

PORT OF OAKLAND



**ENVIRONMENTAL
ANNUAL REPORT
2 0 0 5**



" Environmental stewardship and the protection and enhancement of Oakland's waterfront are top priorities for the Port of Oakland. To that end, we strive toward sustainable growth and development, while maintaining the Port's position as an economic engine for the region and state."

Jerry Bridges
Executive Director
Port of Oakland

Environmental
Stewardship

Table of Contents

An Economic Engine for the Region	inside front cover
Environmental Stewardship	2
Environmental Project Highlights	3
Air Quality	4
Water Quality	5
Parks and Public Access	6
Habitat Enhancement and Habitat Studies	9
Brownfields Redevelopment	12
Remediation Projects	14
Reuse and Recycling	14
Airport Noise Management Program	16
Environmental Services and Management Team	17
A New Department is Formed	17
A Message from Roberta Reinstein Environment and Safety Supervisors	18
A message from Jim McGrath	inside back cover





Environmental Project Highlights



The Port has worked for many years to improve its environmental stewardship and mitigate the environmental impacts of its operations on the surrounding community and the environment. Through the creativity and commitment of its staff, the Port has been able to find environmentally sensitive solutions to difficult environmental problems. The following projects incorporate cutting-edge science and technology and,

perhaps most importantly, cutting-edge thinking. These environmental benefits may not be readily apparent to the casual observer.





Air Quality

Truck Program:

The Port will soon offer grants to truckers that haul shipping containers to and from the marine terminals in an effort to reduce particulate and nitrogen oxide (NOx) emissions. The truck program includes two major elements - vehicle replacements and truck exhaust retrofits partially funded by the Port of Oakland.



Container Terminal Equipment Repowering:

As part of an air quality mitigation program, the Port agreed to subsidize the retrofit of diesel cargo-handling equipment with new engines meeting California emission standards for new diesel engines or add-on exhaust treatment devices, including soot traps and catalytic converters. This program targets the off-road, heavy-duty, diesel-powered equipment that moves cargo containers within the marine terminal yards, including, top-picks, side-picks, transainers, and yard tractors.



Alternative Fuel Program:

The airport began incorporating alternative fuel vehicles into its fleet in 1999. The program continues to expand by offering incentives and securing grants to encourage ground transportation providers to use alternative fuel vehicles. As of 2004, 65% of the permitted taxicabs operating at the airport use compressed natural gas (CNG); 50% of the door to door shuttles use CNG, and 20% of the off-airport parking shuttles use CNG. Recently, the Port secured two grants to help offset the cost of purchasing 15 additional off-airport parking shuttles and 5 CNG AirBART shuttle buses. In 2004, the program was recognized with the Natural Gas Vehicle Coalition's National Achievement Award for the CNG program and was a finalist for the Department of Energy's National Partner Award for advancing alternative fuels.





Water Quality

Stormwater Programs:

The Port has developed a monitoring program for Port facilities industrial tenants and construction contractors to raise awareness of water quality issues and assist in compliance with the State Water Resources Control Board's industrial permit. The Port organizes workshops, conducts pollution prevention training, collects and analyzes stormwater samples, and inspects approximately 40 Port and tenant facilities annually. The Port also reviews stormwater regulations with contractors and assists them in the development of stormwater pollution prevention plans.

Private Aircraft Sump Fuel Lockers:

Before any private plane takes off, the pilot must follow a standard plane checkout procedure. One of the checkout activities is to inspect aviation fuel from the "sump" for contaminants (primarily water). To avoid the discharge of sump fuel waste to runways, the Port installed ten hazardous materials cabinets throughout the North Field airport. A specialized aviation fuel sump container has been placed inside each cabinet to retain waste sump fuel. The waste is then properly managed by the Port.

Oily Bilge Water Collection at Marinas:

The Port has several marinas for private non-commercial boat owners operated privately by Oakland Marinas LP. The marinas provide for the disposal of oily bilge water by distributing absorbent pads to boat owners so they can soak up oily material from their bilges. Existing waste oil storage tank areas serve as the location for storage of spent pads in secure combustible storage lockers.

Creosote Piles:

The Port's Wharf Strengthening Program in the Outer Harbor (to support dredging to -50 feet and state-of-the-art cranes as well as seismic concerns) also includes replacing the old creosoted-wood pile fendering systems at Berths 22, 23-25 and 35-37 with a completely new fendering system. The new fendering system is essentially a bumper attached to the wharf. This program relieves the concern that the old creosote-treated piles polluted San Francisco Bay.





Parks and Public Access

Middle Harbor Shoreline Park:



In September 2004, the Port celebrated the grand opening of the 40+ acre waterfront park with approximately 3000 people in attendance, including political dignitaries, entertainers, and environmental, maritime and public access groups. The park's interpretive program relates the stories of the railroad, military, and industrial influences on the shoreline landscape of Oakland in fourteen interpretive panels located throughout the park. Highlights include the "ghost" of a 190,000 square foot Navy World War II warehouse building, a rebuilt section of a 19th century "training wall", and remnants of a former rail line and ferry slip.

6

Union Point Park:



Aerial view of Middle Harbor Shoreline Park







Habitat Enhancement & Habitat Studies

Middle Harbor Enhancement Area:

The 180-acre Oakland Middle Harbor, previously dredged up to - 40 feet deep at low tide, was dark and far less ecologically productive than the well-lit shallows more typical of San Francisco Bay. The Port and Army Corps of Engineers began refilling the area with clean dredged material in 2002 to restore shallow water habitats, including mud flats, shallow subtidal sand flats, eelgrass beds, and a small intertidal salt marsh. Positive changes have already been observed in bird and fish communities in the filled shallow edges.

Long Term Management Strategy (LTMS):

The Port worked with the Bay Conservation and Development Commission, U.S. Environmental Protection Agency, the Regional Water Quality Board, and the US Army Corps of Engineers to develop the LTMS for the disposal of dredged material in San Francisco Bay to reduce impacts and increase the beneficial uses of dredged sediment. The Port participates in the LTMS' Science and Data Gaps and Herring workgroups by assisting with writing procedures, and designing specific studies on the description and biological effects of suspended sediment plumes from dredging. A study is also planned to define the movement patterns of salmon and steelhead in the bay, with a view to forging a more-informed management strategy that is both protective of fish and more friendly to the maritime industry.





-50' Dredging Project Least Tern and Fish Studies:

During the planning and permitting phase of the harbor deepening project, a concern arose about the possible effects of dredging on the foraging activity of the California least tern. The Port and Corps of Engineers are conducting a study of tern feeding habits and the distribution and abundance of small, schooling fish in the Oakland-Alameda area. Least terns, especially hatchlings, depend to a large degree on small fish (less than 2 inches long) in the silverside family. At this size, these fish live almost exclusively close to the shore in shallow protected areas. In recent years, about 300 pairs of least terns have nested on the Alameda colony and had good success in producing fledglings.



Non-Native Species Study:



The Port contracted with the Smithsonian Environmental Research Center to evaluate the following:

- a) biota in the ballast water of ships arriving at Oakland,
- b) effectiveness of ballast water exchange in the ocean in reducing the abundance of non-native

species in the ballast water, and

c) presence and abundance of non-native fouling organisms on ships' hulls. Study results indicate no fish pathogens in the sampled ballast water and overall a relatively low number of organisms. Ocean exchange of ballast water resulted in significant reductions of organisms compared to control tanks, although there was considerable variation among voyages and vessels. Lastly, the pilot study of ships' hulls suggests that containerships arriving at the Port of Oakland may have relatively low levels of biofouling compared to other vessel and traffic types.





Pile Driving Sound Study:

The Port participated in the funding of a study to investigate the effects of pile driving sound on exposed fish. A field experiment performed in August 2004 in the Oakland Outer Harbor consisted of driving 24-inch concrete piles 10 meters from three species of caged fish—the Northeast Ora Loma Restoration Project. No significant differences were found between exposed and control fish in any measured variable.

Shoreline Cleanups:

The Port has organized 15 annual California Coastal Cleanups in the fall and several Earth Day Shoreline Cleanups in the spring along the shores of the Oakland/Alameda Estuary. Approximately 80 volunteers participate and collect 3,000 pounds of trash at each event. These cleanups spread awareness to the community regarding the sensitivity of the marine environment and how everyone can contribute.





Brownfields Redevelopment

Port Harbor Facilities Building:

The Port recently built a new harbor facilities maintenance center that partially covers a former petroleum underground storage tank site. During construction, the Port built an extraction system to remove petroleum free product and a passive soil gas venting system to remove petroleum vapors beneath the building. The soil gas venting system is considered "state of the art" and will serve as a model for other sites.

Jack London Square Phase II:

The Port recently negotiated with Jack London Square Partners to purchase or lease several buildings and lots throughout Jack London Square. A Port study found that the majority of the soil and groundwater at the site does not pose a risk, and soil may be reused on-site, limiting the need for off-site disposal. Development commenced in November 2004 and will continue for the next several years.





Remediation Projects

Oakland Outer Harbor:

The Port's industrial past includes two former bulk fuel terminals. Berths 23 and 24 were the site of two "tank farms" built in the early 1900's and operational for about 75 years. Upon the removal of the tanks in the 1970's, residual petroleum fuels were discovered in the soil and groundwater. Initial cleanup removed thousands of gallons of liquid phase hydrocarbons. The ongoing second remediation phase will remove residual fuels in the soil and groundwater throughout 22 acres by air injection and vapor extraction.

EZBH Radio Site:

Eleven acres of a non-tidal wetland was found to contain elevated concentrations of lead. A risk-screening evaluation found that the lead may pose a risk to birds and animals that inhabit or forage at the wetlands, and may pose a risk to construction workers who repair or maintain levees which surround a portion of the site. Remediation that includes implementation of special measures to minimize impacts to workers, birds and small mammals is planned for August through October 2005 to avoid the nesting and rainy season.

Reuse & Recycling

Airport Food Waste and Passenger Terminal Recycling:

In 2002, Oakland International Airport launched its first public recycling program in the passenger terminals that included plastic bottles, aluminum cans, newspapers, magazines and office paper. In 2004, the airport added food waste to its recycling efforts. Over 75 tons of food waste and a combined total of 150 tons of cardboard, magazines, bottles, cans and plastic were diverted from landfills in 2004.





Airport Consolidated Airline Waste and Recycling Program:

Prior to 2003, each airline contracted separately with a waste company resulting in inconsistent recycling. In 2003, the Airport worked with the airlines to consolidate their waste and recycling into one coordinated program. The airlines now recycle magazines, newspaper, cardboard and bottles. In 2004, the airlines diverted 70 tons of waste from landfills resulting in significant cost savings.

Airport Materials Management Program:



The Materials Management Program (MMP) will recycle and reuse over 100,000 cubic yards of construction materials on-site over the next five years for capital improvement and Port facility projects. Recyclable concrete and asphalt will be stockpiled at three designated areas. This program will reduce disposal and material purchasing costs, and reduce truck emissions associated with landfill disposal of waste.

Waste Oil:

The Port recycles waste oil at its recreational public marinas, the private plane hangars at the North Field airport, and the Port's two vehicle maintenance garages. The Port installed waste oil tanks at select aircraft hangars, the Port's harbor and airport garages and each of its marinas now operated by Oakland Marinas LP. Waste oil is periodically pumped from the tanks and recycled at an appropriate waste oil recycling facility.

Potable Water:

The Port participated in the East Bay Municipal Utility District's water conservation program to reduce water usage at Port and tenant facilities in Jack London Square and Oakland International Airport. Program accomplishments include on-site water usage surveys, on-site demonstrations on water saving practices and replacement of the airport's cooling tower that will result in water savings of over 31,000 gallons daily.





Airport Noise Management Program

For more than 30 years, the airport has made continuous efforts to develop programs that minimize the effect of aircraft noise on surrounding communities. The airport meets with noise advisory groups to seek ways to balance all concerns (noise and other environmental issues, consumer and air carrier demands, economic and employment opportunities, and regional transportation needs) while maintaining a safe and efficient airport.



16

The airport regularly monitors noise levels recorded on fifteen permanent microphones located in Alameda, San Leandro and San Lorenzo. The airport also maintains a noise management program website and noise report hotline to communicate with the public and document citizens' concerns. Lastly, the Airport is in the process of sound insulating approximately 600 homes on Bay Farm Island, Alameda, and 200 homes in San Leandro. Five schools in San Leandro will also be insulated. The sound insulation program in Alameda achieves on average a five to eight decibel reduction in interior noise at residential homes.

For more information about the Port of Oakland and Oakland International Airport, please visit our websites at www.portofoakland.com and www.flyoakland.com.





Environmental Services and Management Team

A New Department is Formed: Environment and Safety

The Port of Oakland formed the Environmental Planning Department (EPD) in the mid-1980s to provide current and advance planning services for the Port's Aviation, Commercial Real Estate and Maritime divisions. A group of professional planners, scientists, engineers and administrative support staff comprises the department. The department performs a broad range of planning and environmental and regulatory compliance functions for the Port of Oakland. Additionally, the Environmental Planning Department is entrusted with the lead public access and cultural resources planning role at the Port of Oakland.

The Environmental Health and Safety Compliance Department (EHSC) was formed in the mid-1990s to support the large number of capital improvement projects initiated by the Port during that period. The department is staffed with a team of scientists with expertise in occupational health and safety, geology, hazardous materials management, chemistry, biology and hydrology. The department is responsible for assuring that the Port complies with the vast array of environmental laws and regulations designed to protect the quality of the air, soil and water. It is also responsible for compliance with occupational safety laws. The staff also dedicates some of their time to community environmental work.

The Port of Oakland is merging these two departments to create a new more flexible and efficient department, which is called Environment and Safety. The newly organized department will provide a broader spectrum of talent to handle environmental regulatory and compliance requirements and to continue the Port's record of innovation with capital improvement projects.

Jim McGrath who currently oversees the Environmental Planning Department is retiring. Through succession planning Roberta Reinstein, current manager of the EHSC Department, will manage the newly formed Environment and Safety Department.

Airport Noise and Environmental Compliance

The department is comprised of one supervisor, three noise abatement specialists and one environmental planner who manages the airport mitigation and monitoring program, alternative fuel program, wildlife management program, and waste and recycling programs.





A Message from Roberta Reinstein Environment and Safety Manager



I am excited to oversee the merger of the Port's Environmental Planning and Environmental Health and Safety Compliance Departments. The merger of the talented staff of these departments will make it easier for the Port to provide comprehensive and streamlined planning, permitting and environmental remediation services for Port projects, ensuring that the Port's activities meet regulatory requirements and provide the highest level of protection to the environment and human health and safety. Creative thinking is the hallmark of this remarkable

group of people, and such strategies will be necessary as we deal with an increasingly complex array of regulations in an era of limited financial resources. My goal is to maintain the Port's leadership position in waterfront planning, public access, resource management, wetlands restoration, brownfields redevelopment and storm water pollution prevention and to strengthen the Port's sustainable business model.

Environment and Safety Supervisors:



Anne Whittington, AICP
(American Institute of Certified Planners)
Supervisor Maritime Projects

Anne Whittington supervises the maritime environmental planning group, which provides on-going support for the Maritime division and other Engineering staff in their efforts to plan, design and build facilities that meet the Port's needs. The team reviews all maritime-related projects for compliance with environmental laws, prepares CEQA documentation and obtains regulatory agency permit approvals and certifications as needed. In addition, the team monitors projects for compliance with permit conditions and with mitigation measures adopted by the Board of Port Commissioners, and designs, implements and





manages mitigation programs. A very important part of the group's work is coordinating with regional, state and federal environmental and regulatory agencies and with local community groups and environmental organizations to ensure that policies affecting the Port are reasonable and are incorporated into project design.

Some of the major projects that the group is currently working on include: -50 foot channel and berth deepening; Oakland Army Base redevelopment; and New Berth 21 habitat and air quality feasibility studies. Regulatory issues that are actively monitored include water and sediment quality, endangered and threatened species and their habitats, local fisheries, pile driving noise impacts, ballast water, and air quality.



Richard Sinkoff, AICP
**Supervisor Aviation and Commercial
Real Estate Projects**

Richard Sinkoff supervises the aviation and commercial real estate planning group, which designs, plans, and implements environmental planning programs, technical studies, mitigation planning, and public access planning for projects and programs for Oakland International Airport and the Commercial Real Estate Division.

Richard Sinkoff supervises the aviation and commercial real estate planning group, which designs, plans, and implements environmental planning programs, technical studies, mitigation planning, and public access planning for projects and programs for Oakland International Airport and the Commercial Real Estate Division.

For Oakland International, Richard Sinkoff supervises a talented team of planners and scientists who work collaboratively with the Airport's own planning and noise/compliance departments in furtherance of the Airport's capital program and operations. The Environmental Planning Department is chiefly responsible for CEQA compliance, regulatory permitting, public access planning, and environmental resource management for the Airport. From 2001-2003, Sinkoff lead a team of multi-disciplinary planners and scientists, which completed the Supplemental EIR (Environmental Impact Report) for Oakland International Airport's Airport Development Program- the largest Aviation project in the Port of Oakland's history.





Jeff Jones, CIH (Certified Industrial Hygienist)
Supervisor Environmental Compliance

Jeff Jones supervises the team that is responsible for Port-wide environmental and safety compliance programs. These include Storm Water Pollution Prevention, Response to Hazardous Materials Emergencies and Emergency Preparedness in general, Hazardous Waste Disposal, Special Projects, and perhaps most importantly, Employee Safety. Port operations require team members to spend significant time in the field. They work at cultivating trusting relationships with the people and organizations with whom they interact, including regulatory agencies. In effect, they serve in the role of an environmental and safety compliance officer. Jeff's team finds people are quick to protect the environment, themselves, and each other once they understand how their activities impact others.



Carole Wedl
Supervisor Airport Noise/Environmental Management

The Airport Noise and Environmental Compliance Department, a department of Airside Operations managed by Deborah Ale-Flint and located at Oakland International Airport, is the Port's front-line team for addressing noise and other environmental concerns at Oakland International Airport. These include aircraft and construction noise, air emissions from aircraft, autos and trucks, and maximizing sustainable practices. The department's role is to work with all stakeholders to balance their needs in relationship to those of operating an airport and maintain a neighbor-friendly, environmentally sustainable transportation center.

Port of Oakland Environment and Safety Department contact: Manager Roberta Reinstein 510-627-1176 reinstein@portoakland.com; Port of Oakland Airport Noise/Environmental Compliance Department contact:
Supervisor Carole Wedl 510-563-2881 cwedl@portoakland.com

