



Balancing the Environment and Economic Development

MIDDLE HARBOR REDEVELOPMENT PROJECT, PORT OF LONG BEACH, CALIFORNIA

Case Highlights

Description: The Middle Harbor Redevelopment Project in the Port of Long Beach, California, combines and upgrades the Port of Long Beach's two aging, irregularly shaped marine container terminals to create one rectangular-shaped facility that would operate more efficiently, improve the environment, support the economy, and create thousands of new jobs. As part of the National Environmental Policy Act (NEPA) process, the Port of Long Beach (POLB) and the U.S. Army Corps of Engineers (Corps) conducted an environmental justice analysis to study the potential for the Middle Harbor Project construction and operations to result in disproportionately high and adverse human health or environmental effects on low-income and minority populations. The population in most of the Census block groups within the project study area exceeds 80-percent minority, and exceeds 10-percent low-income. Disproportionately high and adverse impacts to environmental justice communities were related to construction noise, and cumulative impacts to air quality and health risk. This case highlights the Port of Long Beach's Community Mitigation Grant Program that funds projects that would improve air quality in the region overall, ultimately contributing to mitigation of impacts identified in the environmental justice analysis for the Middle Harbor Redevelopment Project and cumulative impacts from other ongoing port projects and operations. Despite associated impacts, the project received broad support and was approved on April 13, 2009. Project construction started in spring 2011.

Effective Practices: Effective practices featured in this case study include: addressing air quality impacts as a result of project operations, including cumulative odor effects and cumulative health-risk effects associated with diesel particulate matter; defining the area of influence (study area); and development of a formal marketing plan to target audiences in order to successfully educate the community and solicit input from the community on the project and the Environmental Impact Statement/Environmental Impact Report.

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Introduction

The Port of Long Beach (POLB) is the second busiest seaport in North America, just after the Port of Los Angeles (POLA), which the POLB adjoins, in San Pedro Bay in California (Figure 1). The two ports combined move more than \$350 billion worth of goods and materials annually and sustain hundreds of thousands of jobs in Southern California.

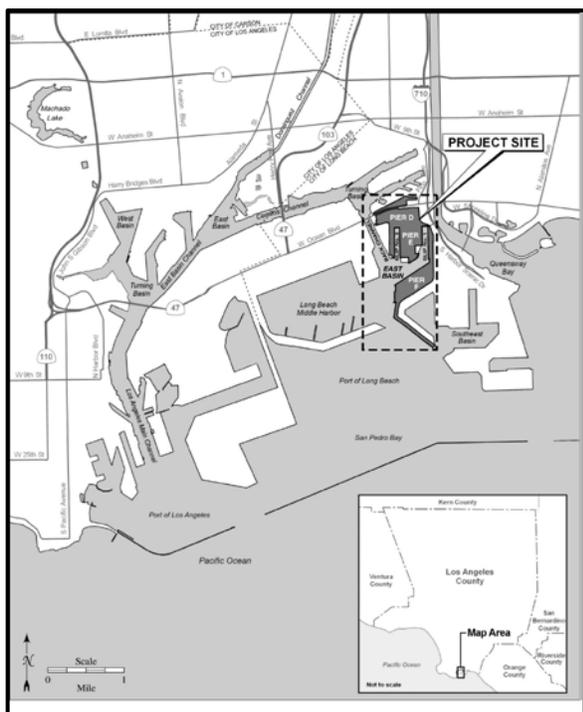


Figure 1. Middle Harbor Long Beach, CA, redevelopment project location map.

The POLB's Middle Harbor shipping terminals are old, outdated, and require upgrades in order to improve efficiency and environmental performance. The Middle Harbor Redevelopment Project (Middle Harbor

Project) was first proposed in 2001 to make those needed improvements. The environmental effects of the project were studied and reported in a 2008 combined Environmental Impact Statement (EIS)/ Environmental Impact Report (EIR) in compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

The area surrounding the POLB is largely minority and also has some areas where incomes are lower than those in the surrounding county. Based on analysis prepared for the EIS/EIR for the Middle Harbor Project, it was determined that none of the direct project impacts would have a disproportionately high and adverse impact on the surrounding minority and low-income populations. However, the cumulative effects of the project, ongoing operations, and other development and projects in the region were expected to have significant, unavoidable, cumulative air quality and noise impacts that would disproportionately affect minority and low-income populations. In spring 2009, the POLB established a mitigation grant program to fund projects that would improve air quality in the region.

Through a public-participation effort focused on raising awareness about the benefits of the project and the mitigation program; redevelopment of the Middle Harbor received overwhelming public support. The Board of Harbor Commissioners approved the project's EIR in April 2009. The Long Beach City Council upheld the Board's decision in

May 2009. Project construction started in spring 2011 on Phase 1, Stage 1 of the project.

Project Context

The \$750 million Middle Harbor Project will combine two aging, irregularly shaped marine container terminals to create one rectangular-shaped facility that will operate in a more efficient and environmentally friendly manner. As proposed in the Public Draft EIR/EIS released in May 2008, the Middle Harbor Project would:

- Rehabilitate and modernize aging infrastructure at Piers D, E, and F to meet business and consumer trade demands.
- Cut air pollution from two POLB container terminals by 50 percent or more and reduce associated health risks.
- Create about 14,000 permanent jobs in Southern California.
- Generate 1,000 temporary construction jobs a year during the next 10 years.
- Implement aggressive environmental improvement measures contained in the Green Port Policy and San Pedro Bay Ports' Clean-Air Action Plan.
- Reduce traffic impacts through increased use of on-dock rail.
- Upgrade and expand Long Beach Fire Department facilities.
- Provide a model for green seaport facilities around the world.

The Region and the Community

Land Uses

Onsite Land Uses. The POLB is located within the southernmost portion of the City of Long

"This project is absolutely necessary, especially now with the emphasis on cleaner air...There's almost no on-dock rail there now. We'll eliminate 280 truck trips with every train that leaves the terminal."

- Dick Steinke, Port of Long Beach Executive Director (2009)

Beach. The POLB includes diverse land uses, including containerized and bulk cargo terminals; light manufacturing and industry; recreational destinations; and commercial operations including sport fishing, concessions, marinas, hotels, retail shops, and a public boat launch. Major POLB activities include commercial shipping and transfer of cargo, recreation, and tourism. There are approximately 80 commercial berths within the POLB. Ancillary industrial uses including oil production, shipyards, and harbor maintenance facilities are also located throughout the POLB. The project area is located primarily within the Middle Harbor portion of the POLB (see area labeled "5" on Figure 2).

Surrounding Land Uses. The project site vicinity includes additional containerized cargo and dry- and liquid-bulk goods terminals and various industrial/commercial uses. Lands to the north outside the Harbor District include commercial and light industrial uses. Surrounding areas to the east outside the Harbor District include a variety of commercial,

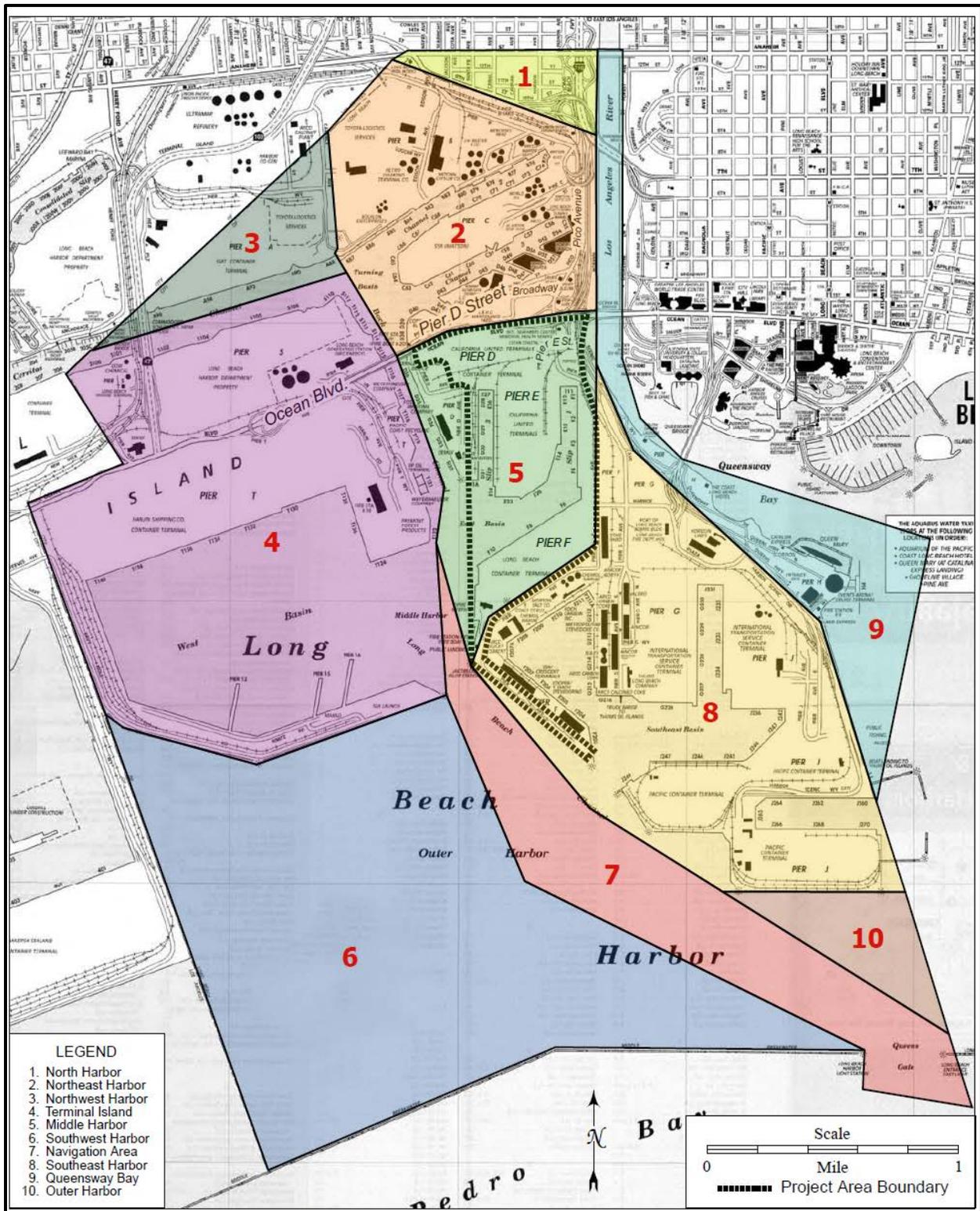


Figure 2. Port of Long Beach, CA, planning districts.

residential, municipal, and recreational land uses. Land use designations in the vicinity of the POLB are shown in Figure 3.

Community Profile

According to 2000 U.S. Census data, the population in most of the Census block groups analyzed in the Draft EIS/EIR exceeds 80-percent minority, which exceeds the percent minority for Los Angeles County (69.1 percent). The population in most of the block groups analyzed exceeds 10 percent low-income and many also exceed the percent poverty for Los Angeles County, which is 17.9 percent. In cases where live-aboard populations are living at marinas, they are included in Census data and, therefore, are reflected in the minority and low-income percentages presented for individual block groups.

What Happened

The U.S. Army Corps of Engineers (Corps), the NEPA lead agency, and the City of Long Beach acting by and through its Board of Harbor Commissioners (i.e., POLB), as the CEQA lead agency, prepared a Draft EIS/EIR to identify and evaluate the potential environmental impacts associated with implementation of the proposed Middle Harbor Project. The 2008 Draft EIS/EIR described the affected-environmental resources and the potential impacts to those resources as a result of constructing and operating the Middle Harbor Project or the proposed alternatives to the project.

Impacts on low-income and minority populations were studied as part of the EIS/EIR. The purpose of the environmental justice analysis was to analyze whether the Middle Harbor Project would result in significant adverse human health or environmental effects on minority or low-income populations.

Identification of an Area of Influence

To conduct the analysis of impacts, an area of influence was defined. The area of influence was defined as follows to study direct (e.g., noise and vibration) and indirect impacts (e.g., traffic on the I-710 [Figure 4]):

- Census block groups within one mile of the POLB planning area; and
- Other areas added to the area of influence in order to address potential impacts beyond the one-mile vicinity of the POLB:
 - Census block groups within a one-mile corridor along the I-710 (one-half mile on each side of the highway) up to SR-91 to address the following impacts:
 - Local transportation/traffic
 - Health risk
 - Noise
 - If outside the one-mile radius of the POLB, areas within a one-mile corridor of the rail line up to but not including the Alameda Corridor, to address the following impacts:
 - Vibration
 - Health risk
 - Noise

Demographic data describing the potentially affected populations in the area of influence were compiled for purposes of the Draft EIS/EIR analysis, using 2000 Census data (described under *Community Profile* above). Minority and poverty data for individual block groups in the area of influence were presented in tabular format and graphic format (see Figures 5 and 6). Minority and low-income populations in Los Angeles County, the City of Long Beach,

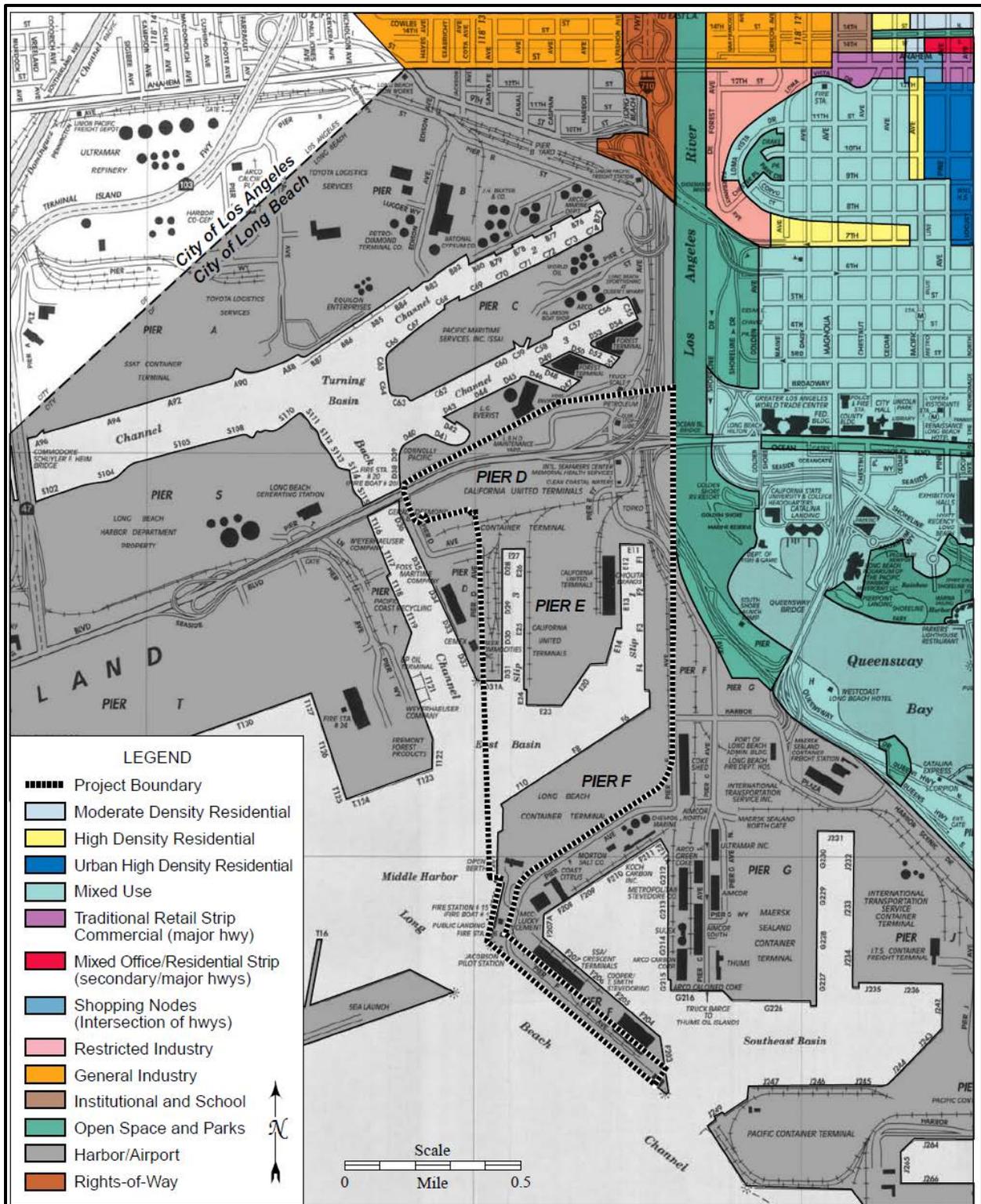


Figure 3. Land use designations in the vicinity of Port of Long Beach, CA.

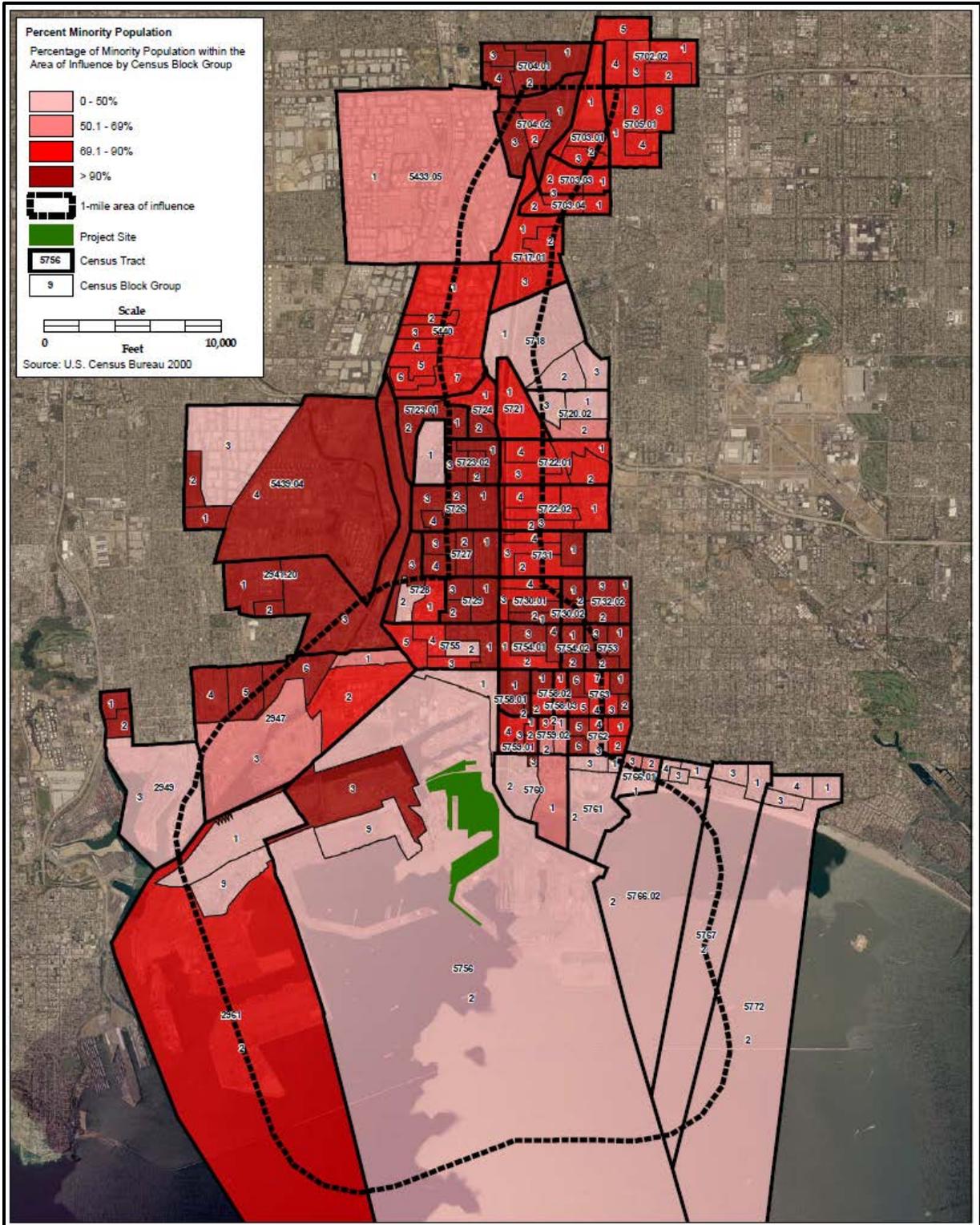


Figure 5. Minority populations within the Middle Harbor Project area of influence in Long Beach, CA.

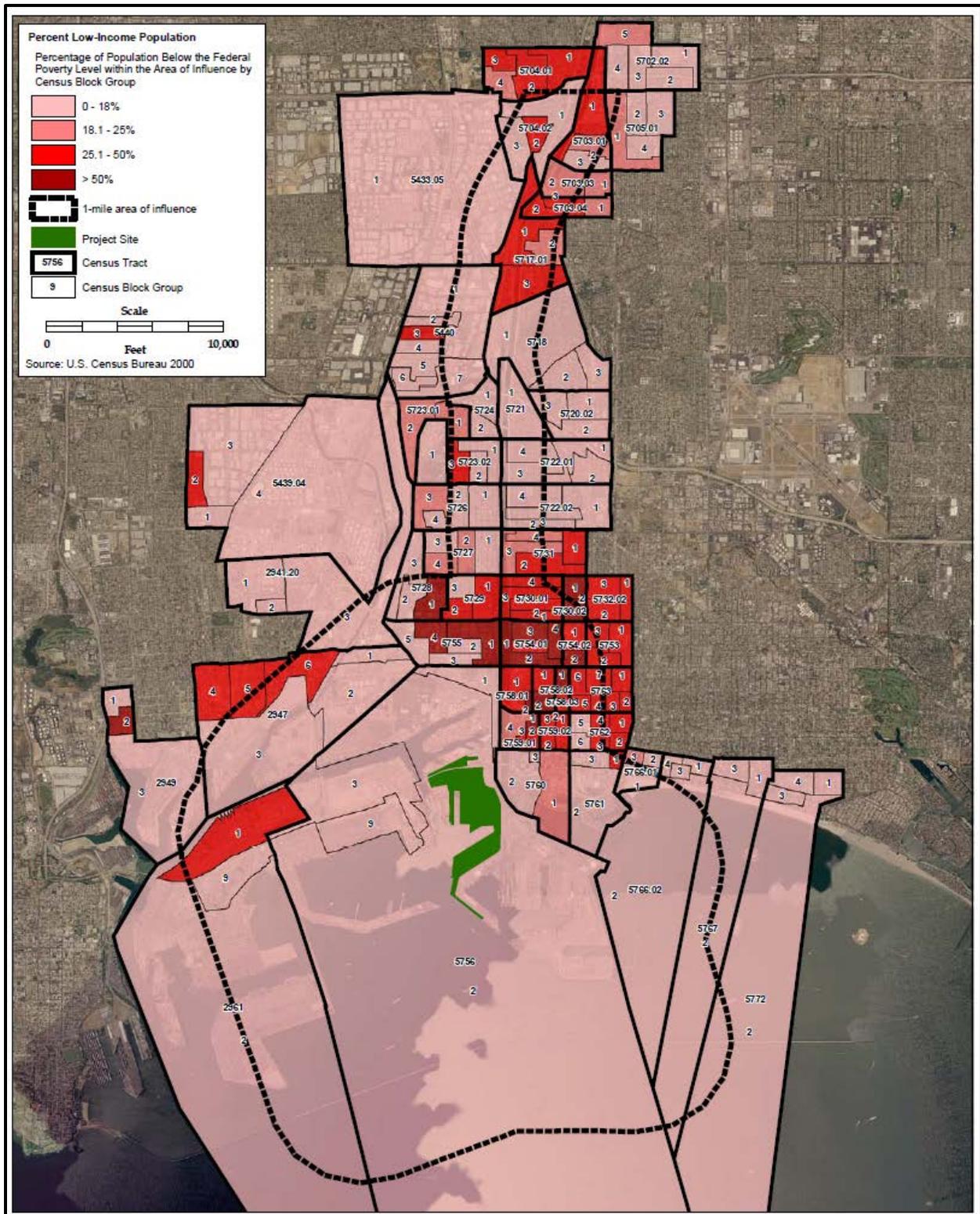


Figure 6: Low-income populations within the Middle Harbor Project area of influence in Long Beach, CA.

and the State of California were used as reference populations for comparison.

Analysis of Impacts

The analysis used guidance from Executive Order 12898, the Council on Environmental Quality (CEQ) guidance on Environmental Justice, and POLB’s Environmental Justice protocols, which are updated with each new EIS/EIR, as appropriate. The guidance documents suggested the examination of three key questions (see callout box “Key Questions for Environmental Justice Analysis”). For all unavoidable significant effects of the project, or those that would result in significant impacts even with application of feasible mitigation measures, whether such impacts would have the potential to result in disproportionately high and adverse effects upon minority and/or low-income populations was evaluated. Potential beneficial effects of the Middle Harbor Project for low-income and minority populations were also evaluated.

As feasible, and depending on the location and specificity of significant impacts, such as the availability of mapped cancer risk isopleths, populations exposed to significant adverse effects were estimated using GIS tools applied to 2000 Census data for minority and low-income populations.

Direct Project Impacts

Project Operational Air Quality Impacts. The criteria pollutant dispersion model indicated that significant concentrations of one-hour and annual NO₂, would be almost entirely within industrial areas both within the POLB and outside POLB boundaries; outside the POLB, significant impacts cluster around the I-710 and, in the early years of the project, there would also be significant hourly

Key Questions for Environmental Justice Analysis

1. Is the proposed project a Federal project with significant adverse environmental impacts being proposed in a community composed largely of minority or low-income persons?
2. Would any significant adverse human health or environmental effects of the project disproportionately affect minority or low-income persons?
3. Would the percent minority persons and percent low-income persons in areas affected by significant impacts exceed the corresponding percentages for the general population, considered to be Los Angeles County in most cases?

NO₂ impacts immediately northwest of the port in the industrial area at the east edge of Wilmington, west edge of Long Beach, and portions of southeast Carson. Ambient concentrations generally decrease with distance from the terminal. Due to the setback of residential areas from the port, ambient concentrations from either construction or operation would not significantly affect a high number of residences, but rather four to five residential units in 2010, and none in later milestone years. Therefore, this impact would not represent disproportionately high and adverse effects on minority and/or low-income populations.

Transportation Impacts. Implementation of the project would result in significant unavoidable impacts on ground transportation on highway segments in the study area, including portions of I-405, I-710, and SR-91 under NEPA and CEQA. Since these highway segments are part of the regional highway system and represent major regional access routes, the impacts would be borne by regional commuters and commercial traffic in addition to residents of

“We believe that with our exhaustive EIR, review by experts, diligent community outreach, and multiple public meetings we have more than met the requirements of the California Environmental Quality Act. This project is critical to the competitiveness of the Port [of Long Beach], supporting badly needed jobs and greatly improving the environment.”

- James C. Hankla, Long Beach Harbor Commission President (2009)

neighborhoods adjacent to these corridors (i.e., populations outside the one-mile radius of the POLB planning area, but within a one-mile corridor of the rail line up to but not including the Alameda Corridor). Therefore, this impact would not represent a disproportionately high and adverse effect on minority and low-income populations.

Construction Noise Impacts. The project would result in activities during the construction phase that would exceed Long Beach Municipal Code (LBMC) maximum noise levels at the Maya (formerly West Coast Long Beach) Hotel and the Long Beach Hilton Hotel. While both sites are commercial, the latter site is representative of condominium and apartment buildings south of Ocean Boulevard. These buildings are located in Census Tract 5760 immediately east of the project and within one mile of the POLB planning area (see Figures

5 and 6), which contained 445 people in the 2000 Census; 60.4 percent of people were minority, and 21.9 percent were low-income. This tract constitutes a low-income population when compared to the general population (Los Angeles County). While the tract has a lower percent of minority residents than Los Angeles County, the percent minority exceeds 50 percent and, therefore, is considered a “minority population” as defined by CEQ (1997) guidance. Therefore, this impact would represent a disproportionately high and adverse impact on minority and low-income populations.

Cumulative Effects

Health Risks. Construction and operation of the Middle Harbor Redevelopment Project and related projects in the POLB and POLA region would increase the potential for cancer and chronic non-cancer health risks. The environmental justice analysis and a separate air-quality analysis in the EIS/EIR cited and relied on a California Air Resources Board (CARB) study, *Diesel Particulate Matter Exposure Assessment Study for the POLA and POLB*, which estimates that elevated levels of cancer risks due to operational emissions from POLB and POLA occur within and in proximity to the two ports. Chronic and acute non-cancer effects due to concentrations of diesel particulate matter (DPM) would also occur within and in proximity to the two ports. The environmental study found that, because the populations in closest proximity to the POLB are predominantly minority and low-income, this elevated cumulative risk would represent a disproportionately high and adverse impact on minority and low-income populations.

Odors Resulting from Project Operations.

Project operations would increase diesel combustion products and associated odors and as a result, would produce cumulatively considerable contributions to ambient odor levels under NEPA. The populations in closest proximity to the POLB, where effects are likely to be the greatest, are predominantly minority and low-income. As such, this cumulative odor impact would represent a disproportionately high and adverse impact on minority and low-income populations under NEPA.

In summary, the environmental justice analysis concluded that significant unavoidable noise impacts and cumulative air-quality impacts (health risks associated with DPM, and odor) would result in disproportionately high and adverse effects on minority and low-income populations. The analysis also considered project benefits, including creation of economic benefits from the additional jobs and income.

Mitigating Effects on Minority and Low-Income Populations

Construction Noise

For impacts related to construction noise, mitigation measures included in the EIS/EIR included temporary noise barriers located between noise-generating construction activities (e.g., pile driving) and hotel/residential buildings and Cesar Chavez School to the east and limitations on the time of day that pile-driving activities are allowed to take place. Even after mitigation, construction-related noise impacts were considered significant and unavoidable.

Health Risks

In Spring of 2009, the POLB approved the framework for community mitigation grants program that contributes toward reducing the

Community Mitigation Grant

PROJECT HIGHLIGHTS

Century Villages at Cabrillo—a community that provides supportive housing, ranging from shelter, to transitional housing, to permanent housing in west Long Beach, and hosts more than 400 students a day—dedicated its new "landscape barrier" on April 27, 2012 (on Arbor Day) utilizing, in part, a **\$40,779 grant** from the Port of Long Beach. The grant was part of \$4.7 million awarded to schools and related sites in Long Beach to help reduce the health impacts of port-related air pollution. Villages also received donations for the 191-tree project from others including port tenants Long Beach Container Terminal and SSA Marine.

On March 1, 2012, **St. Mary Medical Center** in Long Beach unveiled its new 38-foot custom Mobile Care Clinic vehicle—part of the new St. Mary Breathe Easy Mobile Outreach Program being launched utilizing funds from an **\$834,000 grant** from the Port of Long Beach. The Clinic will provide asthma outreach and respiratory diagnostic services to individuals of all ages in communities nearest the Port of Long Beach and its transportation corridors. Senior housing facilities, schools, and community centers will refer potentially high-risk, underserved residents to the Breathe Easy Mobile Outreach Program. Over the next 12 months, the expectation is that St. Mary will provide respiratory services to more than 22,750 individuals.

overall cumulative air-quality effects of the POLB, including the Middle Harbor Project and others. As of Spring 2012, the POLB has provided \$15 million in funding for the mitigation grant program; \$5,000,000 each to three program areas: Schools and Related Sites, Health Care and Senior Facilities, and Greenhouse Gases. The programs are designed to improve community health by lessening the impacts of port-related air pollution.

The Schools and Related Sites Program primarily addresses cumulative air-quality impacts on local schools ranging from pre-schools to high schools.

The Health Care and Senior Facilities Program includes two types of grants – Facility Improvement, or projects that directly reduce indoor air pollution, and Health Care Projects, or projects that identify, detect, and diagnose pollution-related respiratory and cardiopulmonary ailments.

The Greenhouse Gas Emission Reduction Program has been developed to provide grant funds for projects that will reduce, avoid, or capture greenhouse gas emissions. Examples of projects that are eligible for grants include air-filtration systems at schools and daycare centers, educational health-outreach programs for families and seniors, renewable energy projects, and energy-efficiency projects.

The POLB has established criteria for the eligible projects and programs, and the types of organizations and facilities that can apply. All funding is subject to final Board approval. The purpose of the funding criteria is to fund programs that do the greatest amount of good for the greatest number of residents.

For the schools and health-care grants, three geographic impact zones—extending three miles from the POLB and trade corridors—help determine the most eligible grant recipients (see Figure 7 for preferential eligibility zones under the grant program).

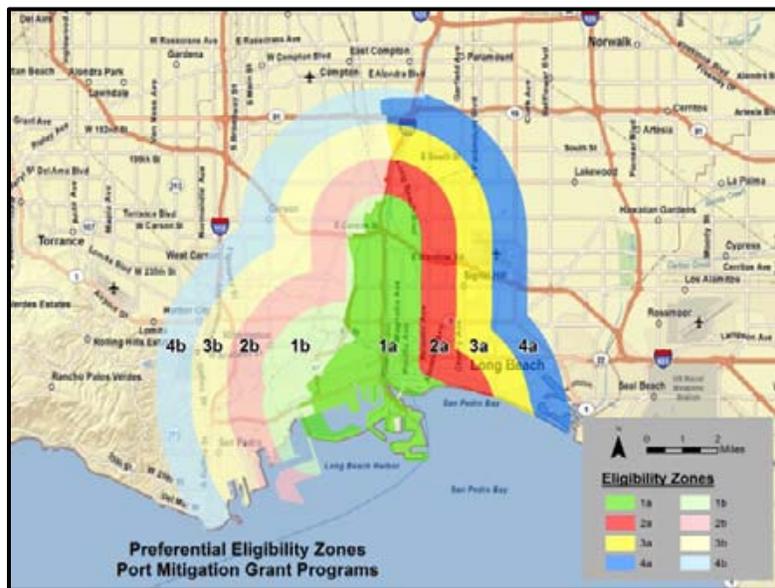


Figure 7. Preferential eligibility zones for the port mitigation grant programs in Long-Beach, CA.

The POLB also takes into account wind direction, the proximity to truck routes, and the number of students or seniors who benefit from the projects.

For the greenhouse gas grants, four zones have been identified. Because cost-effectiveness is a major criterion for funding, the POLB gives priority to proposals that benefit the most people per port dollars.

Public Outreach

The Middle Harbor Project outreach activities during the environmental review process (i.e., scoping, EIS/EIR hearings) were part of a larger outreach program for the project. The POLB Communications Division created a marketing plan to educate target audiences about the project and to receive community input on the EIS/EIR. Educating and informing target audiences, including neighboring residents and area residents and businesses, were cornerstones of the marketing plan and an ongoing theme of the outreach program.

The marketing plan sought to address key issues, which included lack of awareness about the project in general, lack of understanding about economic benefits of the project, and lack of understanding about how the project's environmental mitigation measures will reduce pollution from existing levels. Target audiences were identified, and included:

- Residential neighborhoods near the POLB (Westside; downtown Long Beach)
- Environmental activists
- Elected officials
- The media
- Port-industry businesses

- Long Beach businesses
- Residential neighborhoods further out from the POLB (North and Central Long Beach)
- Homeowner associations and neighborhood groups
- POLB tenants
- POLB employees
- Fire Department employees and Fire Associations



Figure 8. The Port of Long Beach maintains an excellent [website](#) – all project environmental documents are made available to the public.

Considering the diversity among the various target audiences, and the complexity of the project, a wide range of outreach materials were devised in various formats, including print (fact sheets, flier announcing meetings, and print advertisements), multimedia (information videos, and PowerPoint presentations tailored to technical and general audiences), and electronic documents (dedicated project website, distribution of electronic documents via e-blasts, which went out to 6,000 email recipients).

To ensure minority and low-income populations had access to information and opportunities for meaningful participation, additional information (besides minority and poverty data) was collected to support the POLB's public outreach program including Census data on factors such as age, disability status, language spoken at home, and housing occupancy. This information was used to target appropriate methods of disseminating project information and soliciting input on the project and EIS/EIR, and to determine the need and use of translation for persons whose first language is not English.

Effective Practices & Lessons Learned

Communicate project benefits to the public to gain support. Early on in the environmental review process, the POLB Communications Division devised a marketing plan with focused strategies and tactics based on the level of education needed amongst various target audiences, and focused key objectives to help concentrate outreach efforts. Through the intensive outreach activities to educate area residents and businesses, neighborhood groups, environmental activists, and port tenants, among other groups, the project was approved unanimously by the Board of Harbor Commissions on April 13, 2009, with overwhelming public support and testimony. The Long Beach City Council, which had just years earlier had denied the approval of another major development project at the POLB, also voted unanimously to let the project proceed.

Additionally, the POLB also learned through the Middle Harbor outreach efforts, that the community is becoming more sophisticated and more interested in port projects. As a result of the Middle Harbor Project, the POLB is doing more outreach on other development projects, and have

Middle Harbor Project Communications: By the Numbers

Letters sent to neighborhood, community, and business groups to inform them of the project and offering additional educational opportunities.

120

Number of POLB e-update subscribers who received project press releases and major announcements, including alerts of availability of environmental documents, public hearings, and approaching close of comment periods.

6,000

Recipients of the port's *re:port* community newsletter, which was used to educate and announce key project developments.

150,000

learned the value and need to be thorough in outreach activities, including “getting the word out” about POLB projects and activities, trying to reach as many people as possible.

Coordinate with Agencies Managing Air Quality. Cumulative impacts to air quality were an issue associated with the project. The POLB coordinates many of their programs with CARB, the South Coast Air Quality Management District (SCAQMD), the Environmental Protection Agency (EPA), and others. POLB

also provides information for and participates in most of the regional planning studies conducted by CARB, SCAQMD, EPA, and the Southern California Association of Governments (SCAG). This close coordination supported the use of the CARB study for the analysis of cumulative impacts to air quality.

Benefits

Although an indirect result of the Middle Harbor Redevelopment Project (and other development projects), the POLB's community mitigation grants program stands to benefit the port-area populations that are most vulnerable to cumulative air quality effects, including preschool to school-age children, under the School and Other Sites program; and hospitals, clinics, and convalescent homes under the Health Care and Senior Facilities grant program.

Although the POLB's community grant programs are not tied to one particular development project, guidelines for the grant programs were approved by POLB in spring 2009—about the same time that the Board of Harbor Commissioners voted unanimously to approve the Middle Harbor Project and the associated Final EIS/EIR on April 13, 2009. The cumulative impacts associated with large port development projects, including Middle Harbor, were the impetus for the community grants program.

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