000	2,910,000	2,600,000
Annual Vessel Calls	364	364	416	312
Average Daily Truck Trips	10,112	8,026	9,830	9,594
Annual Trains[3]	2,098	2,095	1,380	786
Total Container Berth Length (LF)[4]	4,250	4,250	4,480	4,480
Joint Terminal Intermodal Yard Acreage	47	47	25	0[5]

Notes:

1. The total container yard acreage is assumed to be slightly smaller than the Project site area due to other uses on the site (e.g., break-bulk cargo). The container yard is defined as the area dedicated to container activities, wharves, and spaces related to buildings and personal vehicles.
2. TEUs = Twenty-foot Equivalent Units. The TEU-per-acre estimates are based on the approximate size of the container yard projected for year 2025.
3. Estimate assumes 25 rail cars per train.
4. All Pier D berths and E-12-13 are break-bulk berths and are not included in container berth length. The total container berth lengths include both Pier E and Pier F berths.
5. Assumes the existing LBCT nine acre intermodal railyard would remain operational.

Sources: Moffatt & Nichol. 2006b. Middle Harbor Container Terminal EIS/EIR Documents Backup, February 16.

Table 4.2-2 summarizes the results of the impact analysis for the proposed Project and alternatives.

Table 4.2-2. Summary of CEQA Significance Analysis by Alternative				
Environmental Resource Area	**Alternative 1: 345 Acre Alternative**	**Alternative 2: 315 Acre Alternative**	**Alternative 3: Landside Improvements Alternative**	**Alternative 4: No Project Alternative**
Geology, Groundwater, and Soils	III	III	III	III
Air Quality and Health Risk	I	I	I	III
Hydrology and Water Quality	III	III	III	III
Biota and Habitats	I	I	I	I
Ground Transportation	I	I	I	I
Vessel Transportation	III	III	III	III
Land Use	III	III	III	III
Public Services/Health and Safety	II	II	II	III
Noise	I	I	I	IV
Hazards and Hazardous Materials	III	III	III	III
Recreation	III	III	III	IV
Socioeconomics	III	III	III	III
Utilities and Service Systems	III	III	III	III
Cultural Resources	II	II	II	IV
Environmental Justice	I	I	III	III
Aesthetics/Visual Resources	III	III	III	III

Notes:
I = Unavoidable significant impact
II = Significant but mitigable impact
III = Less than significant impact (not significant)
IV = No impact

4. 3 Findings for Alternatives Analyzed

Project Purpose

The purpose of the Project is to increase and optimize the cargo handling efficiency and capacity of the Port, by constructing sufficient berthing and infrastructure capacity to accommodate a proportional share of foreseeable increases in containerized cargo. Additional Project purposes include improving marine terminal operational efficiency that would expand the use of existing waterways for international maritime commerce, and upgrading utility infrastructure to support the implementation of environmental controls necessary to reduce pollution and conserve energy.

The Port is operated under legal mandates of the Tidelands Trust, 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 objectives of the Middle Harbor Redevelopment Project are to:

1. Consolidate common operations and wharves of two terminals (Piers E and F) into one terminal;
2. Rehabilitate and modernize existing primary Port facilities, including replacement of obsolete and deteriorated wharf structures with adequate, well-equipped wharf areas, along with channels and berths of sufficient width, length, and depth to allow access to the docks by existing and future cargo vessels, and provide for replacement of obsolete gantry cranes with new generation cranes that are able to reach across the new, larger vessels;

3. Implement the Green Port Policy (Section 1.7.1) and the CAAP (Section 1.7.2);
4. Provide for efficient terminal traffic flow and cargo handling operations; and
5. Link new and improved dock and wharf operations to planned and existing on-dock intermodal railyard facilities and separate on-dock intermodal terminal lead track operations (i.e., loading/unloading and switching) from mainline track operations.

4.3.1 Alternative 1 – 345-Acre Alternative (the Project)

The Project would rehabilitate or replace deteriorated and obsolete terminal facilities; provide deeper water (-55 feet Mean Lower Low Water [MLLW]) at berths and in basins and channels; create new land; modernize marine terminal facilities; and implement environmental controls, including the Port's Green Port Policy and CAAP, to accommodate a portion of the predicted future increases in containerized cargo volume and the modern, larger cargo vessels that are expected to transport these goods to and from the Port. The existing 294-acre Project site would be increased to 345-acres, including 54.6 net acres of newly created land. The Project includes terminal consolidation, redevelopment, and expansion on areas of existing and newly created land, dredge and fill operations, wharf construction to create three deep water berths with -55 feet MLLW depths, and rail infrastructure improvements (e.g., mainline track realignment at Ocean Boulevard/Harbor Scenic Drive, Pier F Avenue storage yard and tracks, Pier F tail track, and expanding the existing Pier F intermodal railyard). The Project would include construction of a 66kV substation (Pier E Substation) to provide power that would support Middle Harbor container terminal operations, including supplying shore-to-ship power, and future power needs for other Port facilities.

Project construction would occur in two phases, the first phase in five stages and the second in four stages, and would be scheduled for completion in 2019 (i.e., Project build-out year). However, the proposed Middle Harbor container terminal is forecasted to be fully optimized at maximum capacity by 2025. Detailed construction elements of the Project are presented in Final EIS/EIR Section 1.6.3.1.

When completed, the Project would consist of one consolidated container terminal that would be designed to load and unload containerized cargo to and from marine vessels. When optimized at maximum throughput capacity (by year 2025), the consolidated container terminal would be designed to accommodate approximately 3,320,000 TEUs per year. The proposed expanded Pier F intermodal railyard would handle approximately 26.3 percent (873,160 TEUs per year) of the terminal's expected throughput. Middle Harbor container terminal operations would result in a maximum of approximately 364 vessel calls per year. Truck trips to and from the Middle Harbor container terminal would increase from the 2005 baseline average of 6,528 trips per day to an average of approximately 10,112 trips per day in the year 2030. Approximately 2,098 annual train trips would be required at maximum capacity in 2025 to support Middle Harbor container terminal operations. The terminal would operate under a new lease between the terminal operator and the Port that would include environmental controls imposed pursuant to the Port's Green Port Policy and the CAAP. This EIS/EIR assumes the proposed Project includes participation in the POLB/POLA Vessel Speed Reduction Program (VSRP) (CAAP measure OGV1) and compliance with applicable U.S. Environmental Protection Agency (EPA), California Air Resource Board (ARB), and South Coast Air Quality Management District (SCAQMD) regulations.

Finding

The Board hereby finds that the proposed Project is the only feasible alternative that best meets the Project objectives of maximizing the cargo handling efficiency and capacity of the Port, and for the reasons set forth in the Statement of Overriding Considerations (Section 5.0), the benefits of the proposed Project justify its approval.

Facts in Support of Finding

The Project would rehabilitate or replace deteriorated and obsolete terminal facilities; provide deeper water (-55 feet MLLW) at berths and in basins and channels; create new land; modernize marine terminal facilities; provide rail infrastructure improvements (e.g., mainline track realignment at Ocean Boulevard/Harbor Scenic Drive, Pier F Avenue storage yard and tracks, Pier F tail track, and expansion of the existing Pier F intermodal railyard); construct a 66kV substation to support Middle Harbor container terminal operations, including shore-to-ship power; and implement environmental controls, including the Port's Green Port Policy and CAAP, to

accommodate a portion of the predicted future increases in containerized cargo volume and the modern, larger cargo vessels that are expected to transport these goods to and from the Port. Project throughput volumes (3,320,000 TEUs) would adequately accommodate forecasted container throughput growth at the Port. This approach is consistent with the CZMA and the CCA that encourage modernization of existing facilities within existing Port boundaries.

4.3.2 Alternative 2 – 315-Acre Alternative

The 315-Acre Alternative would add 24.7 net acres of newly created land to the existing 294-acre Project site by filling Slip 1 between Piers E and F (Berths E12-E14 and F1-F4). This alternative would include terminal expansion on adjacent areas of existing and newly created land, dredge and fill operations, and new wharf construction. Under the 315-Acre Alternative, a new wharf would be constructed to handle increased cargo throughput and accommodate deep-draft container ships, and to replace existing, insufficient wharves. The new 2,900-foot wharf would consist of two deep water berths with -55 feet MLLW depth. Buildout under this alternative would include the rail improvements identified for the Project (e.g., mainline track realignment at Ocean Boulevard/Harbor Scenic Drive, Pier F Avenue storage yard and tracks, Pier F tail track, and expanding the existing Pier F intermodal railyard). The proposed 66kV Pier E Substation would also be constructed, as described for Alternative 1.

When completed, the 315-Acre Alternative would consist of one consolidated container terminal that would be designed to load and offload containerized cargo from marine vessels. When optimized at maximum throughput capacity (anticipated by approximately 2025), the consolidated container terminal would be designed to accommodate approximately 2,870,000 TEUs per year. The proposed expanded Pier F intermodal railyard would handle approximately 30.4 percent (872,480 TEUs per year) of the terminal's expected throughput. Under this alternative, Middle Harbor container terminal operations would result in approximately 364 maximum vessel calls per year. Truck trips to and from the Middle Harbor container terminal would increase from the 2005 baseline average of 6,528 trips per day to an average of approximately 8,026 trips per day in 2030. Approximately 2,095 trips annual train trips would be required at maximum capacity in 2025 to support Middle Harbor container terminal operations.

The terminal would operate under a new lease between the terminal operator and the Port that would include environmental controls imposed pursuant to the Port's Green Port Policy and the CAAP. Similar to the Project, this EIS/EIR assumes Alternative 2 would include participation in the POLB/POLA VSRP (CAAP measure OGV1) and compliance with applicable EPA, ARB, and SCAQMD regulations.

Finding

The Board hereby finds that Alternative 2 (315-Acre Alternative) would not meet the overall Project purpose and need of increasing container terminal efficiency to accommodate a portion of the predicted future containerized cargo throughput volumes. Therefore, the Board finds that Alternative 2 is infeasible relative to fulfilling the overall Project purpose and need and will not be adopted in lieu of the proposed Project.

Facts in Support of Finding

Alternative 2 would be similar to the proposed Project except that the 34.3-acre East Basin area would not be filled and the Berth E23 wharf would not be constructed. The elimination of the East Basin fill and Berth E23 wharf would decrease container movement efficiency compared to the Project. Alternative 2 would result in the consolidation of common operations and wharves of the existing two terminals on Piers E and F into one terminal, as would occur under the proposed Project. However, under this design the available area along the expanded Pier F intermodal railyard would be substantially limited in width and, consequently, would not support efficient access by trucks transporting containerized cargo. Therefore, under Alternative 2 the proposed terminal areas would not support the activities and modern equipment necessary to efficiently and safely handle the anticipated containerized cargo volumes. Overall, Alternative 2 would be less environmentally damaging than the Project; however, it would not meet the overall Project purpose and need of increasing container terminal efficiency to accommodate a portion of the predicted future containerized cargo throughput volumes.

4.3.3 Alternative 3 – Landside Improvements Alternative

The Landside Improvements Alternative would redevelop existing terminal areas on Piers E and F and convert underutilized land north of the Gerald Desmond Bridge and Ocean Boulevard within the Project site to a container yard (Final EIS/EIR Figure 1.6-10). The alternative would include construction of the following upland site improvements: redevelopment and backland expansion on existing lands within the Project site (the Berth E23 oil area would be abandoned and redeveloped as container yard area); construction of a new 66 kV Pier E Substation; and construction of shore-to-ship infrastructure at Piers E and F to cold-iron vessels while at berth. This alternative would also include construction of a mainline track realignment at Ocean Boulevard/Harbor Scenic Drive and the Pier F storage yard and tracks. The alternative would expand the existing Pier F intermodal railyard to six tracks.

When completed, the Landside Improvements Alternative would consist of a consolidated container terminal that would be operated by one terminal operator. The terminal would be operated under a new lease between the terminal operator and the Port that would include environmental controls imposed pursuant to the Port's Green Port Policy and the CAAP. In addition to compliance with applicable EPA, ARB, and SCAQMD regulations assumed for the Project, Alternative 3 would implement all applicable CAAP measures and regulations, including emission standards for terminal equipment (CAAP measure CHE1), the VSRP (CAAP measure OGV1), low-sulfur fuel requirements for vessels (CAAP measures OGV3 and OGV4), OGV cold-ironing (CAAP measure OGV2), and the POLA/POLB Clean Trucks Program (CAAP measure HDV1).

When optimized at maximum throughput capacity (anticipated by approximately 2025), the terminals would be designed to accommodate a combined total of about 2,910,000 TEUs per year. Approximately 416 vessel calls per year would be expected by 2025. This alternative would result in 9,830 average daily truck trips to and from Middle Harbor terminals in 2030. Approximately 1,380 train trips per year would be required to support Middle Harbor container terminal operations at maximum capacity in 2025.

Under this alternative, there would be no in-water activities (e.g., dredging, filling Slip 1 and the East Basin, new wharf construction) as proposed for the Project, no wharf upgrades would occur (except the provisions for shore-to-ship power), and channel and berth deepening would not occur.

Finding

The Board hereby finds that while Alternative 3 (Landside Improvements Alternative) would not meet the overall Project purpose of increasing and optimizing the cargo handling efficiency and capacity of the Port, by constructing sufficient berthing and infrastructure capacity to accommodate a proportional share of foreseeable increases in containerized cargo. Alternative 3 would not allow for improving marine terminal operational efficiencies that would expand the use of existing waterways for international maritime commerce. Therefore, the Board finds that Alternative 3 is infeasible and will not be adopted in lieu of the proposed Project.

Facts in Support of Finding

Under Alternative 3, there would be no in-water activities (e.g., dredging, filling Slip 1 and the East Basin, new wharf construction) as proposed for the Project, no wharf upgrades would occur (except the provisions for shore-to-ship power), and channel and berth deepening would not occur. Accordingly, this alternative would not meet the Project objectives associated with constructing sufficient berthing and infrastructure capacity to accommodate the modern cargo vessels that would transport goods to and from the Port. Furthermore, Alternative 3 would not best optimize the use of existing waterways consistent with the Port's overall use of available shoreline, accommodate foreseeable containerized cargo volumes through the Port, increase container handling efficiency including on/offloading of container ships in a safe and efficient manner, and improve or construct container ship berthing and infrastructure capacity where necessary to accommodate projected containerized cargo volumes through the Port. Because of the lack of waterside improvements, this alternative does not maximize use of the larger modern ships and would result in limited cargo capacity due to berth constraints.

4.3.4 Alternative 4 – No Project Alternative

This alternative considers what would reasonably be expected to occur on the site if the Port did not implement the proposed Project. The Port would take no further action to construct additional backlands or redevelop the 294 acres that currently exist. The USACE would not issue permits for dredge and fill or wharf construction activities. This alternative would not allow implementation of the proposed Project or other physical improvements at Middle Harbor. The No Project Alternative would maintain the current CUT and LBCT container terminals at a combined size of 294 acres and in their current configuration. Forecasted increases in cargo would still occur as greater operational efficiencies are implemented.

Under this alternative no construction and, consequently, no construction-related impacts would occur. However, the two terminals would continue to generate operational impacts: 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 transport containers to outlying distribution facilities. Because no rail improvements would be constructed under this alternative, the majority of the intermodal cargo to and from the two terminals would continue to be hauled by truck. In addition, the Pier E Substation would not be constructed, which would eliminate the potential for vessels to cold-iron under this alternative. However, in addition to environmental controls imposed by federal, state, and local regulatory agencies, the terminal would implement the POLB/POLA VSRP (CAAP measure OGV1) under this alternative. No other CAAP measures would be implemented under this alternative.

The No Project Alternative would result in a maximum throughput of approximately 2,600,000 TEUs per year. Approximately 312 vessel calls per year would be expected by 2025. As the existing Pier F intermodal railyard would remain operational, proposed terminal operations would result in approximately 786 annual train trips. This alternative would result in approximately 9,594 average daily truck trips to and from Middle Harbor terminals in 2030.

Finding

The Board hereby finds that the No Project Alternative is infeasible and will not achieve the majority of the overall Project objectives. Therefore, this alternative will 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 accommodate the projected increased in containerized cargo throughput volumes and the modern cargo vessels that transport those goods to and from the Port. Under this alternative, existing site conditions would constrain the ability of Middle Harbor to function as modern and efficient primary Port facilities. The lack of waterside and upland improvements would mean that the current inefficiency of cargo movement through the site's existing marine terminals would continue. As Pier E has minimal rail capability (i.e., Slip 1 separates Pier E docks and backlands from existing intermodal rail facilities) and the existing intermodal Pier F railyard is too small to accommodate regular service of modern intermodal trains, the No Project Alternative would not provide sufficient rail infrastructure to handle intermodal containerized cargo. Additionally, without the necessary dredging to deepen the channels and berths in the Middle Harbor to the planned -55-foot MLLW depth, the existing marine terminals would be limited in their ability to service modern, large, deep-draft cargo ships.

5.0 STATEMENT OF OVERRIDING CONSIDERATIONS

CEQA requires a public agency to balance the benefits of a proposed project against its unavoidable, adverse environmental impacts in determining whether to approve the project.

Section 15093 of the State CEQA Guidelines provides the following:

(a) *CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."*

(b) *When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the Final Environmental Impact Report (Final EIR) but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the Final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.*

(c) *If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination. This statement does not substitute for, and shall be in addition to, finding required pursuant to Section 15091.*

5.1 PROJECT SIGNIFICANT IMPACTS

The proposed Project would result in significant unavoidable impacts related to air quality, biota and habitats, ground transportation, and noise.

5.1.1 Air Quality

During a peak day of activity, Project construction would produce levels of VOC, CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions that exceed SCAQMD daily emission thresholds. In addition, for a peak day of Project construction, emissions from fugitive dust and onsite construction equipment and haul trucks would result in maximum ambient offsite concentrations of 24-hour PM_{10} that would exceed the SCAQMD significance threshold. Even with application of all feasible mitigations, these peak daily construction emissions and 24-hour PM_{10} concentrations would remain in excess of SCAQMD thresholds, and would represent Project-specific and cumulative significant air quality impacts.

Proposed Project operational emissions would result in maximum ambient offsite concentrations of 1-hour and annual NO_2 that would exceed the SCAQMD significance thresholds. This impact would represent a Project-specific and a significant cumulative impact.

The mitigated Project would increase chronic non-cancer effects on occupational receptors in the Project region. Although not significant for the Project individually, this increase would represent a cumulatively considerable and unavoidable contribution of airborne non-cancer effects to occupational receptors. These increased non-cancer effects could include asthma, bronchitis, reduced lung function, and increased mortality and morbidity.

An individual project does not generate by itself enough GHG emissions to significantly influence global climate change (AEP 2007). Thus, the issue of global climate change is a cumulative impact, such that an appreciable impact on global climate change would only occur when GHG emissions from a project combine with GHG emissions from other man-made activities on a global scale. Nevertheless, for the purposes of this EIS/EIR, the Port has chosen to assess GHG emissions as a project-level impact, as project GHG emissions would incrementally contribute to global effects. Construction and operation of the proposed Project would generate GHG emissions in each Project construction phase/stage and future year of operation. The Project GHG significance criterion states that any increase in GHG emissions is significant; therefore, these increases would produce a significant impact.

5.1.2 Biota and Habitats

The potential for a Project-related support vessel collision with a blue whale while in transit within the Long Beach Breakwater and Outer Harbor would be unlikely due to the infrequent presence of these mammals. Furthermore, all vessels would be required to slow to 12 knots when within 40 nm of Point Fermin as part of the VSRP (**Mitigation Measure AQ-4**). Normal swimming speeds of blue whales are 22 km/hr, which is approximately 10 knots; however, blue whales can swim up to 48 km/hr when alarmed (Wilson and Ruff 1999). Therefore, it is very unlikely that Project-related vessels traveling at 12 knots would increase the potential for whale strikes. No feasible measures are currently available to reduce whale strikes in the open ocean at greater than 40 nm from the harbor. Although vessel strikes to blue whales would be unlikely to occur, any that did occur would make a cumulatively considerable contribution to significant and unavoidable cumulative impacts associated with vessel strikes to that species. Therefore, as provided in the findings above for Cumulative Impact BIO-4, the small increase in Project-related vessel traffic in the harbor (3.4 percent) would add to that cumulative potential, resulting in a significant cumulative impact.

The amount of ballast water discharged into the harbor and, thus, the potential for introduction of invasive exotic species could increase because more and larger container ships would use the Port as a result of related and cumulative projects. 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 Economic Exclusion Zone (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 3.4.3. Most ships also 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 this water 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 ballast water or vessel hulls, 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 federal and state regulations. Therefore, as provided in the findings above for Cumulative Impact BIO-5, the introduction of invasive species in ballast water or on the hulls of ships are significant, unavoidable impacts.

5.1.3 Ground Transportation

Additional traffic generated by Project construction and operational activities would have significant impacts on certain highway locations in the Project area. The proposed Project's construction traffic would have short-term significant impacts on the following highway segments up to the horizon year 2020:

- I-405 n/o I-710, both Directions (starting 2010);
- I-405 s/o I-710, both directions (starting 2010);
- I-710 between Willow Street and Pacific Coast Highway, both directions (starting 2010);
- SR-91 e/o I-710, both directions (starting 2010); and
- SR-91 w/o I-710, both directions (starting 2015).

The proposed Project would have significant impacts on the following study highway segments during operations:

- I-405 Freeway n/o I-710 Freeway, both Directions (starting 2010, max fair share of one percent in 2020);
- I-405 Freeway s/o I-710 Freeway, both directions (starting 2010, max fair of 5 percent in 2010);
- I-710 Freeway between Willow Street and Pacific Coast Highway, both directions (starting 2010, max fair share of four percent in 2020);
- I-110 Freeway n/o C-Street, northbound (2030, max fair share of 1.5 percent in 2030);

- SR-91 Freeway e/o I-710 Freeway, both directions (starting 2010, max fair share of four percent in 2030); and
- SR-91 Freeway w/o I-710 Freeway, both directions (starting 2015, max fair share of 3.5 percent in 2030).

When considered cumulatively, the Project would have significant impacts at certain study highway segments. Additional traffic generated by the Project to the cumulative background traffic conditions would deteriorate the existing LOS at certain highway locations in the study area.

The Port does not own, control, or maintain any of the impacted highway segments. These segments fall under the jurisdiction of Caltrans. Therefore, the Port does not have authority to unilaterally implement any mitigation measures on the highway segments. Accordingly, the Project's contribution to cumulative impacts during construction and operation would remain significant and unavoidable, even with implementation of **Mitigation Measure TRANS-2.1**, requiring the Project's fair-share contribution to Caltrans highway improvement programs. If Caltrans does not adopt a fair share based program to collect funds for actual mitigation that Caltrans commits itself to implement, or obtain the balance of funding needed to improve the impacted study highway segments in a manner that will improve the segments level of operation, the Project's contribution to regional cumulative impacts on these freeway segments would remain significant and unavoidable. Specific legal, economical, and technological considerations make additional mitigation measures infeasible. Therefore, as provided in the findings above for Impact TRANS-1.1, Impact TRANS-2.1, and Cumulative Impact TRANS-2, impacts on certain highway segments in the Project area would be significant and unavoidable.

5.1.4 Noise

Project construction activities would increase ambient noise levels by three dBA at the West Coast Long Beach Hotel sensitive receptor site (Site 1), and would exceed LBMC maximum noise levels at Site 1 and the Long Beach Hilton Hotel sensitive receiver site (Site 2).

The minimum ambient daytime hourly Leq noise level recorded at the closest sensitive receptor site (i.e., Site 1) was 61 dBA. During Project pile driving activities, calculated hourly Leq noise levels at Site 1 would range between 64 – 66 dBA, which would exceed a three dB increase. The longest scheduled period of pile-driving would occur for 12 months in Construction Phase 1/Stage 1 during construction of the new Berth E24 extension and redevelopment of the existing berth at Berth E24. Project construction activities would cause ambient noise levels to be increased by more than three dBA at nearby sensitive receptors (i.e., Site 1), resulting in significant short-term impacts.

Receiver Site 1 is in the City of Long Beach General Plan LUD Three, for which the maximum noise level allowed by the LBMC is 65 dBA (Leq, one-hour). However, many of the construction activities would invoke the five dBA penalty for impulsive/tonal noise character, which would reduce the maximum allowable noise level in this location to 60 dBA. Calculated hourly average construction noise levels would intermittently exceed 60 dBA at receiver Site 1 until the end of Construction Phase 2. Receiver Site 2 is in LUD One. Taking existing ambient noise levels into account, as well as the impulsive/tonal noise penalty, the maximum daytime noise level allowed in this location under the LBMC would be 65 dBA (Leq, one-hour). Calculated hourly average construction noise levels at Site 2 would exceed 65 dBA during the noisiest periods of construction. Project construction activities would cause ambient noise levels to exceed LBMC maximum noise levels at Sites 1 and 2; therefore, significant short-term impacts would occur.

In addition to the standard construction noise controls described in Final EIS/EIR Section 1.7.3, **Mitigation Measures NOI-1.1a and NOI-1.1b** would apply to this impact. Due to the difficulty of effectively mitigating substantial noise-generating activities, adherence to standard controls and construction of temporary noise barriers would not be sufficient to reduce projected increases in ambient noise levels to the point where it would no longer cause a substantial increase. Therefore, as provided in the findings above for Impact NOI-1.1, Impact NOI-1.2, and Cumulative Construction Noise Impact, noise impacts during Project construction would be significant and unavoidable.

To help address the significant cumulative construction noise impacts of the Project, the Port will require this Project to fund the Schools and Related Sites Program that was adopted by the Board of Harbor Commission-

ers on March 23, 2009, as required by **Mitigation Measure AQ-29.** The funding will be used for eligible noise mitigation projects as specified in the Schools and Related Sites Program Guidelines. The guidelines: (1) establish eligibility criteria for potential applicants based on facility type and proximity to the San Pedro Bay Ports; (2) provide metrics that will be used to assess a proposed project's noise impact mitigation potential based on established regulatory mitigation programs and recent scientific information on noise impacts, and (3) explains how the Port of Long Beach Harbor Commissioners will choose among eligible proposals and approve funding.

5.2 OVERRIDING CONSIDERATIONS

The proposed Project offers numerous benefits that outweigh the unavoidable adverse environmental effects of the Project. The Board recognizes that significant and unavoidable impacts will result from implementation of the Project, as discussed above. Having (1) adopted all feasible mitigation measures, (2) recognized all significant, unavoidable impacts, and (3) balanced the benefits of the Project against the Project's significant and unavoidable impacts, the Board finds that there are specific overriding economic, legal, social, technological, or other benefits of the proposed Project that outweigh those impacts and provide sufficient reasons for approving the proposed Project. These overriding considerations justify adoption of the Project and certification of the Final EIS/EIR. Those reasons are as follows:

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. 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 the demands of foreign and domestic waterborne commerce in order to preclude the necessity for developing new ports elsewhere in the state. Furthermore, 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 ancillary and access facilities. The proposed Project meets these requirements by modernizing the channels, wharves and backlands at Middle Harbor to accommodate anticipated growth in water dependent maritime cargo. The Project also modernizes existing backlands 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.

Diverts containers from truck to intermodal railyard. The existing Middle Harbor container terminal has limited rail capability and the existing Pier F railyard is insufficient to accommodate regular service of modern intermodal trains. A portion of the current and future cargo would be diverted from trucks to the expanded Pier F intermodal railyard, avoiding the drayage to near-dock railyards or downtown facilities.

The Project includes an intermodal railyard to promote the direct transfer of cargo between ship and rail. The Project terminal operator shall replace all diesel-powered RTGs with electric-powered RMGs, as soon as feasible, but no later than the completion of construction in 2020. **Mitigation Measure AQ-9** requires that the expanded Pier F intermodal railyard incorporate the cleanest locomotive technologies into its operations. Technologies that reduce fuel consumption or use alternative fuels would reduce criteria pollutant emissions. These include diesel-electric hybrids, multiple engine generator sets, use of alternative fuels, and idling shut-off devices. Because some of these systems are not yet available, but are expected to be available within the next few years, this measure has not been quantified. However, implementation of this measure would reduce the Project's criteria pollutant emissions by less than 0.1 percent.

The proposed Pier F intermodal railyard is beneficial because it lowers the number of trucks that would otherwise be required to transport discretionary cargo to near-dock and downtown railyards. This will reduce roadway congestion in the Port vicinity and the emissions associated with these truck operations. Utilization of electric RMGs reduces emissions of criteria pollutants and GHGs.

Includes energy efficiency in building/construction/operation. The proposed Project includes construction of a Leadership in Energy and Environmental Design (LEED) certified "Gold" main terminal 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, use of carport-mounted PV solar panels over the em-

ployee and visitor parking areas, implementing recycling and planting trees around the main building and on Port-controlled lands adjacent to the roads into the Middle Harbor terminal.

Implements the San Pedro Bay Clean Air Action Plan (CAAP). In developing the San Pedro Bay Ports CAAP, the Ports established a series of principles and goals designed to reduce air emissions and related health impacts while allowing Ports development to continue. The CAAP committed the Ports, with the assistance of their agency partners (the technical working group or TWG, comprised of representatives from ARB, SCAQMD, and the USEPA) to establish San Pedro Bay Standards to define targets for reduction of Ports-related air impacts, specifically air quality and health risk impacts. The Port has worked to ensure that the Project includes all applicable CAAP measures, existing regulations, and, in some areas, exceeds compliance with applicable CAAP measures. In fact, implementation of the Project provides a mechanism for implementing new control measures identified through TAP and that are implemented in updates to the CAAP. This would be accomplished through the lease reopener mechanism included in the Project.

Reduces criteria pollutants from terminal operations. Emission reductions for unmitigated scenarios that would occur due to CAAP measures that are part of the Project lease agreement are attributed to the Project (Final EIS/EIR Table 3.2-11). All feasible mitigation measures have been included in the Project and those measures are consistent with or go beyond the CAAP requirements applicable to each source type. A number of mitigation measure would be implemented if the project is approved that will reduce current emissions from existing terminal operations. They include:

Mitigation Measures AQ-4 (Expanded VSRP), which expands VSP of 12 knots from 40 nm, i.e., from Point Fermin to the Precautionary Area;

AQ-5 (Shore-to-Ship Power ["Cold Ironing"]), requiring100 percent of OGV to "cold iron" or use alternative technology that can achieve 90% reduction in emissions by 2014;

AQ-6 (Low-sulfur Fuels in OGV), which requires all OGV to use 0.2 percent or lower sulfur MGO fuel in vessel auxiliary and main engines at berth and out to a distance of 40 nm from Point Fermin, or implement equivalent emission reductions (equal to CAAP measures OGV3 and OGV4);

AQ-7 (Container Handling Equipment), which implements aggressive control measure over a set schedule (equates to CAAP measure CHE1);

AQ-7a (High Efficiency Rail Mounted Gantry (RMG) Cranes), which requires the terminal operator to replace all diesel-powered RTGs with electric-powered RMGs, as soon as feasible, but no later than the completion of construction in 2020;

AQ-8 (Heavy-Duty Trucks), a measure that goes beyond the ARB's requirements for reducing truck emissions, similar to CAAP measure HDV1 (CTP);

AQ-9 (Clean Railyard Standards), which requires the expanded Pier F intermodal railyard to incorporate the cleanest locomotive technologies into its operations;

AQ-10 (Truck Idling Reduction Measures), which requires the container terminal operator to minimize on-terminal truck idling and emissions. Additional design measures proposed in this mitigation measure would further reduce on-terminal truck activities and associated criteria pollutant emissions;

AQ-11 (Slide Valves on OGV Main Engines), which requires OGV that call at the Project container terminal to have slide fuel valves installed on their main engines, or implement an equivalent emission reduction technology; and

AQ-25 (Periodic Technology Review), which requires the tenant to periodically review new air quality technological advancements, and if any of the technologies is determined to be feasible in terms of cost, technical and operational feasibility, to work with the Port to implement such technology.

Many of these mitigation measures would not feasible or could not be enforced if the Project is not implemented as the Port would not a mechanism to enforce them. Final EIS/FEIR Section 3.2.4 (MMRP) identifies enforcement mechanisms for each mitigation measure. All of the identified measures will be implemented, regardless of changes or delays in the implementation of the CAAP. It is expected that a future CAAP measure for a given source category would be at least as stringent as the current measure, and therefore implementation of future CAAP measures would result in higher emission reductions. The Project lease agreement would include a condition requiring that every 5 years the Project lease would be re-opened to consider implementation of new feasible mitigations in accordance with **Mitigation Measure AQ-25**.

The Port has worked to ensure that the Project is consistent with the draft San Pedro Bay Standards as it includes all applicable CAAP measures, existing regulations, and, in some areas, exceeds compliance with applicable CAAP measures.

Reduces estimated health risk from terminal operation.
The proposed Project would result in a reduction in cancer and acute health risks for all receptor types. While the proposed Project would result in an increase in non-cancer chronic health effects at the maximum occupational receptor location, the increase would be less than significant. Additionally, all other receptors in the Project region would have chronic non-cancer impacts that are less than those identified at the at the maximum occupational receptor location. Implementation of the proposed operational mitigation measures described above would result in significant reductions in diesel particulate matter (DPM) emissions from current CEQA baseline conditions and a corresponding reductions in health risks. Therefore, the Board finds that for the reasons described in Final EIS/EIR Section 3.2.2.3, this impact will be less than significant.

Provides new jobs during the life of the project. Net changes in employment attributable to terminal operations under the proposed Project could reach 2,961 jobs annually by the year 2030 (refer to Final EIS/EIR Section 1.6.3.1 and Table 1.6-1 for a comparison of alternatives). Absent construction contract and lease approvals associated with this Project, the Project would not be implemented, and therefore there would be no additional jobs or wages.

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; expanded Pier F intermodal railyard; 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. It would not be possible to achieve these efficiencies or to reach maximum terminal capacity absent implementation of these improvements through Project approval.

The Port finds that there are specific considerations associated with the proposed Project that serve to override and outweigh the Project's significant environmental impacts. 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 outweigh the significant and unavoidable environmental impacts of the Project, which are therefore considered acceptable.

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
USEPA (B)-14	To reduce cancer risks, fully implement proposed CAAP measures. Implement additional mitigations if CAAP implementation measures are delayed or insufficient to meet cancer risk reduction targets	The proposed Project implements the Clean Air Action Plan and requires additional measures that go beyond the CAAP. Mitigations proposed in the Final EIS/EIR would reduce cancer risks from existing operations and they satisfy the intent of the requested mitigations. In addition, several Project mitigations are "backstopped" by existing and proposed state regulatory requirements that also would ensure achievement of the emission reductions proposed in the Final EIS/EIR. Project Mitigation AQ-25 requires that every 5 years, the Project lease would be re-opened to facilitate implementation of new feasible mitigations. No specific mitigation measures were suggested in the comment.
USEPA (B)-18	Commit to the use of Tier 4 standards for non-road construction equipment, when available, and best available emission control technology (BAECT) for construction that occurs prior to Tier 4 standards availability.	Final EIS/EIR Mitigation AQ-2 requires Tier 4 standard engines in construction equipment, where feasible. The unmitigated land-based construction equipment would be the cleanest equipment available, meaning the equipment would achieve EPA nonroad Tier 3 standards at a minimum. This essentially equates to BAECT, as requested in the comment. EPA Tier 4 standard engines for construction equipment are not required by the EPA Final Nonroad Diesel Engine Rule until ~2011. The EPA assumes that the entire national equipment fleet will not comply with these standards until 2030. This annual average turnover rate of ~5% means that it will take several years before new equipment meaningfully penetrate into Southern California. Due to the slow penetration of Tier 4 engines into the SCAB construction fleet, it would be impractical and economically infeasible to require these engines on all proposed construction equipment until several years after the 2011 effective implementation date. Therefore, it would be infeasible to mandate Tier 4 standard engines in all circumstances starting in 2011. Instead, the Final EIS/EIR comits that those standards will be met in all cases where it is feasible to require the complaince.
USEPA (B)-19	Construction Tugboats. Commit to using construction tug boats with engines that, at a minimum, meet Tier 2, and where feasible, Tier 3 standards.	Final EIS/EIR Mitigation AQ-3 requires Tier 2 standard engines on construction tug boats and Tier 3 standard engines, where feasible. The available information as to when the Tier 3 standard will be feasible is as follows. Tier 3 standard harbor craft engines are not required by the EPA Final Marine Engine Rule until 2012 through 2014. Due to the slow penetration of Tier 3 engines into the SCAB harbor craft fleet and the substantial cost associated wit engine replacement, it would be economically infeasible to require these engines on proposed tug boats during construction. Additionally, it is expected tha by year 2016, the baseline composite SCAB tug boat fleet emission factors would reach Tier 3 emission levels. By that time, requiring the Tier 3 stardard engines should be feasible. The feasibility for the interim years will turn on whether tug boats meeting the Tier 3 standards are commercially available in the Port Area.
USEPA (B)-26	To mitigate cumulative health-related air quality impacts, develop a mitigation fund, similar to the one created for the POLA TraPac Project. The fund should be financially supported by the Port and other project proponents in the area and should involve members from the impacted communities. Measures that could be developed through this fund include health clinics and air filtration systems.	To reduce cumulative air quality impacts of the Project, Final EIS/EIR Mitigation AQ-29 requires the Port to fund the Schools and Related Sites and Healthcare and Seniors Facility Programs Guidelines for the Port of Long Beach Grant Programs.
Department of Justice (California Attorney General)		
DOJ-5	Expand on Mitigations AQ-2 (non-road equipment) and AQ-3 (tug boats) to further reduce GHG emissions from Project construction	Final EIS/EIR Mitigations AQ-2 and AQ-3 ensures that proposed construction activities would use relatively new equipment with the highest achievable fuel efficiency rates, which would minimize GHG emissions from proposed construction. New Final EIS/EIR Mitigations AQ-2a and AQ-2b include Best Management Practices (BMPs) and traffic reduction measures that would minimize fuel usage and GHG emissions from proposed construction equipment and truck traffic. No other feasible mitigation measures are available to reduce GHG emissions from proposed land-based construction equipment.

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
DOJ-5	To reduce Project GHG emissions, create or expand programs to encourage employees to carpool or to use public transportation	The Final EIS/EIR has added Mitigation AQ-23, Employee Carpooling, which requires the construction contractor and the terminal operator to encourage construction and terminal employees to carpool or to use public transportation. The construction contractor and the terminal operator are requied to provide incentives to promote these measures, including preferential parking, vanpool subsidies, and information regarding alternative transportation.
DOJ-5	To reduce Project GHG emissions, install cool roofs	The Final EIS/EIR has added Mitigation AQ-20, Cool Roofs, which will incorporate cool roofing systems buildings on the Middle Harbor terminal to the extent feasible and compatible with the use of roof-mounted photovoltaic and other roof-mounted systems.
DOJ-5	To reduce Project GHG emissions, install cool pavements	The cost associated with a typical container yard (CY) asphalt concrete surface with a crushed miscellaneous or cement treated base is ~$320,000-$400,000 per acre. The cost of a cool pavement consisting of a Portland cement concrete surface can be up to $850,000 per acre. The cost difference between the two materials for 250 acres of CY is ~$112,500,000 to $132,500,000 per acre. This makes the use of cool pavements in the CY economically infeasible. The Port will consider use of cool pavements in areas of the terminal that do not experience heavy loads, such as employee parking areas. Additional facts supporting the conclusion that requiring cool pavement for this project is infeasible are set forth in the Final EIS/EIR on page 10-104.
DOJ-5	To reduce Project GHG emissions, establish a user-fee schedule that accounts for a ship's pollution-control measures	Many variables impact the GHG profile of vessels, such as engine type, fuel efficiency, emission control systems, hull configuration, hull fouling, vessel speed, total cargo capacity, refrigerated container load, etc. Many of these are difficult to measure or differentiate from other vessels. Also, current data do not provide GHG emissions for specific vessel types; the estimation of GHG emissions from vessels relies on the same emissions factor for broad engine classes (container vessels typically fall into a single class). As a result, it is technologically infeasible to craft an effective user-fee based on GHG emission of a vessel. Additional facts supporting the conclusion that attempting to further reduce GHG emissions through the adoption of an additional user fee schedule are set forth on page 10-109 of the Final EIS/EIR.
DOJ-5	Provide incentives for tenants to reduce greenhouse gas emissions	Tariff rates for vessels are set Port-wide and the Port already promotes a tariff-based incentive that encourages participation in the vessel speed reduction program and offers a financial incentive that accelerates the use of low-sulfur fuels at the Port. Similar to the marine fuel incentive, other such programs would be considered on a Port-wide basis through the CAAP process and not on a project-specific basis. For these reasons, implementation of an incentive program is administratively infeasible. However, tenant incentive programs could be implemented through new Final EIS/EIR Mitigation AQ-25. Additional facts supporting the conclusion that attempting to further reduce GHG emissions through the adoption of an additional user fee schedule are set forth on page 10-109 of the Final EIS/EIR.
DOJ-5	To reduce Project GHG emissions, generate electricity from solar at on-site or off-site locations	The Final EIS/EIR has added Mitigation AQ-17a, Solar Carports, that requires the terminal operator to install carport-mounted PV solar panels over the employee and visitor parking areas to the maximum extent feasible. Pursuant to Mitigation AQ-17, solar panels are also required on the main terminal building. For the factual explanation as to why these were the only two areas where solar panels were required to be installed, please see pages 10-104 to 10-105 of the Final EIS/EIR, which explains why it is not feasible to install the panels eslewhere in connection with this project.
DOJ-5	To reduce Project GHG emissions, generate electricity from wind systems at on-site or off-site locations	Wind power generation relies on strong, prevailing winds for cost effectiveness. The Port's Renewable Energy Working Group reviewed the meteorological data for the Harbor District and concluded that the winds at the Harbor District generally lacked these characteristics. Emerging technologies for low-wind speed generation could hold promise for environments like the Port, but they are not yet commercially proven or available. Thus, wind power is currently technologically and economically infeasible on both a port-wide and Project basis.

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
DOJ-5	To reduce Project GHG emissions, undertake or fund off-site mitigations, such as the Climate Solutions Exchange proposed by the SCAQMD	The Final EIS/EIR contains two additional mitigations that address this concern. Mitigation AQ-24 requires that the terminal offset indirect GHG emissions associated with electricity purchases (through green commodities) and Mitigation AQ-28 provides funding pursuant to the GHG Emission Reduction Program Guidelines in order to provide additional offsets.
South Coast Air Quality Management District (SCAQMD)		
SCAQMD-6	Recommends a 90% control of PM and NOx emissions from switch and helper locomotives that operate within the Project rail yard by 2011.	As part of CAAP measure RL-1, the provider of the switcher locomotives that would service the Project rail yard, PHL, completed replacement of old engines in their entire fleet of 22 locomotives in 2008 with (1) 16 engines certified to EPA Tier 2 standards, (2) 6 engines with EPA Tier 3 generator sets (a measure requested in the comment), and (3) all engines with devices that limit idling to 15 minutes (a measure requested in the comment) (POLB 2005). These efforts have reduced NOx/PM emissions from the old PHL fleet by at least 53/48%. Additionally, as part of RL-1, upon successful demonstration, these switcher locomotives will install diesel oxidation catalysts (DOCs) in the near future, which will reduce emissions of PM by an additional 25%. Due to this recent and expensive effort to convert the PHL fleet to cleaner emission technologies, it is economically infeasible to further control emissions from these sources by 2011. However, on March 14, 2008, the EPA adopted Tiers 3 and 4 emission standards for diesel switcher locomotives. The PHL fleet will comply with these standards, which will further reduce emissions from these sources.
SCAQMD-6	Recommends that all line haul locomotives that operate within the Project rail yard achieve a Tier 4 standard emission rate by 2014, as assumed in the State Implementation Plan (SIP).	Implementation of the requested emission control measures to line haul locomotives that would service the Project rail yard is not applicable, as these sources are not bound by the Project terminal lease agreement. The Surface Transportation Board has exclusive jurisdiction over transportation by rail carriers, including rules, practices, and operations (49 U.C.S. § 10501(b)). In addition, the Ports have several agreements with operators of line haul locomotives that govern access and use of port trackage. However, on March 14, 2008, the EPA adopted Tiers 3 and 4 emission standards for diesel line-haul and switcher locomotives. Conversion of the national line haul locomotive fleet to these standards will substantially reduce emissions from line haul locomotives that service the Project rail yard. However, Tier 4 emission standards for line haul locomotives do not take effect until 2015. Further facts supporting the conclusion that the mitigation measures, as proposed, is infeasible is set forth in the Final EIS/EIR at page 10-151.
SCAQMD-7	Include sufficient on-dock rail capacity for all containers destined out of the region by rail	The Project is designed to maximize on-dock rail facilities. Every effort was made from the design and operation perspective to maximize the Project rail yard capacity, taking into account the need for additional container yard capacity. Even if there were a need for more on-dock rail capacity, the Project rail yard could not be expanded into the container yard because overall terminal capacity would be reduced, thus creating a less efficient terminal. Additional facts supporting the conclusion that requiring a greater amount of on-dock rail would be infeasible are set forth on pages 10-152-153.

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
SCAQMD-8	Require main engine controls on new vessels builds and existing vessels to achieve Project average vessel fleet emission reductions of 30% for NOx and PM by 2014 and 70% for NOx and 50% for PM by 2023.	It would be difficult for the Port to negotiate implementation of the requested advanced control technologies with a proposed shipper (such as water injection, emulsified fuels, humid air, and SCR), as in part, there may not be enough incentive for the shipper to do so if the vessel is not committed totally t the Project terminal trade. Although SCR technology has been demonstrated on a few smaller vessels with a limited geographic range (e.g., small vessels carrying scrap/steel in the San Francisco Bay), the applicability of low-emission technologies like SCR to large OGVs that travel long distances such as container ships requires further evaluation and demonstration of feasibility. Therefore, implementation of emission controls on OGVs is best handled at the national and international regulatory level and progress has been made in this area. Project shippers must comply with engine standards of the existing International Maritime Organization (IMO) MARPOL Annex VI NOx limits that took effec in 2005 and new standards of October 2008 that limit fuel sulfur content and NOx emissions. These requirements include (1) global standards and (2) tighter standards for areas with air quality problems, designated as Emission Control Areas (ECAs). The engine standards include the following: 1. The ECA engine emission standards are Tier 3 for new engines and equate to 80 percent NOx reduction starting January 2016 (based on the use of advanced catalytic after treatment systems). EPA is in the process of preparing an application for ECA status for U.S. coastal waters. The Port is working with the EPA to develop a West Coast ECA and they fully support the establishment of the West Coast as an ECA. 2. The global engine emission standards are (a) Tier 2 for new engines (20 percent NOx reduction starting January 2011) and (b) Tier 1 for existing engines, or equal to those adopted by EPA in 2003 and the current IMO Annex VI standards (15-20 percent NOx reduction from current uncontrolled levels). It is expected that with the implementation of Project Mitigation Measure AQ-11 (slide valves), Mitigation Measure AQ-6 (low sulfur fuels in OGVs), and the introduction of IMO-compliant OGVs, the Project OGV fleet would achieve the fleet average NOx and PM emission reductions recommended in the comment.
SCAQMD-11	Incorporate mitigation measures into the Terminal Operator's lease agreement. The lease must contain binding requirements to monitor mitigation measures and a legal mechanism to allow the Lead Agencies to enforce the mitigation measures. Include a requirement in the lease agreement for annual environmental reporting to provide a status update of implementation of mitigation measures.	The Port commits to the full implementation of all mitigations identified in the Final EIS/EIR. The Project Mitigation Monitoring and Reporting Program (MMRP) identifies the implementation schedule for each mitigation proposed in the Final EIS/EIR. The MMRP includes monitoring and enforcement mechanisms to ensure appropriate implementation of all mitigations and it requires an annual mitigation compliance report within the first year of Project approval and then annually thereafter. The Project MMRP will be certified by the Board of Harbor Commissioners and adopted as a Project lease condition
SCAQMD-12	Trucks used for construction prior to 2015 should use engines with the lowest certified NOx emissions levels, but no greater than the 2007 NOx emission standards. Trucks used during construction in 2015 and beyond should meet U.S. EPA 2010 emission standards.	The Final EIS/EIR has been revised to include the suggested comment as Mitigation AQ-2b which requires trucks used for construction (1) prior to 2015 to use engines certified NOx emissions levels no greater than the 2007 NOx emission standards and (2) in 2015 and beyond to meet USEPA 2010 emission standards.

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
SCAQMD-13	Regarding MM AQ-1, further reduce fugitive dust from Project construction with the following: (1) Apply approved non-toxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas or replace groundcover in disturbed areas (previously graded areas inactive for ten days or more), (Suspend all soil disturbance activities when winds exceed 25 mph as instantaneous gusts or when visible plumes emanate from the site and stabilize all disturbed areas, (3) Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM10 generation, (4) Sweep all streets at least once a day using SCAQMD Rule 1186, 1186.1 certified street sweepers or roadway washing trucks if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water), (5) Apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces, (6) Pave road and road shoulders, and (7) Apply water three times daily or as needed to areas where soil is disturbed.	Final EIS/EIR Mitigation AQ-1 has been revised to include the requested fugitive dust control measures.
SCAQMD-14	All construction equipment prior to 2012 should be equipped with a Level 2 or 3 verified diesel emissions control and should meet the cleanest off-road diesel emission level, but no greater than Tier 3 NOx emission standards. In addition, all construction equipment post 2012 should meet Tier 4 emission standards. Include Best Management Practices (BMPs) for construction equipment, at a minimum (1) Diesel Oxidation Catalysts, (2) catalyzed diesel particulate traps, (3) maintain equipment to manufacturers' specification, (4) unnecessary idling restriction to 5 minutes (per CARB regulation), (5) high pressure fuel injectors, and (6) use electricity from power poles rather than temporary diesel or gasoline power generators.	See USEPA(B)-18 regarding the difficulty and infeasibility of implementing USEPA Tier 4 engine standards on proposed land-base construction equipment. However, Final EIS/EIR Mitigation AQ-2 does require Tier 4 standard engines in construction equipment, where feasible. The Final EIS/EIR includes new Mitigation AQ-2a that requires the Best Management Practices (BMPs) recommended in the comment, with the qualifier that they shall be implemented where feasible.

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
SCAQMD-15	Regarding MM AQ-3, provide specific language to clarify when tugs shall meet EPA Tier 3 standards.	Final EIS/EIR Mitigation AQ-3 requires Tier 3 standard engines in tug boats, where feasible, for the entire period of Project construction. However, it is acknowledged that Tier 3 standard harbor craft engines whose sizes match those needed for proposed construction are not required by the EPA Final Marine Engine Rule until 2012 through 2014. Due to the slow penetration of Tier 3 engines into the harbor craft fleet and the substantial cost associated with engine replacement, it would be economically infeasible to require these engines on all proposed tug boats during Project construction. Additionally, is expected that by year 2016, the baseline composite SCAB tug boat fleet emission factors would reach Tier 3 emission levels. By that time, requiring the Tier 3 stardard engines should be feasible. The feasibility for the interim years will turn on whether tug boats meeting the Tier 3 standards are commercially available in the San Pedro Bay Area. However, it is not possible to specify at this point in time the year that requiring the Tier 3 standard will become feasible.
SCAQMD-15	Regarding MM AQ-3, modify the measure to require all tugboats to use shore-power while at their home fleeting location, per CAAP measure HC-1.	Construction tug boats that home port in the SPBP generally shut down their engines when they return home, as any nominal lighting/instrumentation requirements are already provided by electrical shore power. Nevertheless, the Final EIS/EIR includes the requested measure as new Mitigation Measure AQ-3a (Construction Tugboat Home Fleeting).
SCAQMD-16	Regarding MM AQ-4, commit to 100% of all OGVs that call at the Middle Harbor container terminal comply with the Expanded VSR Program of 12 knots within 40 nm of Point Fermin upon project approval. If the 100% compliance rate cannot be met, indicate in the measure that similar reductions would be achieved elsewhere, with specifics.	Mitigation AQ-4 requires all (100 percent) OGVs that call at the Project terminal to comply with the Expanded VSRP of 12 knots within 40 nm of Point Fermin. Implementation of this measure would occur at the effective date of the new terminal lease(s) and Project year 1.
SCAQMD-17	Beginning in 2010, require all ships retrofitted for cold ironing to cold iron at a 100% compliance rate, with the exception of circumstances when a cold iron capable berth is unavailable due to utilization by another cold iron capable ship.	Three new berths with the capacity to cold-iron OGVs would become available according to the following Project construction schedule: (1) December 2009; (2) March 2012; and (3) December 2014. As each berth becomes available, it would cold-iron 33% of the total annual ship visits at the Project terminal, so by December 2014, all Project ship visits would cold-iron. Essentially, any Project OGV that is retrofitted to cold-iron would moor at a berth with cold-ironing capabilities unless it is already in use. This implementation schedule complies with the CAAP and it exceeds the requirements of the ARB At-Berth Ocean-Going Vessels Regulation. Given the magnitude and scale of proposed construction, any acceleration of this schedule is infeasible. Additional facts supporting the conclusion that it is infeasible to accelerate this schedule are set forth on page 10-156 of the Final EIS/EIR.
SCAQMD-18	On or before January 1, 2010, require the use of 0.1% or lower sulfur fuel in main and auxiliary engines in all vessels within 40 nm of Point Fermin that call at the Middle Harbor Terminal .	Mitigation AQ-6 requires use of 0.2% sulfur fuel in vessel engines on commencement of the new lease. In addition, the recently adopted ARB rule requires vessels to use 0.1% sulfur fuel by 2012. Mandating use of 0.1% sulfur diesel in Project OGVs prior to this time would be infeasible, due to its unavailability in the international setting. Additionally, the new 2008 IMO regulations do not require 0.1% sulfur until January 2015 and only for ECAs. Otherwise, the global standard (areas other than ECAs) only lowers the fuel sulfur content to 0.5% sulfur in 2020, but it is subject to a review in 2018, but no delay past 2025.

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
SCAQMD-19	MM AQ-7 (Container Handling Equipment) should include use of electric-powered yard hostlers once the test phase of this technology is successfully completed.	Balqon Corporation built a prototype electric vehicle for use as either a drayage truck or yard hostler as a proof of concept. Balqon conducted some initial testing for both yard hostler and minor drayage duty-cycles. Initial drayage testing was only conducted for a single day; however, initial yard tractor testing was conducted for approximately 1 month. That testing was able to establish proof of concept but was insufficient to demonstrate the commercial, operational, and financial viability of the technology. The prototype unit is no longer in use; however, based on the results of the prototype the Port of Los Angeles (POLA) decided to initially conduct a demonstration of an electric yard hostler at marine terminals where duty-cycle is less demanding than a drayage truck demonstration. Consequently, POLA ordered 20 yard hostler units, at a cost of $4.3 million for vehicles and chargers, to determine the commercial, operational, and financial viability of the equipment. The demonstration units are expected to be delivered through February and March 2009. As part of the TAP, the POLB also is participating in the demonstration through the development and implementation of the work plan. Should the demonstration of an electric yard hostler prove successful, the Ports will then begin the demonstration of an electric drayage truck. Given the current cost o nearly $200,000 per unit plus charging equipment (compared to approximately $60,000 per unit for diesel technology), this technology does not currently represent a financially feasible mitigation absent the conclusions of the demonstration. If deemed feasible, this technology would be required subject to the lease reopener process in Mitigation Measure AQ-25.
SCAQMD-19	Design the terminal to utilize electric rail mounted gantry cranes	The Final EIS/EIR includes new Mitigation AQ-7a that requires the replacement of all Project diesel-powered RTGs with electric-powered RMGs by 2020, o sooner, if feasible. This measure also requires each RMG to include regenerative drive systems. Thus, the terminal is designed to use electric rail mounted gantry cranes, although it will be difficult to fully convert diesel-powered RTGs to electric-powered RMGs until completion of the proposed landfills and new container yard developments.
SCAQMD-20	MM AQ-8 (Heavy Duty Trucks) should include use of electric-powered drayage truck once the test phase of this technology is successfully completed.	Same as SCAQMD-19 for electric-powered yard hostlers.

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
SCAQMD-20	MM AQ-8 (Heavy Duty Trucks) should consider the use of LNG-fueled trucks if electric drayage truck are not available, based upon the following percentages: 50% in 2012 and 2013, 70% in 2014 through 2017, and 100% in 2018 and thereafter.	Because of the infeasibility of mitigating truck emissions on a project-by-project level, the Port of Long Beach has chosen to mitigate Project truck emission through the Port-wide Clean Trucks Program (CTP). The Port of Long Beach adopted a port-wide approach to dealing with drayage trucks rather than a project by project approach due to a number of complicating factors which make project level mitigation infeasible. It is important to understand the complexities and difficulties of dealing with the unconsolidated and highly competitive drayage industry. No trucking company calls at a single terminal, but rather calls at all port terminals. In addition, trucking companies do not serve the ports exclusively; rather port drayage represents only a portion of their trucking business. One survey funded by both Ports shows that 72% of the Licensed Motor Carriers (LMCs) have at least some business with non-port related customers, and for 19% of the LMCs, more than 50% of their business occurs outside of the Ports (John E. Husing, et al. 2007). Due to the high degree of competition in port drayage, the ports realized it was not cost-effective to address fleet modernization on a terminal-by-terminal basis. Serving a single terminal cannot provide enough business to sustain a trucking company, while increased costs of fleet modernization could not be realized through higher trucking rates at facilities that were not subject to similar requirements (due to the fact that trucking companies would be competing against trucking firms that did not face increased compliance costs). This would be the case for either new diesel or new alternative-fueled vehicle requirements imposed o a single terminal. As a result, the Ports have taken an approach that spread fleet modernization costs over an accelerated five-year schedule that covered all terminals on port-owned property in the two ports. Through this approach, the Board of Harbor Commissioners also adopted, as part of the CTP, Clean Truck Fee exemptions that encourage the purchase of alternatively-fueled trucks by industry and adopted a goal that 50% of the CTP-funded trucks be liquefied natural gas (LNG). Accordingly, it is not feasible to address further mitigation of these emissions through a terminal-specific approach. Such an approach would result in unsustainable trucking rates calling at the terminal, while at the same time imposing a cost structure that would prevent a trucking firm from competing in the rest of the trucking market. Also, it is important to note that emission reduction achieved with the use of LNG-fueled trucks would only provide marginal emissions benefits. Currently, most of the diesel trucks being funded through the CTP program have lower particulate matter emissions than LNG trucks. While LNG trucks do currently have lower emissions of nitrogen oxides, by 2010 new diesel and new LNG trucks will have the same emission rates for nitrogen oxides. Given the 50%-100% increased cost of LNG trucks for the small, short term benefit, this is another reason why it is not cost-effective to require these technologies on a terminal specific basis. Additional facts supporting the conclusions stated here are set forth in the Final EIS/EIR at pages 10-157 to 10-158.
SCAQMD-21	MM AQ-9: Clean Rail yard Standards. The Project rail yard should implement the cleanest locomotive technologies, consistent with CAAP Measure RL-3. Include specific language clarifying the types of technologies and time frame this measure will implement.	Same as SCAQMD-6
SCAQMD-21	MM AQ-9: Clean Rail yard Standards. Control switcher and helper locomotive emissions of PM and NOx by 90% at the expanded rail yard by 2011.	Same as SCAQMD-6
SCAQMD-21	MM AQ-9: Clean Rail yard Standards. Have all line haul locomotives at the rail yard achieve Tier 4 emission rates by 2014, as assumed in the SIP.	Same as SCAQMD-6

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
SCAQMD-22	MM AQ-10: Truck Idling Reduction Measures. Increase terminal efficiency beyond the current Pier Pass System. As an example, implement an Automated Gate System (AGS) to increase the efficiency of cargo transportation processing at the Project terminal. The measure should provide specific commitments and compliance dates	The Port encourages efforts to minimize truck trips and associated on-terminal idling through programs including the PierPass and virtual container yards. The enforcement mechanisms for Mitigation AQ-10 are included in Final EIS/EIR Section 3.2.4. Marine container terminal gates already use the most sophisticated automated gate technologies throughout the Port. As requested in the comment, the Project gate would include this type of system and would be designed to handle the peak terminal truck traffic. A terminal in-gate is normally comprised of three stations: a security checkpoint, an OCR/RFID (optical character recognition/radio frequency identification) portal, and a pedestal. In order to comply with security requirements, all trucks must pass through a security checkpoint where terminal security controls site access. Next, at the OCR/RFID portal, several items are read by the OCR scanner, typically the container number, chassis number, and truck license plate. Finally, based on that information, the truck will receive instructions on where to proceed in the terminal at the pedestal. As a result of these technologies, gate queues have been substantially reduced throughout the Port. These Project terminal systems would maximize terminal efficiencies and they would keep truck idling to less than what was assumed in the air quality analysis. In conclusion, the Project gate system is already designed to prevent any substantial delays or idling during peak Project truck traffic conditions. Further mitigation is not feasible.
SCAQMD-23	MM AQ-11: Slide Valves on OGV Main Engines. Provide a phase-in schedule. Equip 100% of ships with slide valves no later than two years after project approval.	Mitigation Measure AQ-11 requires installation of slide valves on all OGV that call at the Project terminal, where feasible. Implementation of this measure is conditional, as only OGVs with MAN B&W engines can readily accept such a retrofit. Final EIS/EIR Mitigation AQ-11 and the Project MMRP have been revised to clarify this requirement.
SCAQMD-23	Require retrofits to existing vessels with a combination of control technologies mentioned in the comment to meet the SIP of achieving fleet average emission reductions of 30% for NOx and PM by 2014, and 70% for NOx and 50% for PM by 2023.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-8
SCAQMD-24	Main Engine Controls in New Vessels Builds. Require new vessel builds for the Project to meet at a minimum the SIP requirement for main engine controls for new vessel builds: fleet average emission reductions of 30% for NOx and PM by 2014 and 70% for NOx and 50% for PM by 2023.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-8

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
SCAQMD-27	Green-Container Transport System. Include a mitigation measure that commits to a process of implementing zero or near-zero emission transport technologies, such as rail electrification. Freight rail electrification is clearly feasible, being in wide use in Europe	With regard to rail electrification, the Alameda Corridor Use and Operating Agreement specifically prohibits the Ports from unilaterally mandating rail electrification. In 2007, Cambridge Systematics prepared the Alternative Container Technology Evaluation and Comparison assessment for the Ports of Los Angeles and Long Beach. While the assessment identified 14 candidate technologies that may prove suitable for a demonstration project between a container terminal and a near- or off-dock rail facility, it determined that none of them have been demonstrated to be functionally or financially feasible. Pursuant to its commitments under the CAAP, the Port is exploring feasible technologies and in 2009 will release a Request for Proposals for the design of a zero- or low-emission container movement demonstration project between one marine terminal and a near-dock rail facility. The demonstration project will help to determine if the technology can be feasibly employed in Port operations, including system functionality, the availability of rights-of-way to accommodate the system, the capital costs for the construction of the system and the costs of operations and maintenance, and the needed interface between the terminals and the rail yards. Preliminary cost estimates for construction of these technologies range from $180 to $264 million per mile. The estimated annual operation and maintenance costs range from $7.5 to $10.5 million. Additional facts supporting the conclusion that the suggested mitigation measures is infeasible are set forth in Final EIS/EIR pages 10-151, 10-159, and 10-160.
SCAQMD-28	Exceedance of Projected Throughput. The lease agreement should mandate the performance of an annual analysis of cargo throughput. Establish requirements in the lease providing that if the analysis shows the throughput is above levels assumed in the Final EIS/EIR, additional mitigation measures will be required.	The Final EIS/EIR includes new Mitigation AQ-26, (Annual Cargo Throughput Monitoring): Every five years, the Port shall compare actual cargo throughput that occurred at the terminal to the cargo assumptions used to develop the Final EIS/EIR. The years used in this analysis shall include 2015, 2020, 2025, and 2030. The Port shall calculate annual air emissions associated with these throughput levels (for OGVs, assist tugs, locomotives, cargo handling equipment, and trucks) and compare them to the annual air emissions presented in the Final EIS/EIR. If actual emissions exceed those presented in the Final EIS/EIR, then new/additional mitigations would be applied through Mitigation AQ-25.
SCAQMD-34	Construction Mitigations. Add the following measures to further reduce construction air quality impacts: 1. Use electricity from power poles rather than temporary diesel or gasoline power generators. 2. Provide temporary traffic controls during all phases of construction to maintain smooth traffic flow. 3. Schedule construction activities that affect traffic flow on the arterial system to off-peak hour to the extent possible. 4. Reroute construction trucks away from congested street or sensitive receptor areas. 5. Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site. 6. Configure construction parking to minimize traffic interference.	The measure in bulleted paragraph #1 is included in Final EIS/EIR Mitigation AQ-2a, as stated in the response to comment SCAQMD-14. The measures in bulleted paragraphs 2-8 are included in Final EIS/EIR Mitigation Measure AQ-2b, as stated in the response to comment SCAQMD-12. The measure in bulleted paragraph #8 is included in Final EIS/EIR Mitigation Measure AQ-1.

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
	7. Improve signal flow by traffic synchronization. 8. All vehicles and equipment will be properly tuned and maintained according to manufacturer's specifications.	
Riverside County Transportation Commission (RCTC)		
RCTC-7	Some mitigations for the Port's impacts need to improve air quality in Riverside County, such as contribute funding for grade seperations	Final EIS/EIR Mitigation AQ-8, Heavy Duty Trucks, requires container trucks that call at the Project terminal to comply with the Port's CTP tariff, would reduce emissions and localized air quality impacts from the operation of Project trucks, including within Riverside County. Also, most if not all of the Projec mitigations would indirectly reduce the impact of Project emissions transported into Riverside County from the POLB and offshore waters. Conversion of the national line haul locomotive fleet to adopted EPA Tiers 3 and 4 non-road standards also will substantially reduce emissions from Project trains that traverse through the Riverside County on the UP line in future years. See the response to comment RCTC-2 in Final EIS/EIR pages 10-315 through 10-318. Since the Project would not signficantly impact grade crossings in Riverside County, CEQA does not require the Project to fund grade seperations in this reigon.
City of Commerce (CC)		
CC-8	The mitigations required to project Long Beach residents must also be applied to Commerce so our residents are affored the same similar protection.	Implementation of the Project rail yard would reduce the number of truck trips generated between the POLB and the Bandini and Hobart rail yards compared to existing conditions, and therefore would reduce localized air quality impacts from truck traffic to all receptor types within the City of Commerce The cargo "diverted" by these reduced truck trips from the Bandini and Hobart rail yards to the new Project rail yard also would shift the cargo handling equipment and train usages and their associated emissions from the City to the POLB, which also would reduce air quality impacts within the City, compared to existing conditions. The ARB is in the process of evaluating and mitigating air quality impacts from the Bandini and Hobart rail yards and other rail yards in California. Information on ARB's Rail Yard Emission Reduction Program, including HRAs and air quality mitigation plans for the Bandini and Hobart rail yards, is available on the ARB website at http://www.arb.ca.gov/railyard/railyard.htm. In addition to the mitigations proposed by the ARB through the Rail Yard Emission Reduction Program that would reduce air quality impacts within the City, most of the Final EIS/EIR mitigations would reduce localized air quality impacts from Project sources within the City of Commerce by the same mechanisms discussed in RCTC-7.
Center for Biological Diversity (CBD)		
CBD-19	By 1/1/09, ensure 50% compliance of 0.1% sulfur fuels in OGV main engines, aux. gens, and boilers	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-18
CBD-19	By 1/1/10, ensure 100% compliance of 0.1% sulfur fuels in OGV main engines, aux. gens, and boilers	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-18

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CBD-20	Usage of the project intermodal rail yard needs to increase to up to 70% or more of the total project terminal throughput	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-7
CBD-21	Expeditiously transfer to electrified rail	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-27
CBD-22	MM AQ-9 (Clean Rail Standards) must be augmented to include hybrid locomotives	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-6 and SCAQMD-27. Hybrid locomotives have had failure problems in the past (Journal of Commerce 2009). Therefore, it would be infeasible to require the use of this technology as a mitigation.
CBD-22	MM AQ-9 must be augmented to include multiple generator set locomotives	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-6 and SCAQMD-27. In addition, there is no long-term performance record for the use of gensets on locomotives.
CBD-22	MM AQ-9 must be augmented to include idling shut-off devices for locomotives	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-6 and SCAQMD-27. In addition, the EPA 2008 locomotive emissions standards also include new idle reduction requirements for new and remanufactured locomotives.
CBD-23	MM AQ-5 (Cold-ironing) must be improved to require 70-80% of all ships to use shore-side power at every terminal by 2010.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-17.
CBD-24	New vessel builds must utilize a combination of technologies to achieve fleet average emissions reductions of 30% for NOx and PM by 2014 and 70% for NOx and 50% for PM by 2023.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-8.
CBD-25	Construction equipment >25 Hp must meet current emission standards and be equipped with Best Available Control Technologies (BACT) for NOx and PM or use alternative fuel (probably LNG or LPG).	The unmitigated land-based construction equipment would be the cleanest equipment available, meaning the equipment would achieve EPA nonroad Tier 1 standards at a minimum. This essentially equates to BACT, as requested in the comment. Additionally, Final EIS/EIR Mitigation AQ-2 requires Tier 4 standard engines in construction equipment, where feasible. As explained above in conjuction with the mitigation requested in comment SCAQMD-14, the Final EIS/EIR includes a new Mitigation AQ-2a that will require additional BMPs, where feasible.
CBD-25	On-road diesel trucks used at the project construction site must meet current emission standards or be equipped with BACT for NOx and PM.	As explained above in conjuction with the mitigation requested in comment SCAQMD-12, the Final EIS/EIR includes new Mitigation AQ-2b, which requires trucks used for construction prior to 2015 to use engines with certified NOx emissions levels no greater than the 2007 NOx emission standards; and in 2015 and beyond to meet USEPA 2010 emission standards.
CBD-25	On-road diesel trucks used at the project construction site that haul debris or fill materials must be fully covered while operating off-site.	Covering truck loads is a requirement identified in the Draft EIS/EIR (Mitigation Measure AQ-1), and is also a State law.

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CBD-25	Generators used at the project construction site must meet the equivalent current off-road standards for NOx and meet a 0.01 Gm/Hp-Hr standard for PM or be equipped with BACT for emission reductions of PM.	Final EIR/EIS Mitigations AQ-2 and AQ-2a require construction equipment such as generators to meet the most stringent EPA Tier 4 standards, where feasible. Consequently, all the construction equipment (including generators) would meet or exceed current standards for offroad equipment, as requested in the comment.
CBD-25	Project construction equipment operating within 1,000 feet of a sensitive receptor site would implement additional emission controls identified in the coment.	Not applicable, as proposed construction would not occur within 1,000 feet of these sites.
CBD-26	Provide funding for health clinics in amount sufficient to (1) construct appropriate facilities and (2) support operations at existing clinics so that local residents and Port workers can access facility without incurring out of pocket expenses.	To reduce cumulative air quality impacts of the Project, Final EIS/EIR Mitigation AQ-29 requires the Port to fund the Schools and Related Sites and Healthcare and Seniors Facility Programs Guidelines for the Port of Long Beach Grant Programs.
CBD-27	Explore installation of air filtration systems to protect residents from harmful air pollution. Include this type of installation in a school in the vicinity of the project, as was done by the POLA for the TraPac MOU.	Refer to CBD-26
CBD-41	Create a Technology Advancement Program (TAP) for GHG Mitigation - develop (or expand the already existing criteria pollutant TAP under the CAAP) to include the development of technologies to reduce GHG emissions from freight movement.	GHGs are evaluated in the CAAP TAP process. The TAP process evaluates a variety of technologies that would reduce fuel usage and GHG emissions from Port operations. If the TAP process determines that an emission control technology is feasible, it will be promoted in the future.
CBD-42	Implement Stricter Fuel-Efficiency/Design Standards for Heavy Duty Trucks with the use of improved truck body aerodynamics.	See SCAQMD-20, which explains that the CTP Final EIS/EIR Mitigation Measure AQ-8 is the mechanism that the Port would use to control emissions from drayage trucks that call at the Project terminal. The EPA SmartWay creates benefits by reducing drag and improving fuel efficiency. This is achieved by operating at highway speeds for long-haul distances. The truck fuel efficiency/design standards identified in the comment are mainly designed to reduce GHG emissions from long haul truck trips rather than shorter truck trips generated by the Project terminal for the following reasons. The average drayage truck trip length is about 20 miles and travels through local congested roads and freeways. The requested aerodynamic truck designs measures would not provide substantial benefits for this type of low-speed trip, as the weight added by these measures would counteract their associated fuel usage benefits that only occur at higher speeds. These facts, toghether with the additional facts stated in the Chapter 10, including, but not limited to, the facts stated on pages 10-415 to 10-416, support the conclusion that it is not feasible to implement fuel efficiency or design standard for Heavy Duty Trucks as a project mitigation measure.

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CBD-42	Implement Stricter Fuel-Efficiency/Design Standards for Heavy Duty Trucks with the use of tires with reduced rolling resistance, including those identified in the EPA SmartWay program, super singles, automatic tire inflation systems.	This mitigation measure is infeasible for the reasons set forth above in CBD-42. The requested reduced rolling resistance measures would not provide substantial benefits for low-speed trips, as the weight added by these measures would counteract their associated fuel usage benefits that only occur at higher speeds.
CBD-42	Implement Stricter Fuel-Efficiency/Design Standards for Heavy Duty Trucks with the use of lighter weight tractor and trailer components.	This mitigation measure is infeasible for the reasons set forth above in CBD-42. Implementation of the detailed weight reduction measures to the Port truc fleet would be procedurally infeasible, as noted above and would result in negligible benefits.
CBD-42	Implement Stricter Fuel-Efficiency/Design Standards for Heavy Duty Trucks with the use of low viscosity lubricants	This mitigation measure is infeasible for the reasons set forth above in CBD-42. The use of Low viscosity lubricants cannot be enforced by the Port and thus is not being proposed.
CBD-42	Implement Stricter Fuel-Efficiency/Design Standards for Heavy Duty Trucks with the use of driver training programs.	This mitigation measure is infeasible for the reasons set forth above in CBD-42. Based on the large number of truck drivers that service the Port, it would be infeasible for the Port to implement a driver training program on a project-specific basis.
CBD-43	Modify MM AQ-2 and MM AQ-3 to incorporate criteria for low GHG emission/high efficiency construction equipment. Criteria can include the use of alternative fuels, hybrid technology, and specific fuel economy standards.	See DOJ-5 above. Unmitigated construction activities will use equipment (other than tug boats) that achieve the EPA nonroad Tier 3 standards at a minimum. This requirement ensures that proposed construction activities would use relatively new equipment with the highest achievable fuel efficiency rates. Final EIS/EIR Mitigation AQ-2 also requires Tier 4 standard engines in construction equipment, where feasible, which also would result in the use of the most fuel efficient equipment, since these standards do not take effect until 2011. Final EIS/EIR Mitigation AQ-2a includes BMPs requested by the SCAQMD in comment SCAQMD-14. Some of these BMPs would reduce fuel usage from proposed construction sources. No other feasible mitigation measures are available to reduce GHG emissions from proposed land-based construction equipment. The Final EIS/EIR air quality analysis assumes that over time unmitigated construction and assist tug boats would turn over to engines that meet EPA Tier 2 through 4 standards. This assumption is consistent with the definition of the future SCAB harbor craft fleet developed by the ARB for implementation of the ARB Commercial Harbor Craft Regulation. Final EIS/EIR Mitigation Measure AQ-3 also requires Tier 3 standard engines in construction tug boats, where feasible. These assumptions and requirements imply that proposed tug boats used during construction and operation would have relatively new engines with the highest achievable fuel efficiency rates. Additionally, the Final EIS/EIR includes new Mitigation Measure 3a at the request of comment SCAQMD-15, which requires all construction tug boats that home port in the SPBP to use electrical shore power. Therefore, no other feasible mitigation measures are available to reduce GHG emissions from these sources.

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CBD-43	Modify MM AQ-7 to incorporate criteria for low GHG emission/high efficiency operation equipment. Criteria can include the use of alternative fuels, hybrid technology, and specific fuel economy standards.	This mitigation measure is infeasible for the reasons set forth above in DOJ-5 and SCAQMD-19. The most feasible and economical way to comply with Draft EIS/EIR Mitigation Measure AQ-7 is to replace current CHE with new equipment that achieve the EPA nonroad Tier 4 standards. This infusion of new, more fuel efficient engines would minimize GHG emissions from the proposed CHE fleet. Additionally, the Final EIS/EIR includes a new mitigation (Mitigation Measure AQ-7a) that would replace all diesel-powered RTGs with electrified rail-mounted gantry cranes (RMGs) with high efficiency, regenerative drive systems by the end of proposed construction, or year 2020 at the latest. This measure would reduce GHG emissions from proposed CHE sources. The use of hybrid technology has not been proven for use on CHE and therefore has been determined by the Port to be infeasible. However, this technology is a topic of research for the CAAP TAP process. If the TAP process determines that this emission control technology is feasible, it would be required subject to the lease reopener process in Mitigation Measure AQ-25.
CBD-44	Analyze further technologies for OGVs that could be adopted to increase fuel savings and promote the use of alternative energy sources, such as bulbous bows	Due to the high costs associated with performing the requested retrofits and the limited reductions in GHGs that would be achieved, it is financially infeasible for the Port or terminal operator to retrofit existing OGVs (which they do not own or control) with the requested design features, such as bulbous bows and energy recovery systems. Use of these technologies is more economically feasible by implementing on vessel new builds. Vessels typically are built to maximize fuel efficiency and it is expected that new vessels will include the most advanced types of designs for this purpose. The IMO encourages the use of fuel efficiency techniques through their ship efficiency management plan (IMO 2008). Addition facts supporting the conclusion that the suggeste mitigation is infeasible are stated on pages 10-416 to 10-417 of the Final EIS/EIR. If the mitigation were to become feasible at some point in the future, it would be subject to the lease reopener provision in Mitigation Measures.
CBD-44	Analyze further technologies for OGVs that could be adopted to increase fuel savings and promote the use of alternative energy sources, such as sky sails.	This mitigation measure is infeasible for the reasons set forth above in CBD-44. The application of sky sails to trans-Pacific container vessels has not been demonstrated and therefore they are technologically and economically infeasible at this time.
CBD-44	Analyze further technologies for OGVs that could be adopted to increase fuel savings and promote the use of alternative energy sources, such as energy recovery systems.	This mitigation measure is infeasible for the reasons set forth above in CBD-44.
CBD-44	Analyze further technologies for OGVs that could be adopted to increase fuel savings and promote the use of alternative energy sources, such as fueling flexibility	This mitigation measure is infeasible for the reasons set forth above in CBD-44. Fueling flexibility is a common feature of most modern OGVs and it is expected that new vessel builds will include this feature to enable compliance with the latest IMO fuel standards.
CBD-45	Utilize environmentally differentiated Port fees based on OGV GHG Emissions.	This mitigation measure is infeasible for the reasons set forth above in DOJ-5 (user-fee schedule and incentives).
CBD-46	Evaluate the following HFC emissions mitigation measure: Require all ships using the Port to use alternative refrigerants.	The terminal operators only perform basic maintenance activities on refrigerated containers that are owned by multiple ocean carriers and not themselves. They cannot make decisions on behalf of the owner to make changes to the refrigeration system, such as replacing a refrigerant. Therefore, it is administratively infeasible to implement the requested refrigerant control measure. Reducing GHG refrigerants will be considered in the future under the POLB CC/GHG Plan and Final EIS/EIR Mitigation Measures AQ-28. Further facts supporting the conclusion that the suggested measure is infeasible are set forth on pages 10-417 to 10-418 of the Final EIS/EIR.

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CBD-46	Evaluate the following HFC emissions mitigation measure: Use environmentally differentiated fees for vessels that use alternative refrigerants.	This mitigation measure is infeasible for the reasons set forth above in DOJ-5 (user-fee schedule and incentives). Further facts supporting the conclusion that the suggested measure is infeasible are set forth on pages 10-417 to 10-418 of the Final EIS/EIR.
CBD-46	Evaluate the following HFC emissions mitigation measure: Establish a mitigation fund to assist ships in switching to alternative refrigerants.	This mitigation measure is infeasible for the reasons set forth above in DOJ-5 (user-fee schedule and incentives). Further facts supporting the conclusion that the suggested measure is infeasible are set forth on pages 10-417 to 10-418 of the Final EIS/EIR.
CBD-46	Evaluate the following HFC emissions mitigation measure: Require periodic leak inspections for ships, trucks, and trains that use HFC refrigerants.	This measure does not aply to the Project, as these activities are already carried out by the operators of these vehicles as part of routine maintenance. Further facts supporting the conclusion that the suggested measure is infeasible and inapplicable are set forth on pages 10-417 to 10-418 of the Final EIS/EIR.
CBD-46	Evaluate the following HFC emissions mitigation measure: Provide refrigerant servicing at the Port to help ensure HFCs are recovered during servicing.	This mitigation measure is infeasible for the reasons set forth above in CBD-46. Further facts supporting the conclusion that the suggested measure is infeasible are set forth on pages 10-417 to 10-418 of the Final EIS/EIR.
CBD-47	Give preferential contracting to OGVs with the cleanest GHG emissions.	The Port does not contract with third party carriers. Therefore the comment is not applicable to the Project. Further facts supporting the conclusion that th suggested measure is infeasible and inapplicable to the project are set forth on pages 10-417 to 10-418 of the Final EIS/EIR.
CBD-48 and CBD-58	In addition to the solar panels proposed in MM AQ-17, install panels at other locations within and outside the Port.	The Final EIS/EIR proposes new Mitigation Measure AQ-17a that requires the applicant to install carport-mounted PV solar panels over the employee and visitor parking areas to the maximum extent feasible. The Port's Renewable Energy Working Group is developing strategies to expand renewable energy a the Port. Criteria for emerging technologies will be established so that the technologies can be evaluated in a manner similar to the existing TAP. The Port's Renewable Energy Working Group recently finalized a Solar Energy Technology and Siting Study ("Solar Siting Study") that reviewed available solar technologies and the estimated solar energy generation potential for the entire Harbor District. The study determined that there are many sites within the Harbor District where solar energy generating technologies could be developed on building rooftops and at ground-level. Based on the Solar Siting Study, Port staff are developing a program to provide grant funding to Port tenants for the installation of solar panels on tenant-controlled facilities. To partially address the cumulative GHG impacts of the Middle Harbor Project, the Port will require this Project to provide funding for the GHG Program in the amount of $5 million. This money will be used to pay for measures pursuant to the GHG Emission Reduction Program Guidelines, include, but are not limited to, generation of green power from renewable energy sources, ship electrification, goods movement efficiency measures, cool roofs to reduce building cooling loads and the urban heat island effect, building upgrades for operational efficiency, tree planting for biological sequestration of CO2, energy-saving lighting, and purchase of renewable energy certificates (RECs). Further facts supporting the conclusions that the solar power mitigation already imposed is the only feasible measures is set forth above in the discussion of DOJ-5, and in the Final EIS/EIR at pages 10-104, 10-105, and 10-418.
CBD-48	Commit to producing a specified amount of energy from the proposed solar panel system.	See CBD-48 above.

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CBD-49	In regard to MM AQ-10 (Truck Idling Reduction Measures), mandate specific idling restrictions, such as time limits for Cargo-Handling Equipment.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-22. Additionally, Assembly Bill 2650, codified as Health and Safety Code Section 40720, already requires shipping terminal operations to limit truck idling to no more than 30 minutes, as requested in the comment. The SCAQMD is charged with the enforcement this regulation. The terminal operator would be required to enforce this law as part of their general operations. For these reasons, imposing additional mitigation is not feasible.
CBD-49	In regard to MM AQ-10, include a 30-minute limit on truck turnaround time and establish further measures to assist in meeting the requirement.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-22. It is impractical to limit truck turnaround time to 30 minutes, since while the proposed appointment system would minimize this situation from occurring, disturbances to the cargo handling activities within the terminal could cause longer turnaround times. For these reasons it is not feasible to impose a 30 minute turnaround limitation.
CBD-49	In regard to MM AQ-10, provide plug-ins for trucks that must keep engines running for operational purposes.	The requested measure to minimize truck idling on site through a plug-in system is impractical and infeasible, as trucks would not stay in one location long enough to take advantage of this measure and it is in direct conflict with gate operations.
CBD-49	In regard to MM AQ-10, provide climate controlled comfort stations for drivers who would otherwise idle their trucks to operate the air conditioner or heater.	The requested measure to minimize truck idling on site are impractical, as trucks would not stay in one location long enough to take advantage of this measure and it is in direct conflict with gate operations.
CBD-49	In regard to MM AQ-10, provide mandatory logistics software as part of the tracking system to increase efficiency and ensure full truck loads.	Final EIS/EIR Mitigation AQ-10 includes a requirement to implement such a system.
CBD-50	Commit to using recycled materials whenever possible in the construction phases of the Project.	Section 1.7.3 of the Draft EIS/EIR identified that Project construction proposes the beneficial reuse of construction-generated materials.
CBD-50	Commit to using recycled materials whenever possible during Project operations.	Draft EIS/EIR Mitigation Measure AQ-18 includes a requirement to use recycled materials in the Project terminal buildings.
CBD-51	Implement OGV fleet monitoring of hull efficiency.	The requested measure is already practiced by shippers worldwide, as they are aware of the benefits they provide to fuel savings. These measures also are promoted by the IMO (IMO 2008). Therefore, is it unnecessary to require these measures as specific mitigations in the Final EIS/EIR or the Project terminal lease agreement, as they are currently part of routine operational procedures for shipping activities and they cannot be effectively enforced by the Port or terminal operator.
CBD-51	Require the use of low-resistance OGV hull paint.	This mitigation measure is infeasible for the reasons set forth above in CBD-51 above.
CBD-51	Require OGV hull cleaning when appropriate.	This mitigation measure is infeasible for the reasons set forth above in CBD-51 above.
CBD-52	In regard to MM AQ-19 (Tree Planting), expand beyond to Port complex and enhance the Long Beach Urban Forest.	See DOJ-5. The Port participates in the City of Long Beach's Urban Forest Master Plan.
CBD-53	Include a mitigation measure that requires a cold-ironing staging area for tugs that service the Project terminal so they can plug into shoreside power when not in use within one year of project approval.	Neither the Port or tenant contract directly with tug assist operators. When tugboats complete OGV assist activities at the Project berths, they either return to their home berth or transit to another assist operation. Tugboats are rarely if ever "not in use" at the Project berths and therefore it is impractical for these vessels to use shore-side power at the Project berths. However, tugboat operators that home port within the SPBPs are considering the use of cold-ironing at their home berths, per CAAP measure HC1. Moreover, it has not been demonstrated that an electric tug could perform the assist operations needed by Project OGV. Therefore, this technology is currently infeasible.
CBD-54	Optimize dock cranes to fully utilize regenerative breaking power.	The Final EIS/EIR includes a new Mitigation Measure AQ-27, electrical regenerative systems on dock cranes, which requires the terminal operator to have these systems on all Project dock cranes in Project year 1.

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CBD-54	Electrify cargo-handling equipment, at least partially, such as RTGs.	Final EIS/EIR Mitigation AQ-7a proposes the replacement of all Project diesel-powered RTGs with electric-powered RMGs by 2020. This measure also requires each RMG to include regenerative drive systems. However, electrification of other CHE is deemed economically infeasible at this time for the reasons set forth above in SCAQMD-19 and CBD-43.
CBD-55	Commit to electrifying as many yard hostlers as possible	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-19
CBD-55	Commit to electrifying as many drayage trucks as possible	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-19
CBD-56	Commit to exploring efficiency and design improvements to containers, such as (1) reduced loads and increased efficiency for ships, trucks, and trains that carry containers; (2) reduced loads and increased efficiency for cargo handling equipment at ports, rail yards, and warehouses; (3) reduced emissions of climate-changing refrigerant compounds and improved efficiency in refrigeration; (4) improved facility of security scanning and related logistical benefits; (5) improved ease of recycling or non-container reuse to reduce the waste caused by shipping and storing empty containers due to trade imbalance; and (6) fewer trips necessary to carry the same amount of freight because of reduced tire weights.	Container weights, structures, and refrigeration systems are designed to industry standards. The Port is very supportive of a redesign of containers to reduce the energy needed to transport, handle, and refrigerate them. However, neither the Port nor the terminal operators are in the business of designing or manufacturing containers and requiring new container design on a project-specific basis is infeasible. Due to the fact that multiple ocean carriers make use of a single marine terminal, it would not be feasible to implement the requested measures outside of the industry standard process. For these reasons, the suggested measure is infeasible. With regard to the infeasibility of implementing the requested refrigerant control measures on refrigerated containers handled at the Project terminal, see CBD-46.
CBD-57	Reduce the weight of other equipment at container terminals to save fuel or energy and reduce GHGs. For example, super post-Panamax cranes can weigh 1,400 metric tons; reducing this unnecessary weight would cut energy use.	Other equipment at the Project terminal are designed to industry standards. In addition, since most of the crane weight is associated with the support structure, it is unclear how weight reductions would reduce GHG emissions on an ongoing basis. For these reasons, the suggested measures are not feasible for this project.
CBD-59	Look for GHG mitigation opportunities at the Project site and the Port in general.	Final EIS/EIR Mitigations AQ-2 through AQ-29 represent all feasible means to minimize Project GHG emissions. No other feasible measures have been suggested during the environmental review process for this project. The Port staff and consultants have undertaken an exhaustive search and have been unable to identify any additional feasible measures to further reduce GHG emissions.
CBD-59	Examine the ability to achieve addition GHG reductions through programs in the community, such as GHG offset programs.	Final EIS/EIR Mitigation AQ-24, Off-site GHG Mitigation, requires the terminal tenant to use green commodities, such as those available from the California Climate Action Registry's Climate Action Reserve, to offset carbon emissions from electrical consumption at the terminal. This commitment includes a not to exceed annual cap on expenditure for purchased offsets based on a percentage of electricity costs. In addition, To partially address the cumulative GHG impacts of the Middle Harbor Project, the Port will require this Project to provide funding for the GHG Program in the amount of $5 million. This money will be used to pay for measures pursuant to the GHG Emission Reduction Program Guidelines, include, but are not limited to, generation of green power from renewable energy sources, ship electrification, goods movement efficiency measures, cool roofs to reduce building cooling loads and the urban heat island effect, building upgrades for operational efficiency, tree planting for biological sequestration of CO2, energy-saving lighting, and purchase of renewable energy certificates (RECs).

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CBD-61	In regard to MM AQ-2, implement proposed PM emission control strategies to non-road construction equipment as rapidly as possible and set earlier deadlines for implementation.	The implementation schedules for PM mitigations proposed in the Final EIS/EIR are already very aggressive and further acceleration of these schedules would make their implementation less feasible. Additional facts supporting the infeasibility of accelerating Mitigation Measures AQ-2, AQ-3, and AQ-5, are set forth in Chapter 10 of the Final EIS/EIR, in the the responses to comments USEPA(B)-18, USEPA(B)-19 and CBD-10.
CBD-61	In regard to MM AQ-3, implement proposed PM emission control strategies to construction tug boats as rapidly as possible and set earlier deadlines for implementation.	This mitigation measure is infeasible for the reasons set forth above in USEPA(B)-19 and CBD-61.
CBD-61	In regard to MM AQ-7, implement proposed PM emission control strategies to container handling equipment as rapidly as possible and set earlier deadlines for implementation.	This mitigation measure is infeasible for the reasons set forth above in CBD-61.
CBD-61	In regard to MM AQ-8, implement proposed PM emission control strategies to heavy-duty trucks as rapidly as possible and set earlier deadlines for implementation.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-20 and CBD-61.
CBD-62	Develop a monitoring system that detects high levels of black carbon emitted from all varieties of diesel engines. A potential monitoring device is the AE90 aethalometer, which has a tailpipe monitoring extension. Perform periodic measurements of vehicles. Create a mitigation fund to help vehicle operators to rapidly and effectively mitigate these emissions.	The POLB and POLA have done limited monitoring for black carbon in their ambient air quality monitoring programs through the analysis of filter-related particulate monitors. At both POLB monitoring stations, the POLB collects 24-hour average PM2.5 samples on filter-based particulate monitors. The particulate filters are archived and can be analyzed in the future if need be. There are also real-time instruments that measure black carbon (aethalometers) that have been deployed at several of the Ports area monitoring stations by the SCAQMD. These data are available for review by the public. Therefore, no further monitoring of this compound is deemed necessary. In the past, the Port has conducted source testing to gain a better understanding of source emission rates from Port operations. Source testing will be an ongoing research topic of the TAP.
CBD-63	In regard to MM AQ-9 (Clean Rail yard Standards), this mitigation measure should create an explicit and accelerated timetable by which new and existing locomotives must reach Tier 3 and Tier 4 standards.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-6 and CBD-61.
CBD-64	To reduce black carbon emissions from OGVs, require OGVs to install similar PM emission reduction strategies and implementation schedules as other diesel engines in use at the Port, such as diesel particulate filters.	Regarding the infeasibility of implementing diesel emissions reduction measures on OGV engines, see SCAQMD-8. Implementation of the truck and locomotive diesel emission reduction strategies identified in the comment to OGVs would be more infeasible than the ones suggested in SCAQMD-8. This is the case, as OGV engines are substantially larger and engineered much differently than land-based vehicle engines. Additional facts supporting the infeasibility of the suggested measure are set forth in the Final EIS/EIR, Chapter 10, in response to comments SCAQMD-23, SCQQMD-24 and CBD-10.
Coalition for a Safe Environment (CSE) - Letters A and B		

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CSE (A)-4	Finance the conversion of the Alameda Corridor diesel-powered locomotive rail system used by the Project with a zero emissions American MagLev Transportation Technology.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-27.
CSE (A)-6	Maximize the use of the Alameda Corridor in lieu of diesel-powered trucks.	Refer to SCAQMD-7. Non-intermodal cargo that "must travel long distance" cannot be transported by rail if there are no rail facilities in proximity to the destination of the cargo or it does not make economic sense. Cargo owners determine where their cargo goes, as for example, cargo may first be transloaded before it is transported by rail. Additional facts supporting the conclusion that it not feasible to mandate higher use of the Alamenda Corridor are set forth in the Final EIS/EIR at page 10-455 as well as the response to SCAQMD-7 at page 10-152.
CSE (A)-6	Conduct a Middle Harbor Redevelopment Project Study to determine the amount of containers that must be delivered by truck due to local delivery requirements vs. those that must travel long distances and out of the state. Those that must travel long distance will be required to use the Alameda Corridor.	Refer to CSE (A)-6 above. Conducting the requested study would not provide the information that could be used to increase the Project use of the Alamed Corridor.
CSE (A)-7	Require all Project OGVs to use shoreside power.	Refer to SCAQMD-17.
CSE (A)-7	Use the Advanced Maritime Emissions Control Systems (AMECS) for all OGVs that cannot cold-iron.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-17. Only a few years would transpire between initiation of the Project and the conversion of all Project berths to cold-iron readiness. Therefore, the cost to purchase and operate the AMECS compared to the amount of OGV emissions controlled by this technology during this condition would be extremely high and therefore this application would be economically infeasible.
CSE (A)-7	Use the AMECS for all OGVs that have to wait outside the breakwater.	Since Project OGVs would rarely wait outside the breakwater, the cost to purchase and operate the AMECS compared to the amount of OGV emissions controlled by this technology during this condition would be extremely high and therefore this application would be economically infeasible.
CSE (A)-9	Establish a Public Health Care Mitigation Trust Fund to fund local community clinics in West Long Beach and East Wilmington and the LA County Harbor General Hospital. Charge a public health care tariff of $2.50 per project container for the determined baseline and $5.00 per container over the current baseline.	To reduce cumulative air quality impacts of the Project, Final EIS/EIR Mitigation AQ-29 requires the Port to fund the Schools and Related Sites and Healthcare and Seniors Facility Programs Guidelines for the Port of Long Beach Grant Programs.
CSE (A)-9	Provide air purification and sound proofing systems in local public schools, child care centers, public libraries, public recreational facilities, convalescent care facilities, senior citizen housing and centers, and residences.	See CSE (A)-9 above.

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CSE (B)-3	Build a zero emissions American MagLev Technology, Inc. MagLev Train on-dock and adjacent to the Project shipside docks and connect to the Union Pacific ICTF. Connect this system directly to the Alameda Corridor.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-27.
CSE (B)-3	Build a new supporting on-port property Intermodal Facility at Pier B at the Toyota Logistics Services Terminal by constructing a 4-5 story import car parking structure, which would open up sufficient land for a new zero emissions electric Mag Lev Train Intermodal Facility and therefore not require the expansion of the Union Pacific Railroad ICTF Terminal or BNSF Railroad Southern California International Gateway (SCIG) Terminal.	Refer to SCAQMD-27. It is infeasible and impractical to build a permanent parking structure on Pier B, which is not part of the Project, for housing an infeasible MagLev facility in connection with the proposed ICTF by UP or SCIG by BNSF. The cost per parking space for a parking structure ranges from $20,000 to $25,000. Constructing a 4 or 5-story parking structure on Pier B would add significant cost to the current tenant (Toyota) that may yield no financial benefit. If a permanent parking structure is constructed, it could significantly constrain the future use on this terminal. The proposed ICTF by Union Pacific and SCIG by BNSF are independent of the Project. CEQA provides for the impositions of mitigation measures and other Project conditions that provide a reasonable relationship to the significant impacts that would occur if the Project is approved. The Port is not required to go beyond the scope of the impacts created by the Project in formulating mitigations.
CSE (B)-3	Purchase and incorporate a new IT Container Tracking Software/Hardware Technology to reduce identification, assignment, staging, and cue time. Require tenants to use a gar code, transmitter, GPS or other technologies to quickly identify and transport containers and cargo to destination.	Final EIS/EIR Mitigation AQ-10 includes a requirement to implement a container tracking system as requested in this comment. The Port is encouraging efforts to minimize truck trips and associated on-terminal idling through programs like the PierPass and virtual container yards.
CSE (B)-3	Purchase and incorporate Advanced Cleanup Technologies, Inc. - Advanced Maritime Emissions Control Systems (AMEC's) at all terminals so ships that are not retrofitted for electric shore-power can be connected.	This mitigation measure is infeasible for the reasons set forth above in CSE (A)-7.
CSE (B)-3	Purchase and incorporate Advanced Cleanup Technologies, Inc. - Advanced Locomotive Emissions Control Systems at the Project rail yard if there are no electric or MagLev Trains.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-27.
CSE (B)-3	Purchase and incorporate a Vycon Electric Regen System on all Project RTG Cranes.	Final EIS/EIR Mitigation AQ-7a requires the replacement of all Project diesel-powered RTGs with electric-powered RMGs by 2020, or sooner, if feasible. This measure also requires each RMG to include regenerative drive systems. Additional facts supporting the conclusion that the suggested measure is infeasible are set forth in the Final EIS/EIR at pages 10-479 to 10-480.
CSE (B)-3	Purchase and incorporate Balcon Corp. fleet of electric truck for local deliveries.	See SCAQMD-20. Additional facts supporting the conclusion that the suggested measure is infeasible are set forth in the Final EIS/EIR at pages 10-479 to 10-480.

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Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CSE (B)-3	Purchase and incorporate Clean Air Logix - Witmar Dual Multi-Voltage Cold Ironing System until electric shore-power is available.	See CSE (A)-7. The Port is investing a significant amount of capital in the cold-ironing technology to achieve the greatest emission reductions in the long-term. Due to economic considerations, it would not be cost-effective to implement duplicative technologies to reduce hoteling emissions. Additional facts supporting the conclusion that the suggested measure is infeasible are set forth in the Final EIS/EIR at pages 10-479 to 10-480.
CSE (B)-3	Construct the Project over a longer time period to reduce the daily intensity of significant air quality and traffic impacts.	Performance of an efficient construction process requires many of these activities to occur either simultaneously or immediately after each other. As a result, extending the construction schedule would be logistically and economically infeasible. Additional facts supporting the conclusion that the suggeste measure is infeasible are set forth in the Final EIS/EIR at pages 10-479 to 10-480.
CSE (B)-3	Fund comprehensive Public Health Surveys every 5 years to validate that the Project air quality mitigations are improving public health.	Performing the requested survey to determine the effects of the Project mitigations on public health would provide inconclusive and posibbly misleading results, due to the variety of other pathways that affect the health of residents in the area. Therefore, it is deemed inappropriate to perform the requested survey. Additional facts supporting the conclusion that the suggested measure is infeasible and unnecessary are set forth in the Final EIS/EIR at pages 10-479 to 10-480.
CSE (B)-3	Donate funds to local community health clinics and hospitals to provide local resident health care.	To reduce cumulative air quality impacts of the Project, Final EIS/EIR Mitigation AQ-29 requires the Port to fund the Schools and Related Sites and Healthcare and Seniors Facility Programs Guidelines for the Port of Long Beach Grant Programs.
CSE (B)-3	Stop or limit construction on high smog alert days - It is not feasible to stop all construction activities on smog alert days. Make some reference to all the requirements that will be placed on the construction equipment.	Final EIS/EIR Mitigation 2a has been augmented to require Project construction to curtail on days predicted by the SCAQMD to experience Stage 1 ozone episodes.
CSE (B)-3	Finance grants to environmental justice and public health organizations to provide public education to help minimize public health impacts from air pollution, traffic congestion, etc.	To reduce cumulative air quality impacts of the Project, Final EIS/EIR Mitigation AQ-29 requires the Port to fund the Schools and Related Sites and Healthcare and Seniors Facility Programs Guidelines for the Port of Long Beach Grant Programs.
CSE (B)-3	Incorporate renewable and sustainable Solar and Wind Energy Technology.	Regarding the request to provide additional renewable electrical generation beyond what is proposed in Mitigation Measure AQ-17, please see the response to comment DOJ-5. The Final EIS/EIR proposes new Mitigation Measure AQ-17a that requires the applicant to install carport-mounted PV solar panels over the employee and visitor parking areas to the maximum extent feasible. Regarding the infeasibility of implementing wind energy technologies, see DOJ-5.
CSE (B)-8	Incorporate solar panel array networks and vertical axis wind turbines within areas of the Port, along Port perimeters, breakwater, and roof tops.	See CSE (B)-3.
CSE (B)-10	Establish a POLB Port Community Advisory Committee composed of Long Beach residents, homeowner associations, non-profit environmental justice, environmental, community, public health advocacy, and academic organizations.	See CSE(B)-6 for discussion regarding establishment of a POLB Port Community Advisory Committee.

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
CSE (B)-13	Establish a Public Health Care Mitigation Trust Fund to fund local community clinics and hospitals in Long Beach, Wilmington, Carson, and along train and truck transportation corridors. Use these funds to pay for health care, funeral, job re-training, lost income, and special learning disability assistance expenses. Charge a public health care tariff of $10 per project TEU for the Project current baseline and $15 per TEU over the current baseline to mitigate future growth, and $100 per ton bulk cargo.	To reduce cumulative air quality impacts of the Project, Final EIS/EIR Mitigation AQ-29 requires the Port to fund the Schools and Related Sites and Healthcare and Seniors Facility Programs Guidelines for the Port of Long Beach Grant Programs.
CSE (B)-15	Establish a permanent air monitoring network at all major sensitive receptor locations.	The Port has maintained air monitoring stations at inner and outer harbor locations since May 2005. This inner harbor station collects data that are representative of the community in West Long Beach. Due to its proximity to Port operations and emissions, air quality levels at this station generally would be equal to or greater than those experienced at major sensitive receptors locations within the POLB or Wilmington. It would be economically infeasible to locate permanent monitoring stations at all major sensitive receptor locations.
CSE (B)-22	Expand out to 100 nautical miles from Point Fermin the Vessel Speed Reduction Program requirement of 12 knots.	To minimize GHG emissions from the transit of Project OGVs, Final EIS/EIR Mitigation AQ-12 limits the speed of Project OGVs to 12 knots between the Precautionary Area and the boundary of California State Waters. This would extend the Project VSRP to a point greater than 100 nautical miles from Point Fermin for the primary Project shipping route (northern).
CSE (B)-23	In regard to MM AQ-6 (Low-sulfur Fuels in OGVs), lower the sulfur requirement to 0.1%.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-18.
CSE (B)-26	Have the POLB and Union Pacific/Burlington Northern Santa Fe Railroads purchase the Advanced Cleanup Technologies, Inc. - Advanced Locomotive Emissions Control System (ALECS) for use at all POLB terminal on-dock, near dock, and off-Port rail yard facilities used by Project locomotives.	Use of the ALECS on locomotives in the Project rail yard would only be applicable to locomotives that remain stationary for extend periods of time. Locomotives would only use the Project rail yard for switching activities and for the most part would be in constant motion. Locomotives would not remain stationary for activities such as (1) waiting for dispatch or (2) undergoing maintenance. In addition, all PHL locomotives have 15-minute idle-limiting devices, which would further preclude the need for such a technology. Therefore, this measure is infeasible. Mandating the use of the ALECS on non-Project rail yards is infeasible, as these facilities would operate independent of the Project terminal lease agreement and are not subject to the control of either the Port or the terminal operator. Additional facts supporting the conclusion that the suggested measure is infeasible are set forth in the Final EIS/EIR, Chapter 10, the responses to comments SCAQMD-27 and CSE(B)-3.
CSE (B)-32	Sponsor and finance a comprehensive Long Beach, Wilmington, Carson, and San Pedro Port Harbor Community Public Health Survey, an Epidemiology Study, and a Morbidity Study to validate the Project health risk assessment and to establish a public health baseline. Contract with UCLA and USC for these studies.	The Project HRA used methods approved by the OEHHA, ARB, and the SCAQMD. The HRA protocols from these agencies do not require the types of studies that the comment requests to validate HRA results. Performing the requested survey and studies to validate the Project HRA would provide inconclusive results, due to the variety of exposure assumptions for residential areas. The precision of the results of the HRA is adequate for NEPA/CEQA purposes.
Public Hearing Transcript (A)		

Air Quality Mitigations Requested in Public Comments on the Middle Harbor Project DEIR - Feasibility Test

Comment #	Requested Mitigation Measure	Factal Findings regarding Feasibility of Suggested Mititgation Measures
United States Environmental Protection Agency (USEPA (B))		
PT(A)-29	Adopt MagLev rail technology.	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-27
PT(A)-31	POLB should mandate that all port terminals and the Middle Harbor Redevelopment Project maximize the use of the Alameda Corridor in lieu of trucks.	This mitigation measure is infeasible for the reasons set forth above in CSE (A)-6
PT(A)-33	Mandate that all of the Middle Harbor and shipping fleet use the shore-power system.	Refer to SCAQMD-17.
Public Hearing Transcript (b)		
PT(B)-17	Use alternative-fueled trucks	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-20.
PT(B)-47	Employ the cleanest locomotive technology for line haul locomotives, not just what the EPA requires	This mitigation measure is infeasible for the reasons set forth above in SCAQMD-6.

Middle Harbor Redevelopment Project

Mitigation Monitoring and Reporting Program

Prepared for

The Port of Long Beach
925 Harbor Plaza
Long Beach, CA 90802

Prepared by

SAIC
From Science to Solutions

Science Applications International Corporation
5464 Carpinteria Avenue, Suite K
Carpinteria, CA 93013

April 2009

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MIDDLE HARBOR REDEVELOPMENT PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

This Mitigation Monitoring and Reporting Program (MMRP) fulfills the requirements of California Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097. As stated in Public Resources Code Section 21081.6(a)(1):

> *The public agency shall adopt a reporting or monitoring program for the changes made to the project, or conditions of approval, adopted in order to mitigate or avoid significant effects on the environment.*

The Port of Long Beach (POLB or Port) is the lead agency for the proposed Middle Harbor Redevelopment Project (Project) under CEQA and, therefore, responsible for administrating and implementing the MMRP. The U.S. Army Corps of Engineers (USACE) is the federal lead agency for the proposed Project under the National Environmental Policy Act (NEPA), and responsible for ensuring implementation of mitigation measures within areas under federal jurisdiction.

The primary purpose of the MMRP is to ensure that the mitigation measures identified in the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) are implemented to reduce or avoid identified environmental effects and to appropriately assign the mitigation responsibilities for implementing the proposed Project. The mitigation measures listed in the MMRP will be adopted by the POLB Board of Harbor Commissioners as a condition of the primary Project approval.

PROJECT OVERVIEW

The USACE and the City of Long Beach, acting by and through its Board of Harbor Commissioners, is proposing to redevelop, expand, and modernize existing terminal facilities and waterfront property within the Port to accommodate a portion of the forecasted increases in containerized cargo throughput volumes.

The Project would consolidate and expand the existing 294-acre Project site, consisting of the Pier E terminal (170 acres), the Pier F terminal (101 acres), 18 acres of underutilized land north of the Gerald Desmond Bridge and Ocean Boulevard, and the Berth E24 subsided oil area (five acres), into a single, modern, 345-acre container terminal. The Project would include a berth depth of -55 feet mean lower low water level (MLLW) to accommodate the current and expected future generations of cargo vessels and to support modernized operations. The Project would incorporate environmental practices and equipment pursuant to the Port's Green Port Policy and the San Pedro Bay Ports (SPBP) Clean Air Action Plan (CAAP).

The Project would rehabilitate old terminal facilities; provide deeper water at berths; improve and expand rail infrastructure; create new land; modernize marine terminal facilities; and implement environmental controls, including the Port's Green Port Policy and CAAP. The Project would include construction of a 66kV substation (Pier E Substation) to provide power to support Middle Harbor container terminal operations, including supplying shore-to-ship power, and future power needs for other Port facilities. The existing 294-acre Project site would be increased to 345 acres, by creating approximately 54.6 net acres of new land (the net acreage estimate takes into account proposed fill areas, new wharf construction to create three deep water berths with -55 feet MLLW depths, and the demolition of existing wharves and land that would not be replaced).

Project construction would occur in two phases, the first phase in five stages and the second phase in four stages, and is scheduled to be completed in 2019 (i.e., Project build-out year); however, the proposed Middle Harbor container terminal is forecasted to be fully optimized at maximum capacity by 2025. Specific construction elements of the Project, as well as operation of the Project, are described below.

Dredging, excavation, and fill would be required during a number of the construction stages. Approximately 10.7 acres of existing land would be cut away and converted to water area. The Project would generate approximately 680,000 cubic yards (cy) of dredged material and approximately 1,290,000 cy of excavated material. All dredged and excavated materials generated by the Project would be reused onsite as fill and/or surcharge (surcharge is soil/fill material that is placed on top of the fill area to promote settling and compression of the new fill area to the desired density). Approximately 65.3 acres of water area would be filled. Import fill would be required in addition to

Project generated materials to create the landfill. Approximately 6,730,000 cy of additional imported fill material from sources inside (including material dredged/excavated for the Project) and outside the Harbor District would also be required. The net result of these construction activities would be the creation of approximately 54.6 acres of new land which, when added to the existing Project site, would total approximately 345 acres of land.

When completed, the Project would consist of one consolidated container terminal that would load and unload containerized cargo to and from marine vessels.

When optimized at maximum throughput capacity (by year 2025), the terminal would accommodate approximately 3,320,000 twenty-foot equivalent units (TEUs) per year. The proposed expanded Pier F intermodal railyard would handle approximately 26.3 percent (873,160 TEUs per year) of the terminal's expected throughput.

Construction

Construction – Phase 1

Phase 1 construction would redevelop the existing Piers D/E container terminal area in five stages. It is anticipated that Phase 1 construction would begin in 2009 and continue until 2017.

Stage 1: Stage 1 construction activities would widen and deepen Slip 3 by removing portions of Pier D (Berths D29-D31) and Pier E (Berths E23-E24); include demolition of existing wharf structures, backland areas, and existing facilities; and dredge portions of Slip 3 to elevation -55 MLLW. Approximately four acres on the southwest portion of Pier E (existing subsided Tideland oil area) would be raised approximately four feet to elevation +15 MLLW, and approximately 5.4 acres of new land would be created to extend the Berth E24 wharf. Stage 1 activities would also include filling the 25.6-acre Slip 1 and surcharging 10 acres at the northern end of the fill, realigning the mainline track at Ocean Boulevard/Harbor Scenic Drive, constructing the Pier F storage yard and tracks, and constructing a 66kV electrical substation (Pier E Substation) north of Ocean Boulevard. Stage 1 would begin in 2009 and continue through 2010, assuming all permits are secured.

Stage 2: Stage 2 construction activities would include development of Slip 1 for container yard use, and redevelopment of Berth E25. Stage 2 would begin in approximately 2010 and continue through 2012.

Stage 3: Stage 3 construction activities would include wharf development at Berth E26 and Berth E27. Stage 3 would begin in 2012 and continue through 2014.

Stage 4: Stage 4 construction activities would include redevelopment of the Seaside Railyard area on Pier E and construction of new terminal buildings. Stage 4 would begin in 2015 and continue through 2017.

Stage 5: Stage 5 construction activities would redevelop 18 acres north of the Gerald Desmond Bridge and Ocean Boulevard. Stage 5 would begin in 2015 and continue through 2017.

Construction – Phase 2

Proposed Phase 2 improvements would fill the East Basin to connect the existing Pier E terminal to the existing Pier F container terminal, develop this newly created land for container terminal use, and extend the wharf constructed in Phase 1 by 1,350 linear feet (LF).

It is anticipated that Phase 2 construction activities would begin in 2011 and continue through 2019, and would consist of four stages.

Stage 1: Stage 1 construction yard activities would involve developing the remaining 12 acres of the Slip 1 fill as container yard, filling in 12 acres of the East Basin area, and constructing an expanded intermodal railyard. This stage would begin in 2011 and continue through 2014.

Stage 2: Stage 2 construction activities would demolish the remaining Berths F6-F10 wharf structures, fill the remaining 21 acres of the East Basin between Piers E and F, and construct a new connecting wharf (Berth E23). Stage 2 would begin in 2014 and continue through 2018.

Stage 3: Stage 3 construction activities would redevelop the existing Pier F container yard. Stage 3 would begin in 2016 and continue through 2018.

Stage 4: Stage 4 construction would build a tail track and a loop road around the track on Pier F. Stage 4 would begin in 2018.

Operations

When completed, the Project would consist of one consolidated container terminal that would load

and offload containerized cargo from marine vessels.

Terminal Security

Containers would be screened and protected by a number of safety and security features including, but not necessarily limited to:

Radiation Portal Monitors (RPM) — The Project site would incorporate RPM equipment at the exit gate area for the initial automated inspection of the contents of containers prior to exiting the marine terminal.

Customs Radiation Inspection Facility — A secondary RPM facility inside the marine terminal would be installed and used for detailed inspection of container contents where radiation was detected in the initial RPM inspection. U.S. Customs Border Patrol would operate this facility and provide the inspection service.

Project Site Fencing — Existing fencing would be modified to provide adequate security for the marine terminal as required by U.S. Customs Border Patrol.

Terminal Operations

At full operation (anticipated in approximately year 2025), the proposed container terminal would operate approximately 21 hours per day, 365 days per year, and would accommodate approximately 3,320,000 TEUs per year. The new combined terminal would operate under a new lease between the terminal operator and the Port that would include environmental controls imposed pursuant to the Port's Green Port Policy and the CAAP. This EIS/EIR assumes the proposed Project includes participation in the POLB/POLA Vessel Speed Reduction Program (VSRP) (CAAP measure OGV1) and compliance with applicable U.S. Environmental Protection Agency (EPA), California Air Resource Board (ARB), and South Coast Air Quality Management District (SCAQMD) regulations.

Middle Harbor container terminal operations would include stevedoring (loading/unloading ships), container storage activities, intermodal railyard operations, and trucking to offsite locations such as warehouses and railyards. Once containers have been off-loaded from the ship or received through the gates on trucks and trains, they would be stored and moved around the container terminal storage yard using one of three systems: 1) a grounded or "stacked" system (where containers are stacked); 2) a chassis or "wheeled" system (where the containers are stored on a single, wheeled chassis and are not stacked); or 3) a combination grounded/chassis system.

Electric gantry cranes would load and unload cargo containers between vessels and the terminal. Yard tractors would transport the cargo containers to and from the container storage areas within the terminal and to and from railcars at the intermodal railyard. Offloaded (import) containers would either be stored temporarily in the container terminal storage yard or immediately shipped out of the terminal via truck or rail. Loaded (export) cargo would be imported to the Middle Harbor container terminal by truck or rail; export cargo shipped via rail would either arrive directly at the proposed expanded Pier F intermodal railyard or would arrive at another local railyard and then be trucked to the terminal gate for receiving. Export cargo containers would be transferred by "toppick" or Rubber Tired Gantry (RTG) cranes from the rail cars to chassis hauled by yard tractors, and the tractors would then transport the cargo to the container terminal storage yard where the cargo would be lifted to grounded locations by toppicks or RTG cranes.

Vessel Operations

The proposed Middle Harbor container terminal operations would result in a maximum of approximately 364 vessel calls per year. All vessel unloading/loading activities associated with the Project would occur at proposed Berths E23-E27 and F6-F10. Due to scheduling constraints and U.S. Coast Guard (USCG) Captain of the Port (COTP) regulations, the schedules used to estimate future berth activity/capacity predict that a maximum of four vessels could be berthed at one time.

Vessels accessing the Middle Harbor container terminal would be required to use a Port Pilot for transit in and out of San Pedro Bay (except for U.S. vessels that have a federally licensed pilot onboard), and have tug assistance within the POLB harbor. Vessels calling at the new terminal would be required to slow to 12 knots within 40 nautical miles (nm) of Point Fermin. Once at berth, the off-loading/loading process begins; the vessels typically "hotel" or stay at the terminal for approximately 36 hours (1.5 days), but the largest ships may stay as long as three days. While at berth, all vessels would be required to utilize shore-to-ship power to provide electrical power for vessel functions. In addition, all vessels calling at

the Middle Harbor container terminal would be required to use 0.2 percent or lower sulfur Marine Gas Oil (MGO) fuel in auxiliary and main engines at berth and out to a distance of 40 nm from Point Fermin.

Truck Operations

Preliminary estimates indicate that the total number of truck trips to and from the Middle Harbor container terminal would increase from the 2005 baseline average of 6,528 trips per day to an average of approximately 10,112 trips per day in the year 2025 as a result of increased import and export of containerized cargo. At maximum terminal capacity in 2025, approximately 2,446,840 TEUs would be moved to and from the terminal via truck. About 10 percent of those truck movements would transport containers to and from off-dock and near-dock railyards. The remaining truck-hauled containers would be transported to and from warehouses and distribution centers in the Los Angeles Basin, southern California, and nearby western states. Middle Harbor container terminal operations include use of an automated appointment system that would enable trucks to reschedule their trips to avoid peak hour traffic and congestion.

Rail Operations

When the Project terminal is fully optimized at maximum throughput capacity in 2025, the railyard would operate approximately 21 hours per day, 365 days per year, and handle approximately 873,160 TEUs per year, which would represent approximately 26.3 percent of the terminal's expected throughput. Preliminary estimates indicate that annual train trips would increase from the 2005 baseline average of 138 trips per year to an average of approximately 2,098 trips per year at maximum capacity in 2025. Rail operations assume three line haul locomotives per train for each inbound/outbound trip and one switch locomotive in operation within the expanded Pier F intermodal railyard for each inbound/outbound trip. Intermodal export cargo would arrive either directly at the expanded Pier F intermodal railyard or at another local railyard (e.g., the Intermodal Container Transfer Facility [ICTF] in Carson, BNSF's yards at Hobart and City of Industry, or UP's East L.A. and Los Angeles Transportation Center [LATC] yards) and then be trucked to the terminal gate for receiving.

IMPACTS REQUIRING MITIGATION

Impacts of the proposed Project that require mitigation include:

- Emissions from construction activities that exceed SCAQMD emission significance thresholds;
- Offsite ambient air pollutant concentrations during construction that exceed a SCAQMD threshold of significance;
- Offsite impacts during operations that exceed SCAQMD ambient thresholds of significance for one-hour and annual NO;
- GHG emissions during construction and operation that would exceed the CEQA threshold;
- Substantial loss or alteration of marine habitat through filling (in Slip 1, for the Berth E24 extension, and in a portion of the East Basin) and excavation (widening Slip 1 and at Berth F201) for a net loss of 54.6 acres;
- Substantial effects on Essential Fish Habitat (EFH) and temporary disturbances to habitat for Fishery Management Plan (FMP) species;
- Short-term, temporary increases in auto and truck traffic at certain study area intersections during Project construction;
- Short-term impacts on highway locations in the study area during Project construction;
- Increases in auto and truck traffic at certain study intersections during operations;
- Impacts on highway locations in the study area during operations;
- Exacerbation of existing inadequate Long Beach Fire Department emergency response times during Project construction and operations;
- Increase in noise levels by more than three dBA at nearby sensitive receptors during Project construction (i.e., pile driving);

- Increase in noise levels such that the Long Beach Municipal Code (LBMC) maximum noise levels would be exceeded at two sensitive receptor sites (i.e., West Coast Long Beach Hotel and Long Beach Hilton Hotel) during Project construction;
- Potentially significant impacts to archaeological resources during ground disturbing activities; and
- Adverse impacts to historic architectural resources, including two 1953 Smoke Houses/Offices during Project construction.

CEQA GUIDELINES

CEQA Guidelines Section 15097 explains the requirements of Public Resources Code Section 21081.6(a) regarding mitigation monitoring and reporting. Mitigation is defined in CEQA Guidelines Section 15370 as a measure that:

- Avoids the impact altogether by not taking a certain action or parts of an action;
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment;
- Reduces or eliminates the impact over time by preservation and maintenance activities during the life of the project; and
- Compensates for the impacts by replacing or providing substitute resources or environments.

Mitigation measures provided in this MMRP were identified in Final EIS/EIR Chapter 3 (Environmental Setting and Project Impacts), as feasible and effective in mitigating Project-related environmental impacts.

POLB MMRP APPROACH

For each adopted mitigation measure, the MMRP identifies the following:

- Required action;
- When the action is required to be taken;
- Agency responsible for action;
- Agency responsible for tracking;
- Submittal date;
- Person verifying implementation;
- Attachments required to verify implementation; and
- Comments made by verifying personnel.

The POLB maintains the primary responsibility for ensuring that the mitigation measures are implemented. When Project work is undertaken by the Port's contractors, the pertinent mitigation measures will be included in the terms and conditions of the contracts. Port construction inspectors will undertake regular inspections of the job site to ensure that contractors are implementing the mitigation measures and complying with their contract. The Port's project manager will be responsible for ensuring that mitigation measures which are the responsibility of the Port are carried out.

MITIGATION MONITORING AND REPORTING PROGRAM PROCEDURES

The POLB's designated environmental monitor will track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to remedy problems. Specific responsibilities of the POLB are listed below.

- Coordination of all mitigation monitoring activities;
- Management of the preparation, approval, and filing of monitoring or permit compliance reports;
- Maintenance of records concerning the status of all approved mitigation measures;
- Quality control assurance of field monitoring personnel;
- Coordination with other agencies regarding compliance with mitigation or permit requirements;
- Reviewing and recommending acceptance and certification of implementation documentation; and
- Acting as a contact for interested parties or surrounding property owners who wish to register complaints; and
- Documenting observations of unsafe conditions or environmental violations, and developing any necessary corrective actions.

MITIGATION AND MONITORING REPORTING PLAN CHECKLIST

The MMRP is organized in a checklist format, with each mitigation measure on a separate page. A summary of all mitigation measures is provided on the cover page to the checklist. The agency responsible for taking the action (POLB Real Estate and/or POLB Engineering Division) will submit the appropriate attachment to the agency responsible for tracking the action (POLB Planning Division). By his or her signature, the POLB Planning Division representative verifies that the mitigation measure has been implemented.

MIDDLE HARBOR REDEVELOPMENT PROJECT
MITIGATION MONITORING AND REPORT PLAN CHECKLIST

Summary of Mitigation Measures
AIR QUALITY
Mitigation Measure AQ-1: Additional Fugitive Dust Controls. The Project construction contractor shall develop and implement dust control methods that shall achieve this control level in a SCAQMD Rule 403 dust control plan; and designate personnel to monitor the dust control program and order increased watering, as necessary, to ensure a 90 percent control level.
Mitigation Measure AQ-2: Emission Controls for Non-road Construction Equipment. Construction equipment shall meet the EPA Tier 4 non-road engine standards, where feasible. The Tier 4 standards become available starting in year 2011. Until Tier 4 equipment is feasible, Tier 3 construction equipment shall be required.
Mitigation Measure AQ-2a: Best Management Practices (BMPs) for Construction Equipment. The construction contractor shall implement additional BMPs on construction equipment, where feasible, to further reduce emissions from emissions sources.
Mitigation Measure AQ-2b: Construction Traffic Emission Reductions. The construction contractor shall implement measures to further reduce emissions from construction traffic.
Mitigation Measure AQ-3: Emission Controls for Construction Tugboats. All tugboats used in construction shall meet the EPA Tier 2 marine engine standards, and if feasible use construction tugs that meet the EPA Tier 3 marine engine standards.
Mitigation Measure AQ-3a: Construction Tugboat Home Fleeting. The construction contractor shall require all construction tugboats that home fleet in the SPBP to (a) shut down their main engines and (b) refrain from using auxiliary engines at dock or to use electrical shore power.
Mitigation Measure AQ-4: Expanded VSRP. All OGV that call at the Middle Harbor container terminal shall comply with the expanded VSRP of 12 knots from 40 nm from Point Fermin to the Precautionary Area.
Mitigation Measure AQ-5: Shore-to-Ship Power ("Cold Ironing"). All OGV that call at the Middle Harbor container terminal shall utilize shore-to-ship power while at berth.
Mitigation Measure AQ-6: Low-sulfur Fuels in OGV. All OGV that call at the Middle Harbor container terminal shall use 0.2 percent or lower sulfur MGO fuel in vessel auxiliary and main engines at berth and out to a distance of 40 nm from Point Fermin.
Mitigation Measure AQ-7: Container Handling Equipment. All Project CHE shall meet the requirements of CAAP measure CHE-1.
Mitigation Measure AQ-7a: High Efficiency Rail Mounted Gantry (RMG) Cranes. The Project terminal operator shall replace all diesel-powered RTGs with electric-powered RMGs, as soon as feasible, but no later than the completion of construction in 2020.
Mitigation Measure AQ-8: Heavy-Duty Trucks. Container trucks that call at the Middle Harbor container terminal shall comply with the replacement schedule as part of the POLB CTP tariff.
Mitigation Measure AQ-9: Clean Railyard Standards. The expanded Pier F intermodal railyard shall incorporate the cleanest locomotive technologies into its operations.
Mitigation Measure AQ-10: Truck Idling Reduction Measures. The Middle Harbor container terminal operator shall minimize on-terminal truck idling and emissions.
Mitigation Measure AQ-11: Slide Valves on OGV Main Engines. All OGV that call at the Project container terminal shall have slide fuel valves installed on their main engines, or implement an equivalent emission reduction technology.
Mitigation Measure AQ-12: Expanded VSRP for GHG. All OGV that call at the Middle Harbor container terminal shall comply with the expanded VSRP of 12 knots from the California overwater border to the Precautionary Area.
Mitigation Measure AQ-13: Low-sulfur Fuels in OGV for GHG. All OGV that call at the Project container terminal shall use 0.2 percent or lower sulfur MGO fuel in vessel auxiliary and main engines at berth and within California State Waters.
Mitigation Measure AQ-14: LEED. The main terminal building shall obtain the LEED gold certification level
Mitigation Measure AQ-15: Compact Fluorescent Light Bulbs. All interior terminal building lighting shall use compact fluorescent light bulbs.
Mitigation Measure AQ-16: Energy Audit. The Middle Harbor container terminal tenant shall conduct a third party energy audit every five years and install innovative power saving technologies where feasible.
Mitigation Measure AQ-17: Solar Panels. The applicant shall install solar panels on the main terminal building.
Mitigation Measure AQ-17a: Solar Carports. The applicant will install carport-mounted PV solar panels over the employee and visitor parking areas to the maximum extent feasible.
Mitigation Measure AQ-18: Recycling. The terminal buildings shall achieve a minimum of 40 percent recycling by 2012 and 60 percent recycling by 2015.
Mitigation Measure AQ-19: Tree Planting. The Port shall plant shade trees around the main terminal building.
Mitigation Measure AQ-19a: Tree Planting – Transportation Corridors. The Port shall plant new shade trees on Port-controlled lands adjacent to the roads into the Middle Harbor container terminal to the extent practicable given safety and other land use considerations.
Mitigation Measure AQ-20: Cool Roofs. Buildings on the Middle Harbor container terminal will incorporate cool roofing systems to the extent feasible.
Mitigation Measure AQ-21: Energy Efficient Boom Flood Lights. The Port shall install boom flood lights with energy efficient features on existing and new dock cranes to the extent feasible.
Mitigation Measure AQ-22: Reefer Lighting. The terminal tenant shall downsize light fittings and associated electrical power usage at reefer platforms to the extent feasible.

Summary of Mitigation Measures (continued)
AIR QUALITY (CONTINUED)
Mitigation Measure AQ-23: Employee Carpooling. The construction contractor and terminal tenant shall encourage construction and terminal employees to carpool or to use public transportation.
Mitigation Measure AQ-24: Mitigation for Indirect GHG Emissions. The terminal tenant shall be required to use green commodities, such as those available from the California Climate Action Registry's Climate Action Reserve, to offset carbon emissions associated with terminal's electricity consumption. . This measure applies to all electricity consumed at the terminal, including shore-to-ship power usage ("cold ironing"), with costs not to exceed 15% of annual terminal electricity costs.
Mitigation Measure AQ-25: Periodic Technology Review. To promote new emission control technologies, the tenant shall implement in 2015 and every five years following the effective date of the lease agreement, a review of new air quality technological advancements, subject to mutual agreement on operational feasibility, technical feasibility, and cost-effectiveness and financial feasibility, which shall not be unreasonably withheld.
Mitigation Measure AQ-26: Cargo Throughput Monitoring: Every five years, the Port shall compare actual cargo throughput that occurred at the terminal to the cargo assumptions used to develop the Final EIS/EIR.
Mitigation Measure AQ-27: Electrical Regenerative Systems on Dock Cranes. Port will require the terminal operator to have electric regenerative systems on all Project dock cranes in Project year 1.
Mitigation Measure AQ-28: Greenhouse Gas Emission Reduction Program Guidelines (GHG Program). To partially address the cumulative GHG impacts of the Middle Harbor Redevelopment Project, the Port will require this Project to provide funding for the GHG Emission Reduction Program in the amount of $5 million. This money will be used to pay for measures pursuant to the GHG Emission Reduction Program Guidelines, including but not limited to generation of green power from renewable energy sources, ship electrification, goods movement efficiency measures, cool roofs to reduce building cooling loads and the urban heat island effect, building upgrades for operational efficiency, tree planting for biological sequestration of CO_2, energy-saving lighting, and purchase of renewable energy certificates (RECs).
Mitigation Measure AQ-29: Cumulative Air Quality Impact Reduction Program. To help reduce cumulative air quality impacts of the Middle Harbor Redevelopment Project, the Port will require the Project to provide funding in support of the Schools and Related Sites Guidelines for the Port of Long Beach Grant Programs and Healthcare and Seniors Facility Program Guidelines for the Port of Long Beach Grant Programs in the amount of $5 million each. The distribution of these funds to potential applicants and projects will be determined through a public evaluation process and by approval of the Board of Harbor Commissioners.
BIOTA AND HABITATS
Mitigation Measure BIO-3: Compensation for Loss of Marine Habitat. Compensate for loss of marine habitat in Slip 1 and the East basin through use of existing mitigation bank credits.
GROUND TRANSPORTATION
Mitigation Measure TRANS-1.1a: Traffic Management Plan. Prior to beginning construction, the construction contractor shall prepare a detailed traffic management plan, which in addition to work shift start/end times, shall include the following: detour plans, coordination with emergency services, coordination with adjacent property owners and tenants, advanced notice of temporary parking loss, identification of 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 use of appropriate signing for construction activities. The traffic management plan shall be submitted to Port of Long Beach for approval before beginning construction.
Mitigation Measure TRANS-1.1b: Restricted Construction-Related Traffic Hours. Consistent with City of Long Beach Public Works Department practice, the construction-related traffic to/from the Project site shall be restricted during morning and afternoon peak commute hours. Furthermore, no closure of major road corridors shall be permitted as a result of construction activities.
Mitigation Measure TRANS-1.1c: Signal Installation. The Port shall install a signal at the intersection of Pico Avenue and Pier E Street/Ocean Blvd EB On- and Off-Ramps.
Mitigation Measure TRANS-1.1d: Signal Installation. The Port shall install a signal at the intersection of Pico Avenue and Pier D Street.
Mitigation Measure TRANS-1.1e: Signal Installation. The Port shall install a signal at the intersection of Pico Avenue/Pier G Avenue and Harbor Plaza.
Mitigation Measure TRANS-1.2: Signal Installation. The Port shall install a signal at the intersection of Pico Avenue and Ocean Blvd WB Off-Ramp.
Mitigation Measure TRANS-2.1: Fair Share Based Program. If Caltrans either a) adopts a fair share based program to collect funds for actual mitigation that Caltrans commits itself to implement, or b) otherwise obtains the balance of funding needed to improve the impacted study highway segments in a manner that will improve the segments level of operation, POLB shall pay its fair share into that program.
PUBLIC SERVICES/HEALTH AND SAFETY
Mitigation Measure PHS-2.1: Mitigation Agreement. The Port shall enter into a mitigation agreement to upgrade existing facilities at Stations 15 and 20. The Port shall submit proof to the City of Long Beach that an agreement has been executed prior to commencement of construction activities.
NOISE
Mitigation Measure NOI-1.1a: Temporary Noise Barriers. Temporary noise barriers shall be located between noise-generating construction activities (e.g., pile driving) and hotel/residential buildings and Cesar Chavez School to the east.

Summary of Mitigation Measures (continued)
NOISE (CONTINUED)
Mitigation Measures NOI-1.1b: Restricted Hours for Pile-driving Activities. Pile-driving activities shall be limited to the hours of 7:00 am to 7:00 pm on weekdays, between 9:00 am and 6:00 pm on Saturdays, and prohibited anytime on Sundays and holidays as prescribed by Section 8.80.202 of the LBMC.
CULTURAL RESOURCES
Mitigation Measure CR-1.1.1: Archaeological Material Discovery Plan. In the unlikely event that any archaeological material is discovered during construction, all work must be halted within the vicinity of the archaeological discovery until an assessment of the significance by a qualified archaeologist is completed. If the resources are found to be significant, they shall be avoided or shall be mitigated consistent with SHPO Guidelines. Treatment plans must be developed in consultation with the County, SHPO, and local Native Americans. If human remains are encountered, the Los Angeles County Coroner shall be contacted immediately. If the remains appear to be Native American, the coroner shall contact the Native American Heritage Commission who will appoint the Most Likely Descendent. Additionally, if the human remains are determined to be Native American, a plan will be developed regarding the treatment of human remains and associated burial objects, and the plan will be implemented under the direction of the Most Likely Descendent.
Mitigation Measures CR-1.2.1: Relocation of Historic Architectural Resources. The two historic architectural resources shall be temporarily moved during construction and then relocated to another suitable location within the Project area subsequent to construction under the direction of a qualified Architectural Historian. A survey shall be conducted after their relocation to document, identify, and describe any internal and external cracking, condition of walls, and other elements as a result of their movement. The survey shall be undertaken under the direction of a qualified Architectural Historian and shall be in accordance with accepted standard methods. A written report documenting conditions after Project completion shall be prepared under the supervision and approval of a qualified Architectural Historian. The report shall provide any necessary measures to address stabilization and repair of areas that have been disturbed during relocation, including photo-documentation. The repairs shall be undertaken by the Port in a timely manner.

Mitigation Measure AQ-1: Additional Fugitive Dust Controls	
Required Action: Mitigation Measure AQ-1: Additional Fugitive Dust Controls. The Project construction contractor shall develop and implement dust control methods that shall achieve this control level in a SCAQMD Rule 403 dust control plan; and designate personnel to monitor the dust control program and 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. Additional control measures to reduce fugitive dust shall include, but are not limited to, the following: • Apply approved non-toxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas or replace groundcover in disturbed areas; • Provide temporary wind fencing around sites being graded or cleared; • Cover truck loads that haul dirt, sand, or gravel or maintain at least two feet of freeboard in accordance with Section 23114 of the California Vehicle Code; • 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; • Suspend all soil disturbance activities when winds exceed 25 mph as instantaneous gusts or when visible dust plumes emanate from the site and stabilize all disturbed areas; • Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM_{10} generation; • Sweep all streets at least once a day using SCAQMD Rule 1186, 1186.1 certified street sweepers or roadway washing trucks if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water); • Apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces; • Pave road and road shoulders; and • Apply water three times daily or as needed to areas where soil is disturbed.	
When Required: Daily during all construction activities.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that the dust control program is monitored; non-toxic chemical soil stabilizers are applied; wind fencing is provided; trucks hauling dirt, sand, or gravel are either covered or maintain at least two feet of freeboard; wheel washers are installed or tires are washed prior to leaving construction site; and soil disturbance activities are suspended when winds exceed 25 mph or when dust plumes are visible.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-2: Emission Controls for Non-road Construction Equipment	
Required Action: Mitigation Measure AQ-2: Emission Controls for Non-road Construction Equipment. Construction equipment shall meet the EPA Tier 4 non-road engine standards, where feasible. The Tier 4 standards become available starting in year 2011. Until Tier 4 equipment is feasible, Tier 3 construction equipment shall be required.	
When Required: During all construction activities..	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that Tier 3 non-road engines and/or Tier 4 non-road engines, as feasible, are being used.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-2a: Best Management Practices (BMPs) for Construction Equipment	
Required Action: Mitigation Measure AQ-2a: Best Management Practices (BMPs) for Construction Equipment. The construction contractor shall implement the following BMPs on construction equipment, where feasible, to further reduce emissions from these sources. • Use of diesel oxidation catalysts and/or catalyzed diesel particulate traps, as feasible. • Maintain equipment according to manufacturer specifications. • Restrict idling of equipment and trucks to a maximum of five minutes (per ARB regulation). • Use of high-pressure fuel injectors on diesel-powered equipment. • Use of electricity from power poles rather than temporary diesel- or gasoline-powered generators.	
When Required: Daily during all construction activities.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that construction BMPs including diesel oxidation catalyst, maintaining equipment according to manufacturers specifications, restrict idling of equipment and trucks to a maximum of five minutes, use of high-pressure fuel injectors on diesel-powered equipment, and us electricity from power poles, are being used.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-2b: Mitigation Measure AQ-2b: Construction Traffic Emission Reductions	
Required Action: Mitigation Measure AQ-2b: Construction Traffic Emission Reductions. The construction contractor shall implement the following measures to further reduce emissions from construction. • Trucks used for construction (a) prior to 2015 shall use engines certified to no less than 2007 NOx emissions standards and (b) in 2015 and beyond shall meet EPA 2010 emission standards. • Provide temporary traffic control such as a flag person, during all phases of construction to maintain smooth traffic flow. • Schedule construction activities that affect traffic flow on arterial systems to off-peak hour where possible. • Re-route construction trucks away from congested streets or sensitive receptor areas. • Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site. • Configure construction parking to minimize traffic interference. • Improve traffic flow by signal synchronization. • All vehicle and equipment will be properly tuned and maintained according to manufacturer specification. • Reduce traffic speeds on all unpaved roads to 15 mph or less.	
When Required: During all construction activities; per the specified schedule for truck emission standards, and daily for traffic measures.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that contractor is implementing emission reduction measures.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-3: Emission Controls for Construction Tugboats	
Required Action: Mitigation Measure AQ-3: Emission Controls for Construction Tugboats. All tugboats used in construction shall meet the EPA Tier 2 marine engine standards, and if feasible use construction tugs that meet the EPA Tier 3 marine engine standards. The Tier 3 standards become available starting in year 2009.	
When Required: During all construction activities involving construction tugboats ..	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that all tugboats use a minimum of Tier 2 marine engines.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-3a: Construction Tugboat Home Fleeting	
Required Action: Mitigation Measure AQ-3a: Construction Tugboat Home Fleeting. The construction contractor shall require all construction tugboats that home fleet in the SPBP to (a) shut down their main engines and (b) refrain from using auxiliary engines at dock or to use electrical shore power, if need be.	
When Required: Daily during all construction activities.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that construction tugboats (a) shut down their main engines and (b) refrain from using auxiliary engines at dock or to use electrical shore power.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-4: Mitigation Measure AQ-4: Expanded VSRP	
Required Action: Mitigation Measure AQ-4: Expanded VSRP. All OGV that call at the Middle Harbor container terminal shall comply with the expanded VSRP of 12 knots from 40 nm from Point Fermin to the Precautionary Area.	
When Required: Daily at the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division shall include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-5: Shore-to-Ship Power ("Cold Ironing")	
Required Action: Mitigation Measure AQ-5: Shore-to-Ship Power ("Cold Ironing"). All OGV that call at the Middle Harbor container terminal shall utilize shore-to-ship power while at berth according to the following schedule: (1) 33 percent of all OGV by December 2009 (2) 66 percent of all OGV by March 2012, and (3) 100 percent of all OGV by December 2014. Lease stipulations shall include consideration of alternative technologies that achieve 90 percent of the emission reductions of cold-ironing.	
When Required: Daily according to the operational schedule in measure.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-6: Low-sulfur Fuels in OGV	
Required Action: Mitigation Measure AQ-6: Low-sulfur Fuels in OGV. All OGV that call at the Middle Harbor container terminal shall use 0.2 percent or lower sulfur MGO fuel in vessel auxiliary and main engines at berth and out to a distance of 40 nm from Point Fermin, or implement equivalent emission reductions.	
When Required: Daily at the commencement of a full executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-7: Container Handling Equipment	
Required Action: Mitigation Measure AQ-7: Container Handling Equipment. All Project CHE shall meet the following performance standards. • By the end of 2010, all yard tractors shall meet, at a minimum, the EPA non-road Tier 4 engine standards; • By the end of 2012, all pre-2007 on-road or pre-Tier 4 non-road top picks, forklifts, reach stackers, RTGs, and straddle carriers less than 750 Hp shall meet, at a minimum, the EPA non-road Tier 4 engine standards; and • By the end of 2014, all CHE with engines greater than 750 Hp shall meet, at a minimum, the EPA Tier 4 non-road engine standards. Starting in 2009 (until equipment is replaced with Tier 4), all CHE with engines greater than 750 Hp shall install the cleanest available VDEC, as established by the ARB.	
When Required: Daily according to the operational schedule in measure.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-7a: High Efficiency Rail Mounted Gantry (RMG) Cranes	
Required Action: Mitigation Measure AQ-7a: High Efficiency Rail Mounted Gantry (RMG) Cranes. The Project terminal operator shall replace all diesel-powered RTGs with electric-powered RMGs, as soon as feasible, but no later than the completion of construction in 2020. Each RMG shall include high efficiency, regenerative drive systems.	
When Required: Daily, as soon as possible, but no later than 2020.	
Agency Responsible for Action: POLB Engineering Division and Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division shall construct the necessary infrastructure during Project construction to support the use of RMGs. **Action (ii):** Real Estate Division to include requirements in Project lease agreement to use RMGs, as opposed to RTGs.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-8: Heavy-Duty Trucks	
Required Action: Mitigation Measure AQ-8: Heavy-Duty Trucks. Container trucks that call at the Middle Harbor container terminal shall comply with the following replacement schedule as part of the POLB Clean Truck Program (CTP) Tariff No. 4. This measure goes beyond the ARB's requirements for reducing truck emissions. However, it is more stringent and would result in the following: • Ban pre-1989 trucks by 10/1/2008; • Ban 1989-1993 trucks by 1/1/2010; • Ban un-retrofitted 1994-2003 trucks by 1/1/2010; and • Ban all trucks that do not meet the EPA 2007 Heavy-Duty Highway Rule emission standards by 1/1/2012.	
When Required: At the commencement of a fully executed lease and daily according to the operational schedule in POLB Tariff No. 4.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in the Project lease agreement that the tenant must comply with POLB Tariff No. 4, which contains the requirements of the Clean Trucks Program.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-9: Clean Railyard Standards	
Required Action: Mitigation Measure AQ-9: Clean Railyard Standards. The expanded Pier F intermodal railyard shall incorporate the cleanest locomotive technologies into its operations.	
When Required: Daily at the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division shall include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-10: Truck Idling Reduction Measures	
Required Action: Mitigation Measure AQ-10: Truck Idling Reduction Measures. The Middle Harbor container terminal operator shall minimize on-terminal truck idling and emissions. Potential methods to reduce idling include, but are not limited to (1) maximize the durations when the main gates are left open, including during off-peak hours, and (2) implement a container tracking and appointment-based truck delivery and pick-up system to minimize fuel consumption and resulting criteria pollutant emissions.	
When Required: Daily at the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-11: Slide Valves on OGV Main Engines	
Required Action: Mitigation Measure AQ-11: Slide Valves on OGV Main Engines. All OGV that call at the Project container terminal shall have slide fuel valves installed on their main engines, or implement an equivalent emission reduction technology. This retrofit is most applicable to OGV with MAN B&W engines.	
When Required: Daily at the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-12: Expanded VSRP for GHG	
Required Action: Mitigation Measure AQ-12: Expanded VSRP for GHG. All OGV that call at the Middle Harbor container terminal shall comply with the expanded VSRP of 12 knots from the California overwater border to the Precautionary Area.	
When Required: Daily at the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-13: Low-sulfur Fuels in OGV for GHG	
Required Action: Mitigation Measure AQ-13: Low-sulfur Fuels in OGV for GHG. All OGV that call at the Project container terminal shall use 0.2 percent or lower sulfur MGO fuel in vessel auxiliary and main engines at berth and within California State Waters, or implement equivalent emission reductions.	
When Required: Daily at the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-14: LEED	
Required Action: Mitigation Measure AQ-14: LEED. The main terminal building shall obtain the LEED gold certification level.	
When Required: Upon completion of Project construction of main terminal building.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that the main terminal building meets the LEED gold certification level.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-15: Compact Fluorescent Light Bulbs	
Required Action: Mitigation Measure AQ-15: Compact Fluorescent Light Bulbs. All interior terminal building lighting shall use compact fluorescent light bulbs.	
When Required: Daily at the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division shall include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-16: Energy Audit	
Required Action: Mitigation Measure AQ-16: Energy Audit. The Middle Harbor container terminal tenant shall conduct a third party energy audit every five years and install innovative power saving technologies where feasible, such as power factor correction systems and lighting power regulators.	
When Required: At the commencement of a fully executed lease and every five years during Project operations.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-17: Solar Panels	
Required Action: Mitigation Measure AQ-17: Solar Panels. The Port shall install solar panels on the main terminal building.	
When Required: By completion of Project construction of the main terminal building.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that solar panels are installed on the main terminal building.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-17a: Solar Carports	
Required Action: Mitigation Measure AQ-17a: Solar Carports. The Port shall install carport-mounted PV solar panels over the employee and visitor parking areas to the maximum extent feasible.	
When Required: By completion of Project construction.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that carport-mounted PV solar panels are installed over the employee and visitor parking area to the maximum extent feasible.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-18: Recycling	
Required Action: Mitigation Measure AQ-18: 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; and • All plastic bottles.	
When Required: Daily according to operational schedule in measure.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-19: Tree Planting	
Required Action: Mitigation Measure AQ-19: Tree Planting. The Port shall plant shade trees around the main terminal building.	
When Required: By completion of Project construction.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that shade trees are planted around the main terminal building.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-19a: Tree Planting – Transportation Corridors	
Required Action: Mitigation Measure AQ-19a: Tree Planting – Transportation Corridors. The Port shall plant new shade trees on Port-controlled lands adjacent to the roads into the Middle Harbor container terminal to the extent practicable given safety and other land use considerations. The terminal will incorporate cool roofing systems to the extent feasible. Building rooftop areas which are covered with solar panels in accordance with Mitigation Measure AQ-17 shall be exempt from this measure.	
When Required: By completion of Project construction.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division shall include requirements in Project construction specifications and bid process **Action (ii):** Construction Management Division to verify that shade trees are planted on Port-controlled land adjacent to roads into the terminal to the extent practicable.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-20: Cool Roofs	
Required Action: Mitigation Measure AQ-20: Cool Roofs. Buildings on the Middle Harbor container terminal will incorporate cool roofing systems to the extent feasible. Building rooftop areas which are covered with solar panels in accordance with Mitigation Measure AQ-17 shall be exempt from this measure.	
When Required: By completion of Project construction.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that cool roofing systems are incorporated into building design for buildings without solar panels.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-21: Energy Efficient Boom Flood Lights	
Required Action: Mitigation Measure AQ-21: Energy Efficient Boom Flood Lights. The Port shall install boom flood lights with energy efficient features on existing and new dock cranes to the extent feasible. Such features may include, but are not limited to, use of photo cells/timers, low energy fixtures, and light-spillover reduction features, electronic ballasts, use of double filaments, and applying auto-switch-off controls when the crane boom is up.	
When Required: By completion of Project construction.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that boom flood lights with energy efficient features are installed on existing and new dock cranes to the extent feasible.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-22: Reefer Lighting	
Required Action: Mitigation Measure AQ-22: Reefer Lighting. The Port shall downsize light fittings and associated electrical power usage at reefer platforms to the extent feasible.	
When Required: Daily at the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-23: Employee Carpooling	
Required Action: Mitigation Measure AQ-23: Employee Carpooling. The construction contractor and terminal tenant shall encourage construction and terminal employees to carpool or to use public transportation. These employers shall provide incentives to promote the measure, include preferential parking for carpoolers, vanpool subsidies, and they shall provide information to employees regarding the benefits of alternative transportation methods.	
When Required: Daily during Project construction and at the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications. **Action (i):** Real Estate Division to include requirements in the Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-24: Mitigation for Indirect GHG Emissions	
Required Action: Mitigation Measure AQ-24: Mitigation for Indirect GHG Emissions. The terminal tenant shall be required to use green commodities, such as those available from the California Climate Action Registry's Climate Action Reserve, to offset carbon emissions associated with terminal's electricity consumption subject to the limitation specified below. This measure applies to all electricity consumed at the terminal, including shore-to-ship power usage ("cold ironing"). The terminal-related carbon emissions from electricity consumption will be calculated each year based on the local utility's carbon intensity for that year as recognized by the State of California. The tenant may adjust the carbon intensity value to wholly reflect any carbon offsets provided by the electricity deliverer (i.e., point of generation or point of importation) under applicable California and/or federal cap-and-trade regulations (i.e., no double offsetting). The Port is limiting the potential cost of this measure. The maximum expenditure for purchased offsets required under this measure shall not exceed 15 percent of the terminal electricity costs for any given year (i.e., cost of offsets shall not exceed 15 percent of terminal electricity costs (US$ basis)).	
When Required: Annually during Project operations at the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-25: Periodic Technology Review	
Required Action: Mitigation Measure AQ-25: Periodic Technology Review. To promote new emission control technologies, the tenant shall implement in 2015 and every five years following the effective date of the lease agreement, a review of new air quality technological advancements, subject to mutual agreement on operational feasibility, technical feasibility, and cost-effectiveness and financial feasibility, which shall not be unreasonably withheld. If a technology is determined to be feasible in terms of cost, technical and operational feasibility, the tenant shall work with the Port to implement such technology.	
When Required: Every five years during Project operations after the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division shall include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-26: Cargo Throughput Monitoring	
Required Action: Mitigation Measure AQ-26: Cargo Throughput Monitoring. Every five years, the Port shall compare actual cargo throughput that occurred at the terminal to the cargo assumptions used to develop the Final EIS/EIR. The years used in this analysis shall include 2015, 2020, 2025, and 2030. The Port shall calculate annual air emissions associated with these throughput levels (for OGV, assist tugs, locomotives, cargo handling equipment, and trucks) and compare them to the annual air emissions presented in the Final EIS/EIR. If actual emissions exceed those presented in the Final EIS/EIR, then new/additional mitigations would be applied through Mitigation Measure AQ-25.	
When Required: Every five years during Project operations after the commencement of a fully executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement. **Action (ii):** Environmental Planning Division will conduct the analysis every 5 years, determine if additional mitigation is necessary, and, if so, the nature of the mitigation.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-27: Electrical Regenerative Systems on Dock Cranes	
Required Action: Mitigation Measure AQ-27: Electrical Regenerative Systems on Dock Cranes. Port will require that the terminal operator to have electric regenerative systems on all Project dock cranes in Project year 1.	
When Required: One year after commencement of a fully executed lease.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to include requirements in Project lease agreement.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-28: Greenhouse Gas Emission Reduction Program Guidelines (GHG Program)	
Required Action: Mitigation Measure AQ-28: Greenhouse Gas Emission Reduction Program Guidelines (GHG Program). To partially address the cumulative GHG impacts of the Middle Harbor Redevelopment Project, the Port will require this Project to provide funding for the GHG Program in the amount of $5 million. This money will be used to pay for measures pursuant to the GHG Emission Reduction Program Guidelines, include, but are not limited to, generation of green power from renewable energy sources, ship electrification, goods movement efficiency measures, cool roofs to reduce building cooling loads and the urban heat island effect, building upgrades for operational efficiency, tree planting for biological sequestration of CO_2, energy-saving lighting, and purchase of renewable energy certificates (RECs). The timing of the payments pursuant to this mitigation measure shall be made by the later of the following two dates: (1) the date that the Port issues a Notice to Proceed or otherwise authorizes the commencement of construction on the Phase 1 Construction Contract; or (2) the date that the Middle Harbor Final EIS/EIR is conclusively determined to be valid, either by operation of PRC Section 21167.2 or by final judgment or final adjudication.	
When Required: Following allocation of funding by the Board, the timing of the payments pursuant to **Mitigation Measures AQ-28** shall be made by the later of the following two dates: (1) the date that the Port issues a Notice to Proceed or otherwise authorizes the commencement of construction on the Phase 1 Construction Contract; or (2) the date that the Middle Harbor Final EIR is conclusively determined to be valid, either by operation of Public Resources Code Section 21167.2 or by final judgment or final adjudication.	
Agency Responsible for Action: Board of Harbor Commissioners	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Board of Harbor Commissioners allocates funding. **Action (ii):** Environmental Planning Division shall implement the GHG Program Guidelines after allocation of funding.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure AQ-29: Cumulative Air Quality Impact Reduction Program	
Required Action: Mitigation Measure AQ-29: Cumulative Air Quality Impact Reduction Program. To help reduce cumulative air quality impacts of the Middle Harbor Redevelopment Project, the Port will require the Project to provide funding in support of the Schools and Related Sites Guidelines for the Port of Long Beach Grant Programs and Healthcare and Seniors Facility Program Guidelines for the Port of Long Beach Grant Programs in the amount of $5 million each. The distribution of these funds to potential applicants and projects will be determined through a public evaluation process and by approval of the Board of Harbor Commissioners. The timing of the payments pursuant to this mitigation measure shall be made by the later of the following two dates: (1) the date that the Port issues a Notice to Proceed or otherwise authorizes the commencement of construction on the Phase 1 Construction Contract; or (2) the date that the Middle Harbor Final EIS/EIR is conclusively determined to be valid, either by operation of PRC Section 21167.2 or by final judgment or final adjudication.	
When Required: Following allocation of funding by the Board, the timing of the payments pursuant to **Mitigation Measures AQ-29** shall be made by the later of the following two dates: (1) the date that the Port issues a Notice to Proceed or otherwise authorizes the commencement of construction on the Phase 1 Construction Contract; or (2) the date that the Middle Harbor Final EIR is conclusively determined to be valid, either by operation of Public Resources Code Section 21167.2 or by final judgment or final adjudication.	
Agency Responsible for Action: Board of Harbor Commissioners.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Board of Harbor Commissioners allocates funding. **Action (ii):** Environmental Planning shall implement the Schools and Related Sites and Heathcare and Seniors Facility Guidelines after allocation of funding.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure BIO-3: Compensation for Loss of Marine Habitat	
Required Action: Mitigation Measure BIO-3: Compensation for Loss of Marine Habitat. The Port shall apply approximately 40 credits available in the Bolsa Chica bank to compensate for loss of fish and wildlife habitat due to construction of fill in Slip 1 and East Basin. Implementation of this mitigation measure would occur upon completion of construction of the Project, although permits to begin construction would normally not be issued until the permitting agencies (USACE and POLB for this Project) have received assurance that sufficient mitigation is or will be available. This document constitutes that assurance.	
When Required: Upon completion of Project construction and as-built surveys.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Planning Division.	
Action (i): Engineering Division shall provide as-builts upon completion of construction of the Project landfills.. **Action (ii):** Planning Division shall submit a final report, with as-builts, to the resource agencies for final approval..	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure TRANS-1.1a: Traffic Management Plan	
Required Action: Mitigation Measure TRANS-1.1a: Traffic Management Plan. Prior to beginning construction, the construction contractor shall prepare a detailed traffic management plan, which in addition to work shift start/end times, shall include the following: detour plans, coordination with emergency services, coordination with adjacent property owners and tenants, advanced notice of temporary parking loss, identification of 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 Port of Long Beach for approval before beginning construction.	
When Required: Prior to commencement of construction activities.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that the traffic management plan is implemented.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure TRANS-1.1b: Restricted Construction-Related Traffic Hours	
Required Action: Mitigation Measure TRANS-1.1b: Restricted Construction-Related Traffic Hours. Consistent with City of Long Beach Public Works Department practice, the construction-related traffic to/from the Project site shall be restricted during morning and afternoon peak commute hours. Furthermore, no closure of major road corridors shall be permitted as a result of construction activities.	
When Required: Prior to commencement of construction activities.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications. **Action (ii):** Construction Management Division to verify that restrictions are implemented.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure TRANS-1.1c: Signal Installation	
Required Action: Mitigation Measure TRANS-1.1c: Signal Installation. The Port shall install a signal at the intersection of Pico Avenue and Pier E Street/Ocean Blvd EB On- and Off-Ramps.	
When Required: Prior to commencement of Project terminal construction.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that traffic signal is installed.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure TRANS-1.1d: Signal Installation	
Required Action: Mitigation Measure TRANS-1.1d: Signal Installation. The Port shall install a signal at the intersection of Pico Avenue and Pier D Street.	
When Required: Prior to commencement of Project terminal construction.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that traffic signal is installed.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure TRANS-1.1e: Signal Installation	
Required Action: Mitigation Measure TRANS-1.1e: Signal Installation. The Port shall install a signal at the intersection of Pico Avenue/Pier G Avenue and Harbor Plaza.	
When Required: Prior to commencement of Project terminal construction.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that traffic signal is installed.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure TRANS-1.2: Signal Installation	
Required Action: Mitigation MeasureTRANS-1.2: Signal Installation. The Port shall install a signal at the intersection of Pico Avenue and Ocean Blvd WB Off-Ramp.	
When Required: Prior to commencement of Project terminal construction.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that traffic signal is installed.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure TRANS-2.1: Fair Share Based Program	
Required Action: Mitigation MeasureTRANS-2.1: Fair Share Based Program. If Caltrans either: a) adopts a fair share based program to collect funds for actual mitigation that Caltrans commits itself to implement; or b) otherwise obtains the balance of funding needed to improve the impacted study highway segments in a manner that will improve the segments level of operation, POLB shall pay its fair share into that program.	
When Required: Undetermined at this time.	
Agency Responsible for Action: Caltrans.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): POLB Transportation Planning Division to coordinate annually with Caltrans.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure PHS-2.1: Mitigation Agreement	
Required Action: Mitigation Measure PHS-2.1: Mitigation Agreement. The Port shall enter into a mitigation agreement to upgrade existing facilities at Stations 15 and 20. The Port shall submit proof to the City of Long Beach that an agreement has been executed prior to commencement of construction activities.	
When Required: Prior to commencement of construction activities on fire stations.	
Agency Responsible for Action: POLB Real Estate Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Real Estate Division to enter into an agreement with the City of Long Beach. **Action (ii):** Construction Management Division to verify that fire station facilities are upgraded.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure NOI-1.1a: Temporary Noise Barriers	
Required Action: Mitigation Measure NOI-1.1a: Temporary Noise Barriers. Temporary noise barriers shall be located between noise-generating construction activities (e.g., pile driving) and hotel/residential buildings and Cesar Chavez School to the east.	
When Required: During pile-driving activity.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specification and bid process. **Action (ii):** Construction Management Division to verify that temporary noise barriers are used.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure NOI-1.1b: Restricted Hours for Pile-driving Activities	
Required Action: Mitigation Measure NOI-1.1b: Restricted Hours for Pile-Driving Activities. Pile-driving activities shall be limited to the hours of 7:00 am to 7:00 pm on weekdays, between 9:00 am and 6:00 pm on Saturdays, and prohibited anytime on Sundays and holidays as prescribed by Section 8.80.202 of the LBMC.	
When Required: During pile-driving activity.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specification. **Action (ii):** Construction Management Division to verify that pile-driving activities occur only during specified hours.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure CR-1.1.1: Archaeological Material Discovery Plan	
Required Action: Mitigation Measure CR-1.1.1: Archaeological Material Discovery Plan. In the unlikely event that any archaeological material is discovered during construction, all work must be halted within the vicinity of the archaeological discovery until an assessment of the significance by a qualified archaeologist is completed. If the resources are found to be significant, they shall be avoided or shall be mitigated consistent with SHPO Guidelines. Treatment plans must be developed in consultation with the County, SHPO, and local Native Americans. If human remains are encountered, the Los Angeles County Coroner shall be contacted immediately. If the remains appear to be Native American, the coroner shall contact the Native American Heritage Commission who will appoint the Most Likely Descendent. Additionally, if the human remains are determined to be Native American, a plan will be developed regarding the treatment of human remains and associated burial objects, and the plan will be implemented under the direction of the Most Likely Descendent.	
When Required: Daily during Project construction.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specifications and bid process. **Action (ii):** Construction Management Division to verify that upon discovery of archaeological material that work has stopped and the proper authorities notified.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

Mitigation Measure CR-1.2.1: Relocation of Historic Architectural Resources	
Required Action: CR-1.2.1: Relocation of Historic Architectural Resources. The two historic architectural resources shall be temporarily moved during construction and then relocated to another suitable location within the Project area subsequent to construction under the direction of a qualified Architectural Historian. A survey shall be conducted after their relocation to document, identify, and describe any internal and external cracking, condition of walls, and other elements as a result of their movement. The survey shall be undertaken under the direction of a qualified Architectural Historian and shall be in accordance with accepted standard methods. A written report documenting conditions after Project completion shall be prepared under the supervision and approval of a qualified Architectural Historian. The report shall provide any necessary measures to address stabilization and repair of areas that have been disturbed during relocation, including photo-documentation. The repairs shall be undertaken by the Port in a timely manner.	
When Required: Prior to proposed Project construction.	
Agency Responsible for Action: POLB Engineering Division.	
Agency Responsible for Tracking: POLB Environmental Planning Division.	
Action (i): Engineering Division to include requirements in Project construction specification. **Action (ii):** Construction Management Division to verify the relocation of the existing historic architectural resources.	
Submittal Date:	
Verified By:	**Title:**
Attachments:	
Comments:	

ATTACHMENT 2

TABLE ES.8-1

SUMMARY OF ENVIRONMENTAL IMPACTS
AND MTIGATION MEASURES

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
Geology, Groundwater, and Soils			
GEO-1: The Project would not substantially alter the topography beyond that resulting from natural erosion and depositional processes.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
GEO-2: The Project would not disturb or otherwise adversely affect unique geologic features (e.g., paleontological resources) or geologic features of unusual scientific value.	CEQA: No impact NEPA: No impact	CEQA: None necessary. NEPA: None necessary.	CEQA: No impact NEPA: No impact
GEO-3: The Project would not accelerate geologic processes, such as erosion.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
GEO-4: The Project site is underlain by the Wilmington Oil Field.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
GEO-5: 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 personnel.	CEQA: Less than significant NEPA: No impact	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: No impact
GEO-6: No active faults are located beneath the Project site.	CEQA: No impact NEPA: No impact	CEQA: None necessary. NEPA: None necessary.	CEQA: No impact NEPA: No impact
GEO-7: Seismic activity along numerous regional faults could produce seismic ground shaking, liquefaction, differential settlement, or other seismically induced ground failure that would expose people and structures to greater than normal risk.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
GEO-8: Project construction and operation in the Middle Harbor area would not likely expose people and structures to greater than normal risk involving tsunamis or seiches.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
		Air Quality	
AQ-1: Proposed Project construction would produce emissions that exceed SCAQMD emission significance thresholds.	CEQA: Significant NEPA: Significant	CEQA: **Mitigation Measure AQ-1: Additional Fugitive Dust Controls.** The Project construction contractor shall develop and implement dust control methods that shall achieve this control level in a SCAQMD Rule 403 dust control plan; and designate personnel to monitor the dust control program and 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. Additional control measures to reduce fugitive dust shall include, but are not limited to, the following: • Apply approved non-toxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas or replace groundcover in disturbed areas; • Provide temporary wind fencing around sites being graded or cleared; • Cover truck loads that haul dirt, sand, or gravel or maintain at least two feet of freeboard in accordance with Section 23114 of the California Vehicle Code; • 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; • Suspend all soil disturbance activities when winds exceed 25 mph as instantaneous gusts or when visible dust plumes emanate from the site and stabilize all disturbed areas; • Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM_{10} generation; • Sweep all streets at least once a day using SCAQMD Rule 1186, 1186.1 certified street sweepers or roadway washing trucks if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water); • Apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces; • Pave road and road shoulders; and • Apply water three times daily or as needed to areas where soil is disturbed. **Mitigation Measure AQ-2: Emission Controls for Non-road Construction Equipment.** Construction equipment shall meet the EPA Tier 4 non-road engine standards, where feasible. The Tier 4 standards become available starting in year 2012. **Mitigation Measure AQ-2a: Best Management Practices (BMPs) for Construction Equipment**. The construction contractor shall implement the following BMPs on construction equipment, where feasible, to further reduce emissions from these sources. • Use of diesel oxidation catalysts and/or catalyzed diesel particulate traps, as feasible. • Maintain equipment according to manufacturer specifications. • Restrict idling of equipment and trucks to a maximum of five minutes (per ARB regulation). • Use of high-pressure fuel injectors on diesel-powered equipment. • Use of electricity from power poles rather than temporary diesel- or gasoline-powered generators.	CEQA: Significant and unavoidable NEPA: Significant and unavoidable

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
		Air Quality (continued)	
(AQ-1: continued)		**Mitigation Measure AQ-2b: Construction Traffic Emission Reductions.** The construction contractor shall implement the following measures to further reduce emissions from construction. • Trucks used for construction (a) prior to 2015 shall use engines certified to no less than 2007 NOx emissions standards and (b) in 2015 and beyond shall meet EPA 2010 emission standards. • Provide temporary traffic control such as flag person, during all phases of construction to maintain smooth traffic flow. • Schedule construction activities that affect traffic flow on arterial systems to off-peak hour where possible. • Re-route construction trucks away from congested streets or sensitive receptor areas. • Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site. • Configure construction parking to minimize traffic interference. • Improve traffic flow by signal synchronization. • All vehicle and equipment will be properly tuned and maintained according to manufacturer specification. • Reduce traffic speeds on all unpaved roads to 15 mph or less. **Mitigation Measure AQ-3: Emission Controls for Construction Tugboats.** All tugboats used in construction shall meet the EPA Tier 2 marine engine standards, and if feasible use construction tugs that meet the EPA Tier 3 marine engine standards. The Tier 3 standards become available starting in year 2009. **Mitigation Measure AQ-3a: Construction Tugboat Home Fleeting.** The construction contractor shall require all construction tugboats that home fleet in the SPBP to (a) shut down their main engines and (b) refrain from using auxiliary engines at dock or to use electrical shore power, if need be. NEPA: See **Mitigation Measure AQ-1 through AQ-3a.**	
AQ-2: Proposed Project construction would result in offsite ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.	CEQA: Significant NEPA: Significant	CEQA: See **Mitigation Measure AQ-1 through AQ-3a.** NEPA: See **Mitigation Measure AQ-1 through AQ-3a.**	CEQA: Significant and unavoidable NEPA: Significant and unavoidable

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
		Air Quality (continued)	
AQ-3: The proposed Project would result in operational emissions that exceed SCAQMD thresholds of significance.	CEQA: ~~Less than s~~ Significant NEPA: Significant	CEQA: ~~None necessary.~~ ~~NEPA:~~ **Mitigation Measure AQ-4: Expanded VSRP.** All OGV that call at the Middle Harbor container terminal shall comply with the expanded VSRP of 12 knots from 40 nm from Point Fermin to the Precautionary Area. **Mitigation Measure AQ-5: Shore-to-Ship Power ("Cold Ironing").** All OGV that call at the Middle Harbor container terminal shall utilize shore-to-ship power while at berth according to the following schedule: (1) 33 percent of all OGV by December 2009 (2) 66 percent of all OGV by March 2012, and (3) 100 percent of all OGV by December 2014. Lease stipulations shall include consideration of alternative technologies that achieve 90 percent of the emission reductions of cold-ironing. **Mitigation Measure AQ-6: Low-sulfur Fuels in OGV.** All OGV that call at the Middle Harbor container terminal shall use 0.2 percent or lower sulfur MGO fuel in vessel auxiliary and main engines at berth and out to a distance of 40 nm from Point Fermin, or implement equivalent emission reductions. **Mitigation Measure AQ-7: Container Handling Equipment.** All Project CHE shall meet the following performance standards. • By the end of 2010, all yard tractors shall meet, at a minimum, the EPA non-road Tier 4 engine standards; • By the end of 2012, all pre-2007 on-road or pre-Tier 4 non-road top picks, forklifts, reach stackers, RTGs, and straddle carriers less than 750 Hp shall meet, at a minimum, the EPA non-road Tier 4 engine standards; and • By the end of 2014, all CHE with engines greater than 750 Hp shall meet, at a minimum, the EPA Tier 4 non-road engine standards. Starting in 2009 (until equipment is replaced with Tier 4), all CHE with engines greater than 750 Hp shall install the cleanest available VDEC, as established by the ARB. **Mitigation Measure AQ-7a: High Efficiency Rail Mounted Gantry (RMG) Cranes.** The Project terminal operator shall replace all diesel-powered RTGs with electric-powered RMGs, as soon as feasible, but no later than the completion of construction in 2020. Each RMG shall include high efficiency, regenerative drive systems. **Mitigation Measure AQ-8: Heavy-Duty Trucks.** Container trucks that call at the Middle Harbor container terminal shall comply with the following replacement schedule as part of the POLB CTP tariff. This measure goes beyond the ARB's requirements for reducing truck emissions. It is similar to CAAP measure HDV1 (CTP). However, it is more stringent and would result in the following: • Ban pre-1989 trucks by 10/1/2008; • Ban 1989-1993 trucks by 1/1/2010; • Ban un-retrofitted 1994-2003 trucks by 1/1/2010; and • Ban all trucks that do not meet the EPA 2007 Heavy-Duty Highway Rule emission standards by 1/1/2012. **Mitigation Measure AQ-9: Clean Railyard Standards**. The expanded Pier F intermodal railyard shall incorporate the cleanest locomotive technologies into its operations. **Mitigation Measure AQ-10: Truck Idling Reduction Measures.** The Middle Harbor container terminal operator shall minimize on-terminal truck idling and emissions. Potential methods to reduce idling include, but are not limited to (1) maximize the durations when the main gates are left open, including during off-peak hours, and (2) implement a container tracking and appointment-based truck delivery and pick-up system to minimize fuel consumption and resulting criteria pollutant emissions. **Mitigation Measure AQ-11: Slide Valves on OGV Main Engines.** All OGV that call at the Project container terminal shall have slide fuel valves installed on their main engines, or implement an equivalent emission reduction technology. This retrofit is most applicable to OGV with MAN B&W engines. **Mitigation Measure AQ-25: Periodic Technology Review**. To promote new emission control technologies, the tenant shall implement in 2015 and every five years following the effective date of the lease agreement, a review of new air quality technological advancements, subject to mutual agreement on operational feasibility, technical feasibility, and cost-effectiveness and financial feasibility, which shall not be unreasonably withheld agreement. If a technology is determined to be feasible in terms of cost, technical and operational feasibility, the tenant shall work with the Port to implement such technology. **Mitigation Measure AQ-26: Cargo Throughput Monitoring**: Every five years, the Port shall compare actual cargo throughput that occurred at the terminal to the cargo assumptions used to develop the Final EIS/EIR. The years used in this analysis shall include 2015, 2020, 2025, and 2030. The Port shall calculate annual air emissions associated with these throughput levels (for OGV, assist tugs, locomotives, cargo handling equipment, and trucks) and compare them to the annual air emissions presented in the Final EIS/EIR. If actual emissions exceed those presented in the Final EIS/EIR, then new/additional mitigations would be applied through Mitigation Measure AQ-25.	CEQA: Less than significant NEPA: Significant and unavoidable.

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
		NEPA: See **Mitigation Measure AQ-4 through AQ-11, AQ-25, and AQ-26.**	
		Air Quality (continued)	
AQ-4: Proposed Project operations would produce offsite impacts that exceed SCAQMD ambient thresholds of significance for 1-hour and annual NO2	CEQA: Significant NEPA: Significant	CEQA: See **Mitigation Measures AQ-4 through AQ-11, AQ-25, and AQ-26.** NEPA: See **Mitigation Measures AQ-4 through AQ-11, AQ-25, and AQ-26.**	CEQA: Significant and unavoidable. NEPA: Significant and unavoidable.
AQ-5: The proposed Project would not create objectionable odors to sensitive receptors.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
AQ-6: The proposed Project would expose receptors to significant levels of TACs.	CEQA: Less than significant NEPA: Significant	CEQA: None necessary. NEPA: See **Mitigation Measures AQ-4 through AQ-11, AQ-25, and AQ-26.** **Mitigation Measure AQ-29: Cumulative Air Quality Impact Reduction Program.** To help reduce cumulative air quality impacts of the Middle Harbor Redevelopment Project, the Port will require the Project to provide funding in support of the Schools and Related Sites Guidelines for the Port of Long Beach Grant Programs and Healthcare and Seniors Facility Program Guidelines for the Port of Long Beach Grant Programs in the amount of $5 million each. The distribution of these funds to potential applicants and projects will be determined through a public evaluation process and by approval of the Board of Harbor Commissioners. The timing of the payments pursuant to this mitigation measure shall be made by the later of the following two dates: (1) the date that the Port issues a Notice to Proceed or otherwise authorizes the commencement of construction on the Phase 1 Construction Contract; or (2) the date that the Middle Harbor Final EIS/EIR is conclusively determined to be valid, either by operation of PRC Section 21167.2 or by final judgment or final adjudication.	CEQA: Less than significant NEPA: Significant and unavoidable
AQ-7: The proposed Project would not conflict with or obstruct implementation of the applicable AQMP.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
AQ-8: Proposed Project construction and operation would produce GHG emissions that would exceed the CEQA threshold.	CEQA: Significant NEPA: No determination, as no NEPA significance threshold has been established.	CEQA: See **Mitigation Measures AQ-3 through AQ-11, AQ-25, and AQ-26.** **Mitigation Measure AQ-12: Expanded VSRP for GHG.** All OGV that call at the Middle Harbor container terminal shall comply with the expanded VSRP of 12 knots from the California overwater border to the Precautionary Area. **Mitigation Measure AQ-13: Low-sulfur Fuels in OGV for GHG.** All OGV that call at the Project container terminal shall use 0.2 percent or lower sulfur MGO fuel in vessel auxiliary and main engines at berth and within California State Waters, or implement equivalent emission reductions. **Mitigation Measure AQ-14: LEED.** The main terminal building shall obtain the LEED gold certification level. **Mitigation Measure AQ-15: Compact Fluorescent Light Bulbs.** All interior terminal building lighting shall use compact fluorescent light bulbs. **Mitigation Measure AQ-16: Energy Audit.** The Middle Harbor container terminal tenant shall conduct a third party energy audit every five years and install innovative power saving technologies where feasible, such as power factor correction systems and lighting power regulators. **Mitigation Measure AQ-17: Solar Panels.** The applicant shall install solar panels on the main terminal building. **Mitigation Measure AQ-17a: Solar Carports.** The applicant will install carport-mounted PV solar panels over the employee and visitor parking areas to the maximum extent feasible. **Mitigation Measure AQ-18: 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; and • All plastic bottles.	CEQA: Significant and unavoidable. NEPA: No determination has been made as no NEPA significance threshold has been established.
		Air Quality (continued)	
(AQ-8: continued)		**Mitigation Measure AQ-19: Tree Planting.** The Port shall plant shade trees around the main terminal building. **Mitigation Measure AQ-19a: Tree Planting – Transportation Corridors.** The Port shall plant new shade trees on Port-controlled lands adjacent to the roads into the Middle Harbor container terminal to the extent practicable given safety and other land use considerations.terminal will incorporate cool roofing systems to the extent feasible. Building rooftop areas which are covered with solar panels in accordance with Mitigation Measure AQ-17 shall be exempt from this measure. **Mitigation Measure AQ-20: Cool Roofs.** Buildings on the Middle Harbor container terminal will incorporate	

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
		cool roofing systems to the extent feasible. Building rooftop areas which are covered with solar panels in accordance with Mitigation Measure AQ-17 shall be exempt from this measure. **Mitigation Measure AQ-21: Energy Efficient Boom Flood Lights.** The Port shall install boom flood lights with energy efficient features on existing and new dock cranes to the extent feasible. Such features may include, but are not limited to, use of photo cells/timers, low energy fixtures, and light-spillover reduction features, electronic ballasts, use of double filaments, and applying auto-switch-off controls when the crane boom is up. **Mitigation Measure AQ-22: Reefer Lighting.** The terminal tenant shall downsize light fittings and associated electrical power usage at reefer platforms to the extent feasible. **Mitigation Measure AQ-23: Employee Carpooling.** The construction contractor and terminal tenant shall encourage construction and terminal employees to carpool or to use public transportation. These employers shall provide incentives to promote the measure, include preferential parking for carpoolers, vanpool subsidies, and they shall provide information to employees regarding the benefits of alternative transportation methods. **Mitigation Measure AQ-24: Mitigation for Indirect GHG Emissions.** The terminal tenant shall be required to use green commodities, such as those available from the California Climate Action Registry's Climate Action Reserve, to offset carbon emissions associated with terminal's electricity consumption subject to the limitation specified below. This measure applies to all electricity consumed at the terminal, including shore-to-ship power usage ("cold ironing"). The terminal-related carbon emissions from electricity consumption will be calculated each year based on the local utility's carbon intensity for that year as recognized by the State of California. The tenant may adjust the carbon intensity value to wholly reflect any carbon offsets provided by the electricity deliverer (i.e., point of generation or point of importation) under applicable California and/or federal cap-and-trade regulations (i.e., no double offsetting). The Port is limiting the potential cost of this measure. The maximum expenditure for purchased offsets required under this measure shall not exceed 15 percent of the terminal electricity costs for any given year (i.e., cost of offsets shall not exceed 15 percent of terminal electricity costs (US$ basis)). **Mitigation Measure AQ-27: Electrical Regenerative Systems on Dock Cranes**. Port will require that the terminal operator to have electric regenerative systems on all Project dock cranes in Project year 1. **Mitigation Measure AQ-28: Greenhouse Gas Emission Reduction Program Guidelines (GHG Program)**. To partially address the cumulative GHG impacts of the Middle Harbor Redevelopment Project, the Port will require this Project to provide funding for the GHG Program in the amount of $5 million. This money will be used to pay for measures pursuant to the GHG Emission Reduction Program Guidelines, include, but are not limited to, generation of green power from renewable energy sources, ship electrification, goods movement efficiency measures, cool roofs to reduce building cooling loads and the urban heat island effect, building upgrades for operational efficiency, tree planting for biological sequestration of CO_2, energy-saving lighting, and purchase of renewable energy certificates (RECs). The timing of the payments pursuant to this mitigation measure shall be made by the later of the following two dates: (1) the date that the Port issues a Notice to Proceed or otherwise authorizes the commencement of construction on the Phase 1 Construction Contract; or (2) the date that the Middle Harbor Final EIS/EIR is conclusively determined to be valid, either by operation of PRC Section 21167.2 or by final judgment or final adjudication. NEPA: None necessary.	
		Hydrology and Water Quality	
WQ-1.1: Wharf demolition, dredging, and excavation in Slip 3 and Berth F201, and fill in Slip 1 and the East Basin could result in violation of regulatory standards or guidelines.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
WQ-1.2: Backland construction activities could result in violation of regulatory standards or guidelines.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
WQ-2: Construction activities would not substantially alter harbor water circulation.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
WQ-3.1: Project construction would not result in increased flooding that would have the potential to harm people or damage property or sensitive biological resources.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
WQ-4.1: Construction activities have the potential to accelerate natural processes of wind and water erosion and sedimentation, resulting in substantial soil runoff or deposition which could not be contained or controlled onsite.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
WQ-1.3: Operation of Project facilities could result in violation of regulatory standards or guidelines.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
WQ-3.2: Operation of Project facilities would not result in increased flooding, which would have the potential to harm people or damage property or sensitive biological resources.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
WQ-4.2: Operations have a low potential to accelerate natural processes of wind and water erosion and sedimentation, resulting in substantial soil runoff or deposition which would not be contained or controlled onsite.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
Biota and Habitats			
BIO-1.1: Construction activities would not substantially affect any rare, threatened, or endangered species or their habitat.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
BIO-2.1: Construction activities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: No impact	CEQA: None necessary. NEPA: None necessary.	CEQA: No impact NEPA: No impact
Biota and Habitats (continued)			
BIO-3.1: Construction would result in a substantial loss or alteration of marine habitat through filling (in Slip 1, for the Berth E24 extension, and in a portion of the East Basin) and excavation (widening Slip 1 and at Berth F201) for a net loss of 54.6 acres.	CEQA: Significant NEPA: Significant	CEQA: **Mitigation Measure BIO-3:** The Port would apply approximately 40 credits available in the Bolsa Chica bank to compensate for loss of fish and wildlife habitat due to construction of fill in Slip 1 and East Basin. Implementation of this mitigation measure would occur upon completion of construction of the Project, although permits to begin construction would normally not be issued until the permitting agencies (USACE and POLB for this Project) have received assurance that sufficient mitigation is or will be available. This document constitutes that assurance. NEPA: See **Mitigation Measure BIO-3**.	CEQA: Less than significant NEPA: Less than significant
BIO-4.1: Construction activities would substantially affect a natural habitat or plant community.	CEQA: Significant NEPA: Significant	CEQA: See **Mitigation Measure BIO-3**. NEPA: See **Mitigation Measure BIO-3**.	CEQA: Less than significant NEPA: Less than significant
BIO-5.1: Dredging, filling, and wharf construction activities would not substantially disrupt local biological communities.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
BIO-1.2: Operations would not substantially affect any endangered, threatened, or rare species or their habitat.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
BIO-2.2: Operations activities would not interfere with wildlife movement/migration corridors.	CEQA: No impact NEPA: No impact	CEQA: None necessary. NEPA: None necessary.	CEQA: No impact NEPA: No impact
BIO-3.2: Operation of Project facilities would not substantially reduce or alter marine habitat.	CEQA: No impact NEPA: No impact	CEQA: None necessary. NEPA: None necessary.	CEQA: No impact NEPA: No impact
BIO-4.2: Operations of Project facilities could substantially affect a natural habitat or plant community.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
BIO-5.2: Operation of Project facilities would not substantially disrupt local biological communities.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
BIO-5.3: Project operations could disrupt local biological communities through introduction of non-native species.	CEQA: Significant NEPA: No impact	CEQA: None feasible. NEPA: None necessary.	CEQA: Significant and Unavoidable NEPA: No impact
		Ground Transportation	
TRANS-1.1: Construction would result in short-term, temporary increases in auto and truck traffic at certain study intersections.	CEQA: Significant NEPA: Significant	CEQA: **Mitigation Measure TRANS-1.1a:** Prior to beginning construction, the construction contractor shall prepare a detailed traffic management plan, which in addition to work shift start/end times, shall include the following: detour plans, coordination with emergency services, coordination with adjacent property owners and tenants, advanced notice of temporary parking loss, identification of 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 Port of Long Beach for approval before beginning construction. **Mitigation Measure TRANS-1.1b:** Consistent with City of Long Beach Public Works Department practice, the construction-related traffic to/from the Project site shall be restricted during morning and afternoon peak commute hours. Furthermore, no closure of major road corridors shall be permitted as a result of construction activities. **Mitigation Measure TRANS-1.1c:** The Port shall install a signal at the intersection of Pico Avenue and Pier E Street/Ocean Blvd EB On and Off-Ramps. **Mitigation Measure TRANS-1.1d:** The Port shall install a signal at the intersection of Pico Avenue and Pier D Street. **Mitigation Measure TRANS-1.1e:** The Port shall install a signal at the intersection of Pico Avenue/Pier G Avenue and Harbor Plaza. NEPA: See **Mitigation Measures TRANS-1.1a through TRANS-1.1e.**	CEQA: Less than significant NEPA: Less than significant
TRANS-2.1: Additional traffic generated by construction activities would have short-term significant impacts on certain highway locations in the study area.	CEQA: Significant NEPA: Significant	CEQA: **Mitigation Measure TRANS-2.1:** If Caltrans either a) adopts a fair share based program to collect funds for actual mitigation that Caltrans commits itself to implement, or b) otherwise obtains the balance of funding needed to improve the impacted study highway segments in a manner that will improve the segments level of operation, POLB shall pay its fair share into that program. NEPA: See **Mitigation Measure TRANS-2.1.**	CEQA: Significant and Unavoidable NEPA: Significant and Unavoidable
TRANS-3.1: Construction would not increase the demand for transit services.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
TRANS-4.1: Construction would not result in any increases in rail activity.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
TRANS-1.2: Additional traffic generated by the Project would have significant impacts at certain study area intersections.	CEQA: Significant NEPA: Significant	CEQA: See **Mitigation Measures TRANS-1.1c through TRANS-1.1e.** **TRANS-1.2:** The Port shall install a signal at the intersection of Pico Avenue and Ocean Blvd WB Off-Ramp. NEPA: See **Mitigation Measures TRANS-1.1c through TRANS-1.1e and TRANS-1.2.**	CEQA: Less than significant NEPA: Less than significant
TRANS-2.2: Additional traffic generated by the Project would have significant impacts on certain highway locations in the study area.	CEQA: Significant NEPA: Significant	CEQA: See **Mitigation Measure TRANS-2.1.** NEPA: See **Mitigation Measure TRANS-2.1.**	CEQA: Significant and Unavoidable NEPA: Significant and Unavoidable
TRANS-3.2: Project operations would not increase the demand for transit services.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
TRANS-4.2: Project operations would not result in any significant impacts because of rail activity.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
Vessel Transportation			
VT-1.1: Project construction-related marine traffic would not interfere with normal navigational activities within and near the POLB.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
VT-1.2: Project operations would not result in a substantial increase in vessel traffic or a change in patterns of vessel movements that would impair the level of safety for vessels navigating in the Middle Harbor area and/or the precautionary areas.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
Land Use			
LU-1.1: Project construction would be consistent with the adopted goals, objectives, and/or policies of applicable land use plans.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
LU-2.1: Project construction would be consistent with the adopted goals, objectives, and/or policies of applicable land use plans.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
LU-1.2: Project operations would be consistent with the adopted goals, objectives, and/or policies of the PMP.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
LU-2.2: Proposed Middle Harbor container terminal activities would be consistent with surrounding Port-related industrial land uses.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
Public Services/Health and Safety			

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
PHS-1.1: Project construction activities would not sufficiently burden existing staff levels and facilities whereby the LBPD would not be able to maintain an adequate level of service.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
PHS-2.1: Project construction activities would require upgrades to existing antiquated fire protection facilities to maintain acceptable emergency response times.	CEQA: Significant NEPA: Less than significant	CEQA: **Mitigation Measure PHS-2.1:** The Port shall enter into a mitigation agreement to upgrade existing facilities at Stations 15 and 20. The Port shall submit proof to the City of Long Beach that an agreement has been executed prior to commencement of construction activities. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
PHS-3.1: Project construction would not substantially increase demands on USCG staff levels and facilities.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
PHS-4.1: Project construction would not result in a substantially diminished level of public protection services provided by the SCCC.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
PHS-5.1: Construction activities would not substantially interfere with an existing emergency response or evacuation plan, capable of increasing risk of injury or death.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
Public Services/Health and Safety (continued)			
PHS-1.2: Project operations would not sufficiently burden existing staff levels and facilities such that the LBPD would not be able to maintain an adequate level of service.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
PHS-2.2: Project operations would require upgrades to existing antiquated fire protection facilities to maintain acceptable emergency response times.	CEQA: Significant NEPA: Less than significant	CEQA: See **Mitigation Measure PHS-2.1.** NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
PHS-3.2: Project operations would not substantially increase demands on USCG staff levels and facilities such that the adequate service levels would be maintained.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
PHS-4.2: Project operations would not result in a substantially diminished level of public protection services provided by the SCCC.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
PHS-5.2: Project operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
Noise			
NOI-1.1: Project construction activities would increase ambient noise levels by three dBA.	CEQA: Significant NEPA: Significant	CEQA: **Mitigation Measure NOI-1.1a**: Temporary noise barriers shall be located between noise-generating construction activities (e.g., pile driving) and hotel/residential buildings and Cesar Chavez School to the east. **Mitigation Measure 1.1b**:Pile-driving activities shall be limited to the hours of 7:00 am to 7:00 pm on weekdays, between 9:00 am and 6:00 pm on Saturdays, and prohibited anytime on Sundays and holidays as prescribed by Section 8.80.202 of the LBMC. NEPA: See **Mitigation Measures NOI-1.1a and NOI-1.1b.**	CEQA: Significant and unavoidable NEPA: Significant and unavoidable

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
NOI-2.1: Construction activities would exceed City of Long Beach Municipal Code maximum noise levels.	CEQA: Significant NEPA: Significant	CEQA: See **Mitigation Measures NOI-1.1a and NOI-1.1b.** NEPA: See **Mitigation Measures NOI-1.1a and NOI-1.1b.**	CEQA: Significant and unavoidable NEPA: Significant and unavoidable
NOI-1.2: Project operations would not generate noise levels that would increase ambient noise levels by three dBA.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
NOI-2.2: Project operations would not exceed City of Long Beach Municipal Code maximum noise levels.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
NOI-3.1: Project operations would not generate ground vibration levels that would exceed ANSI S3.29-1983 acceptability limits.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
NOI-4.1: Project operations would not increase the number of vibration events that would exceed ANSI S3.29 acceptability limits.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
Hazards and Hazardous Materials			
HAZ-1: Construction activities would not result in an accidental release of hazardous materials from onshore facilities or from vessels that would adversely affect the health and safety of the general public or workers.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
HAZ-2: The Project would not result in noncompliance with state guidelines associated with abandoned oil wells.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
HAZ-3: Project operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of accidental release of a petroleum product or hazardous substance.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
HAZ-4: The Project would comply with Risk Management Program policies guiding development within the Port.	CEQA: No impact NEPA: No impact	CEQA: None necessary. NEPA: None necessary.	CEQA: No impact NEPA: No impact
Recreation			
REC-1.1: Project construction would not result in a substantial loss or diminished quality of recreational, educational, or visitor-oriented opportunities, facilities, or resources.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
REC-2.1: Project construction would not result in a demand for recreation and park services that exceeds the available resources.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
REC-1.2: Project operation would not result in a substantial loss or diminished quality of recreational, educational, or visitor-oriented opportunities, facilities, or resources.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
REC-2.2: Project operation would not result in a demand for recreation and park services that exceeds the available resources.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
Socioeconomics			
SOCIO-1.1: The Project would not increase employment in the five-county region by 0.5 percent or more.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
SOCIO-2.1: The Project would not increase population in the Gateway Cities subregion by 0.5 percent or more.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
SOCIO-3.1: The Project would not increase the demand for housing units in the Gateway Cities subregion by 0.5 percent or more.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
Socioeconomics (continued)			
SOCIO-1.2: The Project would not increase employment in the five-county region by 0.5 percent or more.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
SOCIO-2.2: The Project would not increase population in the Gateway Cities subregion by 0.5 percent or more.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
SOCIO-3.2: The Project would not increase the demand for housing units in the Gateway Cities subregion by 0.5 percent or more.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
Utilities and Service Systems			
UTIL-1.1: Project construction activities would result in the extension of new utility line connections to Project sites.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
UTIL-2.1: Proposed Project construction activities would not exceed existing water supply, wastewater, or landfill capacities.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
UTIL-1.2: Project operations would result in the extension of new utility line connections to the Project site.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
UTIL-2.2: Project operations would not exceed existing water supply, wastewater, or landfill capacities.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
Cultural Resources			

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
CR-1.1: Project ground disturbances would not impact potentially significant archaeological resources.	CEQA: Less than significant NEPA: Less than significant	CEQA: **Mitigation Measure CR-1.1.1**; In the unlikely event that any archaeological material is discovered during construction, all work must be halted within the vicinity of the archaeological discovery until an assessment of the significance by a qualified archaeologist is completed. If the resources are found to be significant, they shall be avoided or shall be mitigated consistent with SHPO Guidelines. Treatment plans must be developed in consultation with the County, SHPO, and local Native Americans. If human remains are encountered, the Los Angeles County Coroner shall be contacted immediately. If the remains appear to be Native American, the coroner shall contact the Native American Heritage Commission who will appoint the Most Likely Descendent. Additionally, if the human remains are determined to be Native American, a plan will be developed regarding the treatment of human remains and associated burial objects, and the plan will be implemented under the direction of the Most Likely Descendent. NEPA: See **Mitigation Measure CR-1.1.1.**	CEQA: Less than significant NEPA: Less than significant
		Cultural Resources (continued)	
CR-1.2: Construction activities would adversely impact potentially significant historic architectural resources.	CEQA: Significant NEPA: No impact	CEQA: **Mitigation Measure CR-1.2.1**: The two historic architectural resources shall be temporarily moved during construction and then relocated to another suitable location within the Project area subsequent to construction under the direction of a qualified Architectural Historian. A survey shall be conducted after the relocation to document, identify, and describe any internal and external cracking, condition of walls, and other elements as a result of their movement. The survey shall be undertaken under the direction of a qualified Architectural Historian and shall be in accordance with accepted standard methods. A written report documenting conditions after Project completion shall be prepared under the supervision and approval of a qualified Architectural Historian. The report shall provide any necessary measures to address stabilization and repair of areas that have been disturbed during relocation, including photo-documentation. The repairs shall be undertaken by the Port in a timely manner. NEPA: None necessary.	CEQA: Less than significant NEPA: No impact
CR-2.1: The Project would not result in the permanent loss of, or loss of access to, a paleontological resource.	CEQA: No impact NEPA: No impact	CEQA: None necessary. NEPA: None necessary.	CEQA: No impact NEPA: No impact
CR-1.3: Industrial reuse of the three potentially relocated historic properties would be consistent with their original Port-related function.	CEQA: Less than significant NEPA: No impact	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: No impact
		Aesthetics/Visual Resources	
VIS-1.1: Project construction activities would not substantially contrast with the existing industrial visual quality of the Project area.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
VIS-2.1: Project construction activities would not adversely impact the existing visual industrial character and quality of the Project site and its surroundings.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
VIS-3.1: Project construction activities would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.	CEQA: No impact NEPA: No impact	CEQA: None necessary. NEPA: None necessary.	CEQA: No impact NEPA: No impact
VIS-1.2: Project development would not substantially contrast with the visual industrial quality of the Project area.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant
VIS-2.2: Project development would not substantially degrade the existing industrial character or quality of the site and its surroundings.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant

Table ES.8-1. Summary of Environmental Impacts and Mitigation Measures (continued)

Impact	Significance Before Mitigation	Mitigation	Significance After Mitigation
VIS-3.2: Project development would introduce new glare sources that would potentially degrade existing visual conditions.	CEQA: Less than significant NEPA: Less than significant	CEQA: None necessary. NEPA: None necessary.	CEQA: Less than significant NEPA: Less than significant

ATTACHMENT 3

TABLE 4.2-1

COMPARISON OF PROPOSED PROJECT AND ALTERNATIVES
AT FULL BUILDOUT

AND

TABLE 4.3-1

COMPARISON OF CEQA SIGNIFICANCE ANALYSIS BY ALTERNATIVE

Table 4.1-1. Comparison of Proposed Project and Alternatives at Full Buildout

	Alternative 1: 345-Acre Alternative (the Project)	Alternative 2: 315-Acre Alternative	Alternative 3: Landside Improvements Alternative	Alternative 4: No Project Alternative
Project Site Gross Acreage	345	315	294	294
Total Container Terminal Acreage[1]	322	292	267	244
Total TEUs[2]	3,320,000	2,870,000	2,910,000	2,600,000
Annual Vessel Calls	364	364	416	312
Average Daily Truck Trips	10,112	8,026	9,830	9,594
Annual Trains[3]	2,098	2,095	1,380	786
Total Container Berth Length (LF)[4]	4,250	4,250	4,480	4,480
Joint Terminal Intermodal Yard Acreage	47	47	25	0[5]

Notes:

1. The total container yard acreage is assumed to be slightly smaller than the Project site area due to other uses on the site (e.g., break-bulk cargo). The container yard is defined as the area dedicated to container activities, wharves, and spaces related to buildings and personal vehicles.
2. TEUs = Twenty-foot Equivalent Units. The TEU-per-acre estimates are based on the approximate size of the container yard projected for year 2025.
3. Estimate assumes 25 rail cars per train.
4. All Pier D berths and E-12-13 are break-bulk berths and are not included in container berth length. The total container berth lengths include both Pier E and Pier F berths.
5. Assumes the existing LBCT nine acre intermodal railyard would remain operational.

Sources: Moffatt & Nichol. 2006b.

Table 4.3-1. Comparison of CEQA Significance Analysis by Alternative

Environmental Resource Area	Alternative 1: 345 Acre Alternative	Alternative 2: 315 Acre Alternative	Alternative 3: Landside Improvements Alternative	Alternative 4: No Project Alternative
Geology, Groundwater, and Soils	III	III	III	III
Air Quality and Health Risk	I	I	I	I
Hydrology and Water Quality	III	III	III	III
Biota and Habitats	I	I	I	I
Ground Transportation	I	I	I	I
Vessel Transportation	III	III	III	III
Land Use	III	III	III	III
Public Services/Health and Safety	II	II	II	III
Noise	I	I	I	IV
Hazards and Hazardous Materials	III	III	III	III
Recreation	III	III	III	IV
Socioeconomics	III	III	III	III
Utilities and Service Systems	III	III	III	III
Cultural Resources	II	II	II	IV
Environmental Justice	I	I	III	III
Aesthetics/Visual Resources	III	III	III	III

Notes:

I = Unavoidable significant impact.
II = Significant but mitigable impact.
III = Less than significant impact (not significant).
IV = No impact.