

**Ports of Long Beach and Los Angeles
Summary of Key Water and Sediment Quality
Programs & Projects**

Common and/or Joint POLB/POLA Programs & Projects

Bight '08 Regional Survey

Bight '08 is a regional survey conducted by dozens of agencies coordinated by Southern California Coastal Water Research Program. The periodic program (this is the fourth major survey since 1990) studies many measures of ecosystem health in southern California bays, estuaries, river mouths, wetlands, and offshore environments. Bight '08 looks at everything from water quality to fish to microscopic organisms. The Ports are participating by contributing resources toward the assessment of sediment conditions (toxicity, chemical analysis, and animals) as well as supporting a study of the special rocky reef environment on our rip rap slopes.

Biological Baseline Study

The Port of Los Angeles and Long Beach are conducting a comprehensive study to update understanding of the current condition of biological and physical characteristics of the port complex, located in the western half of San Pedro Bay. This comprehensive study is evaluating the area's physical characteristics, benthic infauna and riprap epifauna, ichthyoplankton, kelp and eelgrass, pelagic, demersal, and shallow-water fish, and marine birds. The study also addresses seasonal variations and the presence of invasive species, if any, and compares the ecological characteristics of various types of habitats. Previous studies have shown the area to be rich in fish and wildlife resources, with hundreds of species of fish identified. Another sign of the high water quality at the Port is the proliferation of eelgrass, which requires clear water to grow.

Dominguez Watershed Advisory Committee

The DWAC discusses water quality-related issues in the watershed that drains into the harbor. This surrounding area includes approximately 133 square miles stretching all the way to part of Inglewood. The DWAC includes members of the public, regulatory agencies, industry, and representatives from the cities in the watershed. The Port has been an active participant on the committee since its inception in 2000. The committee drafted the Dominguez Watershed Management Master Plan which lays out a thorough description of the watershed and recommends projects to improve water quality, sediment quality, and conserve water. Stakeholders meet on a quarterly basis to address current issues.

Hydrodynamic and Water Quality Modeling

The Ports are developing water quality models to help in decision making for the Total Maximum Daily Load (TMDL) process and the WRAP. The POLA completed a hydrodynamic and water quality model of the Dominguez Channel Estuary with the help of state grant funding. Currently the model is being extended by both Ports to include the entire harbor complex (POLA and POLB) as well as eastern San Pedro Bay to capture the influence of the Los Angeles and San Gabriel Rivers.

Impaired Water Bodies and Total Maximum Daily Loads (TMDL)

Federal and State water quality agencies are responsible for establishing a list of impaired water bodies (known as the 303 (d) list). The regulators must establish a Total Maximum Daily Load (TMDL) for each impairment, so that, over time, the water body can recover and its beneficial uses can be enjoyed. There are impairments listed for several areas in Los Angeles Harbor. The

Ports work very proactively on scientific studies, stakeholder coordination, participation in regulatory forums, and remediation planning to address these impairments and all forthcoming water quality regulations.

Remediation/Mitigation Projects/Treated Sediments/Capping Projects

The Ports have various mechanisms for dealing with contaminated sediments, including dredging and disposal offsite, sequestering contaminated sediment in a confined disposal facility (CDF), and capping contaminated sediments with clean sediment, thereby preventing contact with the sediment surface and water column. The Ports are also part of the regional Contaminated Sediments Task Force, and have explored various sediment reuse and treatment options.

Removal Programs/Construction and Maintenance Dredging

Water movement (including from the Dominguez Channel and tidal action) causes sedimentation at berths throughout the harbor. As a result, the Ports perform periodic maintenance dredging to maintain necessary design depth at berths. This sediment is tested prior to dredging to determine appropriate disposal options. The Ports also conducted dredging to remove known contamination in particular areas.

Sediment Characterization Special Studies

In addition to conducting sediment characterization for dredging projects, the Ports also conduct sediment sampling in conjunction with lease renewals, where there is evidence of adjacent landside soil and/or groundwater contamination, and in response to agency requests. These sediment data will be included in the sediment quality inventory both Ports are currently compiling.

San Pedro Bay Ports Clean Air Action Plan

This joint plan describes the measures that the Ports of Los Angeles and Long Beach will take toward reducing air emissions related to port operations. The focus of the plan is on five source categories: ocean-going vessels, harbor craft, cargo handling equipment, heavy duty vehicles, and rail locomotives. One of the plan components is air quality monitoring at several stations in the harbor area. This monitoring network may contribute information related to aerial deposition, and the projected emissions reductions from CAAP programs will reduce the contaminants that contribute to aerial deposition.

Port of Los Angeles Programs & Projects

Cabrillo Beach Water Quality Improvement Study

The Port of Los Angeles is one of the few industrial ports in the world that also has a swimming beach. Inner Cabrillo Beach provides calm water for families with small children. However, the beach has a persistent bacteria problem limited to very close to the shoreline. The Port has taken an aggressive approach to investigate and remedy the problem, including scientific studies, water circulation models and pilot circulation devices, repairing and or replacing storm drains and sewer lines, replacing the sand on the beach, structural modifications, and installation of bird exclusion devices. The Port has continued to work with regulatory agencies in order to achieve compliance with the recently establish Total Maximum Daily Load for bacteria at Inner Cabrillo Beach. Moreover, the Port is committed to make sure that Cabrillo Beach continues to be an important regional recreational asset.

Clean Marinas Program

To help protect water and air quality in the Harbor, the Port of Los Angeles has developed a Clean Marinas Program (CMP). The program advocates that marina operators and boaters use best management practices — environmentally friendly alternatives to some common boating activities that may cause pollution or contaminate the environment. It also includes several innovative clean water measures unique to the Port. The CMP features both voluntary components and measures required through Port leases, California Environmental Quality Act (CEQA) mitigation requirements, or established federal, state, and local regulations.

Construction General Stormwater NPDES Permit Program

Construction activities throughout the Port of Los Angeles have the potential to impact water quality at the harbor if the construction site is not appropriately managed for erosion, dust, and runoff. As part of the Construction Stormwater Program, the Port of Los Angeles ensures that a Notice of Intent is filed (in cases of construction activities disturbing greater than 1 acre) in compliance with the State's Construction General Stormwater NPDES Permit requirements. POLA personnel also review construction site-specific stormwater pollution prevention plans, and inspect construction sites for the proper implementation of construction BMPs to control sediment erosion, dust and pollutant contaminated runoff.

Critical Source Inspection

As part of the City of Los Angeles, the Port of Los Angeles participates in the Critical Source Inspection component of City's Stormwater Enforcement/Inspections Program, per the MS4 permit requirements. All Port tenant facilities that are consider Critical Sources, commercial and industrial facility with activities that has the greatest potential to discharge pollutants to the stormdrain or harbor, are tracked, inspected and ensured compliance with the MS4-NPDES Permit requirements. Port facilities including, but not limited, to auto/boat repair, restaurants, gas stations, and many industrial facilities are expected to eliminate non-stormwater discharges prohibited in the MS4 permit, and limit contaminated stormwater runoff by implementing BMPs such as operational good housekeeping practices and structural changes to the facility.

Environmental Compliance Assessment

The Environmental Compliance Assessment Program (ECA) applies a partnering approach between the Port of Los Angeles (POLA) and its tenants to evaluate the status of environmental compliance and conformity of POLA tenants' operations with applicable federal, state, and local environmental-related laws and regulations through the terms of the lease agreements. The goals of the ECA Program are to achieve a Port-wide overall reduction in the risks and liabilities associated with environmental non-compliance and secondly, to allow the Port, through

environmental compliance monitoring of its tenants, to attain continuous improvement of its overall environmental performance.

Industrial General Stormwater Permit NPDES- Tenant Outreach

The Port of Los Angeles believes that increasing tenant awareness of their industrial activities and its impact to water quality in the harbor is important to successfully limit industrial pollutant discharges and keep harbor waters clean. The Port of Los Angeles' Tenant Outreach Program assists tenant facilities to comply with their Industrial Stormwater General Permit requirements such as reducing polluted dry weather and stormwater runoff to the harbor. This is accomplished by providing stormwater outreach materials, training, and evaluating selected facilities to provide facility-specific recommendations on stormwater pollution prevention.

Los Angeles Harbor Bacterial TMDL

The only Total Maximum Daily Load in the implementation phase for the harbor is the bacteria TMDL (including Inner Cabrillo Beach, addressed separately). As part of compliance, the Port conducted a study of likely bacteria sources from Port property and is working with tenants on Best Management Practices to eliminate the discharge of bacteria-laden runoff. The Port also worked with other responsible agencies (City of Los Angeles Bureau of Sanitation and the County of Los Angeles Department of Public Works) to assess the level of bacteria at stations throughout the harbor. The intensive study determined that measures of bacteria during dry weather were within safe levels at the regulatory compliance point and at nearly all stations. The exception is a handful of areas in proximity to major storm drains. The Port and other agencies are working to follow up on this study with further investigation of the areas of concern. This involves a survey of upstream sources that may be contributing to the problem.

Stormwater runoff special studies

The Port is conducting a program to determine the pollutants entering the harbor from large municipal flood control drainages and Port-related sources. This project involves sampling during dry weather and certain storm events. A comprehensive list of potential contaminants is assessed.

NPDES MS4 Permit Program

As part of the City of Los Angeles, the Port of Los Angeles actively participates in City's Stormwater Program to implement the requirements of the MS4 permit. The goal of the program is to reduce the discharge of pollutants to City's storm drain system to the maximum extent practicable, through management practices, control techniques and systems, and designed engineering. Some specific examples implemented at the Port include: stenciling, inspecting, and cleaning of Port own and operated storm drains; limiting stormwater contact through the appropriate storage and management of material in Port's maintenance yard; adhering to protocols in the application of pesticides/herbicides in landscaping; and eliminating maintenance vehicle wash water by installing a clarifier to treat and capture runoff.

Port Wide Water Quality Study

The Port has been collecting monthly water quality data for basic physical parameters since the late 1960's at approximately 30 stations. As part of the Port's commitment to assess the current state of water and sediment quality, a special sampling program was initiated in 2005 to build upon this data set. At periodic intervals, an enhanced analysis is conducted that examines the ambient water column for a comprehensive suite of chemicals of concern. This expanded data set is a very useful contribution to the decision making process to improve water quality in harbor.

Responsible Marina Program – Vessel Disposal Program

The Port of Los Angeles instituted a program to help marinas and boaters dispose of derelict vessels that were in danger of sinking. All hazardous material on vessels are disposed of in accordance with applicable environmental laws and vessels were demolished and materials recycled to the extent possible. By proactively removing derelict vessels, the Port of Los Angeles prevented the release of hydrocarbons and other pollutants that can occur when a vessel sinks.

Seaplane Lagoon Sunken Vessel Removal Program

The Port of Los Angeles has received a grant from the Department of Boating and Waterways to remove several vessels that are submerged in Seaplane Lagoon. The removal of sunken vessels will not only remove navigational hazards but remove a potential source of pollutants from harbor waters.

Sustainability Management Plan

In conjunction with a City-wide effort, the Port of Los Angeles is developing a sustainability program which will reach across all disciplines. Sustainable dredging will be considered in the Sediment Management Plan to help determine reuse and disposal alternatives for dredged materials.

Sweeping Program

As part of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Stormwater Sewer System (MS4) permit compliance, the Port of Los Angeles performs regular sweeping of POLA-controlled roads and parking lots. These sweeping activities remove particles and associated pollutants, reducing potential impacts to harbor waters from stormwater and dry weather runoff.

Trash Management

The Port of Los Angeles performs daily trash collection activities throughout port-controlled areas of the Los Angeles Harbor District. Trash collection includes management of trash receptacles, and removal of trash on land and in water via two boats. The POLA has ordered and is waiting delivery of a third, trash-specific boat, complete with trash collector arms and a conveyor to increase efficiency of collection of water-borne trash.

Water and Sediment Quality Database

Port-led studies and other scientific studies have collected large amounts of data in Los Angeles Harbor since the 1940's. The Port is undertaking an effort to digitize and organize this very valuable resource. All known data is being collected under one umbrella and will be accessible for analysis. Using the integrated database, scientists will be able to determine trends in water and sediment quality and the Port will be able to focus resources on the areas of the most concern.

Waterfront Development Design

The Port of Los Angeles is currently planning both the San Pedro and Wilmington Waterfront development projects, which will include numerous public areas as well as leased properties. It is intended that the design and subsequent maintenance of these areas will take into consideration potential runoff of contaminants into the adjacent harbor, with incorporation of appropriate design and operational Best Management Practices (BMPs).

Port of Long Beach Programs and Projects

POLB Master Storm Water Program Summary

The POLB first developed the Storm Water Program in 1992 to bring a systematic approach to storm water management throughout the Harbor District. The program goes above and beyond what is required by federal and state regulations, and has been periodically updated and its scope expanded. Today, the Master Storm Water Program consists of three volumes and addresses compliance issues with the NPDES General Permit for Storm Water Discharges Associated with Industrial Activities, the NPDES General Permit for Storm Water Discharges Associated with Construction Activity, and the City of Long Beach NPDES Municipal Storm Water Permit.

Volume I - Industrial and Commercial Facilities

The POLB Environmental Planning Division performs the day-to-day administration and implementation of the Port's Industrial Storm Water Program as a service to the participating facilities. This service includes:

- communicating with the Regional Board;
- educating and assisting participants with the development and implementation of SWPPPs
 - SWPPPS contain facility specific BMPs designed to reduce pollutant load in storm water
- training participants regarding storm water pollution prevention;
- conducting annual comprehensive site compliance evaluations of participating facilities;
- performing storm water and non-storm water discharge visual observations at storm drain outfalls;
- implementing a regional monitoring program which samples storm water from 21 storm water outfalls selected to represent various land uses in the harbor district; and
- preparing and submitting annual monitoring reports to the Regional Board.

Participating facilities also have responsibilities to carry out pollution prevention elements of the Storm Water Program, including:

- Developing and maintaining a facility SWPPP
- Performing dry weather and wet weather visual observations of discharges
- Performing training for personnel (with assistance from the Env. Planning Division)
- Implementing Best Management Practices (BMPs) to reduce and prevent pollution
- Performing an annual facility self assessment

Volume II – Port Operations and Maintenance Activities

Volume II outlines the roles and responsibilities of the Harbor Department (Port) under the City of with respect to storm water pollution prevention associated with Port Operations and Maintenance Activities. Responsibilities include:

- Implementing the City's Municipal Permit requirements within the Harbor District

- Maintaining the storm drain system
- Conducting periodic street sweeping
- Stenciling storm drain inlets
- Cleaning storm drain inlets and outfalls in the Harbor District
- Maintaining the sewage infrastructure within the Harbor District (excluding tenant facilities)
- Record keeping

Volume III – Development Planning and Construction Activities

The Master Storm Water Program places a number of requirements on new development, redevelopment, and construction activities in the Port. Construction activities on areas greater than 1 acres are covered under the General Construction Storm Water Permit, with basic requirements such as the elimination or reduction of non-storm water discharges to storm drain systems and receiving waters as well as the development of construction SWPPPs. Construction contractors are required to implement BMPs such as:

- General site management
- Construction materials and waste management
- Erosion control
- Sediment control

Construction projects are inspected by Port Construction Inspectors, to ensure that BMPs are in place and the construction SWPPPs are updated and adequate. Information material is also available to Port clients through the Environmental Planning division.

Litter Management Program

The control of litter in the POLB has traditionally been addressed through the Ports Master Storm Water Program. Under the Program port tenants are required to implement Best Management Practices at their facilities to control litter, the Port's Maintenance division conducts routine street sweeping and catch basin clean outs, construction projects are required to manage wastes and trash appropriately, and new facilities are being designed with storm water treatment devices that help prevent litter from being discharged into the Harbor. Recognizing that litter in the Port remains an issue, in 2008 POLB kicked off a litter control program that will expand upon the existing programs described above and initiate new litter control initiatives including but not limited to: a public awareness campaign, installation of litter bins in key locations, and installation of litter control devices on key catch basins.

Portwide Storm Water and Dust Control Program

Within the Port of Long Beach, staff identified approximately 100 acres of undeveloped or vacant areas that required stabilization for soil erosion and dust control. In early 2005, the Port initiated a Portwide Storm Water Pollution Prevention and Dust Control Program to implement storm water and fugitive dust control measures in these areas. The program was divided into two phases, short-term (temporary measures) and long-term measures. The temporary measures phase began in early 2005 and will continue until the permanent measures are in place. Under the long-term program, a combination of different types of sustainable mitigation measures including, but not

limited to, hydroseeding, placement of crushed miscellaneous base, hardscape, and sustainable landscape are being developed and implemented. The BMPs applied as temporary mitigation measures included silt fences, sand bags, rock barriers, and sediments control rolls for mitigating storm water runoff. Additionally, different types of soil stabilization materials are used to stabilize the surface dirt layer as a temporary dust mitigation measure.