

OFFICE OF THE CITY ATTORNEY
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1 RESOLUTION NO. HD- 2500

2
3 A RESOLUTION OF THE BOARD OF HARBOR
4 COMMISSIONERS OF THE CITY OF LONG BEACH
5 AMENDING THE GREENHOUSE GAS (GHG) EMISSION
6 REDUCTION PROGRAM GUIDELINES
7

8 WHEREAS, on March 23, 2009, the City of Long Beach, acting by and
9 through its Board of Harbor Commissioners (Board), adopted Resolution No. HD-2497,
10 pursuant to which the Board adopted the Greenhouse Gas (GHG) Emission Reduction
11 Program Guidelines.

12 WHEREAS, the GHG Emission Reduction Program Guidelines establish a
13 program pursuant to which the Board will review and approve funding for projects to
14 reduce GHG emissions.

15 WHEREAS, at its meeting on April 13, 2009, the Board directed Harbor
16 Department staff to prepare an amendment to the GHG Emission Reduction Program
17 Guidelines to make the Guidelines consistent with staff recommendations set forth on
18 page 8 of the Memorandum to the Board, dated April 13, 2009, recommending certain
19 actions in connection with the Middle Harbor Redevelopment Project, a copy of which is
20 attached as Exhibit "A."

21 WHEREAS, representatives from the State of California Department of
22 Justice contacted Harbor Department staff seeking more specific clarification of the staff
23 recommendations in the April 13 Memorandum attached as Exhibit "A." In response to
24 Department of Justice concerns, the GHG Emission Reduction Program Guidelines have
25 been amended to clarify that (1) funding may not be used for (a) any mitigation measures
26 specified in an environmental impact report or mitigated negative declaration prepared
27 pursuant to CEQA for a proposed project, or (b) projects to achieve GHG reductions that
28 are required by law, regulation, permit, court order, order issued by an administrative

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1 agency, memorandum of understanding or other legally binding document, (2) funding
2 should be used for activities that (a) reduce GHG emissions beyond what would have
3 occurred in the absence of the funding, and (b) need funding to occur in a timely and
4 successful manner (taking into account any available rebates, incentives or tax credits),
5 and (3) funding recipients shall agree that they will not seek credit toward any obligations
6 imposed pursuant to the California Global Warming Solutions Act of 2006 (California
7 Health and Safety Code Section 38500 and following), or seek any credit or offset under
8 any emissions averaging, banking, marketing or trading program.

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

11 Section 1. The GHG Emission Reduction Program Guidelines are hereby
12 amended to provide that funding for projects approved pursuant to the Guidelines shall
13 meet the following criteria:

14 (i) funding may not be used for (a) any mitigation measures
15 specified in an environmental impact report or mitigated negative declaration
16 prepared pursuant to CEQA for a proposed project, or (b) projects to achieve GHG
17 reductions that are required by any law, regulation, permit, court order, order
18 issued by an administrative agency, memorandum of understanding or other
19 legally binding document,

20 (ii) funding should be used for activities that (a) reduce GHG
21 emissions beyond what would have occurred in the absence of the funding,
22 and (b) need funding to occur in a timely and successful manner (taking into
23 account any available rebates, incentives or tax credits),

24 (iii) funding recipients shall agree that they will not seek credit
25 toward any obligations imposed pursuant to the California Global Warming
26 Solutions Act of 2006 (California Health and Safety Code Section 38500 and
27 following), or seek any credit or offset under any emissions averaging, banking,
28 marketing or trading program



The Port of
LONG BEACH

Memorandum

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 BS.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

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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,

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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 B 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

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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 NO₂. However, isopleths,

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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 (SO_x) 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 from 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

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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.

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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' 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 through 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 BIS/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 CO₂, 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 CO₂e 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.

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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

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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 Karter, 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

Exhibit "B"

GHG Emission Reduction Program Guidelines
For the Port of Long Beach

Greenhouse Gas (GHG)
Emission Reduction Program Guidelines
For the Port of Long Beach

Prepared for:
The Port of Long Beach
Long Beach, California

Prepared by:
ENVIRON International Corporation
Los Angeles, California

Date:
April 2009



The Port of
LONG BEACH

Exhibit "B"

GHG Emission Reduction Program Guidelines
For the Port of Long Beach

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1 Introduction

In 2006 the State of California adopted Assembly Bill 32 (AB32), the Global Warming Solutions Act of 2006. AB32 requires the state to reduce its greenhouse gas emissions to 1990 levels by the year 2020. Greenhouse gases (GHG) consist of carbon dioxide (CO₂) - the largest contributor to climate change - methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). These gases accumulate in the atmosphere and lead to increased surface temperatures which can disrupt the ecosystem.

AB32 authorizes the California Air Resources Board (CARB) to be the lead agency in implementing the Act. In December 2008 CARB approved the Scoping Plan required by AB32 which contains the main strategies California will use to reduce greenhouse gas emissions. The Scoping Plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an administrative fee to fund the program.

While AB32 did not amend the California Environmental Quality Act (CEQA) to account for the environmental impacts of GHG emissions from projects subject to CEQA, it did acknowledge that such emissions can cause significant adverse impacts to human health and the environment. Senate Bill 97 directed the California Office of Planning and Research (OPR) to develop draft CEQA Guidelines for the mitigation of GHG emissions or the effects of GHG emissions.

OPR released draft amendments to the CEQA Guidelines in January 2009. The amendments call for the lead agency to make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions associated with a project, including emissions associated with energy consumption and vehicular traffic. OPR recognizes that the methodologies for performing this assessment are anticipated to evolve over time and give the lead agency discretion in determining the significance of the projects GHG emissions.

The Port's Climate Change/Greenhouse Gas Strategic Plan (CC/GHG Plan), currently under development, will provide a comprehensive, strategic approach to addressing a wide spectrum of regulatory requirements and programs relating to climate change and GHG emission reductions, in accordance with the Port's Green Port Policy. A resolution establishing the framework under which the CC/GHG Plan will be implemented was adopted by the Board of Harbor Commissioners (Board) in September 2008 and is included as Attachment A. The CC/GHG Plan will describe in detail the GHG inventories from the various sources at the Port. A series of measures will be outlined to provide the Port with guidance in assessing the most effective approaches to take in achieving GHG emissions reductions.

This GHG Emission Reduction Program is one component of the Port's CC/GHG Plan. From time to time the Board of Harbor Commissioners (Board) may direct that funds be paid to this program as mitigation for project-specific and/or cumulative impacts of GHG emissions associated with Port projects approved by the Board. The Port has developed these Guidelines to describe how GHG reduction projects will be evaluated for funding. As a preliminary matter,

no project will be considered for funding pursuant to these Guidelines unless the following criteria are met:

1. Funding may not be used for (a) any mitigation measures specified in an environmental impact report or mitigated negative declaration prepared pursuant to CEQA for a proposed project, or (b) projects to achieve GHG reductions that are required by any law, regulation, permit, court order, order issued by an administrative agency, memorandum of understanding or other legally binding document.
2. Funding shall be used for activities that (a) reduce GHG emissions beyond what would have occurred in the absence of the funding, and (b) need funding to occur in a timely and successful manner (taking into account any available rebates, incentives or tax credits).
3. Funding recipients shall agree that they will not seek credit toward any obligations imposed pursuant to the California Global Warming Solutions Act of 2006 (California Health and Safety Code Section 38500 and following), or seek any credit or offset under any emissions averaging, banking, marketing or trading program.

These Guidelines describe some of the projects and practices that the Port will implement to achieve CC/GHG reduction goals, particularly as they relate to off-site project mitigation, and the prioritization of projects and practices considered. While several types of projects are described, the Port has made significant progress in organizing a structure for renewable energy projects which provide significant GHG reduction benefits; hence that structure will be described in more detail in this document. Other projects and practices will be defined as the CC/GHG Plan matures. These Guidelines will be revised accordingly as progress is made.

2 Eligible Project Proponents

The Port's obligations under the Tidelands Trust and the California Coastal Act are specific in that the highest priority is given to using land for water-dependent port purposes. The California Coastal Act, Chapter 8, requires that the Port "give highest priority to the use of existing land space within harbors for port purposes, including, but not limited to, navigational facilities, shipping industries, and necessary support and access facilities."

In addition, the California Department of Justice (DOJ) has indicated that all possible opportunities for GHG reductions within the Harbor District should be exhausted before considering the implementation of non-Port projects. Therefore, consistent with these boundaries and limitations, prioritization of funding for projects will be made as follows:

1. On-site Port-controlled projects
2. On-site tenant-controlled projects

3. Off-site City-controlled projects
4. Non-Port/non-City projects within City boundaries
5. Non-Port/non-City projects outside of City boundaries

This project prioritization scheme is consistent with the Port's requirements to provide a nexus between expenditures and port-related uses in that in-harbor investments will be optimized prior to the use of funds to mitigate GHG emissions outside of the Harbor District.

3 Program Organization

The organization described below was developed by the Port for renewable energy projects, as they align with internal responsibilities for implementation. However, this structure can be applied to several types of projects that are described in Section 4 of this Guideline. In addition, this organization considers that the Port, its tenants, or other City departments are the project proponents. Funding criteria for future non-Port mitigation projects is described in Section 5 of this Guideline.

3.1 Project Categories

1. Capital Projects

These projects would be constructed on City-controlled properties, such as the Port's new Administration and Maintenance facility, undeveloped lands and fence-line areas, as well as municipal sites within the whole of the City's boundaries.

2. Development Projects

These projects would include the installation of GHG-reducing facilities or equipment with new terminal and/or site development projects, the costs for which could be amortized through lease terms. The requirements and parameters for the projects would conform to the Port's Green Lease program.

3. Tenant Projects

These projects would be constructed on tenant-controlled facilities. Some portion of the costs to install renewable energy will be borne by the tenant (or its contracted third party). In the cases of renewable energy projects, the power generated would be used by the tenant's operations. The Board may elect to provide grants, incentives, or other subsidies to promote GHG reduction projects by Port tenants.

3.2 Potential Funding Alternatives

Various funding mechanisms exist for the implementation of GHG-reducing projects. For capital projects, for example, the Port may choose to use Port revenues, issue bonds or enter into a joint venture with a tenant or third party. Renewable energy projects could also be funded through the use of a Power Purchase Agreement (PPA), wherein the Port would enter into a

contract with a developer who will design, build, and maintain the project in exchange for an agreement to purchase all power generated by the project.

In considering funding any project, the Port will seek to maximize GHG reductions for dollars spent and any project considered will be required to demonstrate its cost benefits and also describe how maintenance of the project will ensure ongoing GHG reductions. A cap may be placed on Port monetary participation for each tenant project to ensure that benefits are equitably distributed between several tenants. Funds will be awarded by the Board based on staff recommendations after project review.

3.3 Technology Advancement and Education

Technology advancement and education will be key features of the Port's GHG reduction strategies. Using the model developed for the San Pedro Bay Clean Air Action Plan's Technology Advancement Program, grants will be offered to stimulate the development of emerging GHG reduction technologies, as well as the application of existing technologies to Port operations. In addition, scholarships and development of local curriculum modules relating to GHG reductions will be provided to schools in the Port community.

4 Potential Greenhouse Gas Mitigation Projects

GHG emission reductions can be achieved through a variety of measures. Direct emission reduction projects can reduce GHG emissions through fuel efficiency in combustion processes and changes in operating practices. Indirect emission reduction projects can reduce the amount of energy, such as electricity and heat, needed to operate a source. Section 4.1 lays out AB32 Scoping Plan Early Action and Discrete Measures. Section 4.2 lays out more explicit potential Port projects that are consistent with the evolving CC/GHG Strategic Plan. It should be noted that there is some overlap between projects described in Sections 4.1 and 4.2. Project proponents and proposers may choose any project list under Sections 4.1 and 4.2.

4.1 AB32 Scoping Plan Early Action and Discrete Measures

In the AB32 Scoping Plan, CARB has designed regulations to encourage early action to reduce GHG emissions, and to provide appropriate recognition or credit for those actions. The Scoping Plan identifies several measures (Control Measures) that may be available to the Port for consideration for projects for GHG emission reduction and mitigation for projects that might need mitigation under CEQA.

Ship Electrification at Ports (Control Measure T-5)

In December 2007, CARB adopted the shore power regulation that requires most container, passenger, and refrigerated cargo ships to shut off their auxiliary engines while at dock and receive power from the electrical grid, or reduce their emissions by a similar amount via the implementation of other technologies.

Goods Movement Efficiency Measures (Control Measure T-6)

There are many opportunities to reduce GHG emissions from goods movement. Efficiency improvements can be implemented for the equipment or vehicles that transport goods at facilities such as ports, intermodal rail yards, and distribution centers.

- **Goods Movement System-Wide Efficiency Improvements**
Under this proposed measure, California ports, railroad operators, shipping companies, terminal operators, ship owners/operators, importers, exporters, trucking companies serving ports and rail operation, government agencies, and the public would participate in developing and implementing programs to achieve system-wide reductions in GHG emissions from goods movement activities.
- **Ships**
Ocean-going vessel speed reduction (VSR) is an early action measure primarily designed to reduce emissions of nitrogen dioxide (NO_x), diesel particulate matter (DPM), and oxides of sulfur (SO_x). Emission reductions of CO₂ will result from reduced fuel consumption. A voluntary VSR program is currently in place at the Port and the Port of Los Angeles. For this measure, CARB is conducting a technical assessment of the impacts associated with VSR for oceangoing vessels.
- **Green Ships**
The clean ship (or green ship) measure is intended to reduce fuel consumption and associated CO₂ emissions through a variety of technologies and strategies that improve the efficiency of oceangoing vessels.
- **Port Trucks**
In December 2007, CARB approved a regulation to reduce GHGs, DPM, and NO_x emissions from drayage trucks operating at California's ports and rail yards through retrofits and turnover of pre-1994 trucks.
- **Long-Haul Trucks**
A heavy-duty truck efficiency measure could reduce emissions associated with goods movement through improvements involving advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories. CARB will consider setting requirements and standards for heavy-duty truck efficiency, if higher levels of efficiencies are not being produced either in response to market forces (fuel costs) or federal standards.
- **Commercial Harbor Craft**
CARB proposes development of an educational program to help commercial harbor craft owners and operators improve efficiencies in the operation of commercial harbor craft by utilizing maintenance practices and operational improvements that would reduce GHG emissions.

- **Cargo Handling Equipment**
CARB would investigate and potentially develop a new measure to restrict unnecessary idling, which would reduce fuel consumption and associated greenhouse gases, criteria pollutants, and toxic air contaminants.
- **Transport Refrigeration Units**
Transport refrigeration units (TRUs) are refrigeration systems powered by internal combustion engines designed to control the environment of temperature sensitive products that are transported in trucks, trailers, shipping containers, and railcars. New measures are being proposed for TRUs that would limit the use of internal-combustion engine-powered TRUs on trucks, trailers, shipping containers, and railcars for extended cold storage at California distribution centers, grocery stores, and elsewhere, and call for the development of energy efficiency guidelines for refrigerated trucks and trailers.

4.2 CC/GHG Strategic Plan Consistent Projects

Consistent with the control measures and early action plans conceived by CARB, the Port has prepared the listing below of projects that will be considered for implementation.

Cool Roofs: A cool roof is a roofing system that can deliver high solar reflectance and high thermal emittance. Buildings that use highly reflective, highly emissive roofing materials stay cooler than normal under the summer sun. Cool roofs reportedly can also enhance roof durability and reduce both building cooling loads and the urban heat island effect. There are three categories of cool roofs for commercial and industrial buildings -- roofs made from inherently cool roofing materials, roofs made of materials that have been coated, or green planted roofs. For a typical 100,000 square foot general office building, a cool roofing system can reduce electricity consumption by approximately 90 megawatt-hours (MWh) per year, thereby eliminating 30 tons CO₂ equivalents (CO₂eq) per year.

Green Power: Currently, nearly 16 percent of the electricity delivered by Southern California Edison (SCE) is generated from wind, solar, biomass, small hydropower, and geothermal sources. SCE is working to develop additional sources of renewable energy in response to a mandate from the State of California, and provides incentives for residential and commercial renewable energy projects.

The Port completed a solar study in October 2008 that examined the feasibility of installing various solar energy collecting technologies in the Long Beach Harbor District. In this study, it was determined that there are many locations throughout the Port where solar technologies could be installed for the generation of electricity. The prime opportunities were building roof-mounted solar collectors, solar car ports, and ground-mounted solar collectors, with photovoltaic technology being the most feasible generation mechanism. Additional evaluations of the structural capacities of building rooftops, lease durations, cost-effectiveness, and marine-related land use maximization must be made on a project-by-project basis as this solar technology is advanced at the Port.

GHG Emission Reduction Program Guidelines
For the Port of Long Beach

Traditional 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 those characteristics. Emerging technologies for low-wind generation could hold promise for environments like the Port, but they are not yet commercially proven or available.

Biological Sequestration: Trees, plants, and some soils sequester carbon and remove it from the earth's atmosphere. Biological sequestration projects involve activities that either increase existing sequestration or maintain sequestration on land that might otherwise be disturbed and release some or all of the sequestered carbon. Some examples of biological sequestration projects include the following: 1) planting trees on previously non-forested land (i.e., afforestation); 2) planting trees on formerly forested land (i.e., reforestation); 3) limiting deforestation by purchasing forested property and preserving the forests with legal and enforcement mechanisms; 4) setting aside croplands from agricultural production to rebuild carbon in the soil and vegetation; and 5) promoting practices that reduce soil disruption. Biological sequestration projects, particularly forestry projects, offer a great deal of potential in terms of volume of carbon removed from the atmosphere.

The Port is playing an integral part in the City of Long Beach's Urban Forest Master Plan. In early 2007, the City of Long Beach contracted with a consulting firm to review existing urban forest policies and practices and to set out new goals and policies for an Urban Forest Master Plan. This was Phase I of the City's Urban Forest Master Plan. The Port participated in Phase I by funding 10% of the contract costs, in addition to providing Maintenance and Environmental Planning staff assistance and direction. The Port's 10% contribution matches the Harbor Department's 10% aerial coverage of land within the City. The City is about to commence Phase II of the Urban Forest Master Plan which will inventory current tree assets and develop a program to manage and enhance these tree assets.

High Efficiency Rubber-Tired Gantry Cranes: Cranes consume a significant amount of energy in a containerized cargo terminal. High-efficiency technologies are available for rubber-tired gantry cranes (RTG) which can significantly reduce the energy consumed in the lift of cargo containers. For traditional cranes, the energy released during the load lowering has been wasted by the resistor braking. Regenerative crane designs are able to capture and store most of the energy released during cargo lowering for use during the next lift cycle. Field tests report that terminal operators can reduce energy consumption by 50% based on the same operating conditions and throughput when compared to conventional RTG crane designs.

High Efficiency Rail Mounted Gantry (RMG) Cranes: Similar to the above, high efficiency, regenerative drive systems are available for rail mounted gantry (RMG) cranes which can be used on the proposed Project. Konecranes manufactures one of the green RMG cranes currently being utilized in the market. The regeneration units in Konecranes RMG crane design feeds the energy released during load lowering back to the customer's network. The electricity savings from power regeneration can be as high as 70%. The Port recognizes that other vendors have similar green RMG cranes that can achieve similar types of energy efficiency and thereby GHG emission benefits.

Building Energy Efficiency: New buildings at the Port will incorporate energy efficiency improvements to the extent possible, and in accordance with the City of Long Beach Leadership in Energy and Environmental Design (LEED®) certification goals. GHG emissions from heating, ventilation and air conditioning (HVAC) systems can be reduced by improving building envelope thermal performance and by improving the efficiency of HVAC systems. Improved building envelope thermal performance can be achieved by: installing advanced glazing systems; using shading devices and internal blinds; greater use of insulation and improved insulation materials, such as evacuated panel insulation and aerogels; and reduction of air leakage from buildings through improved construction techniques. HVAC efficiency can be improved by: installing high efficiency pumps and fans; optimizing the design of pipes ducts; installing high efficiency chillers and air conditioners; use of natural heat (e.g., solar pre-heated air); and improved management of environmental conditions in buildings.

In addition to the new terminal construction, Port projects will include energy efficiency audits of existing buildings. These audits will include a thorough review of the current lighting and lighting systems being used, a review of the energy efficiency of the equipment being used in the building, a review of natural shade trees outside of the building, etc. The measures identified in the energy efficiency audit could meet the eligibility criteria for LEED Existing Building certifications.

Terminal and Railroad Equipment: In time, the Port may be able to convert terminal and/or railyard equipment to electric-powered or fuel cell designs. The Port can also adopt strict idling restrictions for yard tractors and other terminal equipment. The Port has already adopted idling restrictions for switcher locomotives. Measures which may be employed include utilization of electric automated stacking cranes in yard and installation of automatic stop-start controls for cargo handling equipment. These types of measures reduce GHG emissions because fuel consumption decreases.

Low-Energy Reefer Containers: The Port has identified a number of opportunities which could serve to reduce the energy intensity of reefer containers moved through the Harbor District.

In order to reduce energy consumption from reefer containers, Maersk Line recently teamed up with Odense Steel Shipyard to develop reefer containers that are cooled by water, thereby reducing energy consumption by 15-20% per reefer container.

Maersk Line is also involved in a project called Quality and Energy Efficiency in Storage and Transport (QUEST). This project is a joint program sponsored by the Dutch Government and a research center in the Netherlands. QUEST is a software program that provides a new temperature control regime in refrigerated containers. This technology enables Maersk Line to cut the energy consumption used for cooling by up to 50 percent without having an impact on the quality of refrigeration solutions. It is estimated that when the QUEST project is fully implemented by 2008, it will lead to GHG emissions from Maersk Line's operations being reduced by 350,000 tons CO₂ per year.

Hybrid Tug Technology: Hybrid technology can be incorporated into tug propulsion systems to minimize fuel consumption by using a power management system to match required power to

GHG Emission Reduction Program Guidelines
For the Port of Long Beach

the most efficient combination of batteries and diesel-powered generators and main engines. As a result, a hybridized tug can spend more than 75 percent of its operating hours in the lowest two power modes of operation, which would require only the use of the batteries and generators, but no main engines. As a result, the tug will generate much lower criteria air pollutant and GHG emissions during slower or idle times but will be able to access full power and maintain required propulsion when necessary. Hybrid technology can be incorporated with new tug builds, like the recent Foss hybrid tug, or through the retrofit of an existing tug.

Energy Efficient Boom Flood Lights: The installation of boom flood lights with energy efficient features on existing and new dock cranes will result in GHG reductions. 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.

Resource Conservation and Environmentally-Preferable Purchasing: Projects that minimize the use of resources, and thus, the energy used for manufacture and transport of products or resources, can achieve significant GHG reductions. Because water conveyance accounts for about 30% of the electricity used in California, water conserving projects, such as sustainable landscaping, fixture upgrades, and monitored irrigation, will be considered under this program. Recycling also reduces the amount of GHG emissions produced in the manufacture of products, and Port and tenant recycling programs will be expanded.

Environmentally-Preferable Purchasing programs can accomplish indirect greenhouse gas reductions by giving preference to the purchase of locally-produced or recycled products over those requiring greater transportation miles or use of virgin materials.

Solar Water Heating: Solar water heating consists of a series of collectors, typically roof-mounted, oriented to capture the sun's energy. Heat is collected and redistributed to create hot water systems for use in a process or to supplement traditional hot water heaters. These projects reduce GHG emissions by avoiding natural gas combustion.

Purchase of Renewable Energy Credits (RECs)/Voluntary Emission Reductions (VERs): There are different types of RECs and VERs available in the marketplace of varying cost and quality. These are "green" commodities that represent the offset of greenhouse gas emissions and in direct proportion to the quantities of RECs or VERs purchased. The Port will consider purchasing credits only after on-site GHG mitigation opportunities have been evaluated for cost-effectiveness and feasibility.

The list of potential control measures is not inclusive. As the Port's CC/GHG Plan advances and/or GHG reduction technologies improve, additional project types will become available for additional consideration. Accordingly, these Guidelines shall be considered a living document, subject to revision as new information becomes available for evaluation.

5 Criteria, Ranking, and Submittal Requirements for Future Non-Port Projects

As the implementation of the Port's CC/GHG Plan proceeds and projects within the Harbor District or City of Long Beach are underway, the Board may elect to fund GHG emission reduction projects outside the Harbor District or City boundaries in order to obtain additional project or cumulative mitigation benefits, in accordance with Tidelands Trust and Coastal Act requirements. The following criteria may be applied to these future non-Port/non-City projects to ensure that GHG emission reductions are maximized for each Port dollar spent. Projects considered under this program may be partially or wholly funded by the Port. A non-Port/non-City applicant for funding toward the implementation of a - GHG emission reduction project is referred to as a "Proposer" in the following sections.

5.1 Project Acceptance Criteria and Ranking

The Port may establish a mitigation fund and solicit competing non-Port/non-City project proposals. The criteria used for acceptance and ranking of a project proposal is strictly limited to the quantity of GHG emissions reduced (or avoided) for each Port dollar invested. As stated below, applicable emission quantification protocols must be used to predict GHG emission reductions. The minimum useful life of a project should be no less than 10 years.

5.2 GHG Emission Quantification

The standards on which project GHG emission reductions need to be quantified depend upon the rationale for the project, whether the Port is the project proponent or not. Compliance with a state or federally mandated program may require adherence to strict protocols and procedures. The emission quantification protocol being used for the project under consideration needs to be determined and its use approved by the relevant agency prior to the project being undertaken.

Mitigation efforts, port expansion and improvements, and other Port or City-related projects may not require adherence to strict protocols and procedures. However, in order to be considered for GHG Emission Reduction funding, any non-Port/non-City project that could be considered must be one in which an emissions reduction quantification protocol has been or is being developed in order for a benefit to be recognized. Approved emission protocols, either from the State of California or USEPA, are likely to generate projects that the Board may consider for approval. A more detailed discussion of requirements for previously established protocols is found in Attachment B.

If a project is being performed to satisfy a regulatory or government requirement, the Proposer should verify with that agency with regard to the appropriate emission quantification protocol to use prior to initiating the project so that the Port can ensure the project meets any regulatory and compliance requirements as well as meeting the Port's cost effectiveness criteria.

5.3 Project Cost Effectiveness

The Proposer shall determine the project costs and emission reductions in order to evaluate the project performance to verify that the project meets the Port's cost effectiveness criteria as well as any other criteria that the Port may establish:

1. Quantify the emission reductions that each project will generate in metric tons of CO₂eq.
2. Determine the project costs in Port dollars and total dollars (for the projects seeking Port co-funding of reductions).
3. Calculate the cost effectiveness in terms of \$/metric ton CO₂eq reduced.
 - a. If the total project cost effectiveness \leq \$15/metric ton of CO₂eq reduced, the project meets the Port's funding criteria.
 - b. If the project cost effectiveness $>$ \$15/metric ton of CO₂eq reduced, the Board may need to conduct a more stringent analysis to determine whether to fund the project. Factors that the Board may consider for funding projects whose cost effectiveness exceed \$15 per metric ton include, but are not limited to:
 - i. any local benefits that the Board may want credit for,
 - ii. co-benefits from criteria and/or toxic pollutant reduction that the Board may wish to generate..

If a project does not meet the criteria established above, a separate criteria based on Port \$/ton of CO₂eq reduced can be calculated for projects the Port would only co-fund. The Proposer and the Port would:

1. Quantify the emission reductions that the project would generate in metric tons of CO₂eq.
2. Determine the total project costs, including the capital and installation costs.
3. Quantify any other emission benefits that might be achieved by the project.
4. Calculate the cost effectiveness in terms of \$/metric ton of CO₂eq reduced and in terms of Port \$/metric ton of CO₂eq reduced.
 - a. If the Port cost effectiveness \leq \$15/metric ton of CO₂eq reduced, the project meets the Port's funding criteria.
 - b. If the Port cost effectiveness $>$ \$15/metric ton of CO₂eq reduced, the Board may need to conduct a more stringent analysis to determine whether to fund the project. Factors that the Board may consider for funding projects whose cost effectiveness exceed \$15 per metric ton include, but are not limited to:
 - i. any local benefits that the Board may want credit for,
 - ii. co-benefits from criteria and/or toxic pollutant reduction that the Board may wish to generate..
5. If the project is initiated for any reason other than emission reductions, clearly identify those reasons prior to project approval and funding. Also identify the benefits and potential liabilities and how they are shared between the Proposer and the Port.
6. Determine how the Proposer and the Port will share in the following:
 - a. The emission reductions generated by the project;

- b. State amount of funding Proposer would be providing and amount requested of the Port; and
- c. Identify the lead and if any interaction is required with any other government agency or agencies.

5.4 Proposed Project Submittal Details

Before each project will be considered for funding, the Proposer needs to identify and document the following items:

- The project type (i.e. solar power, wind power, heavy duty equipment replacement, urban forests, etc.) that is being targeted for the GHG emission reductions;
- The manner in which the GHG emission reductions will be achieved (i.e. upgrades, replacements, etc);
- The capital and installation costs of the project;
- A summary of the annual preventative maintenance that must be conducted once the project is complete. The summary should include the necessary tasks as well as their costs (including any division of costs); and
- The total GHG emission reductions from the project. The Proposer needs to identify the protocol used to calculate the emission reductions. Protocols may be those approved by CARB, the SCAQMD, USEPA, or some other recognized government air pollution control agency or a recognized private organization, such as the California Climate Action Registry (CCAR). If an approved protocol is not used, the Proposer needs to identify the specific methodology used to calculate the emission reductions.

The Proposer will submit this information to Port staff for review to assess the merit in funding the proposed project. The Port may request the necessary submittal data in an application template to be provided when non-Port/non-City projects will be considered.

6 Board Approval

Port staff will review all GHG emission reduction projects. Each project, whether initiated within the Port, by its tenants, other City departments, or by non-Port/non-City project applicants, will be evaluated for fulfillment of applicability criteria and ranked if necessary. Staff will then recommend to the Board projects to be funded. The Board will review the recommendations and make final approval determination.

7 Monitoring/Recordkeeping Required and Audit Provisions

The following documentation may be required by the selected project, as necessary.

- Receipts or invoices illustrating the capital and installation cost for the proposed project;
- Photos of the unit or site before mitigations measures were employed and after retrofitting/installation/landscaping etc. as demonstration that the project has been completed;
- The Proposer needs to identify any monitoring, recordkeeping, and reporting requirements needed to demonstrate that the anticipated emission reductions do occur. These requirements need to be identified prior to project approval; and
- For projects requiring on-going maintenance or operations, keep records for five years unless otherwise stated or required.

**Attachment A: Resolution Establishing a Framework for Reducing
Greenhouse Gas Emissions**

RESOLUTION NO. HD- 2461

A. RESOLUTION OF THE BOARD OF HARBOR
COMMISSIONERS OF THE CITY OF LONG BEACH
ESTABLISHING A FRAMEWORK FOR REDUCING
GREENHOUSE GAS EMISSIONS

WHEREAS, the Board of Harbor Commissioners recognizes that there is
strong evidence attributing the effects of global climate change to greenhouse gas
emissions; and

WHEREAS, greenhouse gas emission goals have been established by the
California's Global Warming Solutions Act of 2006 (AB 32); and

WHEREAS, the Harbor Department is quantifying greenhouse gas
emissions as part of the City's greenhouse gas inventory program and the annual port-
wide air emissions inventory; and

WHEREAS, any general rules and regulations that may be needed to
implement particular measures pursuant to this Framework will have to be adopted by
ordinance pursuant to Section 1206 of the City of Long Beach Charter; and

WHEREAS, certain implementation measures may be beyond the
independent jurisdiction of the Board, in which case the Board may work cooperatively
with tenants and customers, and applicable local, state and federal authorities.

NOW, THEREFORE, the Board of Harbor Commissioners of the City of
Long Beach hereby adopts the following in furtherance of a Framework for Reducing
Greenhouse Gas Emissions. Within the limits of its jurisdiction, the Harbor Department
shall endeavor in its activities to:

Section 1. Partner with City departments, tenants, shipping lines and other
stakeholders to implement cost-effective greenhouse gas reduction measures.

Sec. 2. Employ all practical cost-effective measures to avoid, minimize or

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533 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4904

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RESOLUTION (REVISED)

A09-01176
GHG (RJM)

GHG Emission Reduction Program Guidelines
For the Port of Long Beach

OFFICE OF THE CITY ATTORNEY
ROBERT C. SHANKLIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

- 1 mitigate greenhouse gas emissions for all planned and future Port development.
- 2 Sec. 3. Establish goals and targets for achievement of greenhouse gas
- 3 emissions reduction in accordance with or exceedance of AB 32 requirements.
- 4 Sec. 4. Promote the development and implementation of emerging
- 5 greenhouse gas technologies, including reduction, capture, treatment and sequestration.
- 6 Sec. 5. Evaluate opportunities to reduce greenhouse gas emissions from
- 7 existing operations.
- 8 Sec. 6. Maintain a diverse portfolio of greenhouse gas reduction
- 9 mechanisms, including, but not limited to, renewable energy generation; purchase of low-
- 10 emission equipment, materials and supplies; purchase of carbon offsets and/or
- 11 renewable energy credits; and installation of trees and green space.
- 12 Sec. 7. Maximize benefits of greenhouse gas reduction mechanisms to
- 13 include reduction of other pollutants and conservation of resources.
- 14 Sec. 8. Provide incentives to the Port community in furtherance of their
- 15 greenhouse gas emissions reduction strategies.
- 16 Sec. 9. Collaborate with the California Air Resources Board, the South
- 17 Coast Air Quality Management District, the California Climate Action Registry, The
- 18 Climate Registry, and other agencies to promote greenhouse gas emission reductions.
- 19 Sec. 10. Report measured progress toward meeting the goals of AB 32.
- 20 Sec. 11. This resolution shall take effect immediately upon its adoption by
- 21 the Board of Harbor Commissioners, and the Secretary of the Board shall certify to the
- 22 vote adopting this resolution and shall cause a certified copy of this resolution to be filed
- 23 forthwith with the City Clerk. The City Clerk shall post the resolution in three conspicuous
- 24 places in the City of Long Beach.
- 25 //
- 26 //
- 27 //
- 28 //

Exhibit "B"

GHG Emission Reduction Program Guidelines
For the Port of Long Beach

1 I hereby certify that the foregoing resolution was adopted by the Board of
 2 Harbor Commissioners of the City of Long Beach at its meeting of September 15, 2008
 3 by the following vote:

4 Ayes: Commissioners: Strank, Cordero, Walter, Beckle
 5 _____
 6 _____

7 Noes: Commissioners: _____
 8 _____

9 Not Voting: Commissioners: _____
 10 _____

11 *C. J. Mike Walter*
 12 Secretary

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A08-02718
 GHG EMISSION REDUCTION PROGRAM

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Attachment B: Existing GHG Protocols

The standards on which project emission reductions need to be quantified depend upon the rationale for the project. Compliance with a state or federal mandated program may require adherence to strict protocols and procedures. The emission quantification protocol being used for the project under consideration needs to be determined and its use approved by the relevant agency prior to the project being undertaken.

Mitigation efforts, port expansion and improvements, and other port-related projects may not require adherence to strict protocols and procedures. However, in order to be considered for GHG Emission Reduction funding, projects to be considered must be one in which an emissions reduction quantification protocol has been or is being developed in order for a benefit to be recognized. Approved emission protocols, either from the state of California or US EPA, are likely to generate projects that the Board may consider for approval. If a project is being performed to satisfy a regulatory or government requirement, the Proposer should verify with that agency on the appropriate emission quantification protocol to use prior to initiating the project so that the Port can ensure the project meets any regulatory and compliance requirements as well as meeting the Port's cost effectiveness criteria.

The Port has prepared a listing of protocols approved by (or under development by) CARB, CCAR, or SCAQMD for quantifying emissions of specific source categories that will be considered by the Port for funding. Other protocols may be used, but these need to be identified prior to project approval and funding. Using these protocols, the Proposer should calculate the cost and emission reductions over the likely life of the project. Unless otherwise stated, emission reductions and costs should be determined over a 10-year period. If another emission reduction period is used, the Proposer needs to identify and state the reason for use of the proposed alternative time period.

Approved Protocols

The following protocols have been approved by CARB. Other agencies such as the CCAR and the SCAQMD also approve these protocols:

- Urban Forests

The Urban Forest Protocol provides guidance to account for real, additional, and credible GHG reductions from urban tree planting projects. GHG reductions from urban forests are based on the amount of carbon sequestered and stored in urban trees, taking into account GHG emissions associated with the planting, care and maintenance of those trees.

- **Local Government Operations**

The Local Government Operations Protocol is designed to provide a standardized set of guidelines to assist local governments in quantifying and reporting GHG emissions associated with their government operations.

- **Manure Management**

The Livestock Project Reporting Protocol provides guidance to account for and report GHG emission reductions associated with installing a manure biogas control system and focuses on quantifying the change in methane emissions. Specifically, the protocol provides eligibility rules, methods to calculate reductions, performance monitoring instructions, and procedures for reporting project information.

- **Forest Sector**

The Forest Project Protocol was established to concentrate on forest carbon stocks and biological CO₂ emissions. A forest project is a planned set of activities to remove, reduce or prevent CO₂ emissions in the atmosphere by conserving and/or increasing on-site forest carbon stocks in a geographic area. Projects may either represent a geographic subset of a forest entity's total forestland area or occupy all the entity forest area.

Protocols under Development

The following protocols are being developed by CARB, CCAR, and the SCAQMD:

- **Boiler efficiency**

New boilers are more efficient than older, existing boilers. Replacement of these older boilers would improve fuel efficiency and reduce GHG emissions. Installation of an economizer or oxygen (O₂) trim system would provide additional combustion efficiency.

- **Truck Stop Electrification**

A Truck Stop Electrification Project Protocol would establish a standard methodology for determining GHG emission reduction from the use of electric power in lieu of operating a diesel-powered engine on a truck for idling purposes at truck stops, distribution centers, rest areas or other locations.

- **Replacement of high Global Warming Potential (GWP) refrigerants**

High GWP gases can have a substantial effect on global warming as a few pounds of some high GWP material equates to thousands of pounds of CO₂. High GWP chemicals are very common and are used in many different applications such as refrigerants, in air conditioning systems, in fire suppression systems, and in the production of insulating foam. Because these gases have been in use for years, old refrigerators, air conditioners and foam insulation pose a large potential impact if released. Due to the typically enclosed system where high GWP gases are utilized, the two potential routes

for release are through leaking and during the disposal process. Similar to other GHGs, high GWP materials have the potential to persist in the atmosphere for hundreds of years. Potential reduction opportunities have been identified based on specifications for future commercial and industrial refrigeration, changing the refrigerants used in auto air conditioning systems and ensuring that existing car air conditioning systems do not leak.

- Leaf Blowers

The SCAQMD also conducts a leaf blower exchange program through which professional gardeners and/or landscapers can trade in their old (but operational) backpack two-stroke engine leaf blower to get a new 4-stroke engine leaf blower for only \$200. The SCAQMD project protocol would establish the methodology for determining the GHG reductions generated from early retirement of older leaf blowers and replaced with a new lower-emitting, quieter leaf blower.

- Lawn Mower Replacement

The SCAQMD has established a lawn mower exchange program that offers cordless electric lawn mowers to consumers at a subsidized price in exchange for their old operable gasoline powered lawn mowers. Individuals exchanging their lawn mowers paid the participating retailer \$100. The SCAQMD project protocol would establish the methodology for determining the GHG reductions generated from early retirement of older gasoline-fired lawn mowers and replaced with a new electric lawn mower.

Protocols Being Considered

The following protocols are being considered for development by CARB, CCAR, and the SCAQMD:

- Tidal Wetlands Restoration;
- Bus Fleet Upgrade;
- Bus Rapid Transit;
- Alternative fuel vehicles, including biodiesel; and
- Heavy duty fleet upgrades

Other Protocols and Procedures

The Proposer should identify any protocols used that were developed by any other agency or organization outside of California. If the project requires a project-specific protocol, the Proposer needs to identify the quantification procedures used.