




R-28

Date: June 2, 2009

To: Honorable Mayor and Members of the City Council

From: Council Member Tonia Reyes Uranga, Seventh District
Councilwoman Rae Gabelich, Eighth District *RG* 

Subject: **Port of Long Beach Middle Harbor Redevelopment Project Mitigation Measures**

The City Council held a public hearing on May 12, 2009 to consider the appeal of the Port of Long Beach's (POLB) certification of the Middle Harbor Redevelopment Project Environmental Impact Report (EIR). In a memorandum to the City Council and reiterated at the hearing, the City Attorney opined, "Since the Long Beach Charter provides the Board [of Harbor Commissioners] has final decision-making authority over the project and related mitigation measures, the City Council does not have the legal authority to approve or reject the project or make any changes to the project or the mitigation measures." The duty of the City Council was limited to the consideration of the adequacy of the EIR.

At the hearing, we had expressed our intent to bring for the City Council's consideration a request for the Port of Long Beach's to adopt recommendations that would strengthen the Port's efforts to mitigate the impacts of the proposed project:

1. Adopt the recommendations for community participation and involvement outlined in the POLB commissioned "A White Paper on Environmental Justice: *Opportunities on Port of Long Beach Projects*" (White Paper) particularly the section "Public Participation Principles" which includes a recommendation on "Empowering the Public – placing the final decision making in the hands of the public".
2. Increase the amount of grant funds available for the community mitigation measures under the Guidelines for Long Beach Grant Programs to include homes and related impacted community assets and to prepare an off-port impact study to identify appropriate projects.
3. Define membership in a community advisory committee to include member(s) from Zone 1 of the impacted areas and develop a formal roll for the impacted communities consistent with the principles of "*meaningful involvement*" under Executive Order 12898 as defined by (1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health, (2) the public's contribution can influence the regulatory agency's decision, (3) concerns of all participants involved will be considered in the decision making process, and (4) decision makers must seek out and facilitate the involvement of those potentially affected.

4. Provide increased opportunities for community engagement beyond promotional collateral provided via the California Environmental Quality Act's requirements or encouraged for public notification. The White Paper on Environmental Justice cites, "strategies implemented to inform the general public about the proposed project and the Port's activities may differ from strategies to involve a Citizen's Advisory Committee to ensure their issues are considered in project development." To reinforce the importance of meaningful community engagement, the White Paper defines the principles of Reaching Out to Communities, "Beyond complying with specific environmental justice public outreach requirements, promoting more community involvement at all levels fosters a mutually beneficial relationship between public agencies and the communities they serve."
5. Finalize a Project Labor Agreement before construction begins to ensure professional and timely completion of the project.
6. Adopt language that "to the extent that shore power is not used for 100% of the vessel calls, equivalent emissions reductions would be fully achieved thru other means, e.g. the ACTI AMECS technology.
7. Make every effort to adopt San Pedro Bay Clean Air Action Plan standards as soon as possible and report back progress on a quarterly basis to the Environmental and Harbor & Tidelands committees of the City Council.
8. Commit to an electrification master plan for the port and prepare a plan for increasing the alternative fuel vehicles to reach a 50% "on-road" goal and take all feasible actions to implement alternative fuels and electrification of transport and cargo handling.
9. All contractual opportunities should be identified utilized to expedite low emission locomotives and commit to electric technologies at least to transport containers to and from ICTF & SCIG IF they are built.

Recommended Action: Request the Board of Harbor Commissioners adoption of Port projects mitigation measures.

Attachments

Port of Long Beach Memorandum dated March 10, 2009 to Board of Harbor Commissioners regarding Guidelines for the Port of Long Beach Grant Programs
"A White Paper on Environmental Justice: *Opportunities in Port of Long Beach Projects*"



Date: March 19, 2009

To: Board of Harbor Commissioners

From: Richard Cameron, Director of Environmental Planning

Subject: Adopt Resolutions Approving:

“Schools and Related Sites: Guidelines for the Port of Long Beach Grant Programs”

“Healthcare and Seniors’ Facility Program: Guidelines for the Port of Long Beach Grant Programs”

“Greenhouse Gas (GHG) Emission Reduction Projects: Guidelines for the Port of Long Beach”

Requested Action

Adopt the resolution approving the guidelines for Port of Long Beach programs related to Schools and Related Sites and Healthcare and Seniors’ Facility Program, and the resolution approving the Greenhouse Gas (GHG) Emission Reduction Projects.

Background

Addressing environmental impacts is a cornerstone of the Port of Long Beach’s program to move forward with redevelopment and modernization of Port terminals. A number of proposed projects will begin or continue moving forward with environmental review through the California Environmental Quality Act (CEQA) in the near future, including the Middle Harbor project. An important aspect of CEQA is the need to mitigate project specific and cumulative impacts associated with the project. While all feasible mitigation will need to be identified for each project, significant cumulative impacts may remain that can only be further effectively mitigated through a comprehensive program separate from the specific project under development. Generally, staff expects those remaining impacts to fall within three resource areas: air quality, noise, and greenhouse gas emissions. To that end, staff has prepared the attached program guidelines to address cumulative impacts associated with air quality and noise, and project-specific and cumulative impacts associated with greenhouse gas emissions. These guidelines would provide the framework for additional mitigation associated with the approval of specific project developments that could not be achieved effectively through project-specific action.

Description of Current Issues

The attached program guidelines set forth a framework and criteria for the funding of projects that would mitigate the cumulative impacts of port-related operations associated with air quality, noise, and greenhouse gas emissions. By funding such projects through these guidelines, cumulative air quality and noise, and project-specific and cumulative greenhouse gas emission impacts associated with the approval of new port developments would be further mitigated. In order to ensure that the framework proposed by staff was consistent with the Port’s Tidelands Trust obligations, staff met with California State Lands Commission (CSLC) staff. CSLC staff reviewed and provided comment on the draft documents that staff incorporated into the program guidelines.

Air Quality & Noise

Port-related operations have cumulative impacts associated with air quality and noise. While new port developments incorporate Clean Air Action Plan (CAAP) measures and will, over time, significantly reduce impacts to the surrounding communities, significant cumulative impacts remain for the time being.

In order to provide the most benefit to impacted communities, the guidelines seek to reduce air quality and noise impacts to sensitive receptors most impacted by port-related operations. In addition, since air quality and noise impacts are so highly correlated with distance from the sources, the proposed guidelines also identify geographic preference areas for potential mitigation funding. Staff has targeted those areas closest to the Port and Highway 47 and Interstate 710. Those areas have been broken into three zones, with each zone further from the Port and freeway. Those within the closest area, Zone 1, would rank higher than the same project proposed in a more distant zone. The guidelines also identify proven project types eligible for funding, and criteria for ranking and selecting competing proposals (while still providing latitude that viable but unforeseen projects could be proposed). As a result, combined with the implementation of the CAAP and project-specific mitigation, these cumulative mitigation guidelines will help to reduce cumulative air quality and noise impacts in the surrounding communities.

Greenhouse Gases

Given the nature of goods movement, it is generally not possible to fully mitigate either the project-specific or cumulative greenhouse gas emission impacts associated with port development through onsite mitigation. As a result, there is a need for a comprehensive program with a broader focus. The attached guidelines, "Greenhouse Gas (GHG) Emission Reduction Projects: Guidelines for the Port of Long Beach", establish the criteria for funding and selecting greenhouse gas emission reduction projects. At this time, staff feels that the focus should be on greenhouse gas reduction projects close to the source within the Harbor District. When feasible projects within these boundaries are exhausted, the Port will seek to participate in other off-site greenhouse gas emission reduction projects with sufficient nexus to port operations. Through projects that reduce greenhouse gas emissions, such as renewable energy generation, equipment electrification, or tree planting, the Port can achieve additional mitigation that would not be possible on the project site.

Public Participation

During the Engineering and Environmental Committee's consideration and approval of the program guidelines, the Committee requested that staff meet with interested groups to obtain input to the program guidelines prior to bringing the item before the Board for consideration. To that end, staff has met with the following groups:

- West Long Beach Association
- Natural Resources Defense Council
- Coalition for Clean Ports
- Sierra Club
- Center for Biological Diversity
- Los Angeles Alliance for a New Economy
- Community Partners Council
- Coalition for a Safe Environment
- Long Beach Memorial Hospital/Miller Children's Hospital
- Long Beach Unified School District
- International Longshore and Warehouse Union
- State of California Department of Justice (Attorney General's Office)
- South Coast Air Quality Management District

During these meetings, staff provided an overview of each of the three program guidelines, discussion on how these guidelines would work together with CEQA project evaluations and project approvals, and expectations for the nature of projects that may be approved. In response, the groups provided staff with

their comments and concerns regarding the implementation of the guidelines. Their concerns fell into four broad areas: sufficiency of mitigation, community participation, greenhouse gas programs, and evaluation of impacts/land use. Below is a more detailed discussion of the related issues.

Sufficiency of Mitigation

Many of the groups were concerned about whether the funding of these program guidelines as part of a project approval would provide sufficient mitigation. It is important to remember that the purpose of these guidelines is to provide additional mitigation once all feasible project-related mitigation is exhausted, as required by CEQA. The amount provided by each project to these funding mechanisms will be determined on a project-by-project basis. The action before the Board today is adoption of the framework for the use of future appropriations.

Community Participation

Many of the groups were concerned that there were not sufficient opportunities for public involvement. First, as explained above, there has been community participation in the development of these guidelines. There will also be several opportunities for community input on a project-by-project basis. During the CEQA process, the public will have the opportunity to comment on both the draft and final CEQA document. After project approval, the community would have additional opportunity during the mitigation program solicitation process and, again, at Board consideration of projects proposed pursuant to the guidelines. However, staff is recommending that a Mitigation Program Advisory Group (MPAG), composed of a Long Beach community member, an air quality regulatory agency representative, and an industry representative selected by the Executive Director, would be formed that would advise staff on projects proposed pursuant to the guidelines (in a manner similar to the Technology Advancement Program Technical Working Group).

Greenhouse Gas Programs

Several comments were received regarding the nature of the Port's greenhouse gas programs and the greenhouse gas guidelines' relation to those programs. As the Board knows, staff has begun working on a comprehensive Greenhouse Gas Strategic Plan that will serve as a port-wide roadmap to addressing greenhouse gases. While the mitigation guidelines precede the completion of the Strategic Plan, the guidelines will represent one aspect of that plan to achieve additional greenhouse gas reductions when on-site reductions are exhausted through CEQA review. These efforts build on the Port's recent greenhouse gas inventory efforts that are included in the annual port-related mobile sources emissions inventory (since 2006), and the Port's recent efforts with the City developing a Harbor Department inventory for submittal, with the City, to the California Climate Action Registry (CCAR).

Evaluation of Impacts/Land Use

Some of the groups that staff met with were concerned that the mitigation projects funded pursuant to the guidelines would not be as effective as possible since port-related impacts are not well understood. However, staff believes that there is an abundance of information available regarding port-related impacts. Available information includes South Coast Air Quality Management District's (SCAQMD) Multiple Air Toxics Exposure Study (MATES) II and MATES-III, California Air Resources Board's (CARB) Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach, Port's real time air quality monitors, Port of Los Angeles' real-time air quality monitors, SCAQMD's air quality local air quality monitors, and CARB's Harbor Communities Monitoring Study. In addition, some of the

areas that the Port was requested to assess are outside the Board's authority to affect, such as land-use outside the Harbor District.

Implementation

If at the time a new port development project (e.g., Middle Harbor) is approved there exist significant cumulative impacts (and project-specific impacts in the case of greenhouse gases), the Board of Harbor Commissioners could utilize the attached guidelines to further reduce impacts identified in the CEQA review.

Together, the proposed mitigation guidelines provide a framework for addressing significant cumulative air quality and noise impacts, and project-specific and cumulative greenhouse gas emission impacts that could not be achieved through project-specific actions. These guidelines will assist the Port in identifying additional mitigation as required by CEQA, provide long-term benefits to the Port and the surrounding community, and allow proposed projects to move forward.

Financial Implications

The Board will determine funding for these programs at the time of a CEQA document's certification, as necessary. Approval of these resolutions would not result in the allocation of funds at this time.

Previous Action

This item was approved by the Engineering and Environmental Committee on March 2, 2009.

Recommendation

Environmental Planning requests that the Board of Harbor Commissioners:

- 1) Adopt the resolution approving "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"; and
- 2) Adopt the resolution approving the "Greenhouse Gas (GHG) Emission Reduction Projects: Guidelines for the Port of Long Beach."

Recommended by:



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

Approved by:



Richard D. Steinke
Executive Director

Attachments

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

RESOLUTION NO. HD-

A RESOLUTION OF THE BOARD OF HARBOR
COMMISSIONERS OF THE CITY OF LONG BEACH
ADOPTING A PROGRAM FOR MITIGATION OF
CUMULATIVE AIR QUALITY AND NOISE IMPACTS

1. FINDINGS

1.1 The California Environmental Quality Act ("CEQA") requires consideration, and where feasible, mitigation of all significant project impacts. Public Resources Code ("PRC") §21000 and following. This requirement applies to "project-specific effects" and "cumulative impacts."

1.2 "Project-specific effects" are defined as all direct and indirect environmental effects of a project other than cumulative or growth-inducing impacts. PRC §21065.3.

1.3 "Cumulative impacts" are defined as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. Title 14, California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act ("Guidelines") §15355.

1.4 "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past

1 projects, the effects of other current projects, and the effects of probable future
2 projects. Guidelines §15065(a)(3).

3 1.5 Because cumulative impacts consider an individual project in context
4 of other past, present and future projects, the Guidelines recognize that the only
5 feasible mitigation for cumulative impacts may be programmatic in nature rather
6 than imposition of conditions on a project-by-project basis. Guidelines §15130(c).

7 1.6 A significant cumulative impact can be brought below the threshold
8 of significance "if a project is required to implement or fund its fair share of a
9 mitigation measure or mitigation measures designed to alleviate the cumulative
10 impact." Guidelines §15130(b)(5).

11 1.7 CEQA documentation is currently being prepared for a number of
12 potential projects in the Port of Long Beach. Several of these documents are likely
13 to find that there are considerable cumulative air quality and noise impacts. The
14 cumulative air quality impacts are likely to include impacts from conventional
15 pollutants and toxic air contaminants.

16 1.8 The Board of Harbor Commissioners wishes to adopt this cumulative
17 impact mitigation program ("Program") to:

18 (a) design mitigation measures to alleviate the cumulative air
19 quality and noise impacts of projects that may be adopted by the Board in
20 the future;

21 (b) define a process to prioritize funding for these cumulative
22 mitigation measures according to their relative effectiveness in alleviating
23 cumulative impact;

24 (c) establish an ongoing procedure for solicitation, analysis and
25 funding of mitigation measures so that future projects can fund their fair
26 share of these measures.

27 1.9 The Program will contain two focused areas:

28 (a) mitigation of impacts at schools and related sites; and

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(b) prevention of impacts.

1.10 The Board wishes to focus on schools and related sites because studies have shown that children are particularly sensitive to air pollution and that improvements in pediatric pulmonary health can have beneficial effects well into the future. There are a number of schools in close proximity to port operations which may be impacted by both air pollutants and noise. See "Schools and Related Sites Guidelines for the Port of Long Beach Grant Program," Environ February, 2009, attached as Exhibit A.

1.11 The Board also wishes to focus on prevention of health impacts in sensitive populations, including children, senior citizens and people with respiratory illness, through cooperative efforts with local healthcare facilities. See "Healthcare and Seniors Facility Program Guidelines for the Port of Long Beach Grant Program," Environ February, 2009, attached as Exhibit B.

2. MITIGATION OF CUMULATIVE AIR QUALITY AND NOISE IMPACTS

2.1 The Board hereby resolves to adopt the Program for Mitigation of Cumulative Air Quality and Noise Impacts consisting of the following two elements:

(a) "Schools and Related Sites Guidelines for the Port of Long Beach Grant Program," Environ February, 2009, attached as Exhibit A and incorporated by this reference.

(b) "Healthcare and Seniors Facility Program Guidelines for the Port of Long Beach Grant Program," Environ February, 2009, attached as Exhibit B and incorporated by this reference.

2.2 This resolution shall take effect immediately upon its adoption by the Board of Harbor Commissioners, and the Secretary of the Board shall certify to the vote adopting this resolution and shall cause a certified copy of this resolution to be filed forthwith with the City Clerk. The City Clerk shall post the resolution in three conspicuous places in the City of Long Beach.

I hereby certify that the foregoing resolution was adopted by the Board of

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

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Harbor Commissioners of the City of Long Beach at its meeting of _____, 2009

by the following vote:

Ayes: Commissioners: _____

Noes: Commissioners: _____

Absent Commissioners: _____

Not Voting: Commissioners: _____

Secretary

CMG:rjr 02/20/09 #A09-00580
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**Schools and Related Sites
Guidelines for the Port of Long Beach Grant Programs**

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

Prepared by:
**ENVIRON International Corporation
Los Angeles, California**

Date:
March 2009



The Port of
LONG BEACH

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Table 1. Potential Eligible Applicants

Table 2. Grant Program Schedule

1 Introduction

The Port of Long Beach (Port) has developed the program described in these guidelines in an effort to mitigate potential cumulative air quality and noise impacts of projects to modernize and upgrade marine terminals and other facilities in the Long Beach harbor area. The California Environmental Quality Act (CEQA) requires consideration, and where feasible, mitigation of all significant project impacts including "cumulative" impacts. "Cumulative impacts" are defined as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. Cumulative impacts from several projects are considered for other projects proposed within the area that would have the potential to contribute cumulatively to the Port's proposed project air quality incremental impacts and includes other facilities' approved and pending project construction and/or operational activities. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. Cumulative analysis of air quality impacts for the Port uses projections from the South Coast Air Quality Management District (SCAQMD) 2007 Air Quality Management Plan¹ (AQMP) for the South Coast Air Basin (Air Basin) and the MATES-II² and MATES-III³ studies. The region of analysis for the Port's cumulative effects on air quality is generally:

1. The Air Basin for criteria pollutants;
2. A "zone of influence" for health risk analysis purposes, defined as the area within the one-in-a-million isopleths of health risk increment and/or a non-cancer acute or chronic hazard index of 1.0 for the specific project; and
3. Globally for greenhouse gases, with a focus on the state of California.

The Air Basin is classified as "serious" nonattainment for particulate matter less than ten microns in diameter (PM₁₀) and as nonattainment for PM less than 2.5 microns in diameter (PM_{2.5}) federal standards. Moreover, the Air Basin is classified as nonattainment for the state PM₁₀ standard. Thus, any increases in these pollutants' emissions are generally considered to be significant. Studies have shown that sensitive receptors, such as children, the elderly and those with certain pre-existing illnesses, are particularly sensitive to air pollution; children in particular are sensitive and improvements in pediatric pulmonary health can have beneficial effects well into the future.

¹ SCAQMD, 2007. 2007 Air Quality Management Plan. Website: <http://www.aqmd.gov/aqmp/07aqmp/index.html>

² SCAQMD, 2000. The Multiple Air Toxics Exposure Study (MATES-II) for the South Coast Air Basin. Planning Division.

³ SCAQMD. 2008. Multiple Air Toxics Exposure Study. Draft MATES III Report. Website: <http://www.aqmd.gov/prdas/matesIII/matesIII.html>

The Port has developed programs to address cumulative air quality, noise, and greenhouse gas impacts. In the guidelines for this program, the Port has identified eligible applicants to be schools, preschool and daycare centers where children, which are sensitive to PM pollution exposure, spend a significant portion of their waking hours.

As with the requirements under CEQA, the eligibility criteria for particular schools, preschools and daycare centers have been developed to take into account that cumulative air quality and noise impacts as a function of distance from the San Pedro Bay Port area and the related goods movement transportation routes, e.g. I-710 and SR-47. The California Air Resources Board (CARB) Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach study⁴ and recent modeling work during the development of the Clean Air Action Plan (CAAP) Baywide health standard have shown that areas downwind (north and east) of the Port are most heavily impacted by pollution steaming from Port activities. For this reason, the guidelines give preference to those facilities closer to the Port because the children at those facilities will likely be exposed to higher pollution levels.

The Port has developed a list of projects, which can be implemented effectively at schools, preschools and daycare centers, with demonstrated direct improvements to exposure to air and noise pollution; these projects have specified eligibility criteria to ensure that the demonstrated improvements will be achieved. The air-related projects are based on programs promulgated and approved by the boards of CARB and SCAQMD. These projects have been shown to result in either a decrease in PM (as well as other criteria pollutant) emissions or to reduce exposure to those pollutants.

These guidelines: (1) establish eligibility criteria for potential applicants based on presence of children, who are sensitive to air pollution, and the proximity to the San Pedro Bay Ports; (2) provide the metrics that will be used to assess a project's air quality and/or noise impact mitigation potential, based on established regulatory air reduction/mitigation programs and the latest scientific information on noise impacts; and (3) explain how funding provided by the Port will be distributed among projects and eligible applicants.

2 Eligible Applicants

A list of potential applicants has been compiled for the area surrounding the Port. Air and noise impacts are a function of distance from the Port. Accordingly, zones of impact were established for purposes of ranking each applicant based on the distance of each facility to the Port or the Port's transportation routes, e.g. I-710 and SR-47. Facilities within 1 mile of the Port or these transportation routes are in Zone 1, facilities within 2 miles are in Zone 2, and facilities within 3 miles are in Zone 3. Because the prevailing winds coming from the Port head north and east, schools in these areas will be given priority over those to the north and west. Furthermore, the schools in the areas to the northwest of the Port also have access to additional funding, such as from the Port of Los Angeles TraPac Agreement. Schools within this area, although still

⁴ Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach, dated October 3, 2005

encouraged to apply for funding, will be given a lower funding priority. A listing of the schools (kindergarten through 12th grade), daycare centers and preschools meeting the distance criteria and in the focus area (north and east of the Port) is shown in Table 1. The location of each potential applicant is also plotted on the attached map (Figure 1). The northwest area subject to lower funding priority has been indicated by hash-marks.⁵

Table 1. Potentially Eligible Applicants

Site	Address (Long Beach)	Type
Zone 1		
Long Beach Day Nursery West Branch Main Office	1548 Chestnut Ave.	Daycare
LBUSD - 8th Street Head Start	820 Long Beach Blvd.	Preschool
LBUSD Head Starts	927 Pine Ave.	Preschool
Childtime Learning Center	1 World Trade Center, #199	Preschool and Kindergarten
Birney Elementary School	710 W Spring St	Elementary School
Cesar Chavez Elementary School	730 W. 3rd St.	Elementary School
Edison Elementary School	625 Maine Ave	Elementary School
Garfield Elementary School	2240 Baltic Ave	Elementary School
Holy Innocents Elementary School	2500 Pacific Ave	Elementary School
Hudson Elementary School	2335 Webster Ave	Elementary School
International Elementary School	700 Locust Ave	Elementary School
Lafayette Elementary School	2445 Chestnut Ave	Elementary School
Los Cerritos Elementary School	515 W San Antonio Dr	Elementary School
Muir Elementary School	3038 Delta Ave	Elementary School
Robinson (Jackie) Elementary School	2750 Pine Ave	Elementary School
Webster Elementary School	1755 W. 32nd Way	Elementary School
Cambodian Christian School	507 Pacific Ave	K - 12th grade
First Baptist Church School	1000 Pine Ave.	K - 12th grade
St. Lucy's School	2320 Cota Ave	K - 8 th grade
George Washington Middle School	1450 Cedar Ave.	Middle School
Stephens Middle School	1830 W Columbia St	Middle School
Cabrillo (Juan Rodriguez) High School	2001 Santa Fe Ave	High School
Regency High School	490 W 14th St	High School
Renaissance High School Arts	235 E. 8th St.	High School
Artesian Well Christian Academy	1235 Pacific Ave	Elementary and Middle School
New City	1230 Pine Ave	K - 8th grade
Zone 2		
The Learning Vine Day School	4829 Long Beach Blvd.	Daycare
First Lutheran Pre-school	946 Linden Ave.	Preschool

⁵ As noted in Sections 5 and 6, accrued points for applicant eligibility and project ranking will be halved for applicant/projects in the hash-marked area consistent with the discussion in Section 2.

Schools and Related Sites
Guidelines for the Port of Long Beach Grant Programs

Site	Address (Long Beach)	Type
First Lutheran School	905 Atlantic Ave	Preschool
LBUSD - 4th Street Head Start	417 Atlantic Ave.	Preschool
Montessori on Elm	930 Elm Ave.	Preschool
YMCA State Preschool	607 E. 3rd St.	Preschool
Grace Christian Schools Long Beach	3601 Linden Ave.	Preschool - 6th grade
Oakwood Academy	2951 Long Beach Blvd	Preschool - 6th grade
St. Barnabas	3980 Marron Ave	Preschool - 8th grade
Carousel Preschool	366 Cherry Ave	Preschool and Kindergarten
Love 4 Learning Academy	306 Elm Ave.	Preschool and Kindergarten
Burnett Elementary School	565 E Hill St	Elementary School
Butler (Mary) Elementary School	1400 E 20th St	Elementary School
Lincoln Elementary School	1175 E. 11th St.	Elementary School
Longfellow Elementary School	3800 Olive Ave	Elementary School
Parkridge Private School	3605 Long Beach Blvd # 304	Elementary School
Robert Louis Stevenson Elementary School	515 Lime Ave.	Elementary School
Roosevelt Elementary School	1574 Linden Ave.	Elementary School
St. Anthony Elementary School	855 E. 5th St.	Elementary School
Sutter Elementary School	5075 Daisy Ave	Elementary School
Long Beach Adventist School	4951 Oregon Avenue	K - 8 th grade
Praise Temple Academy	5095 Long Beach Blvd.	K - 12th grade
Constellation Middle School	620 Olive Ave.	Middle School
Franklin Classical Middle School	540 Cerritos Ave.	Middle School
Hughes Middle School	3846 California Ave	Middle School
LBUSD Pacific Learning Center	780 Atlantic Ave.	High School
Polytechnic High School	1600 Atlantic Ave	High School
Polytechnic Senior High School Paal campus	1545 Long Beach Blvd.	High School
St. Anthony High School	620 Olive Ave.	High School
Young Horizons: Juvenile Diversion	501 Atlantic Ave.	School with special academic education
Zone 3		
Our Saviours Lutheran Pre-school	370 Junipero Ave.	Preschool
Creative Arts School	1423 Walnut Ave	Preschool - 6th grade
First Foursquare Church Preschool	2416 E 11th St	Preschool and Kindergarten
Addams Elementary School	5320 Pine Ave	Elementary School
Barton Elementary School	1100 E Del Amo Blvd.	Elementary School
Burbank Elementary School	501 Junipero Ave.	Elementary School
Huntington Elementary School	2935 East Spaulding Street	Elementary School
Lee Elementary School	1620 Temple Ave	Elementary School
St Athanasius Elementary School	5369 Linden Ave	Elementary School
Whittier Elementary School	1761 Walnut Ave	Elementary School
Willard Elementary School	1055 Freeman Ave	Elementary School
Praise Christian Academy Inc.	1145 E. Market St.	K - 12th grade
Bethany Christian School	93 N Baldwin Ave # B	K - 8th grade
Powell (Colin L.) Academy for Success	150 Victoria St.	K - 8th grade

Site	Address (Long Beach)	Type
Westerly School of Long Beach	2950 E 29th St.	K - 8th grade
Lindbergh Middle School	1022 E Market St	Middle School
Promise Academy	5875 Atlantic Ave.	High School

The Port recognizes this list may not include all potential facilities. If a school, preschool or daycare center is not listed in Table 1 or Figure 1 but is within the zones indicated, the facility is eligible to participate in the programs described in these guidelines by including in the required application an address where the project would occur, the zone in which the facility is located, the type of school or facility, and the number of students.

3 Program Funding

3.1 Frequency of Funding and Program Schedule

The Port has established a fund for eligible projects meeting the criteria listed in Section 4. The Port will issue a Request for Proposal (RFP) to solicit proposals consistent with these guidelines. Upon closing of the RFP listing, the Port will review all proposals and fund all projects that meet the criteria up to a funding cap. If more proposals are received than there is funding available, the Port will use the project criteria included in these guidelines to rank the submitted proposals. Those proposals with the highest ranking will be funded. If an insufficient number of proposals are received that meet the eligibility criteria, the Port may re-release the RFP. Applicants should submit a separate proposal for different project types even if the projects will occur at the same facility.

The approximate schedule for the grant program process is set forth in Table 2.

Table 2. Grant Program Schedule

Grant Program Action	Date
RFP Release	
Proposal Due Date	
Port Review	
Board Consideration	
Award of Funding	

3.2 Disbursement of Funding

Funds will be awarded by the Board of Harbor Commissioners (Board) based on staff recommendations after proposal review. Grant recipients will be required to submit documents demonstrating completion of the proposed project including a certification from the principal or head school official stating the project has been completed as specified in the grant application; copies of any and all receipts for installation, etc.; and a photo of the installed unit, modification, landscaping, etc., as appropriate. All requests for reimbursement must be received within TBA months of project approval by the Board. Upon request, additional funding mechanisms will be considered.

3.3 Application Submittal

The applicant shall submit five copies (or one copy of a pdf file on CD) of the application in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the applicant and the name of the program announcement number.

Port of Long Beach
Attn: Grants Program
925 Harbor Plaza
P.O. Box 570
Long Beach, California 90802

All applications must be signed by an officer of the eligible facility with authority to enter into contracts on behalf of the partner. Applications without authorizing signatures will not be accepted.

3.4 General Application Submittal Details

Program announcements and applications can be obtained by accessing the Port web site at www.polb.com/TBA. Port staff members will be available to answer questions during the application acceptance period. In order to help expedite assistance, inquiries can be directed to the applicable staff person, as follows:

- For **General, Administrative, or Technical Assistance**, please contact:

Heather Tomley
Tomley@polb.com
562-590-4160

- For **Questions on Reimbursement/Invoicing**, please contact:

Contact information TBA

4 Project Types

Below is a listing of eligible projects that could be funded by the Port grant program. This listing has been compiled based on programs initiated by the CARB and SCAQMD (e.g., the Carl Moyer Program, the Air Quality Investment Program (AQIP), South Bay Schools Air Filtration Project) that have been shown to result in a decrease in air quality PM, as well as other criteria pollutant, emissions or to reduce exposure to those pollutants. As cited in the below sections, outside research has further demonstrated the ability of these proposed measures to improve air quality or mitigate the impact of air pollutants on people. In developing these guidelines, the Port has relied heavily on these demonstrated CARB and SCAQMD air quality mitigation programs.

4.1 Cumulative Air Impact Mitigation Projects

4.1.1 Indoor Air Mitigation Measures

4.1.1.1 HEPA Filter Replacement and HVAC Upgrades

The main purposes of a heating, ventilation, and air-conditioning (HVAC) system are to help maintain good indoor air quality through adequate ventilation with filtration and provide thermal comfort. HVAC systems are among the largest energy consumers in schools. The choice and design of the HVAC system can also affect many other operating parameters, including water consumption and acoustics.

One option schools have to improve better indoor air quality is to install mechanical air filters to remove particles by capturing them on filter materials such as high efficiency particulate air (HEPA) filters. High efficiency filters are often recommended as a cost-effective means of improving indoor air quality performance while minimizing energy consumption. Most HEPA filters are good at capturing larger airborne particles, such as dust, pollen, dust mite and cockroach allergens, some molds, and animal dander. Filter removal efficiency is measured by the minimum efficiency reporting value (MERV), developed by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), for air filters installed in the ductwork of HVAC systems. MERV ratings (ranging from a low of 1 to a high of 20) also allow comparison of air filters made by different companies. In order to achieve a high level of particulate removal from indoor air at schools, HEPA filters with a MERV of 17 to 20 should be installed. During a pilot test in which inefficient filters or lack of filters were replaced with HEPA filters at a number of schools, the SCAQMD measured a 70-90% decrease indoors in outdoor fine PM and diesel PM (DPM) compared to only 10-20% reduction in PM and DPM without filters.⁶

The Port proposes to fund projects by eligible applicants to replace existing low efficiency filters with HEPA filters. A typical HEPA filter costs less than \$100-150 per filter. It is anticipated that numerous filters will be needed depending on the size of the school. Replacement HEPA filters must meet a MERV rating of 17-20. Because HEPA filters need to be replaced at least every 6 months in order to be effective, the applicant may include in its application a request for funding for HEPA filters needed for up to 5 years. Alternatively, for those schools, preschools and daycare centers which do not have an existing central HVAC system capable of utilizing HEPA filters, eligible applicants may propose to install stand alone HVAC system(s) complete with HEPA filters. Small stand alone units cost about \$8,500. Prices will vary depending on the size of the classroom it will serve. To be eligible for funding, stand alone units must meet the requirements of the ASHRAE guidelines.⁷ Filter installation costs have been assumed to be 50% above the capital cost for the filters. Installation of the stand alone HVAC units is anticipated to be straightforward and not require additional labor.

⁶ Per a phone conversation with Phil Fine of the SCAQMD on December 18, 2008.

⁷ <http://www.ashrae.org/publications/detail/14891>

4.1.1.2 New Window/Door Seals and/or Replacement

Because improvements in window or door seals and/or replacement of drafty windows and/or doors can also improve ventilation and thus, reduce indoor air quality problems, applicants may also include with their indoor air mitigation application proposals to upgrade existing windows and doors by either replacing the seals or the windows/doors. The application should include specifications for the types of seals, replacement windows and/or replacement doors to be installed as well as the manufacturers guarantee or certification that the replacement will reduce the intrusion of outdoor air indoors. Installation costs for window and door replacements have been assumed to be 50% above the capital cost of the replacement window or door.

4.1.2 Retrofitting school buses

DPM, or the solid particles in diesel exhaust, is a toxic air contaminant. The health impacts of particulate matter in general have been studied, and exposure to it is associated with a variety of health effects, including premature death and a number of heart and lung diseases. The CARB conducted the Children's School Bus Exposure Study in 2003 to characterize the range of children's exposures to diesel pollution during their commute to school by diesel school buses.⁸ This study found that conventional diesel school buses had significantly higher on-board diesel related pollutant (DRP) concentrations such as black carbon and particle-bound polycyclic aromatic hydrocarbons (PAHS) than could be due to roadway pollutant concentrations alone. With the windows closed, the DRP concentrations were two to five times higher in conventional diesel buses compared to the cleaner buses. The compressed natural gas (CNG)-powered bus and the particulate trap-equipped bus showed significantly less on-board concentrations of DRPs compared to conventional diesel buses.

In order to mitigate the negative impacts of exposure of school children to DPM, the Port proposes to fund the incremental replacement cost for alternative-fuel buses or DPM filter retrofit of existing diesel school buses not already funded by state agencies or other entities. The Port will provide funding to selected applicants that meet the following criteria established by the SCAQMD's Air Quality Investment Program (AQIP):

Retrofits

- The program is for retrofit of 1994 and newer diesel buses with CARB-verified Level 3 PM trap filters.
- Funds will be provided, up to \$20,000, to cover all or a substantial portion of the cost of purchase, sales tax, and installation of either an active or passive PM trap filter.
- For active filters, funds will also be provided to cover electrical infrastructure.
- From \$1,500 to \$2,500 per trap are available for life-time maintenance. With these maintenance funds, applicants are encouraged to install one or multiple PM trap de-ashing/cleaning systems in-house. A minimum of 2 quotes should be included.

⁸ California Air Resources Board. *Characterizing the Range of Children's Pollutant Exposure During School Bus Commutes*, October 10, 2003. <http://www.arb.ca.gov/research/schoolbus/schoolbus.htm>

Or

School Bus Replacement

- The program is for replacement of
 - 1977-1986 school buses with new alternative fuel buses, and
 - All school buses with 2 stroke diesel engines.
- All the replaced and the new replacement buses must have a manufacturer gross vehicular weight rating (GVWR) of greater than 14,000 pounds and be powered by a heavy-duty engine (CARB classification).
- Based on CARB's updated emission standard criteria, buses with heavy-duty engines meeting the following standards in which the manufacturer currently participates in the Lower-Emission School Bus Program would be eligible for funding from this program:
 - For model years 2007 to 2009, new alternative fuel school buses must be certified to meet at least 1.44 g/bhp-hr combined NMHC+ NO_x or lower, and 0.01 g/bhp-hr PM or lower.
 - For model year 2010, new alternative fuel school buses must meet the emission criteria of 0.2 g/bhp-hr NMHC + NO_x or lower, and 0.01 g/bhp-hr PM or lower.
- Only replacement buses will be funded. Fleet expansion buses are not eligible for funding. Grant recipients will be awarded funding for incremental cost between new alternative fuel bus and a replacement (new) diesel-fueled bus. An average alternative fuel bus replacement cost has been cited at about \$158,000 which is about \$30,000 - \$40,000 more than a diesel-fueled school bus. The Port will therefore provide funding for an incremental cost of no more than \$40,000 towards the purchase of each alternative fuel bus.
- Priority shall be given to replacement of the oldest buses from the group of buses for which applications are submitted.
- All the replaced 1977-1986 school buses and buses with 2 stroke engines must be crushed.
- All replaced buses (1977-1986 and 2 stroke engines) must be in current use, must have a CHP certificate valid as of Dec 31, 2005 and continuously thereafter for 3 years, and a valid, verifiable DMV license. Additional information as evidence that these buses are in operation may be required.

In addition to meeting the above criteria, the applicant must dedicate the retrofitted or replaced bus for operation within the City of Long Beach for at least five years.

4.1.3 Emergency engine/generator retrofits with PM traps and/or low sulfur fuel

Engines and generators can be retrofitted with diesel particulate filters (DPF) to reduce the emissions of DPM. The removal efficiency varies and depends on the type of DPF, as well as

the engine or generator being retrofitted. Several DPFs are currently verified by the California Air Resources Board (CARB), with verified efficiencies of up to 85%.⁹ CARB maintains a list of vendors selling verified DPFs which can be found at <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>.

In order to mitigate the negative impacts of exposure of school children to DPM, the Port proposes to fund the retrofit of existing emergency engines or generators not already funded by state agencies or other entities for selected applicants. The cost of retrofitting a diesel backup generator of up to 125 kW is expected to be no more than \$12,500, while the cost for a generator of greater than 125 kW is expected to be no more than \$20,000.¹⁰

If retrofits are not possible, the Port proposes to provide funding, not to exceed \$42,000, for the incremental cost of replacing an existing diesel generator with a generator using clean fuel or equipped with a CARB Level 3 PM trap versus a typical diesel generator. Documentation will be required demonstrating that the replaced generator has been dismantled and disposed of so it does not contribute to DPM pollution through use in another location.

Retrofit or replacement units must remain in place at the selected applicant location for a minimum of 10 years.

4.1.4 School Yard Perimeter Landscaping and Maintenance

The University of California, Davis conducted a recent study¹¹ in which they measured the removal rate of PM passing through 2 m of leaves and needles in realistic vegetation configurations as a function of particulate size. Specifically, they focused on the ability of finely needled and leaved trees suitable for removing the most dangerous highway pollutants from diesel and smoking cars near roadways – the redwood, deodar, live oak and oleander. The study found that all forms of vegetation studied were able to remove 30% to 80% of very fine particles at the low wind velocities tested; redwood and deodar were about twice as effective as live oak. These studies confirmed the theoretical prediction that vegetation is highly effective in removing some of the most toxic components in the ambient atmosphere, namely diesel and smoking car exhaust. The effectiveness was found to be the greatest at low wind velocities and when vegetation was very close to the source. In addition, they showed that the particles, once impacted onto vegetation, were not easily removed at low wind velocity.

Other similar studies have also shown that vegetation or landscape barriers (such as shrubs, bushes trees) can serve as biofilters, or biological devices that remove dust, PM, and associated odors from the air.¹² The cost and efficacy are highly dependent on the selection

⁹ CARB. 2008. Verification Procedures – Currently Verified. A summary of verified diesel emission control strategies.

¹⁰ SCAQMD. 2004. Funding for Particulate Matter Traps on School Diesel Backup Generators – Program announcement and application (PA #2005-05). <http://www.scaqmd.gov/rfp/attachments/2004/PA2005-05.doc>

¹¹ Cahill, Tom; Delta Group. "Removal Rates of Particulate Matter onto Vegetation as a Function of Particle Size". University of California, Davis for Breathe California of Sacramento – Emigrant Trails, April 2008.

¹² e.g. CARB, 2003. Air pollution – Particulate matter brochure. California Air Resources Board. May 2003.

<http://www.arb.ca.gov/html/brochure/pm10.htm>; Iowa State University. 2004. Practices to reduce dust and particulates from livestock operations. University Extension. July 2004.

<http://www.extension.iastate.edu/Publications/PM1973a.pdf>

and location of the barrier. Typically, barriers with large surface areas are more effective at adsorbing PM. One study found that trees with a diameter greater than 2.5 feet removed approximately 70 times more air pollution annually than small healthy trees with a diameter less than 0.3 feet.¹³ Some of the best trees for improving air quality generally have large leaf surface areas at maturity, low volatile organic compound (VOC) emissions, relatively high transpiration rates, and/or leaf characteristics amenable to particle collection (e.g. numerous trichomes, sticky).¹⁴

Based on the combined effects of pollution removal, VOC emissions (in order to not contribute additional air pollution emissions while reducing PM pollution) and air temperature reduction of 242 tree species at maturity under average U.S. urban conditions, the following trees have been found to be the top rated species for improving PM air quality in addition to those discussed above.¹⁴

- *Ulmus procera* (Golden Elm)
- *Plantanus occidentalis* (American Sycamore)
- *Chamaecyparis lawsoniana* (Lawson Cypress)
- *Cupressocyparis leylandii* (Layland Cypress)
- *Juglans nigra* (Black or American Walnut)
- *Eucalyptus globulus* (Tasmanian Blue Gum)
- *Tilia europea* (European Linden)
- *Abies alba* (Silver Fir)
- *Larix decidua* (European Larch)
- *Picea rubens* (Red Spruce)

The Port proposes to fund selected applicant projects focused on the planting of vegetation for the purposes of providing a barrier between the surrounding vehicular traffic and roadways and the schools and school yards. Applicants will be required to submit a landscaping plan which indicates the number, type and location of vegetation that will be planted, a description of the costs associated with planting of vegetative barrier and potential maintenance expenses (the applicant will be responsible for maintenance costs; however, the Port requests this information for accessing the proposal). On average, the above listed trees cost \$400 per mature tree (at least a 2.5" diameter). Installation of mature trees is estimated to about twice the capital cost of the tree or shrub. At a minimum, the landscaping should include the planting of the trees discussed above, or similar trees. Other trees or shrubs may be used; however, the landscaping plan should include information demonstrating its effectiveness in removing PM. Vegetation should be planted along the boundary of the school or school yard, adjacent to the

¹³ Nowak, D. J. 1994. Air pollution removal by Chicago's urban forest. In: McPherson, E.G., D.J. Nowak, and R.A. Rowntree. Chicago's Urban Forest Ecosystem: Results of the Chicago Urban Forest Climate Project. USDA Forest Service General Technical Report NE-186. pp 63-81.

¹⁴ Nowak, D.J. 2000. Tree Species Selection, Design and Management to Improve Air Quality. Annual Meeting Proceedings of the American Society of Landscape Architects. Washington, D.C.

roadways with high vehicular traffic. In addition, applicants may request funding for operation of an electric lawn vacuum for maintenance purposes of up to \$200/device.

4.2 Cumulative Noise Impact Mitigation Projects

In addition to air quality mitigation measures, the Port recognizes the need to mitigate potential noise nuisances which school children may be exposed to in the surrounding heavily industrialized area near the Port. Therefore, the Port is also offering additional funding for eligible projects that include noise mitigation measures that meet the criteria outlined in Section 6.3. Although there are multiple means to control environmental noise, there are two main targets for noise mitigation: exterior and interior locations that involve uses that may be sensitive to noise. In many cases, when noise levels at exterior locations are minimized, interior noise levels benefit (e.g., a barrier shielding the school yard from traffic noise also reduces sound levels inside the school). Below are the potential noise mitigation projects which will be considered by the Port. Because the noise impact mitigation measures discussed below are also expected to mitigate air quality impacts, noise mitigation projects will only be considered in combination with air quality mitigation projects discussed above.

4.2.1 Noise Walls or Berms

Noise barriers (either noise walls or berms) are often built to shield against excessive traffic noise from highways or major roads. Barriers are typically constructed within a roadway's right-of-way, which, by placing the barrier close to the source, is more effective at breaking line-of-sight between the source and the noise receptor. Noise barriers designed to shield receivers from traffic noise are aimed primarily at the most affected or most potentially impacted receivers. Effective barriers reduce traffic noise to within acceptable levels at these receivers, or reduce traffic noise by a target amount (e.g., by at least 10 dBA below projected non-mitigated levels).

Walls designed to shield noise transmission are often built along linear sources (e.g., a highway) or around permanent point sources (e.g., around a garbage compactor). The most effective walls in terms of providing noise reduction and lowest life-cycle costs are made of some form of masonry material, with a density of *at least* 4 lbs/square foot. Noise walls must be solid in perpetuity from ground to full height, and must be sufficiently tall and long to break all lines-of-sight between the source and receiver. In general, the taller the wall, the more effective it is. If line of sight is not broken, a wall will likely not be effective. For a linear source such as a highway, the wall must be long enough to break line of sight at the nearest portion of the noise source, and at distance locations in each direction. As a general rule, for a traffic source, a noise wall must extend at least 65 degrees from the nearest perpendicular point to the receiver (provided there are no other intervening surfaces like terrain or buildings that might limit the length of wall required to shield a receiver). For receivers very near a wall, it would not need to extend very far. For receivers further from a wall, a much longer wall would be required to effectively shield the noise source.

Noise berms are typically constructed of earthen material such as dirt. They require a minimum slope on either side to maintain stability, and because of this they are typically both denser and more absorptive than a wall, and hence provide more transmission loss for a similar height. Often fill from excavation can be used to construct a berm, reducing its cost. Effective (i.e., tall

and long enough) berms require much more area than a similar height noise wall. In some situations, a berm-wall combination may be a better noise shield and more cost-effective.

Another potential option would be the planting of additional vegetation. In order to achieve a noticeable reduction in noise levels (i.e., about 5 dBA), a substantial amount of vegetation is required between the sources and receiver. In general, at least several hundred feet of vegetation tall enough to obstruct the sound path and dense enough to block visibility through it are required to provide noticeable reductions in noise. The International Organization for Standardization (ISO) has established procedures to calculate the potential mitigation provided by vegetation based on distance and the average height of the vegetated area.

In order to maximize the limited space around schools, preschools and daycare centers, an alternative may be a combination of these three types of noise barriers. One of these facilities could potentially construct a noise berm with vegetation on top. As discussed in the above section, the addition of vegetation would also help to reduce PM emissions. Therefore, eligible applicants are encouraged to apply for funding of noise berm/wall projects that incorporate the use of vegetation.

The cost of constructing a noise wall will vary considerably, and will depend on the type of wall material, the size of the wall, and any other related costs including traffic control, drainage modification, retaining walls, landscaping, right-of-way costs, and aesthetics treatment. In addition, taller walls may require more footing reinforcement, which adds to the construction cost. Some states have identified the allowable cost per square foot for noise walls built along state highways. Washington State estimates the average noise wall will cost \$53.40 per square foot, which includes all related design and construction activity. CALTRANS does not specifically identify construction costs, but requires an assessment be completed to evaluate and include all potential construction-related activity in noise wall cost estimates. The Port proposes to fund noise barrier projects that do not to exceed \$53.40/ft². A noise wall cost estimate in lines with requirements by CALTRANS will be required along with an RFP application.

4.2.2 Indoor Noise Mitigation

To effectively shield noise levels at interior locations, exterior noise levels must be reduced either by reducing exterior noise levels (see above) or by reducing sound transmission through a building envelope. For most buildings (including schools, preschools and daycare centers), windows and doors provide the least amount of obstruction to noise transmission (i.e., transmission loss) through the building partition. Windows and doors can vary greatly in how effective they are at reducing exterior noise, and the amount of transmission loss provided by each depends on the quality of the window or door, the type of material out of which it is made, how tightly sealed they are when closed, and how well the joints in the wall partition are sealed during installation. The amount of noise insulation provided by a window or door is rated using the Sound Transmission Class (STC) system. STC is the amount of sound that is *not* passed through a window or door, when closed and properly installed.

In most cases where windows are replaced to reduce interior noise levels, a good quality double-glazed window is sufficient, typically with an STC classification of between 25 and 35. A

double-glazed window or insulated window is one that has two sheets of glass separated by a dry air-gap that acts to provide both thermal and acoustical insulation. The most effective double-glazed windows have sufficient spacing between each layer of glass to achieve the desired insulating effect. Although triple-glazed windows are available, they do not typically provide a greater amount of transmission loss than do double-glazed windows, unless the spacing between panels is very large which typically makes the windows cost and space-prohibitive. In addition, the thickness of the glass panels can increase or decrease the amount of transmission loss. In general, the thicker the glass, the better the insulating properties of the window.

Windows that can open generally achieved a lower STC rating than windows that are sealed shut and not operable. Even with properly installed and good quality weather stripping, the STC rating of closed, operable window can be 3 to 5 dBA lower than of a similar window that does not open. Windows that must be opened during warm weather lose their ability to reduce noise once the window is open. Therefore, in order to be effective year-round, noise-insulating windows must be accompanied by a ventilation system such as HVAC units or other cooling mechanisms.

Exterior doors installed with tight weather stripping will provide the most effective noise reduction. In general, doors without windows have higher STC ratings than doors with windows. Solid core doors provide much higher STC ratings than hollow-core doors (up to about 35, compared with 20). Because doors are designed to be opened, and they typically open into rooms not generally considered sensitive use areas (hallways, etc.), doors usually are somewhat less critical to effective interior noise mitigation than insulated windows.

Based on the above discussion, the Port proposes to fund projects that include indoor noise mitigation measures meeting the above requirements. In order to effectively reduce noisy exterior levels to within acceptable interior levels, indoor noise mitigation projects should include replacement of windows with double-glazed or insulated windows with an STC classification greater than 26 and are designed to remain closed. Door replacements should have an STC classification of at least 35. For older buildings which do not have HVAC units, additional funding for indoor noise mitigation projects will only be provided if installation of a HVAC unit is included in the proposed project. Such units need to be installed such that they do not contribute to overall interior sound levels (i.e., using quiet HVAC models, or HVAC units shielded by a barrier).

4.3 Additional Project Options

If there is a project not listed above which an applicant believes would help to mitigate air quality or noise impacts, the facility is encouraged to submit an application consistent with the program guidelines. The application should describe the mitigation measure, capital and maintenance costs, if applicable, and air quality and noise impact reductions expected.

5 Criteria and Ranking for Eligible Applicants

The Port has established ranking criteria for proposal funding. Eligible applicants must be schools, licensed preschools or licensed daycare centers that are within the zones identified in Figure 1. Funding will be awarded to the highest ranked eligible applicants in combination with

the applicant's project rating (see Section 6.2) based on the following point system. Those facilities that are to the northwest of the Port within the hash-mark portion of each zone will be allocated half the total points available for the type of facility in which the applicant is requesting funding for (e.g. a daycare in the hash-mark area of zone 1 that proposes a project benefitting 40 students/\$10,000 would be allocated 5 points versus 10 points).

Eligible Applicant Criteria	
Location Relative to the Port (Figure 1)	Allocated Points
Zone 1	5
Zone 2	3
Zone 3	1

Type of School	Allocated Points
Daycare/Preschool	4
Elementary	3
Middle	2
High School	1

Number of Students Benefitted per \$10,000 awarded¹⁵ (Project-Specific)	Allocated Points
<50	1
50-100	3
> 100	5

6 Criteria and Ranking for Eligible Projects

6.1 Criteria for Eligible Air Mitigation Projects

In addition to meeting the requirements to be an eligible applicant, proposed projects must meet the requirements and cost criteria summarized in the following table.

Eligible Projects	Approvability Criteria	Cost Criteria
Indoor Air Mitigation		
HEPA filters	Filters must meet certification criteria (at least 70% reduction in fine PM and DPM) with a MERV rating of at least 17.	≤ \$225 each which includes allotted installation costs (-1 point if greater than \$150 each)

¹⁵e.g. if a school with 500 students proposes to replace HEPA filters in 2 classrooms which hold 30 students each, the number of students benefitted is only 60 students versus the number of student in attendance at the school.

Schools and Related Sites
Guidelines for the Port of Long Beach Grant Programs

Eligible Projects	Approvability Criteria	Cost Criteria
HVAC upgrades or replacement	Units must meet minimum engineering specifications set by ASHRAE	≤ \$8,500/unit for a small unit. Larger unit costs will vary depending on classroom size.
Window/door seals	Must be double-paned or insulated windows and have a manufacturers guarantee or certification that the replacement will reduce the intrusion of outdoor air indoors	≤ \$300/window or door plus \$150 for installation
School Bus Retrofit or Replacement		
School bus retrofit: DPM filters	PM control retrofit must be at least a CARB verified Level 3 PM filter. Bus must be used within the City of Long Beach for at least 5 years.	Installed cost ≤ \$20,000
New alternative fuel buses (incremental cost)	The new bus must be certified to an emission limit not exceeding 1.44g/bhp-hr for NMHC and NO _x (Family Emission Limit (FEL)), and 0.01 g/bhp-hr for PM for 2007-2009 model years, and 0.2 g/bhp-hr (NMHC and NO _x) and 0.01 g/bhp-hr for PM for 2010 model year. Bus must be used at designated school for at least 5 years.	Incremental cost between new alternative fuel bus and a replacement (new or used) diesel bus of no more than \$40,000.
Emergency Generator Modifications		
Emergency engine/generator retrofits	Retrofits with approved PM controls Replacements with cleanest model by verified CARB vendor (http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm) Unit must remain in place at the school for 10 years.	≤ \$12,500 for retrofit of 125 kW or less unit; ≤ \$20,000 for retrofit of > 125 kW unit. ≤ \$42,000 in incremental costs for a new unit with diesel particulate filter
School Yard Perimeter Landscaping and Maintenance		
Landscaping barriers	Proximity to road criteria Minimum height and width requirements based on school boundary limitations – must be explained in landscaping plan. Only certain hedges/bushes eligible which have been demonstrated to reduce particulate matter pollution. School must commit to maintenance plan (5 years) which may include the purchase of a lawn vacuum.	\$400/tree or shrub plus \$800 for installation Maximum \$200/lawn vacuum

The Port will also consider the strength of the overall proposal and related project experience of the proposer. Applicants should provide information on any previous projects related to those in

the preceding table and note if any of them were done under grant funding from other agencies (e.g., SCAQMD, CARB, Carl Moyer Program).

6.2 Ranking for Eligible Air Mitigation Projects

The Port will use the following point system to rank submitted proposals if the total cost of the eligible proposals exceeds the funds remaining in the fund for mitigation projects. Those projects meeting the required approvability criteria and having the highest combination of points between the eligible applicant points in Section 5 and the eligible mitigation project rankings below will be funded first. Those facilities that are to the northwest of the Port within the hash-mark portion of each zone will be allocated half the total points available for the type of project in which the applicant is requesting funding for (e.g. a project entailing HEPA filter installation and school bus DPM filters would be allocated 9 points versus 18 points).

Eligible Projects	Points	Additional Points
HEPA filters added to existing HVAC systems	10	+2 if also sealing windows and/or doors; +1 if replacing windows and/or doors.
HVAC upgrades with HEPA filters	5	
School Bus DPM Filters	8	
Alternative Fuel School Buses (incremental cost)	8	
Emergency engine/generator retrofits	2	
School Yard Landscaping Perimeter and Maintenance	2	+2 if arterial roadways or freeways are near playground or other outside gathering areas
Strength of proposal and demonstrated experience		Up to +5 points

6.3 Criteria for Eligible Noise Mitigation Projects

Additional points may also be allocated for those projects which will also mitigate noise impacts in combination with air quality impact mitigations measures. Applicants proposing noise impact mitigation projects will receive additional points based on their location to the Port and transportation corridor routes (e.g. SR-47 and I-710). This is illustrated in Figure 2. The following criteria must be met in order to be considered an eligible noise mitigation project. A total of 2 additional points can be added to the project's score if all eligibility criteria are met.

Noise Mitigation Applicant Eligibility Determination	
School Distance	Eligible Applicant?
≤ 300 feet from the Port boundary OR ≤ 300 feet from SR 47 or I-710 truck haul routes OR ≤ 2,500 feet from the ICTF Rail Yard	If yes: eligible If no: not eligible for noise mitigation projects or extra points

An eligible applicant would then receive an additional two allocated points when ranking their air mitigation project if it also meets the following noise criteria:

Criteria for Window/Door Replacement	Are the Criteria Met?	
	Yes	No
If replacing windows and/or doors, would there be an adequate HVAC system to ensure windows can remain closed during all types of weather? (Window-installed air conditioning units should not be allowed.)	√	
If replacing windows, are the <i>existing</i> windows aluminum and/or single-glazed? (That is, are the <i>existing</i> windows inadequate for reducing noise?)	√	
If replacing windows, would they be, at a minimum, double-glazed with at least an STC rating of 26? (Any window replacement will need to ensure that all gaps are well sealed.)	√	
If replacing doors, would they provide at least an STC of 35 and be well-sealed? (The preference would be to replace both the door and jamb to ensure a tight seal.)	√	
3 √ Needed for +2 points		

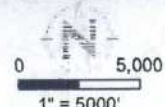
Criteria for Noise Barriers	Are the Criteria Met?	
	Yes	No
Would barrier break the line-of-sight between the noise source and the receiver(s)?	√	
If noise source is a road, would barrier obstruct lines-of-sight to road to at least 70 degrees in both directions from a perpendicular line from the most affected receiver(s) to the road?	√	
Is there sufficient room for a vegetated noise berm instead of a wall?	√	
Would noise wall be comprised of materials with a density of at least 4 lbs/sq ft, be solid from ground to full height, and be expected to remain solid in perpetuity? (Ideal wall is masonry, not wood.)	√	Disallow
Does the project involve a combination of a noise wall, berm and/or vegetation?	√	
3 √ Needed for +2 points		

Criteria for HVAC Replacement/Installation	Are the Criteria Met?	
	Yes	No
For new HVAC installation, would new windows also be installed, if needed to meet the window/door replacement criteria?	√	
1 √ Needed for +2 points		



- Legend**
- Day Care / Learning Center / Preschool / Kindergarten
 - Elementary School
 - Middle School
 - High School
 - Unassigned
 - City of Long Beach Boundary

ENVIRON



OWNER:
 SSS
 DATE: 1/8/08
 APPROVED: [Signature]
 CONTACT: [Signature]
 04-6395011

**Port of Long Beach
 Surrounding Schools and Day Cares**

925 Harbor Plz., Long Beach, CA 90802

**Figure
 1**

7 Board Approval

Port staff will review all applications received. Each application 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.

8 Monitoring/Recordkeeping Required and Audit Provisions

The following documentation will be required by the selected applicant.

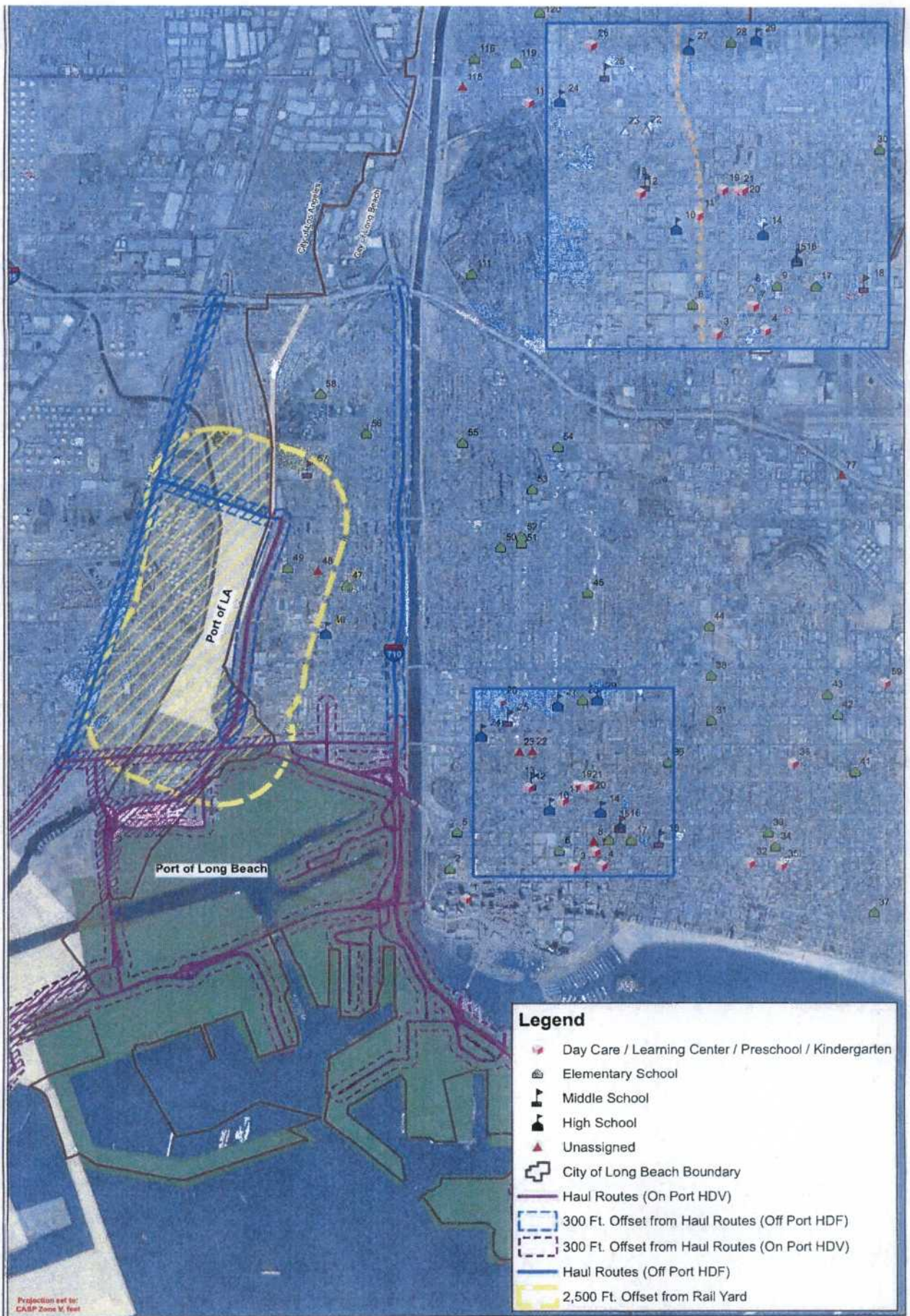
- Receipts or invoices illustrating the capital and installation cost for the proposed project;
- Photos of the unit or site before mitigations measures were employed and after retrofitting/installation/landscaping etc. as demonstration that the project has been completed; and
- For projects requiring on-going maintenance or operations, keep records for five years.

**Legend for Figure 1
Surrounding Schools and Day Cares
Port of Long Beach**

Label	Site	Address (Long Beach)	Type
1	Childtime Learning Center	1 World Trade Center, #199	Preschool and Kindergarten
2	Cesar Chavez Elementary School	730 W. 3rd St.	Elementary School
5	Edison Elementary	625 Maine Ave	Elementary School
6	International Elementary	700 Locust Ave	Elementary School
10	Renaissance High School Arts	235 E. 8th St.	High School
11	LBUSD - 8th Street Head Start	820 Long Beach Blvd.	Preschool
12	LBUSD Head Starts	927 Pine Ave.	Preschool
13	First Baptist Church School	1000 Pine Ave.	K - 12th grade
22	New City	1230 Pine Ave	K - 8th grade
23	Artesian Well Christian Academy	1235 Pacific Ave	Elementary and Middle School
24	Regency High School	490 W 14th St	High School
25	George Washington Middle School	1450 Cedar Ave.	Middle School
26	Long Beach Day Nursery West Branch Main Office	1548 Chestnut Ave.	Day Care / Learning Centers
46	Cabrillo (Juan Rodriguez) High	2001 Santa Fe Ave	High School
47	Garfield Elementary	2240 Baltic Ave	Elementary School
48	St Lucy's School	2320 Cota Ave	K - 8 th grade
49	Hudson Elementary	2335 Webster Ave	Elementary School
50	Lafayette Elementary	2445 Chestnut Ave	Elementary School
51	Cambodian Christian School	507 Pacific Ave	K - 12th grade
52	Holy Innocents Elem School	2500 Pacific Ave	Elementary School
53	Robinson (Jackie) Elementary	2750 Pine Ave	Elementary School
55	Bimey Elementary	710 W Spring St	Elementary School
56	Muir Elementary	3038 Delta Ave	Elementary School
57	Stephens Middle	1830 W Columbia St	Middle School
58	Webster Elementary	1755 W. 32nd Way	Elementary School
111	Los Cerritos Elementary	515 W San Antonio Dr	Elementary School
Within 2 Mile Range			
3	Love 4 Learning Academy	306 Elm Ave.	Preschool and Kindergarten
4	YMCA State Preschool	607 E. 3rd St.	Preschool
7	LBUSD - 4th Street Head Start	417 Atlantic Ave.	Preschool
8	Young Horizons: Juvenile Diversion	501 Atlantic Ave.	School with special academic educati
9	Robert Louis Stevenson	515 Lime Ave.	Elementary School
14	LBUSD Pacific Learning Center	780 Atlantic Ave.	High School
15	St. Anthony High School	620 Olive Ave.	High School
16	Constellation Middle School	620 Olive Ave.	Middle School
17	St. Anthony Elementary School	855 E. 5th St.	Elementary School
18	Franklin Classical Middle School	540 Cerritos Ave.	Middle School
19	Montessori on Elm	930 Elm Ave.	Preschool
20	First Lutheran Pre-school	946 Linden Ave.	Preschool
21	First Lutheran School	905 Atlantic Ave	Preschool
27	Polytechnic Senior High School Paal campus	1545 Long Beach Blvd.	High School
28	Roosevelt Elementary School	1574 Linden Ave.	Elementary School
29	Polytechnic High School	1600 Atlantic Ave	High School
30	Lincoln Elementary School	1175 E. 11th St.	Elementary School
32	Carousel Preschool	366 Cherry Ave	Preschool and Kindergarten
44	Butler (Mary) Elementary	1400 E 20th St	Elementary School
45	Burnett Elementary	565 E Hill St	Elementary School
54	Oakwood Academy	2951 Long Beach Blvd	Preschool - 6th grade
110	Parkridge Private School	3605 Long Beach Blvd # 304	Elementary School
112	Grace Christian Schools Long Beach	3601 Linden Ave.	Preschool - 6th grade
113	Longfellow Elementary	3800 Olive Ave	Elementary School
114	Hughes Middle	3846 California Ave	Middle School
115	Long Beach Adventist School	4951 Oregon Avenue	K - 8 th grade
116	Sutter Elementary	5075 Daisy Ave	Elementary School
117	St Barnabas	3980 Marron Ave	Preschool - 8th grade
118	The Learning Vine Day School	4829 Long Beach Blvd.	Day Care / Learning Centers
119	Praise Temple Academy	5095 Long Beach Blvd.	K - 12th grade
31	Creative Arts School	1423 Walnut Ave .	Preschool - 6th grade
33	Bethany Christian School	93 N Baldwin Ave # B	K - 8th grade
34	Burbank Elementary School	501 Junipero Ave.	Elementary School
35	Our Saviours Lutheran Pre-school	370 Junipero Ave.	Preschool
36	First Foursquare Church Preschool	2416 E 11th St	Preschool and Kindergarten
38	Whittier Elementary	1761 Walnut Ave	Elementary School
41	Willard Elementary	1055 Freeman Ave	Elementary School
42	Huntington Elementary	2935 East Spaulding Street	Elementary School
43	Lee Elementary	1620 Temple Ave	Elementary School
77	Westerly School of Long Beach	2950 E 29th St.	K - 8th grade
120	Addams Elementary	5320 Pine Ave	Elementary School
121	Powell (Colin L.) Academy for Success	150 Victoria St	K - 8th grade
122	Barton Elementary	1100 E Del Amo Blvd.	Elementary School
123	St Athanasius Elementary School	5369 Linden Ave	Elementary School
124	Lindbergh Middle	1022 E Market St	Middle School
125	Praise Christian Academy Inc.	1145 E. Market St.	K - 12th grade
126	Promise Academy	5875 Atlantic Ave.	High School

**Legend for Figure 1
Surrounding Schools and Day Cares
Port of Long Beach**

Label	Site	Address (Long Beach)	Type
37	Mann Elementary	257 Coronado Ave	Elementary School
39	Fremont Elementary	4000 E 4th St	Elementary School
40	Jefferson Leadership Academies	750 Euclid Ave	Middle School
59	Oak Tree Pre School	1710 Redondo Ave	Preschool
60	Bryant Elementary	4101 E Fountain St	Elementary School
61	Zinsmeyer Academy	4223 E Anaheim St	4th - 12th grade
62	Wilson High	4400 E 10th St	High School
63	Rogers Middle		Middle School
64	Lowell Elementary	5201 E Broadway	Elementary School
65	Community Hospital of Long Beach		
66	Woods-Edgewater Preschool		Preschool and Kindergarten
67	Long Beach Jewish Community Ce		
68	Buffum Elementary		Elementary School
69	Marina Montessori		
70	Tucker Elementary		Elementary School
71	Bethany Elem and Preschool		Preschool and Kindergarten
72	Our Lady of Refuge Elem School		Elementary School
73	Nazarene CHRN SCH of Long BCH		
74	Bixby Elementary		Elementary School
75	Carver Elementary		Elementary School
76	Naples Elementary		Elementary School
78	Long Beach Montessori School		
79	Veteran Affairs Long Beach Healthcare System		
80	Kettering Elementary		Elementary School
81	Hill Middle		Middle School
82	Gant Elementary		Elementary School
83	Montessori Childrens House		Day Care / Learning Centers
84	Montessori Childrens House		
85	Stanford Middle		Middle School
86	Educare Preschool		Preschool and Kindergarten
87	Educare Preschool		
88	Tincher Elementary		Elementary School
89	Prisk Elementary		Elementary School
90	Los Altos Grace Brethren School		
91	St Joseph Elementary School		Elementary School
92	Emerson Elementary		Elementary School
93	Milikan Senior High		High School
94	St Cornelius Elem School		Elementary School
95	Cubberley Elementary		Elementary School
96	Marshall Middle		Middle School
97	Laurelcrest		
98	Burcham Elementary		Elementary School
99	Henry Elementary		Elementary School
100	Keller Elementary		Elementary School
101	St Maria Goretti Elem School		Elementary School
102	Educational Partnership High (Ind. Study)		High School
103	Demille Middle		Middle School
104	Twain Elementary		Elementary School
105	Bancroft Middle		Middle School
106	Bethany Lutheran School		
107	St Cyprian Elementary School		Elementary School
108	First Baptist Church of Lakewood		
109	Montessori School-Eureka		
127	King Elementary		Elementary School
128	United Faith Community		
128	Harts Elementary		Elementary School
130	Gethsemane Baptist CHR School		
131	Jordan High		High School
132	Parwood Preschool		Preschool and Kindergarten
133	Grant Elementary		Elementary School
134	Bethel Miracle Christian Acade		
135	Hamilton Middle		Middle School
136	Light and Life Christian SCH		
137	Collins (Captain Raymond) Elem		
138	McKinley Elementary		Elementary School
139	Newcomb Elementary		Elementary School
140	Giant Steps Childrens Center		Day Care / Learning Centers



Projection set to:
 CA SFP Zone V, feet



DRAWN BY	SSS
DATE	1/8/08
APPROVED	REVIEWED
PROJECT NUMBER	04-6395011

**Schools and Daycares
 Surrounding the Port and Truck Haul Routes**

925 Harbor Piz., Long Beach, CA 90802

Figure
2

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

1 RESOLUTION NO. HD-

2
3 A RESOLUTION OF THE BOARD OF HARBOR
4 COMMISSIONERS OF THE CITY OF LONG BEACH
5 ADOPTING A PROGRAM FOR MITIGATION OF
6 PROJECT-SPECIFIC AND CUMULATIVE GREENHOUSE
7 GAS EMISSION EFFECTS OR IMPACTS
8

9 **1. FINDINGS**

10 1.1 The California Environmental Quality Act ("CEQA") requires
11 consideration, and where feasible, mitigation of all significant project impacts.
12 Public Resources Code ("PRC") §21000 and following. This requirement applies
13 to "project-specific effects" and "cumulative impacts."

14 1.2 "Project-specific effects" are defined as all direct and indirect
15 environmental effects of a project other than cumulative or growth-inducing
16 impacts. PRC §21065.3.

17 1.3 "Cumulative impacts" are defined as two or more individual effects
18 which, when considered together, are considerable or which compound or
19 increase other environmental impacts. The individual effects may be changes
20 resulting from a single project or a number of separate projects. The cumulative
21 impact from several projects is the change in the environment which results from
22 the incremental impact of the project when added to other closely related past,
23 present, and reasonably foreseeable probable future projects. Cumulative impacts
24 can result from individually minor but collectively significant projects taking place
25 over a period of time. Title 14, California Code of Regulations, Chapter 3,
26 Guidelines for Implementation of the California Environmental Quality Act
27 ("Guidelines") §15355.

28 1.4 "Cumulatively considerable" means that the incremental effects of an

1 individual project are significant when viewed in connection with the effects of past
2 projects, the effects of other current projects, and the effects of probable future
3 projects. Guidelines §15065(a)(3).

4 1.5 Because cumulative impacts consider an individual project in context
5 of other past, present and future projects, the Guidelines recognize that the only
6 feasible mitigation for cumulative impacts may be programmatic in nature rather
7 than imposition of conditions on a project-by-project basis. Guidelines §15130(c).

8 1.6 A significant cumulative impact can be brought below the threshold
9 of significance "if a project is required to implement or fund its fair share of a
10 mitigation measure or mitigation measures designed to alleviate the cumulative
11 impact." Guidelines §15130(b)(5).

12 1.7 CEQA documentation is currently being prepared for a number of
13 potential projects in the Port of Long Beach. Several of these documents are likely
14 to find that there are considerable project-specific and cumulative greenhouse gas
15 emission effects or impacts.

16 1.8 The Board of Harbor Commissioners wishes to adopt this
17 project-specific and cumulative greenhouse gas effects or impacts mitigation
18 program ("Program") to:

19 (a) design mitigation measures to alleviate the project-specific
20 and cumulative greenhouse gas emission effects or impacts of projects that
21 may be adopted by the Board in the future;

22 (b) define a process to prioritize funding for these project-specific
23 and cumulative mitigation measures according to their relative effectiveness
24 in alleviating project-specific and cumulative effects or impacts;

25 (c) develop an ongoing procedure for solicitation, analysis and
26 funding of mitigation measures so that future projects can fund their fair
27 share of these measures.

28 1.9 The Program will contain one focused area: strategies for

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

1 greenhouse gas emission reduction.

2 1.10 Finally, the Board wishes to focus on strategies for addressing
3 project-specific and cumulative greenhouse gas emissions. See "Greenhouse
4 Gas ('GHG') Emissions Reduction Program Guidelines for the Port of Long Beach"
5 dated February 24, 2009, attached as Exhibit A.

6 **2. MITIGATION OF PROJECT-SPECIFIC AND GREENHOUSE GAS**
7 **EFFECTS OR IMPACTS**

8 2.1 The Board hereby resolves to adopt the Program for Mitigation of
9 Project-Specific and Cumulative Greenhouse Gas Emission Effects or Impacts
10 consisting of the following element: "GHG Emission Reduction Program
11 Guidelines for the Port of Long Beach" dated February, 2009, attached as Exhibit
12 A and incorporated by this reference.

13 2.2 This resolution shall take effect immediately upon its adoption by the
14 Board of Harbor Commissioners, and the Secretary of the Board shall certify to the vote
15 adopting this resolution and shall cause a certified copy of this resolution to be filed
16 forthwith with the City Clerk. The City Clerk shall post the resolution in three conspicuous
17 places in the City of Long Beach.

18 I hereby certify that the foregoing resolution was adopted by the Board of
19 Harbor Commissioners of the City of Long Beach at its meeting of _____, 2009
20 by the following vote:

21 Ayes: Commissioners: _____

22 _____

23 Noes: Commissioners: _____

24 _____

24 Absent Commissioners: _____

25 _____

25 Not Voting: Commissioners: _____

26 _____

27 _____
28 Secretary

CMG:rjr 02/24/09 #A09-00579
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**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:
March, 2009



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 of Long Beach (Port) has developed the program described in this Greenhouse Gas Emission Reduction Program Guidelines (Guidelines) as part of their overall Climate Change/Greenhouse Gas (CC/GHG) Strategic Plan (CC/GHG Plan) and to mitigate potential cumulative and site-specific GHG impacts of projects that modernize and upgrade marine terminals and other facilities in the Long Beach Harbor District.

CEQA requires consideration, and where feasible, mitigation of all significant project impacts including cumulative impacts. Cumulative impacts are defined as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. Cumulative impacts from several projects are considered for other projects proposed within the area that would have the potential to contribute cumulatively to the Port's proposed project incremental impacts and includes other facilities' approved and

pending project construction and/or operational activities. For many major port projects, CEQA analysis often indicates that there are significant cumulative impacts related to:

1. Criteria pollutants (for the South Coast Air Basin);
2. Health risk (for a "zone of influence" for health risk analysis purposes, defined as the area within the one-in-a-million isopleths of health risk increment and/or a non-cancer acute or chronic hazard index of 1.0 for the specific project); and
3. GHGs (global impacts with a focus on the state of California).

In addition, site specific Port projects may have the potential to increase GHG emissions depending on the type of installation or modification proposed. Although mitigation measures of site-specific GHGs are not presently required under Federal or State regulations, but may need to be considered under CEQA, the Port and its tenants may evaluate the feasibility of implementing GHG emission mitigation measures.

The Port's 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.

The Port has developed these Guidelines to evaluate projects that can mitigate cumulative, as well as project-specific, GHG impacts. 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 CEQA obligations, 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 on-site (within the Harbor District) opportunities for GHG reductions should be exhausted before considering the implementation of off-site 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 on-site 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.

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 Railyard 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 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 with the Harbor District or City of Long Beach are underway, the Board may elect to fund GHG 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 projects to ensure that GHG 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 applicant for funding toward the implementation of a non-Port GHG 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 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 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-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 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 projects will be considered.

6 Board Approval

Port staff will review all GHG reduction projects. Each project, whether initiated within the Port, by its tenants, other City departments, or by non-Port 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

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

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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

OFFICE OF THE CITY ATTORNEY
ROBERT E. SHANNON, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4884

- 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 //

OFFICE OF THE CITY ATTORNEY
ROBERT E. SHANNON, City Attorney
333 West Coast Boulevard, 11th Floor
Long Beach, CA 90802-4664

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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 September 15, 2008 by the following vote:

Ayes:	Commissioners:	<u>Stranek, Cordero, Walter, Horkla</u>

Noes:	Commissioners:	_____
Absent	Commissioners:	_____
Not Voting:	Commissioners:	_____

C. J. Mike Walter
Secretary

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RESOLUTION PAGE 04

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.

FINAL DRAFT

**A White Paper on Environmental Justice:
*Opportunities in Port of Long Beach Projects***

Confidential Work Product

Prepared for:

Port of Long Beach
925 Harbor Plaza
Long Beach, CA 90802
Contact: Tom Johnson

Prepared by:

Jones & Stokes
2600 V Street
Sacramento, CA 95818-1914
Contact: Bonnie Chiu or Ken Bogdan
916/737-3000

April 2005

Jones & Stokes. 2005. Final Draft White Paper on Environmental Justice:
Opportunities in Port of Long Beach Projects. April. Prepared for the Port of
Long Beach. (J&S 05-145.) Sacramento, CA.

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- B Model EIR/EIS Environmental Justice Section**
- C Public Outreach Resources**
- D Principals of Environmental Justice**
- E Executive Order 12898**
- F Environmental Justice Guidance and Policies from Selected Agencies**
- G California Development and Planning Report Article: State Agencies Make Progress on Environmental Justice Strategies**
- H Useful Environmental Justice Websites**

Acronyms and Abbreviations

ARB	California Air Resources Board
Caltrans	California Department of Transportation
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration
NEPA	National Environmental Policy Act of 1969
Port	Port of Long Beach
SLC	California State Lands Commission

A White Paper on Environmental Justice: Opportunities in Port of Long Beach Projects

Purpose

Port of Long Beach (Port) projects may require various types of approvals from several federal, state, and local agencies. These agencies may require that environmental justice issues be considered during the environmental review process. In addition, the Port may choose to include consideration of environmental justice issues even if not legally required by another agency.

This white paper is intended to provide a consistent approach for the Port—including its staff and consultants—to use when addressing environmental justice issues. The first half of this paper provides a step-by-step approach for addressing environmental justice in Port projects, including widely used terminology, definitions, and methodologies. The second half provides a brief history of the environmental justice movement, with an emphasis on how it has shaped federal, state, and local regulations. Several appendices are included in this paper to offer additional guidance and further reading.

Environmental Justice Defined

Environmental justice is the **fair treatment** and **meaningful involvement** of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

Meaningful involvement means that: 1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; 2) the public's contribution can influence the regulatory agency's decision; 3) the concerns of all participants involved will be considered in the decision-making process; and 4)

the decision makers seek out and facilitate the involvement of those potentially affected (U.S. Environmental Protection Agency [EPA] 2005).

A Step-by-Step Approach for the Port of Long Beach

Introduction

The step-by-step approach below lays out a general framework for analyzing Port projects. See Figure 1 for the step-by-step approach at a glance. This model checklist should not by any means be considered a one-size-fits all approach; rather, it provides generally accepted, widely used definitions and methodologies in environmental justice assessments. Although this model checklist focuses on environmental justice assessment for a typical environmental document, the discussion will point out the various environmental justice opportunities that exist at each stage of a project, many of which are applicable for application by the Port in day-to-day activities.

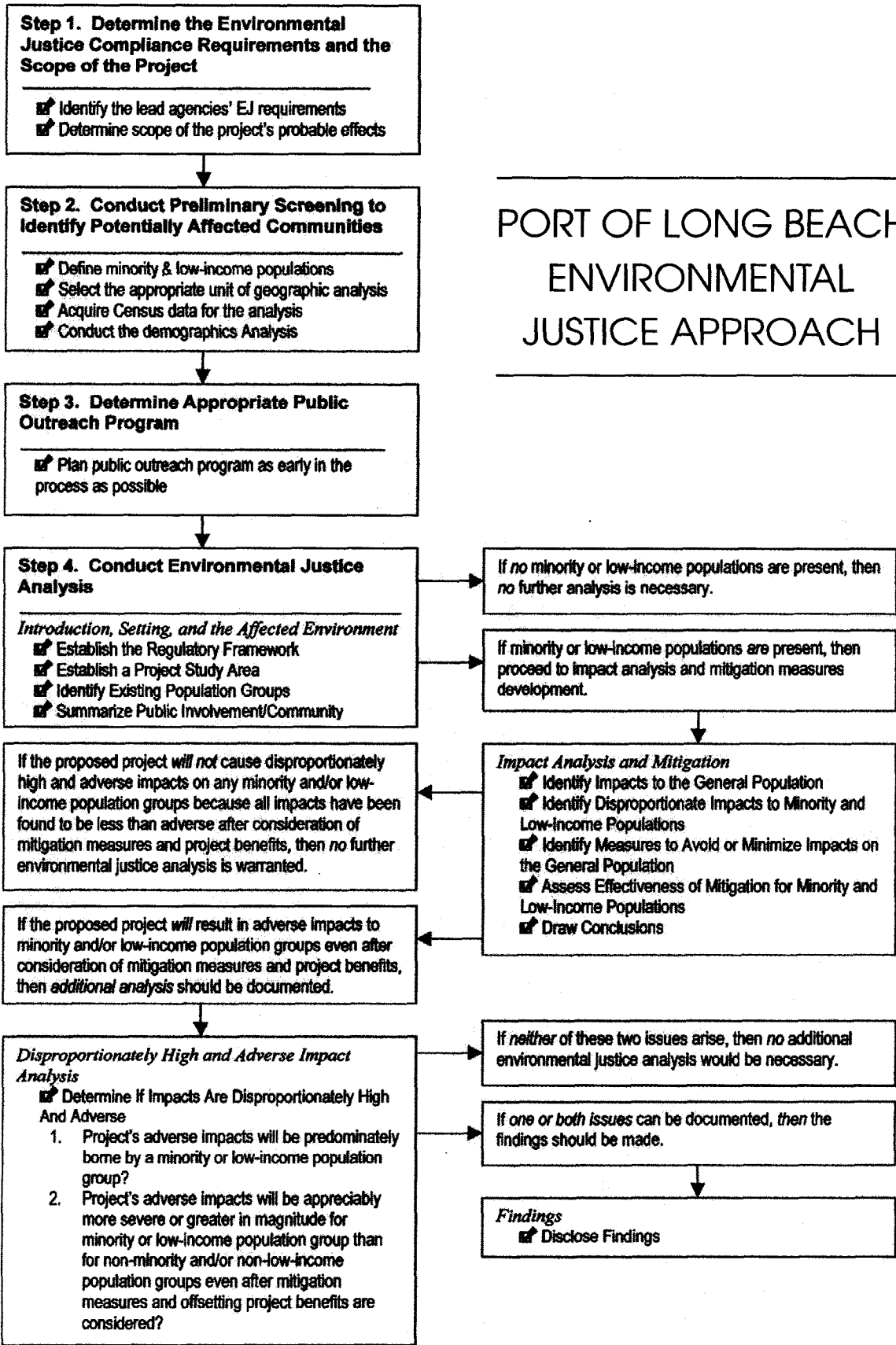
Step 1. Determine the Environmental Justice Compliance Requirements and the Scope of the Project

Identify the lead agencies' EJ requirements

At the time that the Port determines who the federal lead agency will be for a project, that federal agency's environmental justice compliance requirements should be identified based on its adopted guidance or policy, if applicable. For projects triggering both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act of 1969 (NEPA), the Port should also identify any environmental justice requirements of state agencies that may have adopted guidance or policy. For example, a lead agency may require the Port to make certain findings in order to approve a project with a disproportionately high and adverse effect on minority and/or low-income population groups (see "Findings" below).

Before evaluating potential impacts to minority and low-income communities, the analyst should ideally have information about all of the project's components and its probable environmental effects. At this point in the environmental review process it may not be possible to determine specifics related to environmental effects; however, the analyst should utilize an Initial Study checklist or other preliminary screening, as assessed in the other technical sections of an environmental document or as part of independent technical studies, to estimate probable environmental effects. Awareness of the project's components and probable environmental impacts (and benefits) will be useful in choosing an appropriate unit of geographic analysis—the affected area. For example, if a

PORT OF LONG BEACH ENVIRONMENTAL JUSTICE APPROACH



05145.05 Env Justice (4-05)

Figure 1
Step-by-Step Approach:
At a Glance

project's impacts are mostly related to potential accidental spills of hazardous materials, a more focused study would be warranted and data at the census block group and individual block levels may be appropriate, based upon the truck routes where the potential spills might occur.

☑ Determine scope of the project's probable effects

Having a firm idea of a project's scope also helps the analyst determine the appropriate level and type of public participation to seek. For complex projects, an extensive public participation plan may be in order (see "Public Outreach Opportunities" below for more information). Depending on the results of the public outreach program described in Step 3, additional environmental effects may be identified.

Considering the following may also help the analyst determine the complexity of a proposed project:

- Would the project result in short- and/or long-term impacts?
- Would the project result in localized- and/or region-wide impacts?
- Would the project result in adverse effects and/or provide project benefits?
- Would the project result in significant environmental and/or health and human effects?

Step 2. Conduct Preliminary Screening to Identify Potentially Affected Communities

☑ Define minority & low-income populations

For the preliminary screening of potentially affected communities, use the definitions of minority and low-income populations used in the Council on Environmental Quality's (CEQ's) Guidance for Agencies on Key Terms in Executive Order 12898 (CEQ 1997). These definitions are widely used to assess environmental justice in the environmental review process.

Minority individuals are defined as members of the following population groups:

- American Indian or Alaskan Native,
- Asian or Pacific Islander,
- Black, or
- Hispanic.

Minority populations are identified either:

- where the minority population percentage of the affected area is meaningfully greater than the minority population percentage of the general population, or

- where the minority population percentage of the affected area exceeds 50 percent (CEQ 1997).

☑ Select the appropriate unit of geographic analysis

The selection of the appropriate unit of geographic analysis may be a governing body’s jurisdiction (e.g., the City of Long Beach), a neighborhood, census tract, census block group, or other similar unit that is to be chosen so as to not artificially dilute or inflate the affected minority population (Caltrans 2003). In some cases, it may be helpful to compare the minority population with more than one unit of geographic analysis (e.g., the minority population percentage within the census tract and within the city). The determination of the appropriate unit of analysis should be based upon the scope of a project (see “Determine the Federal Lead Agency and the Scope of the Project” above). Depending on the scope and complexities of a proposed Port project, staff and consultants should generally acquire U.S. Census data at the census tract level for census tracts in close proximity to the project area. For most analyses, data should be obtained from the U.S. Census American Factfinder website¹.

☑ Acquire Census data for the analysis

Low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census’ Current Population Reports, Series P-60 on Income and Poverty.

Low-income populations are identified as populations in which either:

- the population percentage below the poverty level is meaningfully greater than that of the population percentage in the general population, or
- the population percentage below the poverty level in the affected area exceeds 50 percent.

Methods for Displaying Demographic Data

For purposes characterizing the minority and low-income populations in a project area, the information can be shown in either a table or a map, or both.

The table might include

- total population,
- population with poverty status in 1999 (number/percentage),
- median household income in 1999, and
- minority population percentages (broken down by ethnicity).

The map might show

- boundary of the project study area,
- census tracts where the minority population percentage exceeded 50 percent of the general population, and
- census tracts where the population of those below the poverty level is significantly greater than the rest of the general population.

¹ To go straight to the relevant part of the Census’ Factfinder website, go to http://factfinder.census.gov/servlet/DTGeoSearchByListServlet?ds_name=DEC_2000_SF1_U&state=dt&_lang=en&_ts=16027306420, and choose the appropriate *geographic type*.

In identifying low-income populations, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), that share either type of group experiences or common conditions of environmental exposure or effect (CEQ 1997).

☑ Conduct the demographics Analysis

It is important to learn who lives in the community and to identify minority and low-income communities early on in the process so that public outreach efforts are effective and targeted to certain groups, as appropriate. Preliminary screening to identify potentially affected communities in a project area and vicinity can also provide the Port with more certainty as to whether there is a potential for environmental justice impacts (see, for example, Figures 2a and 2b). See “Knowing the Community” below for a sample textual and graphic depiction of low-income and minority populations.

Step 3. Determine Appropriate Public Outreach Program

☑ Plan public outreach program as early in the process as possible

Once the Port has determined which public agencies it will be coordinating with, the scope of the proposed project, and the composition of the potentially affected community, it can plan its public outreach program. Planning the public outreach program at the outset of the project will help identify the appropriate strategies for special noticing (including the notice of intent and notice of preparation), meetings (including public scoping meetings), and other outreach tactics. See “Public Outreach Opportunities” below and Appendix C for specific suggestions for implementation.

Step 4. Conduct Environmental Justice Analysis

Introduction, Setting, and the Affected Environment

☑ Establish the Regulatory Framework

The environmental justice analysis should first briefly summarize the legal and factual basis for an environmental justice assessment. This involves a citation to the relevant legal, regulatory, and/or administrative requirements (e.g., Executive Order 12898 and any applicable agency guidance or policy statements, as described below under “Regulatory Framework for the Port of Long Beach”). See Appendix B for a model EIR/EIS environmental justice section.

☑ Establish a Project Study Area

The project study area should encompass a geographic location where the potential environmental and human health effects of the proposed project would be reasonably foreseeable for minority and low-income populations.

☑ Identify Existing Population Groups

As described above, the population in the project study area should be characterized in terms of race and ethnicity, income, and poverty status, which should be defined and sourced. Additional demographic variables, such as age,

disability status, English-as-a-second language households, and housing occupancy and tenure may also be provided as indicators of whether environmental justice populations are present. Awareness of these additional variables may also be helpful in tailoring and targeting public outreach efforts to certain groups.

☑ Summarize Public Involvement/Community Outreach

The public involvement and outreach efforts that have been (and will be) conducted for the proposed project should be documented. Although summaries of public outreach efforts are typically captured in the introductory sections of an environmental document, summarizing the specific outreach to affected populations—including minority and low-income populations—within the environmental justice analysis or section helps to address the procedural aspect of environmental justice. To the extent possible, the public involvement associated with each phase of project development should also be stated. This discussion may also summarize the issues that have been raised through public outreach efforts thus far and, if applicable, the proposed revisions to the project that address those concerns.



In this initial step of the environmental justice analysis, the demographic characterization would determine whether further environmental justice analysis is warranted. Where it can be documented that no minority or low-income populations are present, no further analysis is necessary.

Impact Analysis and Mitigation

☑ Identify Impacts to the General Population

The impact analysis should provide an overview of the environmental impacts of the proposed project that have been previously assessed in the other technical sections of an environmental document or as part of independent technical studies. Wherever possible, the nature and extent of those impacts should be summarized. On a practical level, environmental justice impacts should be analyzed after the other resource sections (e.g., air quality, noise, traffic) are prepared. Without information about project impacts to the general population, it would be difficult to determine whether the project would have disproportionate impacts to minority and low-income populations.

☑ Identify Disproportionate Impacts to Minority and Low-Income Populations

The impacts of the proposed project on minority and low-income communities should be compared to the impacts on the general population. The determination of whether an impact is adverse should not be based solely on the size of the affected population, since a disproportionately high and adverse impact can exist for even very small minority and low-income population groups.

☑ Identify Measures to Avoid or Minimize Impacts on the General Population

When adverse impacts on the general population are found to exist, measures that avoid and/or minimize those impacts should be specified. Enhancements associated with the project can be described here since it is just as important to consider project benefits as it is to consider burdens. Project components that demonstrate sensitivity to population groups, neighborhoods, and/or communities would also be relevant to this discussion.

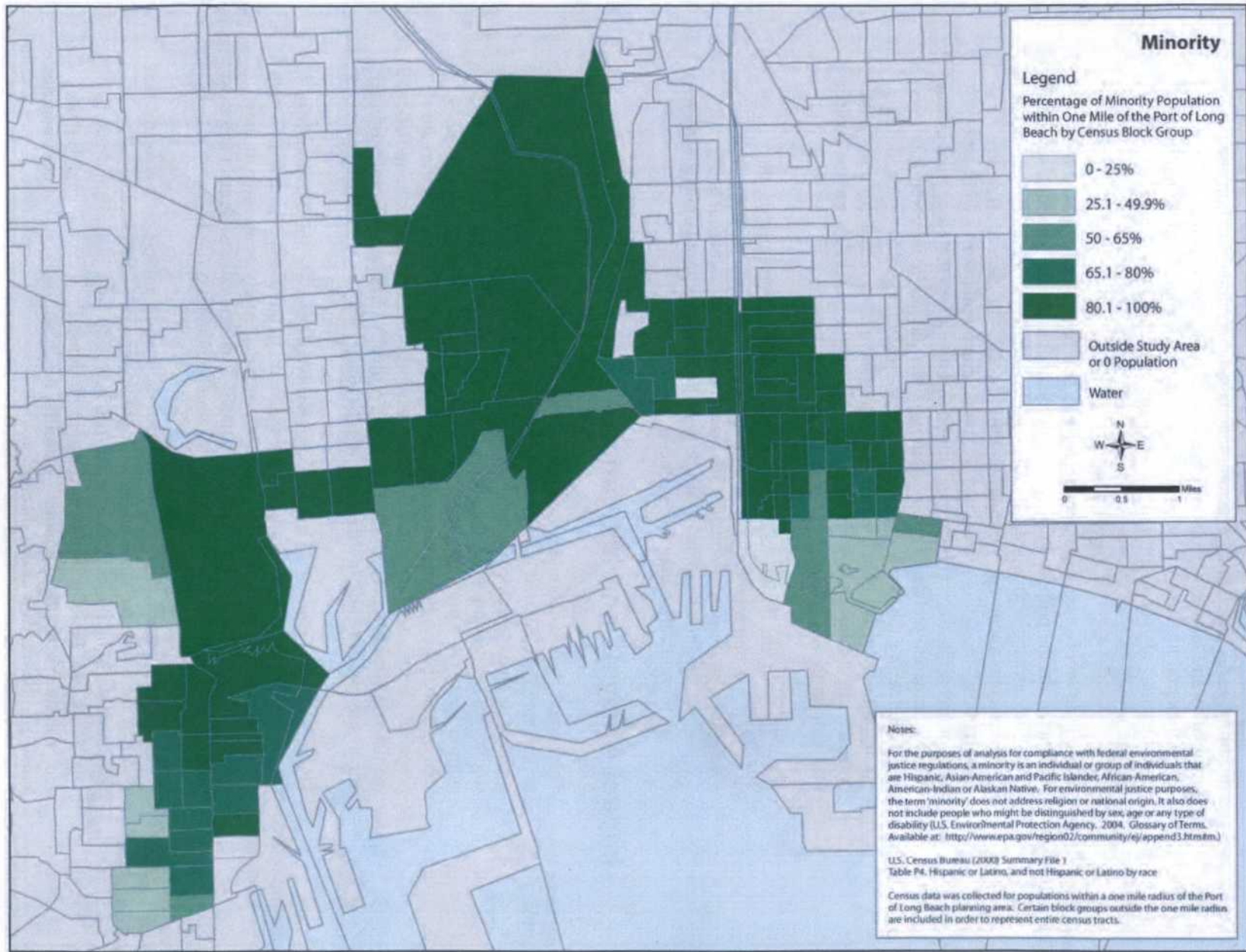


Figure 2a
Census Block Groups
within 1-mile of the Port of Long Beach

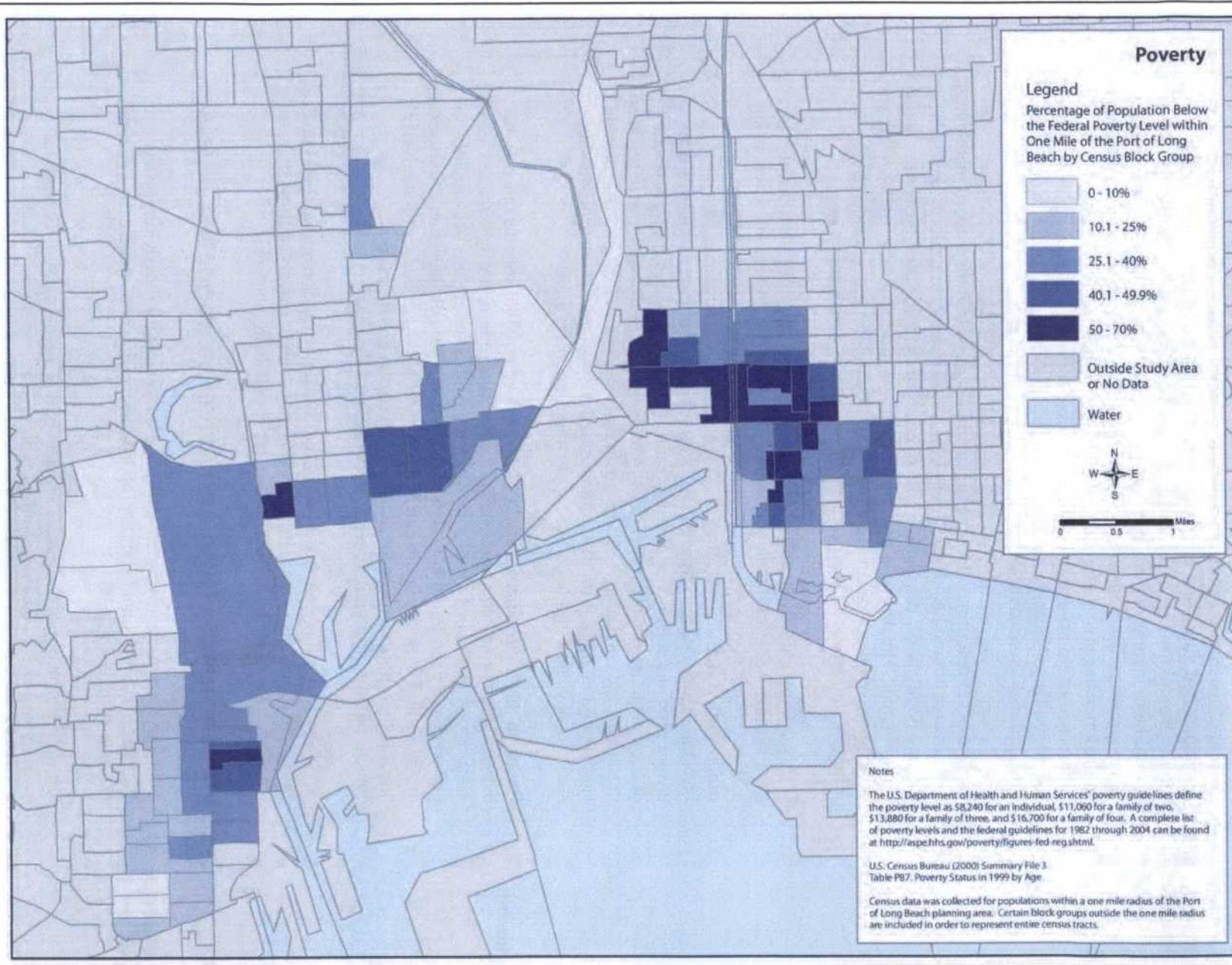


Figure 2b
Census Block Groups
within 1-mile of the Port of Long Beach

☑ Assess Effectiveness of Mitigation for Minority and Low-Income Populations

As part of the environmental review and approval phases, project impact avoidance and mitigation offer one of the final opportunities to ensure that environmental justice concerns are addressed (Caltrans 2003). Still, the objective should be to incorporate environmental justice into the earliest stages of project development rather than relying solely upon avoidance and mitigation measures in the latter stages of the process, as shown in Appendix A. Not only is incorporating environmental justice issues before mitigation a more efficient way to address these issues, but minority and low-income communities would view this approach more favorably and with more confidence.

If a project is determined to have the potential to result in disproportionately high and adverse human health and/or environmental impacts to minority and low-income populations, the relative effectiveness of the mitigation measures should be evaluated. The determination of whether impacts to minority and low-income populations will or will not remain adverse after taking into consideration mitigation measures and project benefits should be documented.

If it is determined that the mitigation measures developed for the general population are not sufficient, additional mitigation should be considered, using avoidance (not taking certain actions or parts of actions) first and then minimization (limiting the degree or magnitude of the action and its implementation) of the impacts. Mitigation may also include measures that ensure procedural equity, including commitments to issue all project-related documents (e.g., construction notices and operational and maintenance updates) to the affected community. These documents shall be in plain, understandable English and take the form of summaries and newsletters. If appropriate, they shall be translated into languages spoken in the project area.

☑ Draw Conclusions

Based on the environmental justice analysis, two possible conclusions may be drawn: 1) the proposed project *will not* cause disproportionately high and adverse impacts on any minority and/or low-income population groups because all impacts have been found to be less than adverse after consideration of mitigation measures and project benefits, or 2) the proposed project *will* result in adverse impacts to minority and/or low-income population groups even after consideration of mitigation measures and project benefits.



The first conclusion would not warrant further environmental justice analysis. Under the second conclusion, however, additional analysis, as described in the next steps, should be documented.

Disproportionately High and Adverse Impact Analysis

☑ Determine If Impacts Are Disproportionately High And Adverse

Although there presently are no definitive guidelines for determining what impacts should be considered disproportionately high and adverse, two general issues should be weighed:

1. whether the project's adverse impacts will be predominately borne by a minority or low-income population group; or

2. whether the project's adverse impacts will be appreciably more severe or greater in magnitude for minority or low-income population group than for non-minority and/or non-low-income population groups even after mitigation measures and offsetting project benefits are considered.

In determining the severity or magnitude of the adverse impacts on a community, the Port should consider the multiple or cumulative exposure to environmental hazards, historical patterns of exposure to environmental hazards, and cultural differences, which may lead certain communities to experience impacts that are more severe than those experienced by the general population (Rechtschaffen and Gauna 2002).



For those projects where neither of these issues arises, no additional environmental justice analysis would be necessary. In the event that one or both issues can be documented, then the findings in the following step should be made.

Findings

Disclose Findings

Where it is concluded that adverse impacts will be predominantly borne by minority and low-income populations and/or will be more severe than impacts to non-minority and non-low-income populations, the environmental document should include the justification for carrying out the action, despite the disproportionately high and adverse effects to minority and low-income population groups.

As discussed below, the environmental justice guidance from the U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA) has established findings that must be met in order for transportation agencies to approve a project with a disproportionately high and adverse effect on minority and/or low-income population groups (see "Regulatory Framework for the Port of Long Beach" below). It appears that these findings are not directly applicable to the Port, since the DOT would rarely serve as the federal lead agency for a typical Port project.

Knowing the Community for the Port of Long Beach

A general demographics analysis was conducted for communities in the vicinity of the Port of Long Beach. Specifically, census data was collected for populations within a 1-mile radius of the Port of Long Beach planning area and shown in Figures 2a and 2b. The breakdown of this population by ethnicity and percentage below poverty level is shown in Table 1.

Figures 2a and 2b display the potentially affected communities in a sample one-mile radius in the vicinity of the Port area that may be defined within a smaller or

Table 1. Low-Income and Minority Populations within One Mile of the Port of Long Beach

Census Tract/ Jurisdiction	Census Block Group	Total Population	% Below Poverty	% White	% Black	% American Indian/ Alaska Native	% Asian	% Hawaiian/Pacific Islander	% Hispanic / Latino	% Other*
2941.20	1	637	9	<1	7	0	2	0	90	<1
	2	1,204	17	1	8	<1	<1	0	90	0
	3	688	9	3	16	<1	4	<1	75	1
2946.20	1	1,600	24	2	<1	<1	1	<1	96	<1
	2	1,581	20	2	2	<1	1	0	95	<1
	3	750	34	3	<1	0	1	0	95	<1
2947	1	12	**	42	0	0	0	0	58	0
	2	19	**	16	58	0	0	0	26	0
	3	95	13	47	11	0	1	3	31	7
	4	1,894	41	8	9	<1	1	<1	79	1
	5	523	49	<1	<1	<1	1	1	96	<1
	6	727	40	2	<1	<1	<1	<1	95	<1
2948.30	1	2,097	39	2	4	<1	1	<1	90	1
	2	1,177	38	7	2	<1	2	2	84	2
2949	1	1,316	13	7	2	<1	3	<1	86	1
	2	1,946	60	2	8	<1	1	1	87	<1
	3	0	**	***	***	***	***	***	***	***
2951.01	1	370	0	50	18	0	11	0	16	4
	2	4,455	4	72	2	<1	5	<1	16	2
	3	363	33	4	8	<1	<1	5	78	4
2962.10	1	1,361	35	5	3	<1	2	<1	89	<1
	2	374	17	25	11	1	3	0	55	6
	3	1,123	34	5	8	<1	3	<1	81	3
2962.20	1	989	41	2	7	<1	2	<1	86	2
	2	2,117	55	8	16	<1	5	<1	68	2
	3	499	48	26	8	<1	16	2	46	2
2965	1	1,316	30	11	9	1	3	<1	74	3
	2	1,621	18	15	12	<1	4	<1	66	2
	3	859	16	18	12	1	3	<1	63	2
2966	1	1,406	36	9	4	<1	2	<1	83	1

Table 1. Low-Income and Minority Populations within One Mile of the Port of Long Beach

Census Tract/ Jurisdiction	Census Block Group	Total Population	% Below Poverty	% White	% Black	% American Indian/ Alaska Native	% Asian	% Hawaiian/Pacific Islander	% Hispanic / Latino	% Other
	2	1,274	35	24	11	<1	4	<1	57	3
	3	1,028	21	27	6	<1	4	2	58	2
	4	1,492	16	24	7	<1	4	<1	62	2
2969	1	1,360	16	28	10	<1	2	<1	57	3
	2	2,183	31	20	9	<1	4	<1	62	4
	3	1,935	24	32	6	<1	4	<1	54	4
	4	889	12	52	4	0	2	<1	39	3
	5	1,883	13	52	4	<1	4	<1	35	4
2971.10	1	2,109	36	27	8	<1	3	<1	59	2
	2	2,438	28	15	9	<1	1	<1	72	2
2972	1	2,162	21	33	7	<1	5	<1	51	3
	2	1,424	14	45	9	<1	5	<1	37	3
	3	1,602	10	54	3	<1	3	<1	33	6
	4	1,422	9	57	3	<1	6	<1	30	4
	5	1,401	8	59	4	<1	4	<1	27	6
5439.04	1	1,617	16	7	4	<1	12	1	74	3
	2	2,806	26	2	17	<1	9	2	68	1
	3	0	**	***	***	***	***	***	***	***
	4	3	**	0	0	0	0	0	100	0
5728	1	262	70	12	25	2	26	0	29	5
	2	0	**	***	***	***	***	***	***	***
	3	1	**	0	100	0	0	0	0	0
5729	1	1,803	32	3	9	1	14	2	68	2
	2	2,106	42	2	10	<1	4	1	81	1
	3	1,204	14	4	22	<1	39	1	30	2
5730.01	1	1,770	41	7	11	1	13	3	63	2
	2	2,142	37	9	20	<1	5	<1	62	3
	3	1,846	26	14	23	<1	6	2	51	3
	4	1,350	32	18	28	<1	8	<1	42	3
5754.01	1	782	54	14	17	<1	5	1	61	2

Table 1. Low-Income and Minority Populations within One Mile of the Port of Long Beach

Census Tract/ Jurisdiction	Census Block Group	Total Population	% Below Poverty	% White	% Black	% American Indian/ Alaska Native	% Asian	% Hawaiian/Pacific Islander	% Hispanic / Latino	% Other
	2	616	34	<1	0	1	<1	0	97	1
	3	1,362	51	6	15	<1	2	<1	75	1
	4	2,716	53	2	5	<1	7	1	82	2
5754.02	1	2,957	50	2	8	<1	3	2	84	2
	2	801	58	7	23	<1	15	4	47	3
5755	1	49	63	2	0	0	0	0	88	2
	2	2	**	100	0	0	0	0	0	0
	3	16	**	19	0	0	0	0	81	0
	4	180	51	27	11	2	4	1	56	<1
	5	5	**	20	0	0	0	0	80	0
5758.01	1	1,704	39	8	5	<1	<1	<1	85	2
	2	1,017	52	5	3	<1	3	<1	89	<1
5758.02	1	2,807	46	5	5	<1	5	<1	84	1
	2	2,626	55	12	14	<1	4	<1	67	1
5758.03	1	1,868	51	18	14	<1	11	<1	53	2
	2	1,100	32	26	19	1	9	<1	41	3
5759.01	1	1,235	50	18	23	<1	3	1	51	3
	2	1,196	43	14	22	1	3	<1	57	2
	3	739	27	13	19	<1	4	0	62	1
	4	655	22	13	19	<1	24	1	41	2
5759.02	1	1,757	32	41	22	<1	9	<1	22	5
	2	1,444	31	34	17	2	5	1	38	3
	3	1,907	37	18	18	<1	4	1	55	3
5760	1	440	22	40	18	<1	8	1	29	4
	2	2	**	100	0	0	0	0	0	0
	3	3	**	0	100	0	0	0	0	0
5761	1	826	35	51	14	1	4	<1	26	2
	2	1,096	7	73	5	<1	10	<1	7	4
	3	747	18	55	11	<1	7	<1	22	4
5762	1	1,553	36	13	14	<1	1	<1	69	2

Table 1. Low-Income and Minority Populations within One Mile of the Port of Long Beach

Census Tract/ Jurisdiction	Census Block Group	Total Population	% Below Poverty	% White	% Black	% American Indian/ Alaska Native	% Asian	% Hawaiian/Pacific Islander	% Hispanic / Latino	% Other*
	2	1,290	31	26	17	<1	3	<1	50	3
	3	1,283	28	32	23	1	5	<1	35	3
	4	1,502	28	21	19	<1	3	<1	51	4
	5	11	**	0	0	0	0	0	100	0
	6	13	**	0	8	0	0	0	92	0
5763	1	1,955	48	4	18	<1	27	<1	48	1
	2	1,471	46	7	21	<1	8	<1	62	1
	3	1,148	47	13	14	2	3	<1	67	1
	4	1,140	29	15	21	<1	5	1	54	4
	5	990	31	20	33	<1	7	1	37	1
	6	1,204	26	7	7	2	3	<1	80	2
	7	1,004	28	14	21	<1	25	<1	37	2
5766.01	1	2345	12	60	13	<1	6	<1	16	4
	2	938	14	47	13	<1	6	<1	29	4
	3	1,112	24	43	16	<1	4	<1	29	5
City of Long Beach		461,522	23	33	14	<1	12	1	36	<1
Los Angeles County		9,519,338	18	31	9	<1	12	<1	45	<1

Notes

* % Other category includes 2 or more races as identified in the Census Summary File 1 (SF 1).

** Blank spaces under the % Below Poverty column denote block groups with 0 population for which poverty status was determined.

*** Blank spaces under any of the % ethnicity columns denote block groups with 0 population

larger radius, according to the criteria discussed in Step 2. Figure 2a shows minority population percentages, whereas Figure 2b shows the population percentage of those below the poverty level. The two maps show a relationship between those census block groups with high percentages of minority population and high percentages of population below the poverty line, particularly north of Pier B and east of the part of the Los Angeles River/Flood Control Channel adjacent to the Port.

Public Outreach Opportunities

The figure shown in Appendix A demonstrates that public outreach opportunities exist throughout the project development process and even beyond the life of a project, while Step 3 of the step-by-step approach (above) explains why it is advantageous for the Port to determine a public outreach program at the project outset. Appendix C presents public outreach resources that may assist the Port in the implementing a public outreach program.

Public Participation Principles

According to the International Association for Public Participation, there are five levels of participation for engaging the public in a project:

- Informing the Public—providing the public with balanced and objective information to assist them in understanding the problems, alternatives and/or solutions;
- Consulting the Public—obtaining public feedback on analysis, alternatives and/or decisions;
- Involving the Public—working directly with the public throughout the process to ensure that public issues and concerns are consistently understood and considered;
- Collaborating with the Public—partnering with the public in each aspect of the decision including the development of alternatives and the identification of a preferred solution; and
- Empowering the Public—placing the final decision-making in the hands of the public.

The level of public participation and corresponding strategies vary depending on the different target audiences associated with a project. For example, strategies implemented to inform the general public about the proposed project and the Port's activities may differ from strategies to involve a Citizens Advisory Committee to ensure their issues are considered in project development.

No matter the level of public participation required on a specific project, these activities should be guided by the following principles:

- The public tends to support what it helps create.
- Public participation/public involvement programs must be sincere attempts to involve the public in decision-making.
- Communication must be targeted to everyone who has a stake in the project, not just the public at large or a select few individuals or groups that demand the most attention.
- The outreach program must be sensitive to accommodate multi-cultural demographics.
- Information must be factual, accurate, consistent and presented in a timely fashion.
- Information must be presented to the public in terms and formats that they can understand.
- Information must be provided in concert with environmental planning procedures.
- Project issues must remain focused and must be dealt with when and where they occur.
- Consultants and staff must be approachable, must work to fully understand all stakeholder concerns, and must be responsive to the community.
- Consultants must check in regularly with staff to ensure outreach efforts are consistent, non-duplicative, and coordinated with the Port's outreach efforts whenever possible.
- Communications need to be regular, consistent, and repetitive to compete effectively with the many other messages/issues in the marketplace.

Reaching Out to Communities

Beyond complying with specific environmental justice public outreach requirements, promoting more community involvement at all levels fosters a mutually beneficial relationship between public agencies and the communities they serve. To be meaningful to these communities, public information about plans or projects should be timely, useful, understandable, and presented in an accessible format. Community involvement strategies include the following.

- Undertake research and demographic analysis to assess the audience, identify underserved communities, and support development of plans and projects. This will help tailor outreach activities to ensure lasting results.

- Design and engage tailored public participation strategies early in a project's design stage. Agree on a strategic approach that will promote meaningful public involvement and effective communication efforts.
- Include the identified communities in the project at the onset to avoid surprises and to create buy-in.
- Create a contact/ mailing list, an important public participation building block that provides simplicity, ease, flexibility, efficiency, and speed. Mailing lists can be used throughout planning and project development to track the pulse of the community and to involve other key people. The mailing lists will allow the Port to reach its audience through meeting announcements, invitations, newsletters, summaries, and other event and activity information about the project.
- Form citizen's advisory committees, as appropriate (note that the Federal Advisory Committee Act, 5 USC Appendix 2 Sections 1 – 15, may restrict federal agency involvement related to advisory committees made up of non-governmental organizations). A group of stakeholders that meets regularly to discuss issues of common concern, the advisory committee is a public participation forum where the Port can present goals and proposed programs. Advisory committees provide (1) a continuing venue for bringing people's ideas directly into the process and (2) an opportunity to publicize the public participation process. A citizen's advisory committee should have the following features.
 - Interest groups from throughout the state or region are represented.
 - Meetings are held regularly.
 - Comments and points of view of participants are recorded.
 - Consensus on issues is sought but not required.
 - The advisory committee is assigned an important role in the process. It should be possible to track its activities through informational materials and via the project website.
 - A project spokesperson or coordinator is identified who is easily identifiable and accessible throughout the life of the project.
 - Local businesses, community-based organizations, and institutions are engaged early and throughout the project planning and decision-making process.
- The following materials can be used to assist project messengers where applicable.
 - Key messages and/or Q & A Sheet—Include typical and anticipated project and community-related questions and answers. These can be provided to project spokespersons, stakeholders and community leaders in advance of public events.
 - Contact sheets—List project partner contacts, key stakeholders, and consultants for easy information gathering.

- Website—Use this tool to inform and educate, as well as provide an opportunity for feedback.
- Video—Use this tool for education and to address comments received from the public in the early stages of the project.
- Legislative Packets—Use this tool for background and information for various elected and appointed officials.
- Implement activities in association with advocacy groups, civic leaders, ministers, and local school districts that serve the identified communities.
- Provide information in a format and language that is relevant and readily understood. Create information materials that educate and inform the various audiences about the project and highlight opportunities for involvement.
- Conduct public meetings in a convenient and familiar location within the community, utilizing one of the following venues:
 - *One-on-one briefings*—A dynamic component of public involvement that helps to break down barriers between people and the project. Provide a time and place for face-to-face contact and two-way communications.
 - *Small group briefings*—For a handful of individuals and representatives of larger organizations with similar issues/objectives and who typically share philosophies.
 - *Focus Groups*—A tool to gauge public opinion. This venue is a way to identify customer concerns, needs, wants, and expectations. A focus group informs project sponsors of the attitudes and values that customers, constituents or stakeholders hold and why. It can help drive development of policies, programs and services and the allocation of resources.
 - *Charrettes*—Intensive sessions in which participants create or review concepts and/or designs and are empowered to work together to support the results of their efforts in future planning efforts. Charrettes are invaluable in that they allow participants to understand several sides of the issues. The resulting “buy-in” or consensus most usually has a positive effect in reducing opposition down the road.
 - *Community briefing or workshops*—Information meetings with a community group and/or leader. Elected officials, business leaders, the media, regional groups, or special interest groups can participate. These venues usually involve issue-focused communication between agency administrators, project managers, board members or a specific group or part of the community.
 - *Open House/Public Workshop*—An informal setting in which people get information about a plan or project. Open houses have no set formal agenda. Unlike meetings, no formal discussions and presentations take place, and there are no audience seats. Instead, people get information

informally from exhibits and staff, and are encouraged to give opinions, comments, and preferences to staff either verbally or in writing.

For additional tips on successful public meetings and community outreach, refer to Appendix C for a quick public meeting checklist.

- Provide transportation, childcare services, and refreshments as part of public meetings, to encourage participation.
- Use visual aids and community leaders to facilitate discussions about problems, alternatives, and possible outcomes.
- Coordinate with project partners' media relations departments to determine approach and timing for both news media and editorial board endorsement, encourage media relations activities. This will help reach a larger audience and educate the public on the purpose, need and associated activities of the project. Prepare processes for proactive and reactive media scenarios. Identify media targets and create a media contact list, including print, broadcast and electronic sources. Identify media spokespersons and conduct media training as necessary.

Many of these strategies may be applied during the project development process (see Appendix A). For additional tips (do's and don'ts) on successful public participation activities associated with community outreach and media strategies, refer to Appendix C for a quick reference guide to tips for successful communication.

Strengthening Ties to Communities

It is important that to note that the Port should seek to maintain relationships with communities even after a project has been completed. These relationships build trust between public agencies and the communities they serve, and they provide a valuable channel of communication to address emerging issues and needs in a timely manner. The following are some strategies for strengthening ties to communities.

- Establish a collaborative relationship with local, regional, and tribal governments, and leverage local resources whenever possible.
- Build capacity in communities by providing assistance to non-profit organizations to facilitate meetings, publicize events, and utilize ethnic media.
- Form citizen's advisory committees, if not already established.
- Arrange for managers from various agencies, as appropriate, to be present at public hearings.
- Consider the cultural and historical aspects of communities in planning and project implementation.

- Foster a constructive dialogue among all stakeholders—including minority and low-income communities and tribal governments—to incorporate community values in planning and project development.
- Provide feedback and project updates through newsletters, websites, and press advisories.
- Demonstrate responsiveness to the comments and questions raised at public meetings.

These strategies are applicable during the life of a project (e.g., during public scoping meetings), as well as during ongoing Port operations and maintenance activities, policy development, and public education.

Specific Tactics to Consider

Each project and the composition of each affected community are unique and, as such, require that a specific public participation plan or strategy be designed accordingly. Implementation of public participation plans and strategies can best be achieved through the use of some basic tactics, which may include the following.

Tactics for Implementing Public Participation Plans or Strategies	
<ul style="list-style-type: none"> ■ Collateral materials <ul style="list-style-type: none"> ➤ Brochures ➤ Booklets ➤ Fact sheets ➤ Meeting notices ➤ Newsletters ➤ One-on-one outreach ➤ Websites ➤ White papers ■ Community assessments and polls ■ Crisis management and risk-communication planning 	<ul style="list-style-type: none"> ■ Facilitation and mediation of group discussions and workshops ■ Media relations and media skills training ■ Public meetings, workshops and open houses ■ Contacts database and mailing lists for community outreach and distribution of informational materials ■ Tours and briefings

When using each of these tactics, one should always be mindful of specific cultural sensitivities as well as translation and interpretation needs associated with a particular effort. Tailoring each outreach technique to address these sensitivities and needs will help ensure successful communication with your target community. Preliminary screening to identify minority and low-income populations (and other demographic variables, such as age or disability status), even prior to the preparation of environmental documentation, is important for the selection of appropriate outreach tactics.

Getting the Job Done

The most common mistake made regarding public participation is that most public agencies underestimate the time and expertise it takes to engage the public, especially for projects that may have environmental justice implications. Do not hesitate to bring in a professional public participation team or expert to assist with the design and implementation of your project. Using a public participation expert to involve the public early and often through the life of a project will help avoid surprises and conflicts, anticipate “hot button” issues, and ensure lasting success.

Historical Context of the Environmental Justice Movement

It has been suggested that the basis for environmental justice and all other challenges to governmental discrimination lies in the Equal Protection Clause of the U.S. Constitution. The Fourteenth Amendment of the Constitution expressly provides that the states may not “deny to any person within [their] jurisdiction the equal protection of the laws” (U.S. Constitution, amend. XIV, Section 1). Some would say that the environmental justice movement was borne out of the larger civil rights movement of the 1960s. Most would agree that the environmental justice movement began in a small, predominantly African-American and low-income community in Warren County, North Carolina. In 1982, the State of North Carolina decided to site a toxic waste landfill for the disposal of PCB-contaminated soil in Warren County, prompting several demonstrations by civil rights and environmental activists. By 1983, the State of North Carolina decided to find an alternative site for the landfill proposed for Warren County, which already had been the target for other toxic waste facilities sited in its community before the decision in 1982.

Several reports were commissioned following the Warren County events. Immediately after the public outcry in Warren County, the U.S. General Accounting Office conducted a study of the EPA, Region IV, including North Carolina and other southeastern states. The report, entitled “Siting of Hazardous Waste Landfills and their Correlation with Racial and Economic Status of Surrounding Communities,” revealed that three out of four landfills were located near predominantly minority communities. A few years later, in 1987, the United Church of Christ released a report that found the most significant factor in determining the siting of hazardous waste facilities was race, and that three out of every five African-Americans and Hispanics lived in a community close to unregulated toxic waste sites. A few years later, a National Law Journal study found that the EPA took 20 percent longer to place abandoned sites in minority communities on the national priority clean-up list, and that polluters of these minority communities paid fines 54 percent lower than polluters in white communities. These studies and reports fueled a grassroots movement that was ignited many years before. In 1991, civil rights and environmental activists

convened in Washington, DC, to hold the First National People of Color Environmental Leadership Summit, resulting in 17 principles of environmental justice (Appendix D).

In response to the grassroots movement, and these studies and reports, President Clinton signed Executive Order 12898, titled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, on February 11, 1994 (Appendix E). The executive order followed a 1992 EPA report indicating “[r]acial minority and low-income populations experience higher than average exposures to selected air pollutants, hazardous waste facilities, and other forms of environmental pollution.”

Regulatory Framework for the Port of Long Beach

Port projects may involve several federal, state, and local agencies for various types of approvals. These agencies typically serve as lead, responsible, cooperating, and trustee agencies for the CEQA and NEPA environmental review process. The following summaries characterize the scope of environmental justice-related orders, policies, guidance documents, regulations, and laws—the regulatory framework that mandates that environmental justice is addressed in Port environmental documents. For further reading or to obtain up-to-date information from various agencies, see Appendix H, which includes list of federal, state, and local agency websites relating to environmental justice.

Federal

Several federal agencies may be involved in actions proposed by the Port. These federal agencies have certain environmental justice requirements, based on Executive Order 12898, that must be completed prior to authorizing an activity under its jurisdiction. These federal agencies are:

- DOT,
- U.S. Army Corps of Engineers,
- Federal Energy Regulatory Commission, and
- U.S. Coast Guard.

Executive Order 12898

Executive Order 12898 requires the federal agencies named in the order to address environmental justice issues affecting minority and low-income populations, using all the statutory and regulatory authorities that already exist.

Specifically, the Executive Order 12898 requires federal agencies to do the following:

- Section 1-101. Make achieving environmental justice part of its mission.
- Section 1-102. Create an Interagency Working Group on Environmental Justice, convened by the Administrator of the EPA and composed of the heads of the federal agencies named in the executive order².
- Section 1-103. Develop an agency-wide environmental justice strategy.
- Section 2-2. Conduct its programs, policies, and activities that substantially affect human health or the environment, to ensure that the agency does not exclude populations from participation in, deny such populations the benefits of, or subject populations to discrimination under such programs, policies, and activities because of their race, color, or national origin.
- Section 3-301. Conduct research to include diverse segments of the population, attempt to address multiple and cumulative exposures in research, and enhance participation by such populations in the development and design of research strategies.
- Section 3-302. Collect and disseminate information assessing disproportionately high and adverse human health and environmental effects on minority and low-income populations.
- Section 4-4. As practicable and appropriate, investigate and communicate information on the consumption patterns of populations that primarily rely on fish or wildlife for subsistence.
- Section 5-5. Promote public participation in environmental decision making and public access to health or environmental information by encouraging agencies to ensure that documents, notices, and hearings “are concise, understandable, and readily accessible to the public,” granting agencies the discretion to translate “crucial public documents, notices, and hearings relating to human health or the environment for limited English speaking populations” (White House 1994).

Executive Order 12898 was not intended to create a right of judicial review against the United States, but rather for agencies and judges to fulfill the spirit of the order by using their discretionary authority under various existing environmental statutes (namely NEPA and the Title VI of the Civil Rights Act of

² Agencies named in Executive Order 12898: “(a) Department of Defense; (b) Department of Health and Human Services; (c) Department of Housing and Urban Development; (d) Department of Labor; (e) Department of Agriculture; (f) Department of Transportation; (g) Department of Justice; (h) Department of the Interior; (i) Department of Commerce; (j) Department of Energy; (k) Environmental Protection Agency; (l) Office of Management and Budget; (m) Office of Science and Technology Policy; (n) Office of the Deputy Assistant to the President for Environmental Policy; (o) Office of the Assistant to the President for Domestic Policy; (p) National Economic Council; (q) Council of Economic Advisers; and (r) such other Government officials as the President may designate.” (Section 1-102)

1964³) to achieve the environmental justice goals (Section 6-608 and 6-609) (White House 1994).

Federal Agency Orders and Regulations

U.S. Department of Transportation

Following Executive Order 12898, DOT issued an Order to Address Environmental Justice in Minority Populations and Low-Income Populations to comply with Executive Order 12898 (DOT 1997) (Appendix F). The DOT order described the process by which its operating administrations, including FHWA, would incorporate environmental justice principles. Further, the DOT order provided that FHWA would develop specific procedures to incorporate the goals of the DOT order and Executive Order 12898 into its programs, policies, and activities. This resulted in FHWA's issuance of its own order on environmental justice in December 1998 (Appendix F).

FHWA establishes three fundamental principles of environmental justice, including:

1. avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations;
2. ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
3. prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations (FHWA 2005).

The FHWA Environmental Justice Order calls out specific information to be obtained and analyzed when considering environmental justice. It also commits to certain steps in order to prevent disproportionately high and adverse effects. In addition, a determination that an FHWA action will result in disproportionately high and adverse effects on minority or low-income populations requires mitigation measures or alternatives to avoid or reduce the high and adverse effects where practicable, and will only be carried out if there is a substantial need for the program, policy, or action, or where the alternatives that would have less adverse effects on minority or low-income populations would result in impacts that are more severe or would involve increased costs of an extraordinary magnitude (FHWA 1998).

³ Title VI states that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title VI bars intentional discrimination as well as disparate impact discrimination (i.e., a neutral policy or practice that has a disparate impact on protected groups).

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers has not issued specific policy or guidance related to environmental justice, although its Environmental Desk Reference⁴, intended to serve as a desktop reference on environmental statutes and executive policies and orders, provides users with the full text of Executive Order 12898 (U.S. Army Corps of Engineers 1997).

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission's Guidance Manual for Environmental Report Preparation⁵ requires that the analysis of project construction and operation in a project area should include, among other topics, environmental justice (Federal Energy Regulatory Commission 2002).

U.S. Coast Guard

In May 2003, the U.S. Coast Guard issued Commandant Instruction 5810.3 titled, "Coast Guard Environmental Justice Strategy" (Appendix F) (U.S. Coast Guard 2003). This instruction implements Executive Order 12898 and references other laws, including NEPA. Further, this instruction defines environmental justice and prescribes the responsibilities of specified personnel within the U.S. Coast Guard, including the collection and analysis of data involving minority and low-income populations.

Another instruction intended to guide the U.S. Coast Guard with complying with NEPA and the CEQ's regulations to implement NEPA, is Instruction M16475.1D⁶. This instruction notes that when an environmental assessment or environmental impact statement is needed, then the significance of environmental justice impacts must be considered (U.S. Coast Guard 2000).

When assessing the potential for significant impacts on the socioeconomic environment and environmental justice issues, the U.S. Coast Guard recommends considering whether the proposed action is likely to do any of the following:

- change traffic patterns or increase traffic volumes (road and/or waterway);
- require the rerouting of roads/waterways or traffic;

⁴ The U.S. Army Corps of Engineers' Environmental Desk Reference is accessible via the Web at <http://www.usace.army.mil/inet/functions/cw/cecwp/envdref2/>.

⁵ The Federal Energy Regulatory Commission's Guidance Manual for Environmental Report Preparation is accessible via the Web at <http://www.ferc.gov/industries/gas/enviro/erpman.pdf>.

⁶ The U.S. Coast Guard's Commandant Instruction M16475.1D is accessible via the Web at <http://www.uscg.mil/ccs/cit/cim/directives/cim/cim%5F16475%5F1d.pdf>.

- be located near any existing bottleneck in vehicle or vessel traffic (e.g., a bridge intersection, bend in the waterway, restricted channel);
- have access constraints;
- affect a congested intersection;
- be inconsistent with existing zoning, surrounding land use, or the official land use plan for the specific site and/or the delineated area;
- be inconsistent with surrounding architecture or landscape;
- increase or decrease the population of the community;
- increase the population density of the area;
- require the construction of government housing now or in the future;
- intrude on residential or business uses in the affected area;
- relocate private residences or businesses;
- affect the economy of the community in ways that result in impacts to its character, or to the physical environment;
- result in a higher proportion of effects impacting low income or minority groups;
- require substantial new utilities;
- be regarded as burdensome by local or regional officials or the public because of infrastructure demands (e.g., sewer, water, utilities, street system, and public transit);
- be regarded as burdensome by local or regional officials or the public because of support facilities demands (e.g., schools, hospitals, shopping facilities, and recreation facilities);
- alter a group's use of land or other resources (e.g., sustenance fishing); or
- disproportionately have a high and adverse effect on a minority or low-income population.

State

While there is no requirement under CEQA to address environmental justice, a handful of legislation has been signed into law since 1999. Environmental justice laws in California have largely been procedural, including, but not limited to, formation of environmental justice advisory

California's Definition

Environmental justice is "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws and policies."

California Government Code §65040.12

committees and assigning coordinating roles and responsibilities to the Governor's Office of Planning and Research and the California Environmental Protection Agency. For information on recent state-level environmental justice efforts and legislation, see a publication by the Governor's Office of Planning and Research, titled "Environmental Justice in California" (released in October 2003), or contact individual agencies for more specific information. Additionally, Appendix G contains a recent article published in the California Development and Planning Report, which focuses on state agencies' environmental justice activities (California Development and Planning Report 2003).

Although there is no specific state law requiring the Port to assess environmental justice issues, Port projects may trigger the jurisdiction of two state agencies, California State Lands Commission (SLC) and California Air Resources Board (ARB), which have adopted environmental justice review requirements.

State Lands Commission

The SLC adopted an Environmental Justice Policy on October 1, 2002, replacing an interim policy adopted earlier that year (Appendix F). Before adoption of this amended policy, the SLC distributed the interim policy to 51 environmental justice and community organizations throughout the state with an invitation to comment. Based on the comments received and additional staff review, the policy was revised to make it more effective and comprehensive.

In its policy, the SLC "pledges to continue and enhance its processes, decisions, and programs with [environmental justice] as an essential consideration." The policy also cites the definition of environmental justice in state law and points out that this definition "is consistent with the Public Trust Doctrine principle that the management of trust lands is for the benefit of all of the people" (SLC 2002).

To date, the SLC has not issued any guidance to implement the policy, although environmental justice is addressed in all SLC environmental documents (Griggs pers. comm.).

California Air Resources Board

ARB has taken extraordinary steps to address environmental justice. On December 31, 2001, ARB was one of the first state entities to adopt an environmental justice policy⁷. ARB has taken various steps to implement the policy, including, but not limited to, modeling best-practices for public meetings, publishing a public participation handbook for agencies and the public in both English and Spanish, and developing an Air Quality Handbook on Land Use.

⁷ ARB's Environmental Justice Policies and Actions document is accessible via the web at <http://www.arb.ca.gov/ch/programs/ej/ej.htm>.

The draft Air Quality Handbook on Land Use is intended to serve as a reference for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. ARB has also convened a multi-stakeholder environmental justice group to serve as a forum to discuss its environmental justice program.

South Coast Air Quality Management District

In 1997, the South Coast Air Quality Management District adopted a set four guiding principles of environmental justice to ensure environmental equity:

1. All basin residents have the right to live and work in an environment of clean air, free of airborne health threats.
2. Government is obligated to protect the public health.
3. The public and private sectors have the right to be informed of scientific findings concerning hazardous and toxic emission levels, and to participate in the development and implementation of adequate environmental regulations in their communities.
4. The Governing Board is to uphold the civic expectation that the public and private sectors of the basin will engage in practices that contribute to a healthy economy and truly livable environment (South Coast Air Quality Management District 2005).

Local

The City of Long Beach has not adopted policies relating to environmental justice. For informational purposes, the following provides some background on environmental justice efforts by the City of Los Angeles. The Port of Los Angeles has not issued its own environmental justice policies or guidance; however, since it is governed by the Los Angeles Harbor Department within the City of Los Angeles, it has informally “adopted” the City of Los Angeles’ policies.

City of Los Angeles

The City of Los Angeles has adopted environmental justice policies as part of its General Plan, in its Framework and Transportation Elements.

The Framework Element includes a policy to “assure the fair treatment of people of all races, cultures, incomes and education levels with respect to the development, implementation and enforcement of environmental laws, regulations, and policies, including affirmative efforts to inform and involve environmental groups, especially environmental justice groups, in early planning

stages through notification and two-way communication” (City of Los Angeles 2001) (Chapter 3, Section 3.1.9).

The Transportation Element includes a policy to “assure the fair and equitable treatment of people of all races, cultures, incomes and education levels with respect to the development and implementation of citywide transportation policies and programs, including affirmative efforts to inform and involve environmental groups, especially environmental justice groups, in the planning and monitoring process through notification and two-way communication” (City of Los Angeles 1999) (Chapter IV, Policy 7.3).

In addition, the City of Los Angeles has committed to a Compact for Environmental Justice, which was adopted as the city’s foundation for a sustainable urban environment. Relevant statements include the following:

- All people in Los Angeles are entitled to equal access to public open space and recreation, clean water, and uncontaminated neighborhoods.
- All planning and regulatory processes must involve residents and community representatives in decision making from start to finish (City of Los Angeles 1999).

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Personal Communication

Griggs, Pam. Staff Counsel, California State Lands Commission. February 15, 2005—telephone conversation.

Appendix A

**Environmental Justice Opportunities in
Port of Long Beach Projects**

PROJECT DEVELOPMENT PROCESS

Project Initiation

- Coordinate with public agencies.
- Conduct community outreach/public participation.
- Identify engineering, environmental, and fiscal constraints.

Project Development

- Identify the project development team (PDT).
- Create a Citizens' Advisory Committee (CAC).
- Develop reasonable range of project alternatives.

Environmental Review

- Conduct public meeting(s).
- Draft environmental impact document.
 - Analyze environmental impacts.
 - Propose mitigation for impacts.
- Public review and comment period.
- Final environmental document.
 - Respond to public comments.
 - Revise analysis and mitigation.
- Adopt environmental document and approve project.
- Monitor impact mitigation.

Project Construction

- Announce contract.
- Select contractor.
- Commence construction.
- Coordinate with community during construction.
- Ensure implementation of pre- and post-construction mitigation.

Project Operations & Maintenance

- Develop and implement Port operations and maintenance (O&M) plan.
- Monitor operations and facility conditions.

ENVIRONMENTAL JUSTICE OPPORTUNITIES

- Early identification of environmental justice (EJ) communities.
- Initial contacts with public officials and leaders of EJ organizations.
- Consider launching preliminary public outreach efforts.

- Identify public participation coordinator
- Include community experts as PDT/CAC members.
- Consider EJ when developing and assessing project alternatives.

- Identify disproportionately high and adverse project impacts in the environmental document.
- Include a separate EJ analysis within the environmental document.
- Tailor mitigation measures that avoid or minimize disproportionate impacts to EJ communities.
- Enhance public outreach for environmental document scoping and review.

- Include contractors/employees from EJ communities in bidding process.
- Maintain community outreach during construction period.

- Ensure all facilities are maintained and repaired.
- Update Port facilities as they become outmoded over time.
- Continue to inform community about O&M and related Port activities.

Appendix B

Model EIR/EIS Environmental Justice Section

Appendix B

Model EIR/EIS Environmental Justice Section

Introduction

In 1994, concern that minority populations and/or low-income populations were bearing a disproportionate amount of adverse health and environmental effects led President Clinton to issue Executive Order 12898, which focused federal agency attention on these issues.

Executive Order 12898, entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directed each federal agency to make achieving environmental justice a part of its mission. The President specifically recognized the importance of using the procedures under the National Environmental Policy Act (NEPA) to identify and address environmental justice concerns.

The U.S. EPA defines “environmental justice” as follows:

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from the execution of federal, state, local, or tribal programs and policies.

Meaningful involvement means that (1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health, (2) the public’s contribution can influence the regulatory agency’s decision, (3) concerns of all participants involved will be considered in the decision making process, and (4) decision makers must seek out and facilitate the involvement of those potentially affected.

Regulatory Setting

Federal

Executive Order 12898

On February 11, 1994, President Clinton signed Executive Order (E.O.) 12898, titled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." The executive order followed a 1992 report by the U.S. Environmental Protection Agency (U.S. EPA) indicating that "[r]acial minority and low-income populations experience higher than average exposures to selected air pollutants, hazardous waste facilities, and other forms of environmental pollution." E.O. 12898 requires the federal agencies named in the order to identify and address disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, using all the statutory and regulatory authorities that already exist. The federal agency must ensure that its activities do not discriminate against persons or groups on the basis of race, national origin, or income.

Title VI of the Civil Rights Act

Title VI of the Civil Rights Act of 1964, as amended, prohibits discrimination in federally assisted programs. The act stipulates that no person in the United States shall, on the ground of race, color, national origin age, sex, or disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. All federal programs and projects are subject to this act. The general procedures to be followed are set forth in 49 CFR 21 and 23 CFR 200.

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission's Guidance Manual for Environmental Report Preparation¹ requires that the analysis of project construction and operation in a project area should include, among other topics, environmental justice.

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers has not issued specific policy or guidance related to environmental justice, although its Environmental Desk Reference², intended to serve as a desktop reference on environmental statutes and executive policies and orders, provides users with the full text of Executive Order 12898.

¹ The Federal Energy Regulatory Commission's Guidance Manual for Environmental Report Preparation is accessible via the Web at <http://www.ferc.gov/industries/gas/enviro/erpman.pdf>.

² The U.S. Army Corps of Engineers' Environmental Desk Reference is accessible via the Web at <http://www.usace.army.mil/inet/functions/cw/cecwp/envdref2/>.

U.S. Department of Transportation Order 5610.2

In April 1997, the U.S. Department of Transportation (DOT) issued the DOT Order on Environmental Justice to Address Environmental Justice in Minority Populations and Low-Income Populations (DOT Order 5610.2) to summarize and expand on the requirements of Executive Order 12898. The order generally describes the process for incorporating environmental justice principles into all DOT existing programs, policies, and activities. DOT and FTA provide that agencies:

- ensure that new investments and changes in transit facilities, services, maintenance, and vehicle replacement deliver equitable levels of service and benefits to minority and low-income populations;
- avoid, minimize, or mitigate disproportionately high and adverse effects on minority and low-income populations; and
- enhance public involvement activities to identify and address the needs of minority and low-income populations in making transportation decisions.

U.S. Coast Guard

In May 2003, the U.S. Coast Guard issued Commandant Instruction 5810.3 titled, "Coast Guard Environmental Justice Strategy." This instruction implements Executive Order 12898 and references other laws, including NEPA. Further, this instruction defines environmental justice and prescribes the responsibilities of specified personnel within the U.S. Coast Guard, including the collection and analysis of data involving minority and low-income populations.

When assessing the potential for significant impacts on the socioeconomic environment and environmental justice issues, the U.S. Coast Guard recommends considering whether the proposed action is likely to do any of the following:

- change traffic patterns or increase traffic volumes (road and/or waterway);
- require the rerouting of roads/waterways or traffic;
- be located near any existing bottleneck in vehicle or vessel traffic (e.g., a bridge intersection, bend in the waterway, restricted channel);
- have access constraints;
- affect a congested intersection;
- be inconsistent with existing zoning, surrounding land use, or the official land use plan for the specific site and/or the delineated area;
- be inconsistent with surrounding architecture or landscape;
- increase or decrease the population of the community;
- increase the population density of the area;
- require the construction of government housing now or in the future;

- intrude on residential or business uses in the affected area;
- relocate private residences or businesses;
- affect the economy of the community in ways that result in impacts to its character, or to the physical environment;
- result in a higher proportion of effects impacting low income or minority groups;
- require substantial new utilities;
- be regarded as burdensome by local or regional officials or the public because of infrastructure demands (e.g., sewer, water, utilities, street system, and public transit);
- be regarded as burdensome by local or regional officials or the public because of support facilities demands (e.g., schools, hospitals, shopping facilities, and recreation facilities);
- alter a group's use of land or other resources (e.g., sustenance fishing); or
- disproportionately have a high and adverse effect on a minority or low-income population.

State

[There is no specific state law requiring the Port to assess environmental justice issues, Port projects may trigger the jurisdiction of two state agencies, California State Lands Commission and California Air Resources Board, which have adopted environmental justice review requirements.]

State Lands Commission

The SLC adopted an Environmental Justice Policy on October 1, 2002, replacing an interim policy adopted earlier that year. Before adoption of this amended policy, the SLC distributed the interim policy to 51 environmental justice and community organizations throughout the state with an invitation to comment. Based on the comments received and additional staff review, the policy was revised to make it more effective and comprehensive.

In its policy, the SLC “pledges to continue and enhance its processes, decisions, and programs with [environmental justice] as an essential consideration.” The policy also cites the definition of environmental justice in state law and points out that this definition “is consistent with the Public Trust Doctrine principle that the management of trust lands is for the benefit of all of the people”.

To date, the SLC has not issued any guidance to implement the policy, although environmental justice is addressed in all SLC environmental documents.

California Air Resources Board

ARB has taken extraordinary steps to address environmental justice. On December 31, 2001, ARB was one of the first state entities to adopt an environmental justice policy³. ARB has taken various steps to implement the policy, including, but not limited to, modeling best-practices for public meetings, publishing a public participation handbook for agencies and the public in both English and Spanish, and developing an Air Quality Handbook on Land Use. The draft Air Quality Handbook on Land Use is intended to serve as a reference for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. ARB has also convened a multi-stakeholder environmental justice group to serve as a forum to discuss its environmental justice program.

South Coast Air Quality Management District

In 1997, the South Coast Air Quality Management District adopted a set four guiding principles of environmental justice to ensure environmental equity:

- a. All basin residents have the right to live and work in an environment of clean air, free of airborne health threats.
- b. Government is obligated to protect the public health.
- c. The public and private sectors have the right to be informed of scientific findings concerning hazardous and toxic emission levels, and to participate in the development and implementation of adequate environmental regulations in their communities.
- d. The Governing Board is to uphold the civic expectation that the public and private sectors of the basin will engage in practices that contribute to a healthy economy and truly livable environment.

Local

City of Long Beach

The City of Long Beach has not adopted policies relating to environmental justice. For informational purposes, the following provides some background on environmental justice efforts by the City of Los Angeles. The Port of Los Angeles has not issued its own environmental justice policies or guidance; however, since it is governed by the Los Angeles Harbor Department within the City of Los Angeles, it has informally “adopted” the City of Los Angeles’ policies.

³ ARB’s Environmental Justice Policies and Actions document is accessible via the web at <http://www.arb.ca.gov/ch/programs/ej/ej.htm>.

City of Los Angeles

The City of Los Angeles has adopted environmental justice policies as part of its General Plan, in its Framework and Transportation Elements.

The Framework Element includes a policy to “assure the fair treatment of people of all races, cultures, incomes and education levels with respect to the development, implementation and enforcement of environmental laws, regulations, and policies, including affirmative efforts to inform and involve environmental groups, especially environmental justice groups, in early planning stages through notification and two-way communication” (Chapter 3, Section 3.1.9).

The Transportation Element includes a policy to “assure the fair and equitable treatment of people of all races, cultures, incomes and education levels with respect to the development and implementation of citywide transportation policies and programs, including affirmative efforts to inform and involve environmental groups, especially environmental justice groups, in the planning and monitoring process through notification and two-way communication” (Chapter IV, Policy 7.3).

In addition, the City of Los Angeles has committed to a Compact for Environmental Justice, which was adopted as the city’s foundation for a sustainable urban environment. Relevant statements include the following:

- All people in Los Angeles are entitled to equal access to public open space and recreation, clean water, and uncontaminated neighborhoods.
- All planning and regulatory processes must involve residents and community representatives in decision making from start to finish.

Methodology

Screening for environmental justice (EJ) impacts was achieved by characterizing the demographics (minority and low-income populations) for census block groups [or census tracts] in the project area and vicinity that would be potentially impacted by the proposed project.

The definitions of minority and low-income populations used for the EJ screening are those of the Council on Environmental Quality (CEQ), whose definitions are widely used to assess EJ in the environmental review process. Minority individuals are defined as members of the following population groups: American Indian or Alaskan Native, Asian or Pacific Islander, Black, or Hispanic. Low-income populations in the affected area are identified with the annual poverty threshold defined by the U.S. Census Bureau as 80% or less of the County median income [or below the poverty level, as identified in the 2000

U.S. Census]. Minority and low-income populations are defined according to the following criteria:

- Where the minority population percentage of the affected area is meaningfully greater than the minority population percentage of the general population; and
- Where the population percentage below the poverty level is meaningfully greater than that of the population percentage in the general population.

This characterization would determine whether further analysis is warranted.

Affected Environment

[Results from the demographics analysis, where the population percentages have been compared with the general population (City of Long Beach and/or County of Los Angeles) should be discussed here. They should also be shown graphically. Explain whether the information derived from the census data shows that the potentially affected communities exist in the project vicinity and where, if any, they are concentrated.]

Figure [X] shows the minority block groups within a 1-mile radius of the project boundaries, while Figure [Y] shows the low-income block groups within a 1-mile radius.

[Results of the impact analyses from other technical sections and studies should be discussed in general here to transition into the impacts discussion regarding impacts to both the general population and environmental justice populations.]

Impacts and Mitigation Measures

[The impact analysis would begin here. Begin by first discussing impacts to the general population followed by discussing disproportionate impacts to the low-income and minority populations in the project area.

Specific environmental justice impacts would include, but not be limited to, potential displacement, air quality, noise, changes in land use, economic development, visual, employment, local and regional traffic and transportation, and safety.

Then, continue by assessing whether the mitigation measures developed for the general population would be effective in minimizing or avoiding impacts to low-income and minority populations. If further mitigation is warranted, mitigation measures should be identified where it is appropriate in the document, with an explanation of how the mitigation would minimize or avoid the impact(s) to affected low-income and minority populations.]

Public Outreach Process

[A brief description of the public outreach process that the Port has undergone for the project should be discussed here, or where appropriate, as public participation is a key component to ensuring environmental justice.]

Appendix C

Public Outreach Resources

Tips for Successful Communication

Public Meeting Checklist

Tips for Successful Communication

Public Meetings:

Do Not:	Do:
Engage in "public participation" meetings if the public will not actually influence the decision-making	Clearly identify the purpose of the public meeting (informational, educational, participatory)
Hold meetings at inconvenient locations or inconvenient days/times	Select centrally located facilities that are ADA compliant, and easy to access from public transportation. Avoid holding meetings too close to holidays, and avoid conflicts with known Board meetings / other events
Hold meetings without adequate public notice.	Ensure that public notice is received at least two weeks in advance of the meeting. Ensure that methods for public notice are as thorough as possible.
Commit to anything without knowing in advance the commitment will be supported by decision-makers	Make commitments to consider new ideas, or to seek out answers to questions. Then, deliver on that commitment.
Neglect to anticipate "hot button" issues	Brainstorm about all likely concerns, even those unrelated to the topic directly. Attempt to address these concerns in informational material or in presentations.
Assume things will "work out"	Spend time and energy before public meetings to strategize. Create a public meeting plan, or a communication plan, and stick to it.
Let overbearing participants dominate the meetings	Establish and stick to meeting ground rules, redirect overbearing participants, and make use of an experienced facilitator

Media:

Do Not:	Do:
Speak to a reporter without knowing you are an identified "spokesperson"	Check your organization's media protocol, and follow it (or create one, if necessary)
Assume you are powerless in telling your own story or assume you have to speak on any subject a reporter raises.	Be prepared. Know exactly what story you want to tell, and stick to it. Stay calm, make points quickly, and be repetitive only if necessary.
Assume that reporters are either your friend or your enemy	Understand reporters: they want a good story. Be straightforward and professional, and as helpful and resourceful as possible within limits.
Speak to a reporter the instant he or she contacts you.	Give yourself time to prepare. Ask the reporter what the subject matter is and when their deadline is, and arrange for an appointment later in the day or later in the week.
Ignore reporters' attempts to contact you.	Respond promptly.
Assume you have to have all the answers.	Say you "don't know" if that's the case, and offer to obtain the information if possible.
Lie, guess, speculate, or offer personal opinion.	Provide only accurate and relevant information.
Speak on subjects other than those you are prepared or authorized to cover or speak on behalf of someone else.	Have key messages prepared and follow them. Bridge to your key messages from any unrelated questions. Defer to the proper spokesperson as necessary.
Speak off the record, or engage in chit-chat before or after an interview.	Understand that everything you say or write (whether part of an interview or not) could be attributed to you in a quote.

Tips for Successful Communication

Cross –Jurisdictional Communications:

Do Not:	Do:
Assume that expectations for cross-jurisdictional communication are the same for each participating organization.	Identify, discuss and set mutual communication goals for participating organizations. Ask one another what tangible benefit they get from participating.
Believe that other jurisdictions make decisions in a manner similar to your organization.	Explain the process for decision making at your organization.
Assume that information you provide will be shared with the correct or appropriate people at your partnering organization.	Take responsibility for determining how to share information so that you reach everyone at your partnering organization whose input and approval is necessary.
Suppose that partnering organizations understand the institutional history that has contributed to your organization's culture, approach, and decision-making	Provide information that sets the historical context for the issue your organization is confronting.
Exaggerate controversy or disagreements to the public or media.	Establish ground rules for discussing and characterizing disagreements among partnering organizations with the outside world: the public and the media.

Political Communications:

Do Not:	Do:
Catch elected officials off-guard	Notify elected officials in advance of projects or programs in their district. Establish a relationship with the official directly, or with their assistant.
Expect elected officials to know what you want from them.	Be specific about the purpose of communications. Are you simply providing information, requesting their attendance at a function, or do you require a formal action on the part of the board?
Communicate with elected officials only reactively.	Provide presentations on a regular (quarterly or biannually) basis and include basic information such as scope of services, service area, and industry trends.
Rely on the ability of electeds to translate technical information into effective public messages.	Speak to electeds in language that they can use in communicating with the lay public. Be knowledgeable about community perceptions and speak to them.

Public Meeting Checklist

Task	Responsible Party	Details
Set Meeting Schedule		<p>Meetings need to be scheduled during public comment period (see “Noticing” below), preferably the beginning or middle.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check for competing community events (City Council, Planning Commission and Board of Supervisors meetings)
Identify Stakeholders		<ul style="list-style-type: none"> <input type="checkbox"/> Develop or update contacts database to include targeted groups/individuals; community- and faith-based organizations, elected officials, partnering agencies, community members <input type="checkbox"/> Consider purchasing a zip-code mailing list within the project area
Select Meeting Site		<p>Questions to ask:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Availability (add 1.5 hours before and after meeting if possible) <input type="checkbox"/> Capacity (average meeting is 30–100 people; aim high) <input type="checkbox"/> Location (centrally located and accessible via public transit) <input type="checkbox"/> ADA compliant (wheelchair ramps, parking) <input type="checkbox"/> Set up (ample chairs, screens, outlets, lights, acoustics) <input type="checkbox"/> Audio visual equipment (microphones and speakers)
Determine Meeting Format		<p>Key components to consider:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Open house/information displays <input type="checkbox"/> Presentation <input type="checkbox"/> Public comment opportunities (verbal and written)
Develop Meeting Notice		<ul style="list-style-type: none"> <input type="checkbox"/> Schedule mailer to arrive a minimum of 2–3 weeks prior to event <input type="checkbox"/> Develop text and get approval from appropriate parties <input type="checkbox"/> Include information such as who, what, where, why, comment timeframe, contact person, and comment submittal information. <input type="checkbox"/> Coordinate a graphic design service <input type="checkbox"/> Use a mail house for distribution if not able to do in house
Conduct Noticing		<ul style="list-style-type: none"> <input type="checkbox"/> Consider CEQA and NEPA requirements (State Clearinghouse, Federal Register) <input type="checkbox"/> Mail a public meeting notice (see below) <input type="checkbox"/> Post information on web sites and in community-based organization newsletters and in newspapers
Conduct Client/Team Planning Meetings		<ul style="list-style-type: none"> <input type="checkbox"/> Meet biweekly or more frequently as meeting approaches to coordinate details <input type="checkbox"/> Identify a meeting facilitator and project media spokesperson <input type="checkbox"/> Determine staffing assignments (sign-in table greeter, open-house station staffers, presenters, room rovers) <input type="checkbox"/> Get client/team approval at each step

Public Meeting Checklist

Task	Responsible Party	Details
Conduct Media Relations		<ul style="list-style-type: none"> <input type="checkbox"/> Determine media budget <input type="checkbox"/> Identify/update media list (fax/phone/email/contact name for newspapers, radio, and television) <input type="checkbox"/> Develop news release (distribute 3 days prior to event and event day) <input type="checkbox"/> Place follow-up phone calls to media; solicit a feature story <input type="checkbox"/> Take advantage of free media (calendar notices, public service announcements, community-based organization web sites, etc.) <input type="checkbox"/> Design newspaper display advertisements <input type="checkbox"/> Draft script for radio advertisements <input type="checkbox"/> Reserve and place ads in predetermined media outlets
Develop Meeting Materials		<p>Items to develop:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Fact sheet or brochure <input type="checkbox"/> Comment cards (design the card so it can be mailed to project representatives) <input type="checkbox"/> Agendas <input type="checkbox"/> Sign-in sheets <input type="checkbox"/> Visual boards on foam core (scoping process flowchart, maps, etc.) <input type="checkbox"/> Name tags for staff
Develop Presentation		<ul style="list-style-type: none"> <input type="checkbox"/> Develop key messages <input type="checkbox"/> Interview preparation and practice with identified spokesperson(s) <input type="checkbox"/> Microsoft PowerPoint with visuals <input type="checkbox"/> Talking points for presenters (describe process, provide project information, entertain questions, and detail next steps) <input type="checkbox"/> Schedule and conduct "dry-run" rehearsal
Coordinate Meeting Logistics and Supplies		<ul style="list-style-type: none"> <input type="checkbox"/> Order audio/visual equipment if necessary (microphones, screens, speaker, etc.) <input type="checkbox"/> Order refreshments (coffee, water, and cookies are standard) <input type="checkbox"/> Bring supplies (stick-on name tags for attendees, pens, Sharpies, and flipchart markers, flipcharts, easels, tape, scissors, etc.) <input type="checkbox"/> Arrange a court reporter if requested
Conduct Post-Meeting Follow-Up		<ul style="list-style-type: none"> <input type="checkbox"/> Forward scoping comments to appropriate client and technical staff <input type="checkbox"/> Respond to comments (if appropriate for stage in the process) <input type="checkbox"/> Create and publicize a scoping report <input type="checkbox"/> Keep attendees and stakeholders informed of project milestones <input type="checkbox"/> Plan for next steps

Appendix D

Principles of Environmental Justice

Principles of Environmental Justice

WE, THE PEOPLE OF COLOR, gathered together at this multinational People of Color Environmental Leadership Summit, to begin to build a national and international movement of all peoples of color to fight the destruction and taking of our lands and communities, do hereby re-establish our spiritual interdependence to the sacredness of our Mother Earth; to respect and celebrate each of our cultures, languages and beliefs about the natural world and our roles in healing ourselves; to insure environmental justice; to promote economic alternatives which would contribute to the development of environmentally safe livelihoods; and, to secure our political, economic and cultural liberation that has been denied for over 500 years of colonization and oppression, resulting in the poisoning of our communities and land and the genocide of our peoples, do affirm and adopt these Principles of Environmental Justice:

1. Environmental justice affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction.
2. Environmental justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.
3. Environmental justice mandates the right to ethical, balanced and responsible uses of land and renewable resources in the interest of a sustainable planet for humans and other living things.
4. Environmental justice calls for universal protection from nuclear testing, extraction, production and disposal of toxic/hazardous wastes and poisons and nuclear testing that threaten the fundamental right to clean air, land, water, and food.
5. Environmental justice affirms the fundamental right to political, economic, cultural and environmental self-determination of all peoples.
6. Environmental justice demand the cessation of the production of all toxins, hazardous wastes, and radioactive materials, and that all past and current producers be held strictly accountable to the people for detoxification and the containment at the point of production.
7. Environmental justice demands the right to participate as equal partners at every level of decision-making including needs assessment, planning, implementation, enforcement and evaluation.
8. Environmental justice affirms the right of all workers to a safe and healthy work environment, without being forced to choose between an unsafe livelihood and unemployment. It also affirms the right of those who work at home to be free from environmental hazards.
9. Environmental justice protects the right of victims of environmental injustice to receive full compensation and reparations for damages as well as quality health care.
10. Environmental justice considers governmental acts of environmental injustice a violation of international law, the Universal Declaration On Human Rights, and the United Nations Convention on Genocide.
11. Environmental justice must recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination.
12. Environmental justice affirms the need for an urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and providing fair access for all to the full range of resources.
13. Environmental justice calls for the strict enforcement of principles of informed consent, and a halt to the testing of experimental reproductive and medical procedures and vaccinations on people of color.
14. Environmental justice opposes destructive operations of multi-national corporations.
15. Environmental justice opposes military occupation, repression and exploitation of lands, peoples and cultures, and other life forms.
16. Environmental justice calls for the education of present and future generations which emphasizes social and environmental issues, based on our experience and an appreciation of our diverse cultural perspectives.
17. Environmental justice requires that we, as individuals, make personal and consumer choices to consume as little of Mother Earth's resources and to produce as little waste as possible; and make the conscious decision to challenge and reprioritize our lifestyles to insure the health of the natural world for present and future generations.

Adopted, October 27, 1991

The First National People of Color Environmental Leadership Summit, Washington, D.C.

Appendix E
Executive Order 12898

Presidential Documents

Title 3—

Executive Order 12898 of February 11, 1994

The President

Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1-1. *Implementation.*

1-101. *Agency Responsibilities.* To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands.

1-102. *Creation of an Interagency Working Group on Environmental Justice.*

(a) Within 3 months of the date of this order, the Administrator of the Environmental Protection Agency ("Administrator") or the Administrator's designee shall convene an interagency Federal Working Group on Environmental Justice ("Working Group"). The Working Group shall comprise the heads of the following executive agencies and offices, or their designees: (a) Department of Defense; (b) Department of Health and Human Services; (c) Department of Housing and Urban Development; (d) Department of Labor; (e) Department of Agriculture; (f) Department of Transportation; (g) Department of Justice; (h) Department of the Interior; (i) Department of Commerce; (j) Department of Energy; (k) Environmental Protection Agency; (l) Office of Management and Budget; (m) Office of Science and Technology Policy; (n) Office of the Deputy Assistant to the President for Environmental Policy; (o) Office of the Assistant to the President for Domestic Policy; (p) National Economic Council; (q) Council of Economic Advisers; and (r) such other Government officials as the President may designate. The Working Group shall report to the President through the Deputy Assistant to the President for Environmental Policy and the Assistant to the President for Domestic Policy.

(b) The Working Group shall: (1) provide guidance to Federal agencies on criteria for identifying disproportionately high and adverse human health or environmental effects on minority populations and low-income populations;

(2) coordinate with, provide guidance to, and serve as a clearinghouse for, each Federal agency as it develops an environmental justice strategy as required by section 1-103 of this order, in order to ensure that the administration, interpretation and enforcement of programs, activities and policies are undertaken in a consistent manner;

(3) assist in coordinating research by, and stimulating cooperation among, the Environmental Protection Agency, the Department of Health and Human Services, the Department of Housing and Urban Development, and other agencies conducting research or other activities in accordance with section 3-3 of this order;

(4) assist in coordinating data collection, required by this order;

(5) examine existing data and studies on environmental justice;

(6) hold public meetings as required in section 5-502(d) of this order; and

(7) develop interagency model projects on environmental justice that evidence cooperation among Federal agencies.

1-103. Development of Agency Strategies. (a) Except as provided in section 6-605 of this order, each Federal agency shall develop an agency-wide environmental justice strategy, as set forth in subsections (b)-(e) of this section that identifies and addresses disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. The environmental justice strategy shall list programs, policies, planning and public participation processes, enforcement, and/or rulemakings related to human health or the environment that should be revised to, at a minimum: (1) promote enforcement of all health and environmental statutes in areas with minority populations and low-income populations; (2) ensure greater public participation; (3) improve research and data collection relating to the health of and environment of minority populations and low-income populations; and (4) identify differential patterns of consumption of natural resources among minority populations and low-income populations. In addition, the environmental justice strategy shall include, where appropriate, a timetable for undertaking identified revisions and consideration of economic and social implications of the revisions.

(b) Within 4 months of the date of this order, each Federal agency shall identify an internal administrative process for developing its environmental justice strategy, and shall inform the Working Group of the process.

(c) Within 6 months of the date of this order, each Federal agency shall provide the Working Group with an outline of its proposed environmental justice strategy.

(d) Within 10 months of the date of this order, each Federal agency shall provide the Working Group with its proposed environmental justice strategy.

(e) Within 12 months of the date of this order, each Federal agency shall finalize its environmental justice strategy and provide a copy and written description of its strategy to the Working Group. During the 12 month period from the date of this order, each Federal agency, as part of its environmental justice strategy, shall identify several specific projects that can be promptly undertaken to address particular concerns identified during the development of the proposed environmental justice strategy, and a schedule for implementing those projects.

(f) Within 24 months of the date of this order, each Federal agency shall report to the Working Group on its progress in implementing its agency-wide environmental justice strategy.

(g) Federal agencies shall provide additional periodic reports to the Working Group as requested by the Working Group.

1-104. Reports to the President. Within 14 months of the date of this order, the Working Group shall submit to the President, through the Office of the Deputy Assistant to the President for Environmental Policy and the Office of the Assistant to the President for Domestic Policy, a report that describes the implementation of this order, and includes the final environmental justice strategies described in section 1-103(e) of this order.

Sec. 2-2. Federal Agency Responsibilities for Federal Programs. Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin.

Sec. 3-3. Research, Data Collection, and Analysis.

3-301. Human Health and Environmental Research and Analysis. (a) Environmental human health research, whenever practicable and appropriate, shall include diverse segments of the population in epidemiological and clinical studies, including segments at high risk from environmental hazards, such as minority populations, low-income populations and workers who may be exposed to substantial environmental hazards.

(b) Environmental human health analyses, whenever practicable and appropriate, shall identify multiple and cumulative exposures.

(c) Federal agencies shall provide minority populations and low-income populations the opportunity to comment on the development and design of research strategies undertaken pursuant to this order.

3-302. Human Health and Environmental Data Collection and Analysis. To the extent permitted by existing law, including the Privacy Act, as amended (5 U.S.C. section 552a): (a) each Federal agency, whenever practicable and appropriate, shall collect, maintain, and analyze information assessing and comparing environmental and human health risks borne by populations identified by race, national origin, or income. To the extent practical and appropriate, Federal agencies shall use this information to determine whether their programs, policies, and activities have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations;

(b) In connection with the development and implementation of agency strategies in section 1-103 of this order, each Federal agency, whenever practicable and appropriate, shall collect, maintain and analyze information on the race, national origin, income level, and other readily accessible and appropriate information for areas surrounding facilities or sites expected to have a substantial environmental, human health, or economic effect on the surrounding populations, when such facilities or sites become the subject of a substantial Federal environmental administrative or judicial action. Such information shall be made available to the public, unless prohibited by law; and

(c) Each Federal agency, whenever practicable and appropriate, shall collect, maintain, and analyze information on the race, national origin, income level, and other readily accessible and appropriate information for areas surrounding Federal facilities that are: (1) subject to the reporting requirements under the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. section 11001-11050 as mandated in Executive Order No. 12856; and (2) expected to have a substantial environmental, human health, or economic effect on surrounding populations. Such information shall be made available to the public, unless prohibited by law.

(d) In carrying out the responsibilities in this section, each Federal agency, whenever practicable and appropriate, shall share information and eliminate unnecessary duplication of efforts through the use of existing data systems and cooperative agreements among Federal agencies and with State, local, and tribal governments.

Sec. 4-4. Subsistence Consumption of Fish and Wildlife.

4-401. Consumption Patterns. In order to assist in identifying the need for ensuring protection of populations with differential patterns of subsistence consumption of fish and wildlife, Federal agencies, whenever practicable and appropriate, shall collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. Federal agencies shall communicate to the public the risks of those consumption patterns.

4-402. Guidance. Federal agencies, whenever practicable and appropriate, shall work in a coordinated manner to publish guidance reflecting the latest scientific information available concerning methods for evaluating the human health risks associated with the consumption of pollutant-bearing fish or

wildlife. Agencies shall consider such guidance in developing their policies and rules.

Sec. 5-5. Public Participation and Access to Information. (a) The public may submit recommendations to Federal agencies relating to the incorporation of environmental justice principles into Federal agency programs or policies. Each Federal agency shall convey such recommendations to the Working Group.

(b) Each Federal agency may, whenever practicable and appropriate, translate crucial public documents, notices, and hearings relating to human health or the environment for limited English speaking populations.

(c) Each Federal agency shall work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public.

(d) The Working Group shall hold public meetings, as appropriate, for the purpose of fact-finding, receiving public comments, and conducting inquiries concerning environmental justice. The Working Group shall prepare for public review a summary of the comments and recommendations discussed at the public meetings.

Sec. 6-6. General Provisions.

6-601. Responsibility for Agency Implementation. The head of each Federal agency shall be responsible for ensuring compliance with this order. Each Federal agency shall conduct internal reviews and take such other steps as may be necessary to monitor compliance with this order.

6-602. Executive Order No. 12250. This Executive order is intended to supplement but not supersede Executive Order No. 12250, which requires consistent and effective implementation of various laws prohibiting discriminatory practices in programs receiving Federal financial assistance. Nothing herein shall limit the effect or mandate of Executive Order No. 12250.

6-603. Executive Order No. 12875. This Executive order is not intended to limit the effect or mandate of Executive Order No. 12875.

6-604. Scope. For purposes of this order, Federal agency means any agency on the Working Group, and such other agencies as may be designated by the President, that conducts any Federal program or activity that substantially affects human health or the environment. Independent agencies are requested to comply with the provisions of this order.

6-605. Petitions for Exemptions. The head of a Federal agency may petition the President for an exemption from the requirements of this order on the grounds that all or some of the petitioning agency's programs or activities should not be subject to the requirements of this order.

6-606. Native American Programs. Each Federal agency responsibility set forth under this order shall apply equally to Native American programs. In addition, the Department of the Interior, in coordination with the Working Group, and, after consultation with tribal leaders, shall coordinate steps to be taken pursuant to this order that address Federally-recognized Indian Tribes.

6-607. Costs. Unless otherwise provided by law, Federal agencies shall assume the financial costs of complying with this order.

6-608. General. Federal agencies shall implement this order consistent with, and to the extent permitted by, existing law.

6-609. Judicial Review. This order is intended only to improve the internal management of the executive branch and is not intended to, nor does it create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity by a party against the United States, its agencies, its officers, or any person. This order shall not be construed to create any right to judicial review involving the compliance or noncompliance

of the United States, its agencies, its officers, or any other person with this order.

William Clinton

THE WHITE HOUSE,
February 11, 1994.

Appendix F

Environmental Justice Guidance and Policies from Selected Agencies

**U.S. Department of Transportation Order on
Environmental Justice**

**FHWA Actions to Address Environmental Justice in
Minority Populations and Low-Income Populations**

Coast Guard Environmental Justice Strategy

**California State Lands Commission Environmental
Justice Strategy**

US Department of Transportation Order on Environmental Justice

[Federal Register: April 15, 1997 (Volume 62, Number 72)]

[Notices]

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DEPARTMENT OF TRANSPORTATION

Office of the Secretary

[OST Docket No. OST-95-141 (50125)]

Department of Transportation (DOT) Order To Address Environmental
Justice in Minority Populations and Low-Income Populations

AGENCY: Departmental Office of Civil Rights and Office of the Assistant
Secretary for Transportation Policy, DOT.

ACTION: Notice of final DOT Order on environmental justice.

SUMMARY: The Department of Transportation is issuing its final DOT
Order, which will be used by DOT to comply with Executive Order 12898,
Federal Actions to Address Environmental Justice in Minority
Populations and Low-Income Populations. The Order generally describes
the process that the Office of the Secretary and each Operating
Administration will use to incorporate environmental justice principles
(as embodied in the Executive Order) into existing programs, policies,
and activities. The Order provides that the Office of the Secretary and
each Operating Administration within DOT will develop specific
procedures to incorporate the goals of the DOT Order and the Executive
Order with the programs, policies and activities which they administer
or implement.

FOR FURTHER INFORMATION CONTACT: Ira Laster Jr., Office of Environment,
Energy, and Safety, Office of the Assistant Secretary for
Transportation Policy, (202) 366-4859, or Marc Brenman, Departmental
Office of Civil Rights, (202) 366-1119, U.S. Department of
Transportation, 400 7th Street, SW., Washington, DC 20590.

SUPPLEMENTARY INFORMATION: Executive Order 12898, as well as the
President's February 11, 1994 Memorandum on Environmental Justice (sent
to the heads of all departments and agencies), are intended to ensure
that Federal departments and agencies identify and address
disproportionately high and adverse human health or environmental
effects of their policies, programs and activities on minority
populations and low-income populations.

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The DOT Environmental Justice Order is a key component of DOT's

June 21, 1995 Environmental Justice Strategy (60 FR 33896). The Order sets forth a process by which DOT and its Operating Administrations will integrate the goals of the Executive Order into their operations. This is to be done through a process developed within the framework of existing requirements, primarily the National Environmental Policy Act (NEPA), Title VI of the Civil Rights Act of 1964 (Title VI), the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (URA), the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), and other DOT applicable statutes, regulations and guidance that concern planning; social, economic, or environmental matters; public health or welfare; and public involvement. The Order is an internal directive to the various components of DOT and does not create any right to judicial review for compliance or noncompliance with its provisions.

In order to provide an opportunity for public input, a proposed version of this Order was published for comment on June 29, 1995 (60 FR 33899). A total of 30 written comments were received. Fifteen comments were received from state transportation or highway agencies, representing 20 state agencies (one letter was signed by ten state agencies, but four of those also sent individual comments). The other 15 comments included four from transit agencies, four from national organizations, two each from local governments, metropolitan planning organizations, and citizens objecting to one particular project, and one from a professional association.

Most of the comments from the state agencies suggested that the proposed Order would duplicate existing processes and impose additional burdens on the state agencies, and urged that greater flexibility be granted to states.

The DOT Order reinforces considerations already embodied in NEPA and Title VI, and the final version has been revised to make this clearer. It is intended to insure that a process for the assessment of environmental justice factors becomes common practice in the application of those, and related, statutes.

Many other comments suggested ways in which the Order might be clarified or simplified, or addressed specific details of individual agency implementation. As this Order is only intended to provide general guidance to all DOT components, detailed comments on each agency's implementation are premature, and should be made during opportunities for public input on agency implementation (para. 5 of the Order).

Several commenters suggested greater reliance on existing procedures, particularly those implementing NEPA.

One commenter noted, "Over the past number of years we have seen rules and laws initiated with laudable intent, only to be slowly transformed into bureaucratic mazes only dimly related to their original purpose."

The Department does not intend that this Order be the first step in creating a new set of requirements. The objective of this Order is the development of a process that integrates the existing statutory and regulatory requirements in a manner that helps ensure that the interests and well being of minority populations and low-income populations are considered and addressed during transportation decision making.

To further advance this objective, explanatory information has been provided in this preamble and several changes have been made in the Order. Most notably:

- Further clarification has been provided concerning the use of existing NEPA, Title VI, URA and ISTEA planning requirements and procedures to satisfy the objectives of Executive Order 12898.
- The application of the Order to ongoing activities is discussed in this preamble.
- The Order has been modified to further clarify the relationship

and use of NEPA and Title VI in implementing the Executive Order.

Further, in developing and reviewing implementing procedures, described in paragraph 5a to comply with Executive Order 12898, the emphasis continues to be on the actual implementation of NEPA, Title VI, the URA and ISTEA planning requirements so as to prevent disproportionately high and adverse human health or environmental effects of DOT's programs, policies and activities on minority populations and low-income populations.

One of the primary issues raised in the proposed Order concerned the actions that would be taken if a disproportionately high and adverse human health or environmental effect on minority populations or low-income populations is identified. The proposed Order set forth three options. A variety of comments were received on this issue, both for and against the various options.

The final Order adopts a modified version of Option B from the proposed Order. While Option B implements a new process for addressing disproportionately high and adverse effects, the Department believes that Option B is consistent with existing law and best accomplishes the objectives of the Executive Order. Option B (now incorporated in paragraphs 8a, 8b and 8c of the final Order) provides that disproportionate impacts on low-income and minority populations are to be avoided, if practicable, that is, unless avoiding such disproportionate impacts would result in significant adverse impacts on other important social, economic, or environmental resources. Further, populations protected by Title VI are covered by the additional provisions of paragraph 8b. Three commenters expressed concern and uncertainty as to the implementation of paragraph 6b(1) of Option B as proposed, that provided for an agreement with populations protected by Title VI. DOT agreed with the comments and, accordingly, that paragraph has been deleted from the final Order.

Several commenters asked about the effective date of this Order. In particular they wanted to know whether it applies to ongoing projects. The effective date of the Order is the date of its issuance. However, to the extent that the Order clarifies existing requirements that ensure environmental justice principles are considered and addressed before final transportation decisions are made, its purposes already should be reflected in actions relating to ongoing projects.

Several commenters recommended that insignificant or de minimis actions not be covered by this Order. It is noted that the definition of "programs, policies and/or activities" in Section 1f of the Appendix does not apply to those actions that do not affect human health or the environment. Other actions that have insignificant effects on human health or the environment can be excluded from coverage by a DOT component.

One commenter suggested that this Order might be inconsistent with the Supreme Court's decision in *Adarand Constructors v. Pena*. DOT has concluded that, since the purpose of this Order is unrelated to the types of programs which were the subject of *Adarand*, this Order is not affected by the *Adarand* decision.

Dated: February 3, 1997.
Federico F. Pena,
Secretary of Transportation.

Department of Transportation, Office of the Secretary, Washington,
D.C.

Order

Subject: Department of Transportation Actions To Address Environmental

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Justice in Minority Populations and Low-Income Populations

1. Purpose and Authority

a. This Order establishes procedures for the Department of Transportation (DOT) to use in complying with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, dated February 11, 1994. Relevant definitions are in the Appendix.

b. Executive Order 12898 requires each Federal agency, to the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, to achieve environmental justice as part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects, including interrelated social and economic effects, of its programs, policies, and activities on minority populations and low-income populations in the United States. Compliance with this DOT Order is a key element in the environmental justice strategy adopted by DOT to implement the Executive Order, and can be achieved within the framework of existing laws, regulations, and guidance.

c. Consistent with paragraph 6-609 of Executive Order 12898, this Order is limited to improving the internal management of the Department and is not intended to, nor does it, create any rights, benefits, or trust responsibility, substantive or procedural, enforceable at law or equity, by a party against the Department, its operating administrations, its officers, or any person. Nor should this Order be construed to create any right to judicial review involving the compliance or noncompliance with this Order by the Department, its operating administrations, its officers or any other person.

2. Scope

This Order applies to the Office of the Secretary, the United States Coast Guard, DOT's operating administrations, and all other DOT components.

3. Effective Date

This Order is effective upon its date of issuance.

4. Policy

a. It is the policy of DOT to promote the principles of environmental justice (as embodied in the Executive Order) through the incorporation of those principles in all DOT programs, policies, and activities. This will be done by fully considering environmental justice principles throughout planning and decision-making processes in the development of programs, policies, and activities, using the principles of the National Environmental Policy Act of 1969 (NEPA), Title VI of the Civil Rights Act of 1964 (Title VI), the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (URA), the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and other DOT statutes, regulations and guidance that address or affect infrastructure planning and decisionmaking; social, economic, or environmental matters; public health; and public involvement.

b. In complying with this Order, DOT will rely upon existing authority to collect data and conduct research associated with environmental justice concerns. To the extent permitted by existing law, and whenever practical and appropriate to assure that disproportionately high and adverse effects on minority or low income populations are identified and addressed, DOT shall collect, maintain, and analyze information on the race, color, national origin, and income level of persons adversely affected by DOT programs, policies, and activities, and use such information in complying with this Order.

5. Integration With Existing Operations

a. The Office of the Secretary and each operating administration shall determine the most effective and efficient way of integrating the processes and objectives of this Order with their existing regulations

and guidance. Within six months of the date of this Order each operating administration will provide a report to the Assistant Secretary for Transportation Policy and the Director of the Departmental Office of Civil Rights describing the procedures it has developed to integrate, or how it is integrating, the processes and objectives set forth in this Order into its operations.

b. In undertaking the integration with existing operations described in paragraph 5a, DOT shall observe the following principles:

(1) Planning and programming activities that have the potential to have a disproportionately high and adverse effect on human health or the environment shall include explicit consideration of the effects on minority populations and low-income populations. Procedures shall be established or expanded, as necessary, to provide meaningful opportunities for public involvement by members of minority populations and low-income populations during the planning and development of programs, policies, and activities (including the identification of potential effects, alternatives, and mitigation measures).

(2) Steps shall be taken to provide the public, including members of minority populations and low-income populations, access to public information concerning the human health or environmental impacts of programs, policies, and activities, including information that will address the concerns of minority and low-income populations regarding the health and environmental impacts of the proposed action.

c. Future rulemaking activities undertaken pursuant to DOT Order 2100.5 (which governs all DOT rulemaking), and the development of any future guidance or procedures for DOT programs, policies, or activities that affect human health or the environment, shall address compliance with Executive Order 12898 and this Order, as appropriate.

d. The formulation of future DOT policy statements and proposals for legislation which may affect human health or the environment will include consideration of the provisions of Executive Order 12898 and this Order.

6. Ongoing DOT Responsibility

Compliance with Executive Order 12898 is an ongoing DOT responsibility. DOT will continuously monitor its programs, policies, and activities to ensure that disproportionately high and adverse effects on minority populations and low-income populations are avoided, minimized or mitigated in a manner consistent with this Order and Executive Order 12898. This Order does not alter existing assignments or delegations of authority to the Operating Administrations or other DOT components.

7. Preventing Disproportionately High and Adverse Effects

a. Under Title VI, each Federal agency is required to ensure that no person, on the ground of race, color, or national origin, is excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving Federal financial assistance. This statute affects every program area in DOT. Consequently, DOT managers and staff must administer their programs in a manner to assure that no person is excluded from participating in, denied the benefits of, or subjected to discrimination by any program or

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activity of DOT because of race, color, or national origin.

b. It is DOT policy to actively administer and monitor its operations and decision making to assure that nondiscrimination is an integral part of its programs, policies, and activities. DOT currently administers policies, programs, and activities which are subject to the requirements of NEPA, Title VI, URA, ISTEA and other statutes that involve human health or environmental matters, or interrelated social and economic impacts. These requirements will be administered so as to identify, early in the development of the program, policy or activity,

the risk of discrimination so that positive corrective action can be taken. In implementing these requirements, the following information should be obtained where relevant, appropriate and practical:

- Population served and/or affected by race, color or national origin, and income level;
- Proposed steps to guard against disproportionately high and adverse effects on persons on the basis of race, color, or national origin;
- present and proposed membership by race, color, or national origin, in any planning or advisory body which is part of the program.

c. Statutes governing DOT operations will be administered so as to identify and avoid discrimination and avoid disproportionately high and adverse effects on minority populations and low-income populations by:

(1) identifying and evaluating environmental, public health, and interrelated social and economic effects of DOT programs, policies and activities,

(2) proposing measures to avoid, minimize and/or mitigate disproportionately high and adverse environmental and public health effects and interrelated social and economic effects, and providing offsetting benefits and opportunities to enhance communities, neighborhoods, and individuals affected by DOT programs, policies and activities, where permitted by law and consistent with the Executive Order,

(3) considering alternatives to proposed programs, policies, and activities, where such alternatives would result in avoiding and/or minimizing disproportionately high and adverse human health or environmental impacts, consistent with the Executive Order, and

(4) eliciting public involvement opportunities and considering the results thereof, including soliciting input from affected minority and low-income populations in considering alternatives.

8. Actions To Address Disproportionately High and Adverse Effects

a. Following the guidance set forth in this Order and its Appendix, the head of each Operating Administration and the responsible officials for other DOT components shall determine whether programs, policies, and activities for which they are responsible will have an adverse impact on minority and low-income populations and whether that adverse impact will be disproportionately high.

b. In making determinations regarding disproportionately high and adverse effects on minority and low-income populations, mitigation and enhancements measures that will be taken and all offsetting benefits to the affected minority and low-income populations may be taken into account, as well as the design, comparative impacts, and the relevant number of similar existing system elements in non-minority and non-low-income areas.

c. The Operating Administrators and other responsible DOT officials will ensure that any of their respective programs, policies or activities that will have a disproportionately high and adverse effect on minority populations or low-income populations will only be carried out if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effect are not practicable. In determining whether a mitigation measure or an alternative is "practicable," the social, economic (including costs) and environmental effects of avoiding or mitigating the adverse effects will be taken into account.

d. Operating Administrators and other responsible DOT officials will also ensure that any of their respective programs, policies or activities that will have a disproportionately high and adverse effect on populations protected by Title VI ("protected populations") will only be carried out if:

- (1) a substantial need for the program, policy or activity exists,

based on the overall public interest; and

(2) alternatives that would have less adverse effects on protected populations (and that still satisfy the need identified in subparagraph (1) above), either (i) would have other adverse social, economic, environmental or human health impacts that are more severe, or (ii) would involve increased costs of extraordinary magnitude.

e. DOT's responsibilities under Title VI and related statutes and regulations are not limited by this paragraph, nor does this paragraph limit or preclude claims by individuals or groups of people with respect to any DOT programs, policies, or activities under these authorities. Nothing in this Order adds to or reduces existing Title VI due process mechanisms.

f. The findings, determinations and/or demonstration made in accordance with this section must be appropriately documented, normally in the environmental impact statement or other NEPA document prepared for the program, policy or activity, or in other appropriate planning or program documentation.

Appendix

1. Definitions

The following terms where used in this Order shall have the following meanings *:

a. DOT means the Office of the Secretary, DOT operating administrations, and all other DOT components.

b. Low-Income means a person whose median household income is at or below the Department of Health and Human Services poverty guidelines.

c. Minority means a person who is:

(1) Black (a person having origins in any of the black racial groups of Africa);

(2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);

(3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or

(4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

d. Low-Income Population means any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity.

e. Minority Population means any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity.

f. Adverse effects means the totality of significant individual or cumulative

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human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or

nonprofit organizations; increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies, or activities.

g. Disproportionately high and adverse effect on minority and low-income populations means an adverse effect that:

- (1) is predominately borne by a minority population and/or a low-income population, or
- (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

h. Programs, policies, and/or activities means all projects, programs, policies, and activities that affect human health or the environment, and which are undertaken or approved by DOT. These include, but are not limited to, permits, licenses, and financial assistance provided by DOT. Interrelated projects within a system may be considered to be a single project, program, policy or activity for purposes of this Order.

i. Regulations and guidance means regulations, programs, policies, guidance, and procedures promulgated, issued, or approved by DOT.

* These definitions are intended to be consistent with the draft definitions for E.O. 12898 that have been issued by the Council on Environmental Quality and the Environmental Protection Agency. To the extent that these definitions vary from the CEQ and EPA draft definitions, they reflect further refinements deemed necessary to tailor the definitions to fit within the context of the DOT program.

Federico F. Pena,
Secretary of Transportation.

[FR Doc. 97-9684 Filed 4-14-97; 8:45 am]

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United States Department of Transportation - Federal Highway Administration



U.S. Department of Transportation
Federal Highway Administration

FHWA ACTIONS TO ADDRESS ENVIRONMENTAL JUSTICE IN MINORITY POPULATIONS AND LOW-INCOME POPULATIONS

6640.23
December 2, 1998

Par.

1. Purpose And Authority
2. Definitions
3. Policy
4. Integrating Environmental Justice Principles With Existing Operations
5. Preventing Disproportionately High and Adverse Effects
6. Actions to Address Disproportionately High and Adverse Effects

1. PURPOSE AND AUTHORITY.

- a. This Order establishes policies and procedures for the Federal Highway Administration (FHWA) to use in complying with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (EO 12898), dated February 11, 1994.
- b. EO 12898 requires Federal agencies to achieve environmental justice by identifying and addressing disproportionately high and adverse human health and environmental effects, including the interrelated social and economic effects of their programs, policies, and activities on minority populations and low-income populations in the United States. These requirements are to be carried out to the greatest extent practicable, consistent with applicable statutes and the National Performance Review. Compliance with this FHWA Order is a key element in the environmental justice strategy adopted by FHWA to implement EO 12898, and can be achieved within the framework of existing laws, regulations, and guidance.
- c. Consistent with paragraph 6-609 of Executive Order 12898 and the Department of Transportation Order on Environmental Justice (DOT Order 5610.2) dated April 15, 1997, this Order is limited to improving the internal management of the Agency and is not intended to, nor does it, create any rights, benefits, or trust responsibility, substantive or procedural, enforceable at law or equity, by a party against the Agency, its officers, or any person. Nor should this Order be construed to create any right to judicial review involving the compliance or noncompliance with this Order by the Agency, its operating administrations, its officers, or any other person.

2. DEFINITIONS

The following terms, where used in this Order, shall have the following meanings¹:

- a. **FHWA** means the Federal Highway Administration as a whole and one or more of its individual components;
- b. **Low-Income** means a household income at or below the Department of Health and Human Services poverty guidelines;

- c. **Minority** means a person who is:
- (1) Black (having origins in any of the black racial groups of Africa);
 - (2) Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
 - (3) Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or
 - (4) American Indian and Alaskan Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).
- d. **Low-Income Population** means any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed FHWA program, policy, or activity.
- e. **Minority Population** means any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.
- f. **Adverse Effects** means the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of FHWA programs, policies, or activities.
- g. **Disproportionately High and Adverse Effect on Minority and Low-Income Populations** means an adverse effect that:
- (1) is predominately borne by a minority population and/or a low-income population; or
 - (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or nonlow-income population.
- h. **Programs, Policies, and/or Activities** means all projects, programs, policies, and activities that affect human health or the environment, and that are undertaken, funded, or approved by FHWA. These include, but are not limited to, permits, licenses, and financial assistance provided by FHWA. Interrelated projects within a system may be considered to be a single project, program, policy, or activity for purposes of this Order.
- i. **Regulations and Guidance** means regulations, programs, policies, guidance, and procedures promulgated, issued, or approved by FHWA.

3. POLICY

- a. It is FHWA's longstanding policy to actively ensure nondiscrimination in Federally funded activities. Furthermore, it is FHWA's continuing policy to identify and prevent discriminatory effects by actively administering its programs, policies, and activities to ensure that social impacts to communities and people are recognized early and continually throughout the transportation decisionmaking process--from early planning through implementation.

Should the potential for discrimination be discovered, action to eliminate the potential shall be taken.

- b. EO 12898, DOT Order 5610.2, and this Order are primarily a reaffirmation of the principles of Title VI of the Civil Rights Act of 1964 (Title VI) and related statutes, the National Environmental Policy Act (NEPA), 23 U.S.C. 109(h) and other Federal environmental laws, emphasizing the incorporation of those provisions with the environmental and transportation decisionmaking processes.

Under Title VI, each Federal agency is required to ensure that no person on the grounds of race, color, or national origin, is excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving Federal financial assistance. This statute applies to every program area in FHWA. Under EO 12898, each Federal agency must identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

- c. FHWA will implement the principles of the DOT Order 5610.2 and EO 12898 by incorporating Environmental Justice principles in all FHWA programs, policies, and activities within the framework of existing laws, regulations, and guidance.
- d. In complying with this Order, FHWA will rely upon existing authorities to collect necessary data and conduct research associated with environmental justice concerns, including 49 CFR 21.9(b) and 23 CFR 200.9 (b)(4).

4. INTEGRATING ENVIRONMENTAL JUSTICE PRINCIPLES WITH EXISTING OPERATIONS

- a. The principles outlined in this Order are required to be integrated in existing operations.
- b. Future rulemaking activities undertaken, and the development of any future guidance or procedures for FHWA programs, policies, or activities that affect human health or the environment, shall explicitly address compliance with EO 12898 and this Order.
- c. The formulation of future FHWA policy statements and proposals for legislation that may affect human health or the environment will include consideration of the provisions of EO 12898 and this Order.

5. PREVENTING DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS

- a. Under Title VI, FHWA managers and staff must administer their programs in a manner to ensure that no person is excluded from participating in, denied the benefits of, or subjected to discrimination under any program or activity of FHWA because of race, color, or national origin. Under EO 12898, FHWA managers and staff must administer their programs to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of FHWA programs, policies, and activities on minority populations and low-income populations.
- b. FHWA currently administers policies, programs, and activities that are subject to the requirements

of NEPA, Title VI, the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (Uniform Act), Title 23 of the United States Code and other statutes that involve human health or environmental matters, or interrelated social and economic impacts. These requirements will be administered to identify the risk of discrimination, early in the development of FHWA's programs, policies, and activities so that positive corrective action can be taken. In implementing these requirements, the following information should be obtained where relevant, appropriate, and practical:

- (1) population served and/or affected by race, or national origin, and income level;
 - (2) proposed steps to guard against disproportionately high and adverse effects on persons on the basis of race, or national origin; and,
 - (3) present and proposed membership by race, or national origin, in any planning or advisory body that is part of the program.
- c. FHWA will administer its governing statutes so as to identify and avoid discrimination and disproportionately high and adverse effects on minority populations and low-income populations by:
- (1) identifying and evaluating environmental, public health, and interrelated social and economic effects of FHWA programs, policies, and activities; and
 - (2) proposing measures to avoid, minimize, and/or mitigate disproportionately high and adverse environmental and public health effects and interrelated social and economic effects, and providing offsetting benefits and opportunities to enhance communities, neighborhoods, and individuals affected by FHWA programs, policies, and activities, where permitted by law and consistent with EO 12898; and
 - (3) considering alternatives to proposed programs, policies, and activities, where such alternatives would result in avoiding and/or minimizing disproportionately high and adverse human health or environmental impacts, consistent with EO 12898; and
 - (4) providing public involvement opportunities and considering the results thereof, including providing meaningful access to public information concerning the human health or environmental impacts and soliciting input from affected minority and low-income populations in considering alternatives during the planning and development of alternatives and decisions.
- d. **ACTIONS TO ADDRESS DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS**
- a. Following the guidance set forth in this Order, FHWA managers and staff shall ensure that FHWA programs, policies, and activities for which they are responsible do not have a disproportionately high and adverse effect on minority or low-income populations.
 - b. When determining whether a particular program, policy, or activity will have disproportionately high and adverse effects on minority and low-income populations, FHWA managers and staff should take into account mitigation and enhancements measures and potential offsetting benefits to the affected minority or low-income populations. Other factors that may be taken into account include design, comparative impacts, and the relevant number of similar existing system elements in nonminority and nonlow-income areas.
 - c. FHWA managers and staff will ensure that the programs, policies, and activities that will have disproportionately high and adverse effects on minority populations or low-income

populations will only be carried out if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effects are not practicable. In determining whether a mitigation measure or an alternative is "practicable," the social, economic (including costs) and environmental effects of avoiding or mitigating the adverse effects will be taken into account.

- d. FHWA managers and staff will also ensure that any of their respective programs, policies or activities that have the potential for disproportionately high and adverse effects on populations protected by Title VI ("protected populations") will only be carried out if:
- (1) a substantial need for the program, policy or activity exists, based on the overall public interest; and
 - (2) alternatives that would have less adverse effects on protected populations have either:
 - (a) adverse social, economic, environmental, or human health impacts that are more severe; or
 - (b) would involve increased costs of an extraordinary magnitude.
- e. Any relevant finding identified during the implementation of this Order must be included in the planning or NEPA documentation that is prepared for the appropriate program, policy, or activity.
- f. Environmental and civil rights statutes provide opportunities to address the environmental effects on minority populations and low-income populations. Under Title VI, each Federal agency is required to ensure that no person on grounds of race, color, or national origin is excluded from participation in, denied the benefits of, or in any other way subjected to discrimination under any program or activity receiving Federal assistance. Therefore, any member of a protected class under Title VI may file a complaint with the FHWA Office of Civil Rights, Attention HCR-20, alleging that he or she was subjected to disproportionately high and adverse health or environmental effects. FHWA will then process the allegation in a manner consistent with the attached operations flowchart.

Original signed by:

Kenneth R. Wykle
Federal Highway Administrator

Attachment - Note: This is a PDF file.

¹These definitions are intended to be consistent with the draft definitions for EO 12898 that have been issued by the Council on Environmental Quality (CEQ) and the Environmental Protection Agency (EPA). To the extent that these definitions vary from the CEQ and EPA draft definitions, they reflect further refinements deemed necessary to tailor the definitions to fit within the context of the FHWA program.

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FHWA

United States Department of Transportation - Federal Highway Administration

U.S. Department of
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United States
Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-H
Phone: (202) 267-1562
Fax: (202) 267-4282

COMDTINST 5810.3
27 MAY 2003

COMMANDANT INSTRUCTION 5810.3

Subj: COAST GUARD ENVIRONMENTAL JUSTICE STRATEGY

- Ref:
- (a) Executive Order (E.O.) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," 11 February 1994 (*Federal Register*, 16 February 1994, Vol. 59, No. 32)
 - (b) "Notice of (Coast Guard) Environmental Justice Strategy," (*Federal Register*, 3 April 1998, Vol. 63, No. 32)
 - (c) National Environmental Policy Act of 1969, 42 U.S.C. 4321, *et seq*
 - (d) National Environmental Policy Act (NEPA) Implementing Procedures, COMDTINST M16475.1 (series)
 - (e) Environmental Compliance Evaluation (ECE) Program, COMDTINST 16478.5
 - (f) Department of Homeland Security's Title VI implementing regulation, "6 CFR Part 21, Regulation Regarding Nondiscrimination on the Basis of Race, Color, or National Origin in Programs or Activities Receiving Federal Financial Assistance from the Department of Homeland Security," (*Federal Register*, 6 March 2003, Vol. 68, No. 44)
 - (g) Title VI of the Civil Rights Act of 1964, 42 U.S.C. 2000d

1. **PURPOSE.** This Instruction responds to the requirements of references (a), E.O. 12898, and (b), the *Federal Register* "Notice," by establishing the Environmental Justice (EJ) Strategy for the United States Coast Guard (hereafter, "Coast Guard" or "USCG"). As used in this Instruction, "Environmental Justice" means the fair treatment of people of all races, cultures and incomes with respect to the development, implementation and enforcement of environmental laws and guidance, references (c), (d) and (e), and their meaningful involvement in the decision making process of the Coast Guard, when appropriate.

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2. **ACTION.** Area and district commanders, commanders of maintenance and logistics commands, commanding officers of integrated support commands, commanding officers of headquarters units, assistant commandants for directorates, Chief Counsel and special staff elements at Headquarters shall ensure compliance with the provisions of this Instruction. Internet release is authorized.
3. **DIRECTIVE(S) AFFECTED.** None.
4. **JUDICIAL REVIEW.** As stated in Section 6-609 of E.O. 12898, "This order is intended only to improve the internal management of the executive branch and is not intended to, nor does it create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity by a party against the United States, its agencies, its officers, or any person. This order shall not be construed to create any right to judicial review involving the compliance or noncompliance of the United States, its agencies, its officers, or any other person with this order."
5. **BACKGROUND.**
 - a. On 11 February 1994, the President issued E.O. 12898, which (1) directed every Federal agency to make Environmental Justice part of its mission by identifying and addressing the effects of all programs, policies, and activities on minority populations and low-income populations and (2) directed every Federal agency to develop an EJ Strategy.
 - b. On 3 April 1998, the Coast Guard published reference (b), "Notice of Environmental Justice Strategy," announcing its development of an EJ Strategy to implement the E.O. in all relevant programs and activities funded, sponsored, supported, or undertaken by the Coast Guard.
 - c. On 1 March 2003, the Coast Guard transferred to the Department of Homeland Security (DHS). On 6 March 2003, DHS published reference (f), "6 CFR Part 21, Regulation Regarding Nondiscrimination on the Basis of Race, Color, or National Origin in Programs or Activities Receiving Federal Financial Assistance from the Department of Homeland Security," to implement Title VI of the Civil Rights Act of 1964, reference (g).
6. **RESPONSIBILITY.**
 - a. Consistent with this Instruction and E.O. 12898, the Assistant Commandant for Civil Rights [hereafter, "Commandant (G-H)"] shall, to the extent permitted by existing law, including the Privacy Act, as amended (5 U.S.C. § 552a), provide leadership to the Coast Guard and policy guidance to the Commandant regarding the collection and analysis of data involving minority populations and low-income populations, as required by Section 3-302 of E.O. 12898.

- b. Consistent with this Instruction, and as stated in Section 2-2 of E.O. 12898, the Coast Guard shall, "...conduct its programs, policies and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color or national origin."
- c. The Coast Guard shall implement its Environmental Justice Strategy within the framework of existing civil rights and environmental laws and guidance, including references (c), (d), (e), (f) and (g).
- d. In conducting the minority populations and low-income populations data collection and analysis responsibilities, the Commandant (G-H), as lead, and its Directorate partners should coordinate efforts, maximize existing resources, share information, eliminate unnecessary duplication and minimize impacts on field units and operations.
- e. This Instruction authorizes no additional resources or operational requirements within the Coast Guard's Maintenance and Logistics Commands to carry out the minority populations and low-income populations-related data collection and analysis responsibilities of E.O. 12898.
- f. The Commandant (G-H) shall be responsible for preparing a list of all existing and new/changing Coast Guard operating facilities and/or sites in or near areas with minority and/or low-income populations. The Commandant (G-H) shall also collect, analyze, and update socioeconomic and demographic profile maps of areas adjacent to the Coast Guard's existing or new/changing operating facilities and/or sites and, periodically, verify its data by site visits. As required by Section 4-4 of reference (a), and whenever practicable and appropriate, the data collection and analysis may include information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence, including Native American populations.
- g. When collecting and analyzing data, the Commandant (G-H) shall, whenever practicable and appropriate, identify low-income populations in an affected area utilizing the annual statistical poverty thresholds from the Bureau of the Census' Current Population Reports on income and poverty.
- h. In coordination and cooperation with facility Commanding Officers and Directorate partners, the Commandant (G-H) shall, whenever practicable and appropriate, conduct periodic site visits to verify available data, including socioeconomic and demographic profile maps. Whenever practicable and appropriate, the Commandant's (G-H's) site visits should complement the Environmental Compliance Evaluation (ECE) site visits required under reference (e). Whenever practicable and appropriate, the Commandant (G-H), ECE evaluation teams and others participating in the EJ site visits shall share draft site visit data and other information necessary for consistency.

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- i. All Coast Guard Headquarters' Directorates should be partners in the EJ Strategy and share responsibility for integrating EJ principles into Coast Guard programs, policies, regulations, guidance, activities and operations. This includes ensuring that the Commandant (G-H) is given the opportunity to assist in the evaluation of Coast Guard programs, policies, regulations, guidance, activities and operations that have the potential for disproportionately high and adverse human health or environmental effects upon minority populations or low-income populations within the framework of existing environmental laws and guidance, references (c), (d) and (e).
7. **ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.** As stated in Section 2, above, this Instruction is intended to improve the internal management of the Coast Guard. The Commandant (G-H) considered the environmental aspects and impacts of this Instruction and determined that the implementation of this Instruction does not significantly impact the environment.
8. **FORMS AND REPORTS.** There are no reporting requirements assigned to Coast Guard Maintenance and Logistic Commands or other Directorates relating to the collection and analysis of data involving minority populations and low-income populations required by Section 3-302 of E.O. 12898 or this Instruction.

W.R. SOMERVILLE /s/
Assistant Commandant for Civil Rights

Environmental Justice Policy
California State Lands Commission

Mission Statement: *The California State Lands Commission serves the people of California by providing stewardship of the lands, waterways, and resources entrusted to its care through economic development, protection, preservation, and restoration.*

Commission Jurisdiction/Programs

The California State Lands Commission (Commission) holds title to and manages four million acres of tide and submerged land underlying the State's navigable and tidal waterways. These lands are held under and governed by the provisions of the Public Trust Doctrine for specific public purposes such as fishing, water dependent commerce, navigation, ecological preservation, and scientific study, among others. The Public Trust Doctrine governs the management of such lands held by the State, or its delegated trustees, for the benefit of all of the people.

The Commission also holds title to and manages about 570,000 acres of State School Lands. The school lands are held in trust for the betterment of the common schools of the State and the revenue, by statute, goes to support the State Teachers Retirement System. The school lands must be administered for the benefit of the public.

The Commission grants leases and permits on State lands for such purposes as, but not limited to, marinas, industrial wharves, tanker anchorages, timber harvesting, dredging, grazing, mining, oil and gas, and geothermal development. The Commission has regulatory authority over all marine oil facilities and terminals in the State.

The Commission also administers programs to remove hazardous artificial structures from waterways that pose a risk to public health and safety and participates in projects and programs to preserve, enhance, and restore natural resources.

In the performance of its duties, the Commission frequently makes land use and permitting decisions, produces regulations, and takes other discretionary actions that may have an impact on the environment and human health.

Environmental Justice Policy

The Commission pledges to continue and enhance its processes, decisions, and programs with environmental justice as an essential consideration. Environmental justice is defined by State law as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." This definition is consistent with the Public Trust Doctrine principle that the management of trust lands is for the benefit of all of the people.

The Commission stresses fair treatment of all members of the public in its everyday activities, processes, decision-making, and regulatory affairs. The Commission has earned a reputation for unbiased and balanced decisions concerning uses of public lands and resources. The Commission reaffirms its commitment to an informed and open process in which all people are treated equitably and with dignity and in which its decisions are tempered by environmental justice considerations. The Commission will communicate this policy to the cities, counties, and harbor districts that manage lands granted to them by the Legislature and for which the Commission retains oversight.

The Commission pledges to continue and enhance its processes, decisions, and programs with environmental justice as an essential consideration by:

1. Identifying relevant populations that might be adversely affected by Commission programs or by projects submitted by outside parties for its consideration.
2. Seeking out community groups and leaders to encourage communication and collaboration with the Commission and its staff.
3. Distributing public information as broadly as possible and in multiple languages, as needed, to encourage participation in the Commission's public processes.
4. Incorporating consultations with affected community groups and leaders while preparing environmental analyses of projects submitted to the Commission for its consideration.
5. Ensuring that public documents and notices relating to human health or environmental issues are concise, understandable, and readily accessible to the public, in multiple languages, as needed.
6. Holding public meetings, public hearings, and public workshops at times and in locations that encourage meaningful public involvement by members of the affected communities.
7. Educating present and future generations in all walks of life about public access to lands and resources managed by the Commission.
8. Ensuring that a range of reasonable alternatives is identified when siting facilities that may adversely affect relevant populations and identifying, for the Commission's consideration, those that would minimize or eliminate environmental impacts affecting such populations.
9. Working in conjunction with federal, state, regional, and local agencies to ensure consideration of disproportionate impacts on relevant populations, by instant or cumulative environmental pollution or degradation.

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10. **Fostering research and data collection to better define cumulative sources of pollution, exposures, risks, and impacts.**
 11. **Providing appropriate training on environmental justice issues to staff and the Commission so that recognition and consideration of such issues are incorporated into its daily activities.**
 12. **Reporting periodically to the Commission on how environmental justice is a part of the programs, processes, and activities conducted by the Commission and proposing modifications as necessary.**

This policy shall be reviewed annually by staff to evaluate its effectiveness in achieving environmental justice in the Commission's management of the lands and resources within its jurisdiction.

Appendix G

California Development and Planning Report
Article: State Agencies Make Progress on
Environmental Justice Strategies

State Agencies Make Progress On Environmental Justice Strategies

by Paul Shigley

Published Apr. 2003 in Vol. 18, Issue No. 4 of *CP&DR*

Spurred by several pieces of legislation approved during the last few years, California's state government agencies are gradually making advances in environmental justice.

At least five agencies have adopted environmental justice policies or mission statements. The Governor's Office of Planning and Research has conducted environmental justice training for employees of more than 50 different agencies. The California Environmental Protection Agency (Cal EPA) is working on a broad environmental justice strategy and implementation measures, all of which are intended to serve as a model for other state agencies.

These steps mark a significant change from only a few years ago. Not until 1999, when Gov. Davis signed SB 115 (Solis), did California codify a definition of environmental justice. The law (Government Code § 65040.12) defines environmental justice — commonly called simply "EJ" — as: "The fair treatment of all races, cultures and incomes with respect to the development, adoption, implementation, and enforcement of all environmental laws, regulations and policies."

The Solis bill was followed in 2000 by SB 89 (Escutia), which required creation of an environmental justice working group and public advisory committee to assist Cal EPA in developing an EJ strategy. Senate Bill 828 (Alarcon) from 2001 gave the agency until December 31, 2003 to adopt the strategy and to identify obstacles in state government to environmental justice.

The EJ movement grew out of 1980's protests over "environmental dumping" or "environmental racism." The idea is that the government ought not place an inordinate number of unwanted land uses in poor or minority neighborhoods, and that agencies ought to consider how development projects and government programs impact — and serve — those neighborhoods.

Caltrans might be farther along in actually carrying out EJ policies than any other state agency. Because it gets so much funding from the federal government, Caltrans has been involved in EJ efforts since President Clinton signed an executive order mandating environmental justice considerations in 1994, said Greg King, chief of Caltrans' cultural and community studies office. Caltrans' project delivery process has included an EJ analysis since the mid-1990s.

In late 2001, Caltrans Director Jeff Morales signed a director's policy that states, in part, "The Department emphasizes the fair treatment and meaningful involvement of people of all races, cultures and income levels, including minority and low-income populations, from the early stages of transportation planning and investment decision-making through construction, operations and maintenance," King said.

Caltrans, said King, has found that environmental justice often can be advanced through early and frequent communication with members of the public, and then responding to public concerns. "We're trying to move environmental issues up early on in the planning process so you have more latitude in the decision-making process," King said. That means thinking about EJ long before a project gets approved for funding through the State Transportation Improvement Program. "By the time we've done our environmental studies, we need to have worked with the communities."

In the heyday of freeway construction, the state frequently bisected or wiped out poor neighborhoods to accommodate new roads. When Caltrans officials return to those neighborhoods 40 and 50 years later to talk about new projects, the officials learn that residents have not forgotten past mistreatment.

When Caltrans rebuilt the Cypress freeway in west Oakland after the 1989 Loma Prieta earthquake collapsed a portion of the elevated highway, the agency met resistance based on the original construction of the freeway through a poor, African-American neighborhood, King explained. Now, both Caltrans and the Federal Highway Administration point to the reconstruction project as an example of EJ success. The agency realigned the freeway away from the neighborhood and nearer to military property. Caltrans also spent \$2.5 million on construction trade training for members of the community, and the agency awarded contracts to minority-owned businesses.

Nowadays, communities that might have gotten steamrolled back in 1950s can tie up a project in court for

years. Caltrans engineers and planners well know this, which further encourages community outreach efforts. This outreach involves local meetings, providing information in multiple languages, and working out mitigations for project impacts, such as sound walls, landscaping, providing linkages over a freeway or even choosing a different route. It's all part of what Morales calls "context-sensitive solutions."

Environmental justice training for Caltrans employees is ongoing, and reactions among workers is mixed, conceded Peter Bond, an associate transportation planner who helps conduct training sessions. "About half the people are saying this is just common sense, and about half the people are shaking their heads and saying what in the world are you talking about," Bond said.

The Office of Planning and Research has provided EJ training for hundreds of government employees. The training is broad and addresses EJ history, issues and controversies, as well as best practices, said Bonnie Chiu, of OPR's environmental justice office. She said OPR recommends full public involvement in projects and programs, using GIS as a tool, and completing a checklist to ensure that impacts are considered and all community members have access to the process.

"We're hoping to do more specific training for just one agency [at a time] so we can get into the details," Chiu said.

Cal EPA's ongoing development of an EJ strategy is the most comprehensive efforts in the state government. During a two-day meeting in March, Cal EPA's 17-member advisory committee refined recommendations it has been developing. The recommendations, contained in a lengthy report, are based on four elements:

- Ensuring EJ is integral to the development, adoption, implementation and enforcement of laws and policies.
- Ensuring and promoting meaningful public participation.
- Improving research regarding the health and environment of "communities of color and low-income populations."
- Ensuring multi-agency coordination and accountability.

The advisory committee is scheduled to complete its work this spring. Working group hearings on the proposed EJ strategy will follow.

Contacts:

Bonnie Chiu, Office of Planning and Research, (916) 323-9033.

Greg King, Caltrans, (916) 653-0647.

Cal EPA environmental justice website: www.calepa.ca.gov/EnvJustice/

Governor's Office of Planning and Research environmental justice website:

www.opr.ca.gov/ejustice/EJustice.shtml

Appendix H

Useful Environmental Justice Websites

Appendix H

Useful Environmental Justice Websites

Local/Regional

Bay Area Air Quality Management District - <http://www.baaqmd.gov/pio/ej/baaqmdej.asp>

South Coast Air Quality Management District - http://www.aqmd.gov/ej/EJ_page.htm

State

California Environmental Protection Agency (Cal/EPA) -
<http://www.calepa.ca.gov/EnvJustice/>

California Bay-Delta Authority (CALFED) -
<http://calwater.ca.gov/EnvironmentalJustice/EnvironmentalJustice.shtml>

California Energy Commission - <http://www.energy.ca.gov/env-justice/index.html>

Caltrans –

Office of Policy Analysis and Research, Title VI and EJ Program -
<http://www.dot.ca.gov/hq/tpp/offices/opar/titleVIandEJ.htm>

Standard Environmental Reference (SER) -
<http://www.dot.ca.gov/ser/vol1/sec3/community/ch25ej/chap25ej.htm>

“EJ Desk Guide in Transportation Planning & Investments” (pdf) -
<http://www.dot.ca.gov/hq/tpp/offices/opar/EJDeskGuideJan03.pdf>

Governor’s Office of Planning and Research (OPR) EJ Program -

“Environmental Justice in California State Government” (pdf) -
http://www.opr.ca.gov/publications/PDFs/OPR_EJ_Report_Oct2003.pdf

Federal Resources

U.S. EPA –

Office of Environmental Justice, US EPA - Contains links to EJ Fact Sheets, Frequently Asked Questions, Publications, Key Coordinators, Regional and other Federal Agency contacts.

<http://www.epa.gov/compliance/environmentaljustice/nejac/index.html>

Environmental Justice Geographic Assessment Tool -

<http://www.epa.gov/compliance/environmentaljustice/assessment.html>

EPA Environmental Justice Fact sheet -

http://www.epa.gov/compliance/resources/publications/ej/ej_fact_sheets.html

EPA Policies and Guidance for Addressing Environmental Justice - Applies to EPA staff who review the actions of other federal agencies, and includes what to look for in an EJ analysis.

<http://www.epa.gov/compliance/resources/policies/ej/index.html>

Guidance for Addressing Environmental Justice Under the National Environmental Policy Act (NEPA), December 10, 1997 - the Council on Environmental Quality's guidance for federal agencies on incorporating EJ into NEPA.

http://www.epa.gov/compliance/resources/policies/ej/ej_guidance_nepa_ceq1297.pdf

Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses, April 1998 - Highlights important ways in which EPA-prepared NEPA documentation may help identify and address EJ concerns.

http://www.epa.gov/compliance/resources/policies/ej/ej_guidance_nepa_epa0498.pdf

Draft Memorandum on Integrating Environmental Justice into EPA Permitting Authority, July 18, 1996 - Richard Lazarus, Member, Enforcement Subcommittee, NEJAC

<http://es.epa.gov/oeca/main/ej/nejacpub.html>

Brochure on the Model Plan for Public Participation - Developed by the national Environmental Justice Advisory Council as guidance for any organization or agency that addresses public participation

<http://es.epa.gov/oeca/main/ej/nejacpub.html>

EO 12898 -

Executive Order No. 12898 - <http://www.epa.gov/fedsite/eo12898.htm>

Overview of EO 12898 and the Environmental Justice program at EPA - Highlights the many facets of the EJ program. Last updated in May 2004.

<http://www.epa.gov/compliance/environmentaljustice/index.html>

National Marine Fisheries Service, Guidelines and Principles for Social Impact Assessment, May 1994 - Prepared by the Inter-Organizational Committee on Guidelines and Principles for Social Impact Assessment. http://www.nmfs.noaa.gov/sfa/social_impact_guide.htm

U.S. Health and Human Services Poverty Guidelines (based on Census Bureau data):
<http://aspe.hhs.gov/poverty/04poverty.shtml>

Additional Resources

American Bar Association: "The Law of Environmental Justice: Update Service" -
<http://www.abanet.org/environ/committees/envtab/ejupdates.html>

Environmental Justice Bibliography -
http://www.epa.gov/compliance/resources/publications/ej/ej_bib.html