

STORM 
 WATER
MANAGEMENT 
CITY OF LONG BEACH

Annual Storm Water Permit & Assessment Report
Order No. 99-060/CAS004003 (CI8052)

December 1, 2011



CITY OF LONG BEACH
DEPARTMENT OF PUBLIC WORKS



333 W. Ocean Blvd., 9th Floor | Long Beach, CA 90802 | (562) 570-6032 FAX: (562) 570-6012

STORM WATER/ENVIRONMENTAL COMPLIANCE DIVISION

December 1, 2011

Samuel Unger, Executive Officer
California Environmental Protection Agency
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Annual Storm Water Permit Report and Assessment for 2010-2011

Dear Mr. Unger:

The City of Long Beach is pleased to submit its "Annual Storm Water Permit Report and Assessment 2010-2011" in compliance with Order No. 99-060, for the Municipal National Pollutant Discharge Elimination System (NPDES) Permit No. CAS0040003 (CI8052).

Should you have any questions in regard to this report, please contact Anthony Arevalo, Storm Water/Environmental Compliance Officer, at (562) 570-6023.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Christoffels".

Mark Christoffels
City Engineer

MC:AA:ad

Enclosure



**CITY OF LONG BEACH
DEPARTMENT OF PUBLIC WORKS**



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STORM WATER/ENVIRONMENTAL COMPLIANCE DIVISION

**CITY OF LONG BEACH MUNICIPAL STORM WATER PERMIT
ORDER NO. 99-060**

**Permittee Annual Program Report Form
Permit Year 2010 - 2011**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility, of a fine and imprisonment for knowing violations.

Executed on the **1st** day of **December, 2011.**"

A handwritten signature in blue ink that reads "Mark Christoffels".

Mark Christoffels
City Engineer

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ACRONYMS

AAUW-American Association of University Women
APWA-American Public Works Association
ARS-Automatic Retractable Screens
BMP-Best Management Practices
CEQA-California Environmental Quality
CIP-Capital Improvement Program
CPS-Connector Pipe Screen
CSTF-Contaminated Sediments Task Force
CTR-California Toxics Rule
CWA-Clean Water Act
DWAC-Dominguez Watershed Advisory Council
EAC-Executive Advisory Committee
ESB-Environmental Services Bureau
FCSA-Federal Cost Share Agreement
FOG-Fats, Oils, Grease
GCCOG-Gateway Cities Council of Governments
IPM-Integrated Pest Management
KLI-Kinnetic Laboratories, Inc.
LAR-Los Angeles River
LARMP-Los Angeles River Master Plan
LARWQCB-Los Angeles Regional Water Quality Control Board
LASGRWC-Los Angeles and San Gabriel Rivers Watershed Council
LBSWMP-Long Beach Storm Water Management Program
LFD-Low Flow Diversion
MEP-Maximum Extent Practicable
MOA-Memorandum of Agreement
MOU-Memorandum of Understanding
MS4s-Municipal Separate Storm Sewer Systems
NOI-Notice of Intent
NOT-Notice of Termination
NPDES-National Pollutant Discharge Elimination System
OC-Organochlorine Pesticides
PAH-Polycyclic Aromatic Hydrocarbons
PCA-Pest Control Advisors
PCBs-Polychlorinated Biphenyls
RMC-Rivers and Mountains Conservancy
ROWD-Report of Waste Discharge

S.A.F.E.-Solvents Automotive Flammable Electronics
SCAG-Southern California Association of Governments
SCN-Secret Code Number
SGRMP-San Gabriel River Master Plan
SMC-Storm Water Monitoring Coalition
SMARTS-Storm Water Multi-Application & Reporting System
SSO-Sanitary Sewer Overflows
SSO-Site Specific Objectives
SUSMP-Standard Urban Storm Water Mitigation Plan
SWPPP-Storm Water Pollution Prevention Plan
SWRCB-State Water Resources Control Board
TMDL-Total Maximum Daily Load
TREC-Traveling Recycling Center
USACE-United States Army Corps of Engineers
WRAP-Water Resources Action Plan

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INTRODUCTION

The City of Long Beach Storm Water Management Program (LBSWMP), which is now beginning its 13th year, continues to be fully implemented in compliance with its National Pollutant Discharge Elimination System (NPDES) permit, the Federal Clean Water Act (CWA) and subsequent CWA amendments, all of which were adopted to protect receiving waters such as rivers, lakes, and oceans from contamination by preventing pollutants from entering the City's municipal separate storm sewer systems (MS4s). The City of Long Beach (City) complies with CWA guidelines through its NPDES permit and is committed to preserving and maintaining the quality of our beaches and waterways while improving marine habitat and the quality of life for our residents.

The City is currently operating under the requirements of NPDES No. CAS004003, Order No. 99-060, issued by the Regional Water Quality Control Board on June 30, 1999.

On December 26, 2003, the City submitted its Report of Waste Discharge (ROWD) in accordance with Title 23, California Code of Regulations. The City's ROWD consisted of a statement of accomplishments, Long Beach Storm Water Management Plan, Water Quality Monitoring Plan, draft permit, challenges, and future goals. In September 2010 the City began discussions with the RWQCB regarding the renewal of the LID, watershed, and monitoring permit. Additional meetings with the LARWQCB in November 2011, lead to discussion about the City continuing its own permit, which would be watershed, based similar to the Los Angeles County Permit. LARWQCB is presently working on the LA County Permit, which is their goal to complete by May 2012. At the completion of this permit, LARWCB will begin work on the Long Beach Permit.

The Storm Water/Environmental Compliance Division staff consists of one Administrative Analyst, and one clerk typist, in addition to the Stormwater/Environmental Compliance Officer. This team's major responsibilities include continual development and implementation of the goals and objectives of the LBSWMP and ensuring compliance with the requirements of the City's Municipal NPDES Permit. Additional duties and accomplishments of the Storm Water/Environmental Compliance division are detailed in the Program Management Section below.

The Annual Storm Water Permit Report and Assessment details the City's storm water management accomplishments and expenditures for the period of October 1, 2010, through September 30, 2011.

PROGRAM MANAGEMENT

The Storm Water/Environmental Compliance (SWEC) Division is responsible for the development, enhancement and implementation of the City's comprehensive Long Beach Storm Water Management Plan (LBSWMP). The division works extensively with an internal NPDES Task Force, composed of City personnel from various City departments, to share information and responsibilities, collaborate on storm water and environmental projects and resolve NPDES issues on a real time basis.

SWEC Division work consist of but is not limited to: 1) proactively pursuing grant funding for Structural Best Management Practice (BMP) project development/implementation; 2) innovative financing for Storm Water/Environmental Public Education/Outreach programs; 3) manages the contract for maintenance of the city-owned storm drain system; 4) manages the contract for the maintenance, operations and surveillance of the City's 24 storm drain pump stations; 5) assist with the development and implementation of the Airport and Port Industrial NPDES Permits; 6) serve as the City liaison for Los Angeles County's Termino Avenue Drain Project, Los Angeles Gateway Region, Integrated Regional Water Management Joint Powers Authority (LA Gateway Authority) Catch Basin Project, Los Angeles County Flood Control District; 7) conduct legislative analysis and make recommendations to senior management and elected; 8) negotiate the MS4 permit; and 9) actively participates in regional task forces, councils, organizations, and committees related to storm water/environmental activities. This ongoing involvement has proven to be an excellent avenue for exchanging information and collaborating on joint projects.

Program Management major highlights for this reporting year include:

- Participation of Storm Water/Environmental Compliance Officer as the Co-Chairperson for the Los Cerritos Channel TMDL Technical Committee.
- Member of the Los Angeles River Metals TMDL
- **Termino Avenue Drain Project:** Construction was completed, September 2011, before the scheduled completion date of December 2012 of the much-anticipated \$22.6 million storm drain improvement project that broke ground on September 30, 2009.
- **\$10 Million for Water Quality Improvements:** An innovative regional environmental project to prevent hundreds of tons of trash from reaching the Long Beach coastline has been completed. The collaborative project, funded by \$10 million in Federal Stimulus funds, involved the City of Long Beach and 15 upriver cities working together as the Los Angeles Gateway Authority. The LA

Gateway Region's first State Water Board-certified storm drain retrofit effort will prevent approximately 840,000 pounds of trash each year from entering the Los Angeles River.

- **Plastic Bag Ban:** The ban, enacted by the City Council in May, makes Long Beach the 12th city or county in California to restrict plastic bags since San Francisco's 2007 law. The ordinance's intent is to reduce litter, plastic debris in waterways and storm drains, and waste transported to landfills.
- **Wardlow/Delta Culvert Repair Project:** Repairs were completed to the culvert, or rain channel, at the intersection of Delta Avenue and Wardlow Road. One hundred (100) feet one (1) foot by four (4) foot culvert beneath the road lacked reinforcement and was replaced. The intersection had seen as much as six (6) inches of water accumulate during past rainstorms before the repairs were completed.
- **Termino Greenbelt Project:** This project consisted of the removal/salvage and restoration of native plants and trees to make way for the construction of the large Termino Avenue Storm Drain Project. The project was to be accomplished in three phases: 1) removal/salvage of the plants and tree in the path of the storm drain work; 2) construction of the storm drain and 3) restoration of the plants and trees. Phase 2 was completed in August 2011. The Phase 3 restoration work for the native plants and trees will be accomplished in FY 11/12 during the winter season from December 2011 to February 2012.
- **Appain Way Low Flow Diversion:** Work consists of construction of a new low flow diversion system for storm water run-off at Appian Way Pump Station. Work involves the installation of a new mechanical pump, new pipelines, electrical equipment and controls, new utility and sewer vaults and manholes, and associated appurtenances. The diversion system will divert dry weather "nuisance" run-off from entering the adjacent Marine Stadium Bay and discharge it to the sanitary sewer nearby.
- **Division Street Slip Lining:** Work consists of the installation of a Cured-in-Place Thermosetting Resin Pipe Liner to prevent groundwater intrusion into the storm drain lines.
- **Pump Station #7 Repairs/Upgrade:** Repairs to the pump station's 200 HP submersible main pump, replacement of the 10 HP sump pump and clearance of the discharge pipes and channel.
- **Long Beach Trash TMDL Projects:** The City of Long Beach completed three TMDL projects in 2010 and has been chosen to receive a 2011 Project of the

Year award from the Southern California Chapter of the American Public Works Association (APWA). The APWA is the professional association of Public Works leaders throughout the United States and Canada. The purposes of the Chapter's awards program are to recognize public agencies for their outstanding projects and programs, and to share the wealth of good ideas. (Appendix B-1)

- **The City of Long Beach was featured or mentioned in the following media:**
 - Channel 4, NBC News, 7/28/11, TV interview segment featuring Jim Kuhl, Environmental Services Manager, of the City of Long Beach. The interview brought awareness to the public of the new plastic bag ban, enacted by the City Council in May, which makes Long Beach the 12th city or county in California to restrict plastic bags. The ordinance's intent is to reduce litter, plastic debris in waterways and storm drains, and waste transported to landfills. The interview emphasized the importance and encouraged residents to use reusable bags. (Appendix C-1)
 - LA Times Article, date 9/27/11, Featuring Long Beach: Water Quality Shows Dramatic Improvement. All beaches in the city earned As and Bs in the environmental group Heal the Bay's End of Summer Beach Report. Featuring a statement by a City representative also confirming the improvements in beach water quality through the City's own report. (Appendix C-2)
 - LB Press-Telegram Article, date 6/14/11, Featuring: Draining West LB's Rain. Repairs near the intersection of Wardlow Road and Delta Avenue to limit water buildup. Featuring Seventh District Councilmember, James Johnson and Department of Public Works Director, Mike Conway. (Appendix C-3)
 - LB Press-Telegram Article, date 8/01/11, Featuring: Plastic Bag Ban Goes Into Effect. The ordinance's intent is to reduce litter, plastic debris in waterways and storm drains, and waste transported to landfills. The interview emphasized the importance and encouraged residents to use reusable bags. (Appendix C-4)
 - LB Press-Telegram Article, date 9/14/11, Featuring: Volunteers To Scour 6 Long Beach Sites For Trash. Volunteers fought the forces of debris, helping to clean up city beaches and other recreational water sites, during the 27th annual California Coastal Cleanup Day. (Appendix C-5)
 - City Infomercial, iClip, on the Termino Avenue Storm Drain Project Completion, featuring, Fourth District County Supervisor, Don Knabe, City of Long Beach Mayor, Bob Foster, City of Long Beach Second District Councilmember, Gary DeLong. (Appendix C-6)

- City Infomercial, iClip, on the Wardlow/Delta Avenue Flood Repairs, featuring, City of Long Beach Seventh District Councilmember, James Johnson and City of Long Beach Department of Public Works Director, Michael Conway. (Appendix C-7)
- Social networks, such as Facebook, Twitter, and YouTube, provide essential information to the residents of Long Beach. Consequently, every time there is new and/or updated information regarding Storm Water or Water Quality it is quickly and efficiently communicated through these networks.

PUBLIC AGENCY ACTIVITIES

In addition to increased code enforcement, distribution of public construction guidelines, and maintenance of streets, storm drains, and landscapes, the City has emphasized community outreach efforts designed to reduce littering throughout the city. The City's Environmental Services Bureau has continued to implement a Citywide Litter Abatement and Awareness Campaign. This campaign and the City's other public agency activities are both numerous and extensive. Other notable Public Agency Activities include:

- Conducted 41 community and business corridor cleanups,
- Involved 1,139 volunteers at neighborhood cleanup efforts, collecting 124 tons of litter from clean-up efforts.
- Collected over 26,683 tons of material through the curbside recycling program.
- Responded to 14,873 Special Item Pickup Program requests collecting 1,524 tons and 1,057 E-waste requests collecting 119,332 lbs.
- Collected 9,534 tons of trash and debris from street sweeping.
- Filed 875 Public Works NPDES Inspection reports.

DEVELOPMENT PLANNING AND CONSTRUCTION

In FY 11, there were 3,989 investigations and 12 enforcement actions required. The City's plan review process focuses on the impacts of development on storm water quality as early as possible during a project. The City mandates that storm water quality impacts must be fully addressed by the developer prior to issuance of any permits, which safeguards against the discharge of pollutants into the storm drain system and/or receiving waters. Chapter 18.95 of the Long Beach Municipal Code details the City's NPDES and Standard Urban Storm Water Mitigation Plan (SUSMP) regulations.

ENFORCEMENT OF THE CONSTRUCTION GENERAL PERMIT

Storm Water Management continues with its enforcement of the Construction General Permit by requiring all current construction projects to be updated electronically through the Storm Water Multi-Application & Reporting System (SMARTS). This requires the submittal of the Storm Water Pollution Prevention Plan (SWPPP) with the submission of Notice of Intent (NOI). Upon notification by the SWRCB, the Storm Water Management Team contacts the party identified on the notice and works with them to bring them into compliance.

ILLICIT DISCHARGES AND ILLICIT CONNECTIONS

Within the City limits, there are about 383 miles of active storm water carriers, which include pipes, open channels, ditches, culverts, connector pipes and drains. Of those carriers, 180 miles are City-owned, 142 miles are Los Angeles County-owned, and 40 miles are Caltrans-owned with various other owners making up the remaining 21 miles. The City maintains 5.5 miles of channels and ditches. Los Angeles County has 32 miles of open flood control channels, i.e., Los Angeles River, San Gabriel River, Los Cerritos Channel, etc. Caltrans has 11 miles of channels and ditches. Inspectors and field staff from the Fire, Harbor, Health and Human Services, Development Services, Public Works, and Water Departments receive annual training on how to identify, report, and eliminate illicit discharges and play a vital role in prohibiting illicit discharges and eliminating illicit connections. If an illicit connection is detected, an advanced system of communication and follow-up is in place to ensure the removal of the connection. During this reporting period no illicit connections were found.

PUBLIC INFORMATION AND EMPLOYEE TRAINING

Communicating information about storm water and urban runoff pollution to residents, school children, commercial and industrial establishments, and City employees is a priority for the City. In FY 11, the Storm Water/Environmental Compliance Division made use of the City Media Production Team to produce iClip infomercials, appeared in an interview on local major News Channel, NBC 4, participating in an article in the Los Angeles Times about the City's water quality, various articles in the Long Beach Press-telegram, as well as communicating this information via the City's various social networks. Through these media events and programs such as Heal the Bay's Key to the Sea program, the Junior Health Inspector program, Lunch with the Lizard, and the Traveling Recycling Education Center (TREC), the City made well over the permit required 1.5 million impressions related to storm water pollution prevention issues and

their solutions through the use of various media. New outreach materials and methods are constantly being explored while proven techniques are carried on.

Public information and employee training are fundamental to changing people's behaviors and stopping pollution at its source. The more people are aware that their actions have a specific effect on storm water quality and the environment in general, the more they will be the solution to pollution, rather than its cause.

CHALLENGES

The City of Long Beach continues to face a difficult financial situation due to the economic crisis and increase in operational costs. In FY 11, the Long Beach Storm Water Management Plan was implemented at an estimated cost of \$49,280,415, which equates to an investment equivalent to \$107 per capita.

In this uncertain economic environment, the program continues to face a number of challenges:

- Sanitary Sewer Overflows (SSO) and associated discharges into the Los Angeles River, Colorado Lagoon and Marine Stadium. This year, there were 29 SSOs, fortunately all of the 15,459 gallons of discharge were recovered and returned to the Sanitary Sewer System.
- The economic recession has once again led to major budget cutbacks.
- The addition of 3 Total Maximum Daily Loads locations (Colorado Lagoon/Metals, Los Cerritos Channel/Metals, Los Angeles River/Bacteria) and the unpredictable costs of their implementation.
- Uncertainty of cost associated with requirements with the preparation and requirements for the new NPDES Permit.
- Workload and staffing shortages at local, state, and federal levels.
- Lack of General Fund dollars available for grants with matching fund requirements, Capital Improvement Program (CIP) projects, and special studies aimed at improving water quality.
- Surcharge cost for new Low-flow Diversion Devices installed at the Appain Way Pump Station and the Termino Avenue Drain LFD station.
- Additional maintenance cost for the installation of structural BMPs at catch basins leading to the LA River as a result of the LA Gateway Cities Catch Basin Project.
- Cost replacement of AB-Tech sponges.
- Implementation cost for current and future TMDLs.

- Gateway Cities Council of Government (GCCOG) participation fees.

SECTION 1

1.0 PROGRAM MANAGEMENT

Section one details the City's strategy, regional efforts, and projects related to implementing the Long Beach Storm Water Management Program (LBSWMP). The Department of Public Works Storm Water/Environmental Compliance Division administers this citywide program. The objective of the LBSWMP is to improve the quality of storm water runoff by effectively prohibiting non-storm water discharges, promoting water conservation to reduce water runoff and by reducing the discharge of pollutants to the maximum extent practicable (MEP). While it is the Storm Water/Environmental Compliance Division's responsibility to coordinate the development, implementation, and revision of the LBSWMP, all City Departments are involved in the cooperative effort to implement the LBSWMP.

1.1 IMPLEMENTATION STRATEGY

The Citywide NPDES Task Force (Task Force) guides and supports the implementation of the LBSWMP. The Task Force is made up of representatives from multiple City Departments. Due to a decreased workforce and daily demands, the Storm Water/Environmental Compliance Division has emphasized using electronic communications to disseminate information, receive feedback, provide guidance, and discuss pertinent issues related to NPDES. Using the intranet, internet and other electronic communication devices decreased the response time to the City's hotline, (562) 570-DUMP reports. Task Force members concentrate on integrating the LBSWMP elements into the City's guidelines and standards. The Task Force addresses training, public education, public agency activities, development planning and construction, legal authority, industrial and commercial site visits and procedures to detect and remove illicit connections and improper disposal into the storm drain system. Part of this effort includes a process for identifying the appropriate City Department(s) needed to respond to storm water/environmental pollution issues.

In addition to the strategy explained above, the Storm Water/Environmental Compliance Division continues its reconstruction of its Website for a reopening date tentatively set for early Spring 2012. The website will be used as an educational tool for city employees, residents, businesses and schools, as well as an informational resource for City Departments and a source for anyone needing information regarding the City's new NPDES MS4 Permit, a link to the State Water Board's SMARTS Program, LBSWMP and the Municipal Code as it is related to the City's guidance and enforcement of the Clean Water Act.

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1.2 REGIONAL PARTICIPATION

The Storm Water/Environmental Compliance Division Staff and other City staff are actively involved in a great number of task forces, councils, organizations, and committees that focus on storm water, pollution prevention, education, and watershed activities.

The San Gabriel River Master Plan (SGRMP) - is in an implementation phase now, and the County Board of Supervisors has adopted both the master plan and EIR. Staff from the Department of Parks, Recreation, and Marine and the Storm Water/Environmental Compliance Division attend these meetings to assist the SGRMP stakeholders in meeting the goals and objectives of the SGRMP.

The Los Angeles and San Gabriel Rivers Watershed Council (LASGRWC) - is a nonprofit organization that engages stakeholders in dialogues to promote watershed, environmental, and regulatory issues. The LASGRWC holds regular stakeholder meetings that not only cover organization business, but also include informative workshops. Currently working on the development of the implementation plan for the TMDL for Coyote Creek.

The Dominguez Watershed Advisory Council (DWAC) - created and supports implementation of a comprehensive Watershed Management Master Plan (WMMP) for the Dominguez Watershed. Staff from the Harbor Department and the Storm Water/Environmental Compliance Division attend these meetings to assist the DWAC in meeting its goals and objectives for the WMMP.

The Southern California Association of Governments (SCAG) - promotes economic growth, personal well-being, and livable communities through leadership, vision, and progress. The City of Long Beach continues to be a member of SCAG.

The Storm Water Monitoring Coalition (SMC) of Southern California - a collaborative working relationship of storm water regulators and municipal storm water management agencies, works to develop the technical information and tools needed to improve storm water decision-making. The City of Long Beach, a founding member and the only municipal representative, continues to be an active member.

The Los Angeles River Metals TMDL Committees - The City actively and financially participates as a member of the Los Angeles River Metals TMDL Committees. The Los Angeles Regional Water Quality Control Board developed the Los Angeles River and Tributaries Metals TMDL (LAR Metals TMDL) to address potential impairments resulting

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from the concentrations of Cadmium, Copper, Lead, Selenium and Zinc occasionally exceeding the California Toxics Rule (CTR) standards. The identified beneficial use impairments include wildlife habitat, rare threatened or endangered species, warm freshwater habitat, wetlands, and groundwater recharge.

The NPDES Municipal Stormwater Permit Executive Advisory Committee (EAC) - actively addresses storm water issues among its stakeholders and with representatives from the Los Angeles Regional Water Quality Control Board. Long Beach Storm Water/Environmental Compliance Division staff attends these meetings as well as the TMDL subcommittee meetings.

The Los Angeles River Watershed and County Best Management Practice (BMP) Task Forces - are ongoing forums to facilitate the selection, implementation, and financing of effective BMPs. Long Beach Stormwater/Environmental Compliance Division staff attend and present applicable projects at these meetings to assist the BMP Task Force with achieving its goals and objectives.

The Water Resources Action Plan (WRAP) - The Storm Water/Environmental Compliance Officer continued to work with staff at the Ports of Long Beach and Los Angeles to complete the Water Resources Action Plan (WRAP). The plan was developed to address water quality concerns in harbor waters, in order to assist with TMDLS and NPDES permit development, The final report was published in October 2011 and can be found in Appendix L-1.

The Cleaner Rivers Through Effective Stakeholder-led TMDL - is a stakeholder effort initiated by the City of Los Angeles for the purpose of developing TMDLs to restore and protect water quality in the Los Angeles River and Ballona Creek. The Department of Public Works continues to represent the City of Long Beach in these discussions.

The East San Pedro Bay Ecosystem Restoration Study - is a partnership between the United States Army Corps of Engineers (USACE) and the City of Long Beach. This study officially entered into the feasibility phase in FY 11 following the signing of a Federal Cost Share Agreement (FCSA) on November 30, 2011. Mayor Bob Foster and Colonel Mark Toy met on behalf of the City of Long Beach, and USACE, respectively, to agree to fund the feasibility study equally and concurrently.

A feasibility study of the East San Pedro Bay for the purposes of ecosystem restoration, as was the one that has been agreed to, will evaluate options for meeting three study objectives: (1) Restore the ecosystem in the East San Pedro Bay, (2) Improve

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recreational water quality; and (3) Increase recreational opportunities in the East San Pedro Bay.

Since the signing of the FCSA, the City has identified 100 percent of the local-sponsor funding obligation (\$4,068,700) for this study. Via the feasibility study process, Long Beach, USACE and a team of environmental scientists will survey and map the East San Pedro Bay ecosystem, include hydrology and hydraulics studies, socioeconomic studies, environmental studies, cultural resource studies and a series of community outreach events to meet the objectives stated above. The study includes the traditional East San Pedro Bay boundaries, south of the Long Beach breakwater, west of the Alamitos Bay Channel, and includes the mouth of the Los Angeles River. With the completion of this study, USACE and the City of Long Beach will know whether or not a feasible construction plan can be developed to meet the stated objectives. If the study sheds light on a feasible opportunity, the data gathered during the feasibility study process will provide a solid platform from which to design the construction plan.

Despite the City's ability to begin the East San Pedro Bay Ecosystem Restoration feasibility study, USACE has not identified federal funding to fulfill their portion of this financial obligation. Currently, Long Beach remains engaged with USACE and other federal agencies in an effort to obtain the funding. A feasibility study cannot begin unless both parties have the necessary funding. Long Beach remains committed to this study as a means to obtaining more knowledge about water quality and the East San Pedro Bay Ecosystem Restoration study.

ON GOING AND COMPLETED PROJECTS/ACTIVITIES

Los Angeles Gateway Project - The City of Long Beach is a member of the Los Angeles Gateway Region, Integrated Regional Water Management Joint Powers Authority, which submitted a grant proposal that was approved for the installation of treatment train best management practices in catch basins throughout 16 cities along the Los Angeles River. This project is further detailed in the following section.

Council of Governments Participation - In FY 11, the City of Long Beach continues with its participation with the Gateway Cities Council of Governments (GCCOG) in the development of coordinated implementation plans to address metals TMDLs. During FY 11, a new Memorandum of Agreement for the administration and cost sharing to undertake scientific studies to develop Site Specific Objectives (SSO) applicable to the Los Angeles River and tributaries metals TMDL between the GCCOG and the City of Long Beach was approved by the City Council on January 18, 2011. The goal of the MOA is to undertake scientific studies to develop site-specific objectives (SSO) applicable in Reach 2 of the Los Angeles River and Tributaries Metals Total Maximum

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Daily Load. The Storm Water/Environmental Compliance Officer represents the City in all the committees mentioned above.

1.3 CURRENT PROJECTS

In FY 11, the Long Beach Storm Water/Environmental Compliance Division managed and monitored several capital improvement projects aimed at reducing pollution throughout the City. The following projects were made possible through various grant awards and special revenue sources.

1.3.1 CONSTRUCTION OF THE WARDLOW/DELTA CULVERT

Repairs were completed to the culvert, or rain channel, at the intersection of Delta Avenue and Wardlow Road. One hundred (100) feet one (1) foot by four (4) foot culvert beneath the road lacked reinforcement and were replaced. The intersection had seen as much as six (6) inches of water accumulate during past rainstorms before the repairs were completed. This project was completed in June 2011 and is currently servicing the West Long Beach area.



1.3.2 RESTORATION OF THE TERMINO AVENUE GREENBELT PROJECT



The project primarily consisted of native plant salvaging, clearing, fine grading, tree protection, California native landscape planting, and automatic irrigation system restoration while the main Termino Avenue storm drained was replaced under the Green Belt.

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1.3.3 LOS ANGELES GATEWAY PROJECT



year from entering the Los Angeles River.

An innovative regional environmental project to prevent hundreds of tons of trash from reaching the Long Beach coastline has been completed. The collaborative project, funded by \$10 million in Federal Stimulus funds, involved the City of Long Beach and 15 upriver cities working together as the Los Angeles Gateway Authority. The LA Gateway Region's first State Water Board-certified storm drain retrofit effort will prevent approximately 840,000 pounds of trash each

Approximately 12,000 publicly-held storm drains lead to the L.A. River from the 16 Gateway Cities. Last year, the 16 cities came together and agreed to retrofit all of these storm drains with full-capture trash devices, called Connector Pipe Screens (CPS), inside the catch basin. In addition, more than 5,400 of these storm drains in higher-density trash locations have received additional protection with the installation of Automatic Retractable Screens (ARS), at the curbside entrance to the catch basin. Both screens block trash and debris, while allowing storm water to continue flowing to the L.A. River and eventually the Long Beach coastline.

Construction began August 2010 and was completed the week of November 1, 2011. Cities that received trash screens are (roughly north to south): Montebello, Pico Rivera, Vernon, Maywood, Commerce, Huntington Park, Bell, Cudahy, Bell Gardens, South Gate, Downey, Lynwood, Paramount, Compton, Signal Hill, and Long Beach.

A total of \$10 million in American Recovery and Reinvestment Act funds was designated by the California State Water Resources Control Board, through the Clean Water State Revolving Fund, to finance the LA Gateway Authority project.

1.3.4 COLORADO LAGOON REMEDIATION AND RESTORATION

On March 1, 2010 the City of Long Beach started construction on Phase One of the Colorado Lagoon Rehabilitation Project. Work completed as of this report includes installation of an urban runoff diversion system, trash separators for three existing storm drain outfalls, cleaning of the culvert that connects Marine Stadium to the lagoon, and

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native plant revegetation. Installation of a bioswale at the lagoon's western arm was completed in 2009. This work has improve water quality and will help prevent the lagoon's recontamination.

The next major part of the restoration plan is to dredge the lagoon to remove contaminated sediment, recontour the side slopes to enhance intertidal habitat and revegetate impact land areas with natives. The estimated completion goal for this work is late Spring 2012. This work will further improve water quality by removing contaminated sediment from the lagoon.



On November 16, 2010 the State Water Resources Control Board (SWRCB) approved the proposed Basin Plan Amendment to incorporate a Total Maximum Daily Load (TMDL) for organochlorine (OC) pesticides, polychlorinated biphenyls (PCBs), sediment toxicity, polycyclic aromatic hydrocarbons (PAHs) and metals for the lagoon. The TMDL was approved and adopted by the Environmental Protection Agency (EPA) and became effective on September 20, 2011.

1.3.5 TERMINO AVENUE DRAIN PROJECT

The City of Long Beach and Los Angeles County Flood Control District broke ground on a \$22.6 million storm drain project on September 30, 2009. This landmark project is one of the Flood Control District's largest storm drain projects totaling 12,190 linear feet. The project was completed September 2011 before its 2-year timeline completion date of December 2011. (Appendix D-1)



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**1.3.6 LOS CERRITOS CHANNEL TMDL IMPLEMENTATION
PLAN**

The City of Long Beach has been cooperating with six other cities and Caltrans for the past year to provide an implementation plan for the USEPA approved Los Cerritos Channel Total Maximum Daily Loads (TMDLs) for Metals. The City has co-chaired a Technical Committee that was established to work with both EPA and the LARWQCB. The City also provided technical monitoring support through its monitoring consultant, Kinnetic Laboratories, Inc. (KLI). This support included preparation of a technical memorandum on the application of metals translators to the Los Cerritos Channel for wet-weather and a second technical memorandum on dry-weather translators requested by EPA.

The seven cities and Caltrans have approved a Memorandum of Understanding with the Los Angeles Gateway Integrated Regional Water Management Joint Powers Authority and is currently preparing an Implementation Plan and a Monitoring Plan to facilitate achieving the objectives of the Metals TMDLs. The parties propose to prepare these plans and submit them to the LARWQCB for use in a Basin Plan amendment and/or reissuance of MS4 permits.

1.3.7 APPIAN WAY LOW-FLOW DIVERSION



Work consists of the construction of a new low flow diversion system for storm water run-off at Appian Way Pump Station. Work involves the installation of a new mechanical pump, new pipelines, electrical equipment and controls, new utility and sewer vaults and manholes, and associated appurtenances. The diversion system will divert dry weather “nuisance” run-off from entering the adjacent Marine Stadium Bay and discharge it to the sanitary sewer nearby.

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1.3.8 DIVISION STREET SLIP LINING

Work consists of the installation of a Cured-in-Place Thermosetting Resin Pipe Liner to prevent groundwater intrusion into the storm drain lines.

1.4 WATER QUALITY REPORTING

The City of Long Beach developed it's own End of Summer Beach Report to examine the City's progress of it's work on improving water quality at it's beaches, Colorado Lagoon and the Alamitos Bay (Appendix N-1). 14 Locations were examined through out the summer dry weather months and resulted in 100% improvement at all locations. These results were also verified in the Heal the Bay Report (HTB) showing that 13 A's and 1 B were given to Long Beach (Appendix M-1). As written in the HTB Report, "This Summer marks the dramatic Improvement in Long Beach's beach grade, with 100% of the beaches receiving A and B grades. This is an impressive 27% improvement over last year. The City will continue to produce an the end of Summer Report as well as preparing it first End of Winter report to report on Wet weather progress at the same 14 locations.

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**2.0 MANAGEMENT PROGRAM FOR PUBLIC AGENCY
ACTIVITIES**

The City of Long Beach puts into practice public agency activities that reduce the discharge of pollutants into the storm sewers and local receiving waters to the maximum extent practicable. In order to effectively improve the quality of storm water, the City has the following in place:

- Storm Drain System Operations and Maintenance
- Trash and Greenwaste Control
- Code Enforcement
- Street Maintenance
- Street Sweeping Brush Adjustment
- Refuse Collection Adjustments
- Public Construction Activities
- Landscape Maintenance
- Training
- Water Conservation
- Low-Flow Diversion Devices

**2.1 STORM DRAIN SYSTEM OPERATIONS AND
MAINTENANCE**

Within the City limits, there are about 383 miles of active storm water carriers, which include pipes, open channels, ditches, culverts, connector pipes, and drains. Of those carriers, 180 miles are City-owned, 142 miles are owned by Los Angeles County, and 40 miles are Caltrans-owned, with various other owners making up the remaining 21 miles. The City maintains 5.5 miles of channels and ditches, Los Angeles County has 32 miles of open flood control channels, and Caltrans has 11 miles of channels and ditches.

In addition, the City owns 23 pump stations and approximately 3,800 catch basins, all of which are cleaned repeatedly throughout the year. The related maintenance costs for FY 11 were an estimate \$700,000.

Waste characterization shows that the predominant types of debris include trash (a combination of plastics, polystyrene-foam, glass, and paper) and green waste. The most likely source of the trash is littering, whereas the most likely source of the green

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waste is a combination of non-anthropogenic sources and individuals who sweep, hose, or blow material into the storm drain.

Selected areas in the MS4 have been designated as high priority based on the amount of trash and debris normally collected. A Rain-Emergency Checklist identifies catch basins, grates, ARS devices, culverts/ditches, storm water pipes and cross drains that are checked immediately prior to a forecasted rain event. These areas are cleaned of any trash and debris prior to a storm event to ensure that these pollutants are not washed into the receiving waters. To ensure that no clogged systems contribute to flooding, a separate list is maintained of areas to be checked while it is raining. In addition, City staff is prepared to respond to reports of flooding and other concerns during rain events.

A new education program will be developed in FY 11 to educate residence on yard clean up in regards to Automated Retractable Screen (ARS) devices. These programs will include:

- Neighborhood demonstration
- Incentive rewards recognition
- Instruction information on the new storm water website being developed for Spring 2012.
- Distribution of flyers and brochures
- And infomercial on local City television

The Water Department operates and maintains the City's sanitary sewer system, as detailed in the Public Agency Activities section of the LBSWMP. Procedures are implemented to keep sewage from entering the storm drain system. Methods may include education, inspection, covering or blocking storm drain inlets and catch basins, or containing and diverting the sewage away from open channels and other storm drain facilities. One way the City is trying to prevent sewer overflows is through a joint outreach effort by the Storm Water/Environmental Compliance Division and the Water Department to educate restaurant owners and residents about the negative effects of pouring fats, oils, and grease (FOG) down kitchen sinks. In FY 11, there were 29 SSOs, fortunately all of the 15,459 gallons of discharge were recovered and returned to the Sanitary Sewer System.

Additionally, Public Works and the Health Department maintain a Vector Control & Trauma Scene Waste Cleanup Memorandum of Understanding (MOU). In FY11, MOU related expenses amounted to \$77,787.

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2.2 TRASH AND GREENWASTE CONTROL

Trash and green waste are controlled through various operations across several departments. These include:

- Litter Receptacles
- Neighborhood Cleanup Assistance
- Household Recycling
- Greenwaste Disposal
- Special Collection
- Used Oil Recycling
- Household Hazardous Waste Collection
- Trash Collection on the Beach and Along Water Bodies
- Automatic Retractable Screen (ARS) and Connector Pipe Screen (CPS) BPMs install through the Gateway Authority Catch Basin Project
- Trash net and VSS installations at selected stormwater pump stations
- Educational flyers and brochures distributed to the Public through payment billings mailed

The Environmental Services Bureau (ESB) provides various refuse, recycling, litter abatement and street sweeping programs. In fiscal year 2011 (FY 11), ESB added several programs to its existing ones, including the following:

- ESB implemented a plastic bag ban, which prohibits the use of plastic bags at grocery stores throughout the City. The first phase of the ban went in effect on August 1, 2011 for large grocery stores, with a second phase for small grocery stores beginning January 1, 2012. Residents are encouraged to bring reusable tote bags, or can purchase paper bags for \$0.10 each. (Appendix E-1)
- A pilot program for manure composting was created. An estimated 10 tons per month is diverted from the waste stream in this program. (Appendix E-2)
- Plans for a Household Hazardous Waste facility are currently underway. The facility would allow all residents of LA County to bring in household hazardous waste items for proper recycling or disposal. Items that will be accepted at this facility include (but are not limited to): batteries, chemicals, pharmaceuticals, and fluorescent light bulbs.

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Litter Abatement Campaign

ESB established a Litter Abatement and Awareness Campaign program (Litter-Free Long Beach) during FY 05. Below is a description of Campaign programs conducted during FY 11:

- Conducted 41 community and business corridor clean-ups.
- Involved 1,139 volunteer participants at neighborhood and business clean-up events.
- Collected over 124 tons of litter from clean-up efforts.
- Gave away 1080 car litterbags (containing litter and recycling promotional items) at neighborhood clean-up events, to various outreach programs, and to City Council Offices. (Appendix E-3)
- Promoted the “No Litter Zone” program through door-to-door efforts with 331 businesses participating in the program receiving a free 20-gallon trash can, liners, broom and dust pan for use to help keep their store fronts clean.
- Presented the “Lunch with a Lizard” school assembly program to 24 public elementary schools (Kindergarten – 3rd grades), teaching approximately 11,268 students the importance of not littering.
- Collected nearly 1250 tons of litter from alleys throughout the city through the “Alley Clean-Up” program, which involved 3,008 community service workers.
- Provided 1,484 litter and recycling containers at Special Events throughout the City.
- Maintained sponsorship of 17 street locations through the “Adopt-a-Street” program.
- Placed a full page Earth Day ad in the Downtown and Grunion Gazettes featuring the litter message of the winning poster of the “Litter Stinks” school poster contest.
- Placed nine print ads in the *Press Telegram*, *Downtown and Grunion Gazettes*, and *School News* to promote the Litter Campaign.
- Utilized 338 Litter-Free boulevard banners in three languages (English, Spanish and Khmer) that were posted along 169 street locations to reinforce the Campaign’s message and reflect different aspects of Long Beach’s natural environment.
- Continued a program for residents to contact and report businesses that leave unwanted handbills on residential property and create litter in Long Beach neighborhoods. (Appendix E-4)
- Issued approximately 2350 citations through the Long Beach Police Department.

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- Produced and distributed a “No Junk Mail” brochure to enable residents to remove themselves from ‘junk mail’ advertising lists and pre-screened offer directories. (Appendix E-5)
- Printed customized posters and distributed flyers promoting neighborhood clean-up events (English, Spanish, Khmer). (Appendix E-6)
- Provided a series of informational brochures and flyers on litter abatement, recycling, hazardous waste and composting. (Appendices E-7, E-8, E-9, E10, and E-11)
- Produced promotional car decals, baseball caps, coasters, pencils, water bottles, canvas bags and rulers. (Appendix E-12)

Appendix E-13 contains a copy of the 2010-2011 LB EcoGuide, which was mailed out to Long Beach residents.

2.2.1 LITTER RECEPTACLES

Keeping refuse from entering the storm drain system takes an enormous effort. Placing trash receptacles in convenient locations and servicing them on a regular basis is a consuming task. To ensure that people have an alternative to littering, the City has placed 102 litter receptacles along residential streets and 923 litter receptacles along commercial streets, all of which are emptied weekly. A total of 48 tons of trash and debris were collected from litter receptacles on residential streets, and 433 tons were collected from commercial street receptacles.

The Department of Parks, Recreation, and Marine maintains’ another 200 beach receptacles during the summer and 27 during the winter months. They are emptied 5 times and 3 times per week, respectively. The Department also maintains 80 marina trash receptacles that are emptied 6 times per week. In addition, the Queensway Bay area has 214 litter receptacles that are emptied seven day a week. In City parks, there are 655 (55 gallon) receptacles that are emptied daily. Lastly, special events are provided with additional litter containers on an as-needed basis and are collected on the day of the event.

2.2.2 NEIGHBORHOOD CLEANUP ASSISTANCE

The City’s Department of Development Services assists resident volunteers by conducting Neighborhood Cleanup events. In FY 11, 936 tons of trash was removed during cleanup events at a cost of \$35,149. The Department provides free trash dumpsters, trash bags, and gloves and lends tools for use during the cleanup events. Neighborhood groups are also given free use of community computers and

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photocopiers to produce flyers for the event. For further information, please visit the web site at: www.longbeach.gov/cd/neighborhood_services/clean_up_programs.asp.

2.2.3 HOUSEHOLD RECYCLING

The City’s Environmental Services Bureau continues to improve the household recycling program. All manual collection of open bins has been converted to automate collection of covered carts. Residents are provided with 32-gallon, 64-gallon, or 96-gallon carts for commingled collection of recyclables in the categories of newspaper, cardboard, mixed paper, plastic, cans (aluminum, steel, and tin), glass, and empty paint and aerosol cans. In FY 11, 26,683 tons of material was collected through the curbside recycling program. Table 2-1 shows recyclables collected in FY 11. The multifamily recycling ordinance requires the City’s private waste haulers to provide the option of recycling to multifamily units with ten or more units.

Table 2-1: CURBSIDE RECYCLING

WM Recycling Collection	26,683	Tons of recyclables collected from Curbside Recycling Program.
	19,861	Tons of newspaper collected.
	3,597	Tons of corrugated cardboard collected.
	5,936	Tons of commingled containers collected.
	5,099	Gallons of used motor oil.
	1,086	Number of oil filters.
	328	Tons of mixed paper collected.

2.2.4 GREENWASTE DISPOSAL

The City continues to require residents to tie tree limbs, shrubs, and trimmings into bundles and securely wrap materials for proper disposal. The Special Collection Program provides pickup for these materials. In FY 11, there were 1,043 requests for pickup of yard waste. The Environmental Services Bureau also offers tree cycling of holiday trees. Residents may take trees to any of the several drop-off locations or put the tree out for free pickup on the specified date. As an added incentive to residents, the City offers seminars on composting and distributes literature that explains methods of green waste composting. (Appendix E-2)

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The Departments of Parks, Recreation, and Marine and Public Works recycle grass and tree limbs from City grounds. In FY 11, the Public Works Street Maintenance Division recycled 6,574 tons of grass and tree limbs. City departments minimize the amount of green waste collected from City facilities by reuse. Grass clippings are evenly distributed over the areas that are being mowed (grass cycling). Green waste from trimming, pruning, and clearing is chipped or shredded and kept on site as mulch.

Green waste generated from our grounds and landscape maintenance operations in our parks is the responsibility of the contractors, and is disposed of at a legally permitted off-site location, most green waste from the trimmers and landscape contractor is chipped and kept on site. The City receives diversion credits for green waste. Contractors maintain logs identifying its disposal activities, which are available to the City for inspection upon request. It should be noted that all grass clippings in our parks are not collected, all mowers used by contractors use recycling or mulching decks. Green waste from our tree trimming operation is taken (by City vehicle) to a local transfer station for recycling. BMP's, such as surrounding the base of bulk materials with sand bags and covering with plastic tarps, are utilized to assure that exposed materials will not migrate from their temporary storage locations. The departments accounting office maintains the disposal records.

Green waste generated from our grounds and landscape maintenance operations in the Queensway Bay Area is the City's responsibility, and is collected by the contractor and deposited in a container at the Golden Yard. A green waste contractor then removes the waste for recycling, leaving an empty container. City staff headquartered at the Golden Yard maintains disposal records.

2.2.5 SPECIAL COLLECTION

Two well-publicized special item collection programs, the Oversized Items Pickup and Dumped Items Pickup, are designed to reduce bulky items from alleys and vacant lots throughout the City. The Environmental Services Bureau (ESB) distributes a trilingual (English, Spanish, and Khmer) promotional flyer to inform residents about the Oversized Items Pickup program (Appendix E-7). City-serviced refuse accounts receive two free bulky item collections per year, and additional collections are available at a cost of \$5.66 per item. Table 2-2 shows the number of collection requests for special item pickups.

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Table 2-2: SPECIAL ITEM PICKUPS

Special Collections	14,873 request, 1,524 tons	# of requests and tons from Special Item Pick-up Program.
	8,586 request, N/A tons	# of requests and tons of furniture.
	331 request, 53 tons	# of requests and tons of tires.
	1,043 request, N/A tons	# of requests and tons of yard waste/tree clippings.
	167 containers	# of collected City provided trash bins (old).
	216 request	# of requests of Out Lates (missed collections).
	1,057 request, 119,332 lbs	# of requests and pounds of E-waste.
	84 request, N/A tons	# of requests and tons of appliances.
	4,208 request, N/A tons	# of requests and tons of other.

2.2.6 USED OIL RECYCLING

The City operates a curbside residential recycling program that includes collection of used motor oil and oil filters. Residents are provided with free used motor oil recycling containers at their request. Waste Management, Inc., the City’s recycling contractor, collects the containers and leaves empty replacement containers. ESB staff attended numerous community events throughout the year to promote the Used Motor Oil Recycling program and distribute motor oil containers and funnels. ESB also gave away litterbags and shop towels that have information about recycling motor oil. In FY 11, 5,099 gallons of used motor oil was collected along with approximate 1,086 used oil filters through the curbside-recycling program and at the Los Angeles County Household Hazardous Waste Roundup.

In addition, drop-off locations throughout the City, such as gas stations and auto parts stores, are posted on the Environmental Services Bureau Web site and listed in ancillary promotional materials. These certified drop-off centers are managed and maintained by the business owners and supplement the City’s efforts.

2.2.7 HOUSEHOLD HAZARDOUS WASTE COLLECTION

ESB staff, in partnership with the Los Angeles County Department of Public Works and the Sanitation District of the County of Los Angeles, held a very successful Household Hazardous Waste (HHW) Roundup that collected several types of hazardous materials including 39,090 pounds of e-waste and 8,180 pounds of batteries.

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Table 2-3: HOUSEHOLD HAZARDOUS WASTE COLLECTION

County Collection Event	HHW	Date of event
	03/26/11	Date of event
	1,000	Gallons of used motor oil.
	3,750	pounds of car batteries.
	600	pounds of oil filters.
	10,319	Gallons of paint.
	470	Gallons of antifreeze.
	8,180	Pounds of batteries.
	39,090	Pounds of E-waste.
	32,102	Number of computers (CRT units).
	5,530	Gallons of misc. waste (pesticides, pool chemicals, etc.)

2.2.8 TRASH COLLECTION ON THE BEACH AND ALONG WATER BODIES

The Department of Parks, Recreation, and Marine are responsible for the maintenance of recreational water bodies. The Beach Maintenance and Queensway Bay divisions service approximately 434 litter and trash receptacles on our beaches, marinas and the park areas of the Greater Queensway Bay. The beach receptacles (approx. 145) are emptied 4 times weekly during the summer and twice weekly in winter. Marina trash receptacles (approx. 75) are emptied 6 days per week. Queensway Bay litter receptacles (approx. 214) are emptied seven days a week and a Landscape contractor performs this task. Rainbow Harbor Grounds and Esplanade areas are emptied 1095 times a year. Rainbow Lagoon and South Shore Launch Ramp are emptied 730 times a year. Shoreline Marina and Golden Shore areas are emptied 365 days a year. Our ocean front beaches are raked 5-6 days per week depending on conditions. Floating debris is removed from the waters of Rainbow Harbor on a daily basis. Special events are provided with additional litter containers on an as needed basis and are collected on the day of the event. Records are kept at Beach Maintenance, Queensway Bay offices and the department administration office.

The Department is also responsible for the maintenance of recreation water bodies at Heartwell, Scherer, and El Dorado Parks, the Colorado Lagoon and Rainbow Lagoon. Maintenance functions at Heartwell and Scherer Parks are performed by contract maintenance. Maintenance functions at El Dorado Park and Rainbow Lagoon are performed by both contract maintenance and by City staff. Maintenance functions at Colorado lagoon are performed by City Staff. At all locations, the contractor is required

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to remove trash, including floating and submerged debris from the lakes on a daily basis. All cleaning is required to be completed in accordance with the requirements of the CA Department of Fish and Game and the Regional Water Quality Control Board. The landscape contractors responsible for trash removal are not required per their contract to keep records of the amount of trash that is removed from the lakes or from the parks. However, City staff is required to inspect and document the daily removal of all trash and debris from the lakes. In addition to trash removal, the contractors and City staff are required to make periodic treatments for control of algae and aquatic growth, except for Rainbow Lagoon and Colorado Lagoon, which are ocean/tidal water. Staff monitors the lake activity and authorizes the use of treatment on an as-needed basis as necessary. Treatments are applied in accordance with manufacturer's instructions and best maintenance practices.

In addition to the park lakes and Rainbow Lagoon, the City actively maintains Rainbow Harbor (Queensway Bay), the Downtown Marina, and the beaches. A combination of contracted and City staff remove debris by dip net and clean filters in the Greater Queensway Bay area which includes; Rainbow Lagoon, Shoreline Marina, Rainbow Harbor and Marina and South Shore Launch Ramp.

The Long Beach Water Department also participates in beach cleanups to promote environmental stewardship and education. The Department organizes quarterly events at Bluff Park (Ocean Blvd) that are geared towards high school and college students, Scout members, and the general public. The Department provides free giveaways, trash bags, gloves, bottled water, volunteer service verification forms, and official recognition from the Long Beach Board of Water Commissioners. This year, approximately 1,254 volunteers participated in the Water Department's cleanups. The largest event took place in September, with roughly 4,400 pounds of trash and debris collected. The department was pleased to see that the message of "Bring Your Own" was a success. Approximately 25-30% of the volunteers came with bags and buckets of their own. The department's goal is that people take what they have learned at Coastal Cleanup Day and make positive changes throughout the year.

2.3 CODE ENFORCEMENT

The City conducts several code enforcement activities that assist with controlling the discharge of pollutants into the storm drains and reduce the discharge of pollutants into Long Beach receiving waters to the maximum extent practicable. These include:

- Property Maintenance
- Oil Code Enforcement

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2.3.1 PROPERTY MAINTENANCE

Property maintenance activities deal with eliminating unsightly conditions and governing the maintenance of buildings and surrounding property. Complaints of trash and debris in yards, overgrown vegetation, inoperative or abandoned vehicles, etc., are investigated and Municipal Code violation notices or citations are issued where warranted. Failure to comply may result in referral to the City Prosecutor or in a cleanup by City staff at the owner's expense. In FY 11, the Department of Development Services opened 10,976 and closed 11,081 cases.

2.3.2 OIL CODE ENFORCEMENT

In the 1970s, four islands were constructed in the Long Beach Harbor for the purpose of accessing oil under the harbor. Strict procedures are in place for preventing and dealing with oil spills. Monthly field inspections cover housekeeping practices, potential safety hazards, security, and a number of other issues. Employees are trained annually, and the department stays abreast of new technologies and industry progress by attending various committees and focus groups, including some specifically related to storm water.

The Code Enforcement Division of the Long Beach Development Services Department is responsible for enforcing City regulations governing the drilling of new wells and the maintenance of existing production sites. Annual permits are issued, and investigations are conducted to ensure compliance. In FY 11, there were 3,989 investigations related to oil operations, resulting in 12 enforcement actions.

2.4 STREET MAINTENANCE

The City's street sweeping service is one of the largest and most effective programs supporting storm water pollution prevention. The majority of streets and street medians in Long Beach are swept on a weekly basis, which greatly exceeds the permit requirement of twice per month. To increase the effectiveness of street sweeping, signs are posted and citations are issued so that vehicle owners leave streets vacant on street sweeping days. In addition, street sweeping and refuse collection routes have been better coordinated to provide more efficient service, such as having street sweeping occur after refuse collection on a given street. During FY 11, the Street Sweeping Division swept 151,743 miles and picked up 10,938 tons of material.

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Though not typically allowed to be reported as a NPDES compliance measure and expense, during this reporting period thousands of tons of waste from City managed routes and beaches were collected at a cost of \$49,280,415. In addition, the Health and Harbor Departments spent \$68,967 and \$1,120,063, respectively, on trash collection in their facilities.

A number of parking lots and structures are also routinely swept and degreased to prevent trash and hazardous materials from entering the storm drain system. The Department of Parks, Recreation, and Marine sweeps 36 lots five times each week at an estimated annual cost of \$162,155 in. The Department of Public Works, Parking Operations Division, maintains another 7 parking structures consisting of 5,051 parking stalls and 4 parking lots consisting of 351 parking spaces. The majority are swept either once or twice each week and degreased annually at a cost of \$159,210. In addition, the Department of Library Services contracts with a custodial company for parking lot cleaning services. Currently, the department has 10 branches/locations, which are swept 4 times a week and 1 location, which is swept 6 six times a week. Litter control at all library locations is accomplished with sweeping and picking up liter by manual labor with an estimate annual cost in FY 11 of \$5,589.

2.4.1 STREET SWEEPING BRUSH ADJUSTMENTS

The Storm Water/Environmental Compliance Division will be working with the Street Sweeping Division to find a solution for its Street Sweeping Vehicle brushes to reach depressed pavement landings in front of catch basin to avoid the build up of trash debris piling up from the lack of contact of the brushes during sweeping. Newly installed Automating Retractable Screens (ARS) prevent the debris from entering the catch basins during street sweeping operations.

2.4.2 REFUSE COLLECTIONS ADJUSTMENTS

Coordination continues with the Refuse Division and the Street Operation Division to develop plans and work methods to assist in the collection of debris from the ARS devices in catch basins. This could result in the raking of debris from the face of the ARS screens when they come across catch basins outfitted with the devices during their pick up runs (once a week). Educational flyers will also be used to instruct the public about the function of the ARS devices and how a resident can help out their community by raking the face of the ARS screen at a catch basin near their property.

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2.5 PUBLIC CONSTRUCTION ACTIVITIES

All departments involved in construction-type activities implement good housekeeping practices. They ensure that properly managed wastes are disposed of during street, road, and other maintenance activities. Employees who conduct maintenance activities are given appropriate BMP training about the potential pollutants that may be released as a result of street repair.

Public construction activities focus on City projects whose construction contracts are administered by one of many City departments. City design staff and consultants have the responsibility to prepare plans and specifications that include appropriate BMPs. The BMPs selected are based on rational criteria including magnitude and type of potential pollutant.

The Department of Public Works Construction Management Division insures that the Best Management Practices specified in the project specifications are implemented as defined in the City's permit. During October 1 through April 1 of each year, the project inspectors conduct site inspections and complete the City inspector construction site checklist on a weekly basis. Between the months of April 1st through September 30th, construction inspectors monitor the City for any violations while driving from project to project. When a project is not in compliance with the contract documents or Public Works permit, the Public Works inspectors have the authority to enforce the contract or permit by issuing verbal warnings, written notices, withholding progress payments, or suspending the work. In FY 11, Public Works inspectors filed 875 NPDES Inspection Reports.

During the reporting period, the public right-of-way projects were inspected pre/during/post construction were:

- 2010 Fiscal Year Annual Citywide Sidewalk Improvements.
- 2010 Fiscal Year Annual Citywide Street Improvements.
- Improvements to Walnut Avenue Between 10th Street and Anaheim Street,
- Improvements to Daisy Avenue Between Pacific Coast Highway and Anaheim Street.
- Construction of Atherton Storm Drain Phase I.

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- Improvements to Atlantic Avenue Between Bixby Road and San Antoino and 52nd Street and South Street.
- Improvements to Los Coyotes Diagonal between Outer Traffic Circle and Studebaker Road.
- Improvements to Wardlow road between Bellflower and Palo Verde Avenue.
- Installation of Airfield Signs.
- Traffic signal upgrades various locations.
- Construction of Poly gateway mini park.
- Wrigley Improvements Phase II.
- Bikeway construction on Broadway and 3rd Streets.
- Belmont Shore alley improvements.
- Construction of Rosa Parks Park.
- Construction of Vista Bike Way.
- Improvements to Rancho Los Cerritos.
- Improvements to Pacific Avenue between Ocean blvd and 7th Street.
- Improvements to Long Beach Blvd between Ocean Blvd to 10th Street.
- Improvements to Orizaba Park.
- Improvement to Air carrier ramp phase 1B.
- Improvements to Long Beach Blvd between del Alamo to 52nd Street.
- Improvement to North Air carrier ramp.
- Belmont Shore parking lot improvements.

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- Promenade South.
- Pacific and Pacific Coast Highway bus pad.
- 7th Street and Santaigo wheel chair improvements.
- Improvements to Mothers beach.
- 72nd Street restroom.
- Improvements to Lakewood and Spring Street tunnels.
- Park A.
- Soil Anchors Phase VII
- Bluff Erosion at 5th at Place.
- Bluff Erosion at 7th at Place.
- Fire station 21 improvements.
- Appian way street improvements.
- Improvements to 2nd and PCH.
- Studebaker Road Corridor Communications.
- Taxiway Gulf.
- Shoreline advance traffic mitigation.
- Appian way bridge painting.
- Pedestrian Paseo.
- Westside pump station phase II

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- West Side Storm Drain line Phase I.

2.6 LANDSCAPE MAINTENANCE

City Staff and Contractors continue to use chemical and non-chemical management practices to control invasive non-native plants when maintaining the facility grounds. We use California native plant species for new plantings to help conserve water. This informs and demonstrates to the general public about the use of drought tolerant native plants, as well as non-chemical solutions for weed and pest control for their home gardens.

The use of mulch continues to be practiced at the nature center to help abate the use of herbicide on the grounds. Staff and contractors continue to remove non-native and invasive plants, and any replacements are all California native species.

This year, staff and contractors, continue to use best management practices which include integrated pest management using the least toxic chemicals to get the best result possible. Staff writes reports to the county on pesticide use and all of our applicators are certified through the Department of Pesticide Regulation.

2.6.1 Pesticide, Herbicide, and Fertilizer Usage

Both City staff and contractor staff are responsible for the management of pesticides, herbicides, and fertilizers. The Department has one Certified Pest Control Advisors (PCA) and two (2) Qualified Applicators Certificates on-staff to ensure the appropriate procedures and policies for pesticide, herbicide and fertilizer management. Additionally, the department possesses a Restricted Material Permit for those herbicides and pesticides that are on the State Agricultural Commissioner's restricted list, and routinely passes annual state inspections. The PCA purchases, stores, and distributes pesticides and herbicides to staff that are either Pest Control Applicators, or staff that has received annual training in the proper use and handling of pesticides and fertilizers. The PCA follows required state law that incorporates best management practices for the application of chemicals. This practice is called IPM (Integrated Pest Management). In addition, the PCA insures that the manufacturer's instructions are followed for storage and application. The PCA is required to keep accurate records of the quantities and use of specific chemicals are required by the state and the County of Los Angeles and sends a monthly report to the Agricultural Commission of Los Angeles that documents chemical usage. Staff is trained annually in the laws governing the use of pesticides and herbicides, in the BMP's (such as restricted uses around lakes and waterways or

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prohibition of spraying when rain is forecast) related to the storage and use of such substances.

All of our grounds and landscape maintenance contractors must also possess a Pest Control Advisors License, and have certified Pest Control Applicators on staff. Additionally, they must possess a Los Angeles County Agricultural Permit. Our contractors must adhere to the same requirements identified above for City staff.

Furthermore, both areas employ Integrated Pest Management (IPM) practices to minimize the necessity for pesticide applications. Alternative measures include: cultural practices and biologically applications.

2.6.2 Native Vegetation Practices

Native plant materials are of particular concern in several locations – El Dorado Nature Center, 34th Street & Orange Park, the Queensway Bay Area (which includes Golden Shore Marine Reserve), the Jack Dunster Marine Biological Reserve, 7th St. Greenbelt, and Sims Pond. Azteca, the grounds maintenance contractor, is responsible for the maintenance of the landscaping at the El Dorado Nature Center and a full-time city staff gardener monitors the work, and with the help of volunteers from the Habitat Stewards program. The Nature Center is a mixture of native and non-native plant material that was originally planted over 38 years ago. It is department policy to replace any material that must be removed (for various reasons such as disease or general decline) with native plants. In addition, any new plantings are designed with native plants only. The 17-acre expansion site at the Nature Center is exclusively native plant material. El Dorado Nature Center staff ensures that plant material selections are appropriate and sustainable. The plant material, once established, is irrigated on a 10-week rotation. Maintenance and Nature Center staff schedules more frequent irrigation during the summer and fire season when grasses are dry and the Santa Ana winds are present. Herbicides and pesticides are minimally used to eliminate invasive weeds and aquatic vegetation. Volunteers and staff use the practice of mulching as an alternative to chemical weed abatement. The Nature Center has instituted a volunteer Habitat Stewards program that has trained over 80 volunteers to help plant and care for native plants, which are installed according to the Center's Master plan.

In the Queensway Bay Area, native species have been planted in Shoreline Park (Lighthouse Point and Beach Garden) and in the restored wetland area commonly referred to as the "Golden Shore Marine Reserve". The selection of native species, which include perennials, grasses, and aquatic species, has been done with input from consultants (i.e., MBC Applied Environmental Science, Acorn Group) and from qualified

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in-house staff. All invasive weeds are removed by hand, with no herbicides or pesticides. Removal of trash from Golden Shore Marine Reserve is done by hand with great care on a limited or as needed basis to prevent any human impact on the site. Staff from the Golden Yard performs the record keeping. Golden Shore, Sims Pond, 7th St. Greenbelt, and Jack Dunster Marine Biological Reserve is maintained by the Los Cerritos Wetland Stewards, who are experienced in maintaining delicate habitats. Only native and non-invasive plants from the appropriate plant community are used when replacing plants at these sites. Most invasive and non-native plants are removed by hand; chemicals are used at a minimum. Mulch is then applied to the site to prevent weeds from returning until the native plants are established, and it also helps with water conservation. Approximately 2-3 dozen medians newly planted with natives or drought tolerant low maintenance plants. They require less trimming and generate less green waste.

The contractor and city staff keeps maintenance practices, pesticide records and schedules for these sites.

The amount of trash and debris collected from the various sites this past year, are an estimated 3 tons alone from trash at Golden Shore Marine Reserve; Los Cerritos Wetlands were 4-5 tons (estimated).

Colorado Lagoon was estimated 3 tons and an estimated 30 thousand pounds at Sims Pond. Due to a large project of Sciopus removal, this material was kept on site.

Landscape contractors and contracted tree trimmers: green waste or biomass generated from trimming, pruning, and clearing is either chipped or shredded and kept on site as mulch.

Primarily the Los Cerritos Wetland Stewardship, who is experienced in maintaining delicate habitats, maintains Jack Dunster Marine Biological Reserve. Only native non-invasive plants that are on the original approved plant pallet are used. All invasive and non-native plants are removed by hand, using no herbicides or machinery. Mulch is then applied to the site to prevent plants from returning until the native plants have colonized.

2.6.3 Municipal Swimming Pool Maintenance

The Belmont Plaza Pool is comprised of and indoor and outdoor tank. The indoor pool is drained every other year for maintenance. The pool water circulates, without the addition of chemicals until the water tests free of chlorine before the discharge, resulting

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in approximately 1.1 million gallons of pool water discharged into the sewer system over a period of a few days. Over the past two years, the 40-year old indoor pool has been losing excessive amounts of water. We took advantage of the pool's annual September maintenance closure to identify the source of the leaks and make all necessary repairs. The Department utilized a number of different testing methods while the pool still had water, and other methods after it was drained. The primary source of the leaks was determined to be the old cast iron fill and return lines that are under the shell of the pool itself. Repairs required cutting into the pool bottom, replacing all of the lines with new PVC piping, refilling the cutout areas with concrete, and re-tiling. The pool is due to reopen November 14, 2011.

The indoor pool is back-washed eight times annually while the outdoor pool is back-washed weekly or bi-weekly depending on the season. The discharge volume for backwash is approximately 7,000 to 10,000 gallons for the indoor pool and 250 to 500 gallons for the outdoor pool. Two sets of records are kept: one in the pool office and the other in the pool filter room basement.

The King Park and Silverado Park Pools are back-washed according to need. During the summer months, both pools are back-washed approximately two times per week. During the winter months, the pools are back-washed approximately every 10-20 days. (The filtration systems for these pools are substantially different from those of the Belmont Plaza Pools.) During back-washed, approximately 5,000 gallons of water are discharged into the sewer lines. Records and information are kept and maintained at the individual pool sites.

2.7 TRAINING

All City staff whose job activities directly affect storm water quality, and those who respond to questions from the public related to storm water pollution prevention and education, receive a mandatory annual refresher training regarding the requirements of the storm water management program, BMP implementation, and identifying and reporting illicit connections and discharges. The majority of training is now conducted via the City's intranet and internet, giving employees easy access to professional training material. NPDES is also a quarterly topic of discussion at the Construction Division staff meetings. In FY 11, the construction inspection staff received 57 hours of training. The Storm Water/Environmental Compliance Division staff also routinely sent out Rain Alerts to appropriate City personnel regarding BMPs and NPDES requirements, especially before anticipated rain events (Appendix F-1).

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2.8 WATER CONSERVATION

The Long Beach Water Department has had an active Water Conservation program for over 20 years. While its main purpose is to conserve the use of water so that its residents and businesses can be sustained during drought years, the practice and the LBWD enforcement of water conservation practices benefits the Storm Water/Environmental Compliance Division's efforts to limit dry weather runoff. For example LBWD limits irrigation of lawns, driveway wash downs and encourages car washing businesses to recycling water thereby reducing dry weather runoff, to name just a few of their water conservation practices.

2.9 LOW-FLOW DIVERSION DEVICES

The City is working in coordination with the Los Angeles County Department of Public Works (LACDPW) on the installation of Low Flow Diversion devices at its storm water pump stations in critical locations throughout the City. These devices divert the flow of dry weather water runoff into the sanitary sewer thereby preventing this flow of water from entering the City's receiving waters. This helps to reduce the transport of trash, sediment and bacteria. Currently these devices can be found at three LACDPW facilities located in Long Beach, the Belmont Pump Station, the Alamitos Bay Pump Station, and the Colorado Lagoon. An upgrade to the LFD at Appian Way is in design and scheduled to go out for advertisement in the winter of 2011. Construction is planned for spring of 2012. A new LFD unlike the existing LFDs was installed in custom constructed manhole structures to divert flow from the newly constructed Termino Avenue storm drain system. More locations throughout the City are being considered for future low-flow diversion devices.

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**3.0 MANAGEMENT PROGRAM FOR DEVELOPMENT
PLANNING AND CONSTRUCTION**

The Development Planning and Construction program is in place so that developers and property owners consider storm water quality management during the planning phase of their projects and implement appropriate controls during construction. This program applies equally to privately and publicly owned property. Projects within the public right of way are addressed in the Public Agency Activities Section (2.0). Applying this program to applicable development projects effectively prohibits non-storm water discharges and reduce the quantity of pollutants into the storm drain system. To achieve this objective, the City has implemented the following:

- California Environmental Quality Act (CEQA) guidelines
- General Plan considerations for watershed and storm water management
- Sustainable City Action Plan
- Low Impact Development (LID) practices, which have been added to the City Municipal Code, were approved by the City Council November 2010. An implementation plan is being prepared for use starting Spring 2012.
- Chapter 18.95, “NPDES and SUSMP Regulations,” of the Long Beach Municipal Code
- Training

3.1 CEQA

Under the CEQA Act of 1970, the City of Long Beach is required to consider the potential environmental impacts of proposed developments. Long Beach Development Services’ Environmental Planner conducts this review. Environmental review is required for projects that cause a public official or body to take “discretionary” action in approving or denying a project. The environmental review documents serve as guide to the person or persons who must make a decision about the project. Projects may be processed as a Categorical Exemption (exempt from CEQA Act), a Negative Declaration (declares that there are no impacts or that impacts can be mitigated), or an Environmental Impact Report (done for large projects that are likely to have significant effects on the environment). The outcome of the environmental review is included in Council reports, and documents are attached in the case of Negative Declarations and Environmental Impact Reports.

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3.2 GENERAL PLAN

In 2012, the Department of Development Services anticipates the adoption of a new mobility element. The new Mobility Element part of a larger comprehensive general plan update known as Long Beach 2030. This new general plan will integrate land use, mobility, economic development, and urban design to create a physical framework for the City.

Throughout the winter, the Department of Development Services conducted public workshops to identify and prioritize policies and programs in anticipation of the update. Through these planning activities, staff has coalesced ten principles for complete streets and active living. The principles are:

- Balance the needs of all modes of travel
- Be a bicycle friendly city
- Promote walking
- Promote transit
- Create dynamic and context-sensitive streets
- Protect and enhance the environment
- Create healthy and active neighborhoods
- Create transit-oriented developments along transit routes
- Ensure connectivity to activity centers and other modes
- Maximize public return on mobility investments

A draft of the new General Plan has been completed and is under review by City staff. Once the draft is approved, community meetings will be held to discuss the content of the plan. These are expected to occur during the first part of next year.

3.3 SUSTAINABLE CITY ACTION PLAN

This year, the Office of Sustainability in the City Manager's Office developed a Sustainable City Action Plan (Appendix O-1). The plan contains a section on water that is of particular importance in the City's NPDES efforts. It contains the following four water initiatives:

- Low Impact Development Policy: Implement the low impact development ordinance and incorporate this policy in the City's new MS\$ permit.
- Rain Catchment Program: Identify funding to facilitate another round of the City's Rain Barrel Program and identify City facilities for rain catchment system installations.

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- Gray Water Pilot Project: Implement the installation of Gray Water systems in residential homes as a part of the Low Impact Development Academy.
- Gray Water Project Registration: Establish an online process where local residents can register their gray water systems and provide best practices and information to the community.

Specifically, the sustainability goals are reduce the per capita use of potable water, exceeding the State mandate to achieve a demand reduction of 20 percent in per capita water use by the year 2020, to facilitate the installation of rain catchment systems at five City facilities by 2012 through a pilot program, and facilitate the development of 50 green roofs communitywide by 2016. Through the efforts of the Water Department, Long Beach has already made considerable progress in reducing water consumption. In terms of low impact development, the construction of a bioswale as part of the Colorado Lagoon restoration is a good first step. In the future, the City will seek funding opportunities to further implement this initiative.

The City's Sustainable City Commission approved the Sustainable City Action Plan in draft form and community workshops were subsequently held to receive public feedback. The plan was finalized and the approved by the City Council on February 2, 2010.

3.4 CHAPTER 18.61, "NPDES AND SUSMP REGULATIONS," OF THE LONG BEACH MUNICIPAL CODE

The Long Beach Municipal Code includes a chapter specifically for NPDES / SUSMP requirements. This addresses requirements for BMPs, Storm Water Pollution Prevention Plans, and Standard Urban Storm Water Mitigation Plans. In FY 11, the Department of Development Services issued 5,516 permits requiring NPDES compliance, of which 59 permits required further SUSMP compliance.

3.5 STATE CONSTRUCTION GENERAL PERMIT

All Projects enrolled in the State Construction General Permit (CGP) for Discharges of Stormwater Associated with Construction Activity, State Water Resources Control Board (State Water Board) have met the requirement to recertify their active projects as mandated on September 2, 2009. The State Water Board adopted Order 2009-0009 DWQ (new CGP), which took effect on July 1, 2010.

To certify a new NOI you must register and access the State Water Board's Storm Water Multi-Application & Reporting (SMARTS) and enter the WDID number and the

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Secret Code Number (SCN) provided by the State Water Board. As part of the Public Reporting Document (PRD) process you must upload an electronic copy of the Stormwater Pollution Prevention Plan (SWPPP) onto SMARTS.

The Storm Water program regulates storm water discharges from locations such as industrial facilities, construction sites, and small linear projects. The Storm Water program is also responsible for processing, reviewing, updating, terminating Notices of Intent (NOIs), annual reports, and maintaining the billing status of each discharger.

SMARTS has been developed to provide an online tool to assist dischargers in submitting their NOIs, NECs, NOTs, and Annual Reports, as well as, viewing/printing Receipt Letters, monitoring the status of submitted documents, and viewing their application/renewal fee statements. The system will also allow the Regional Board and State Board staff to process and track the discharger submitted documents.

3.6 TRAINING

All City staff whose job activities directly affect storm water quality, and those who respond to questions from the public related to storm water pollution prevention and education, receive a mandatory annual refresher training regarding the requirements of the storm water management program, BMP implementation, and identifying and reporting illicit connections and discharges. The majority of training is now conducted via the City's intranet and internet, giving employees easy access to professional training material. NPDES is also a quarterly topic of discussion at the Construction Division staff meetings. In FY 11, the construction inspection staff received 57 hours of training. The Storm Water/Environmental Compliance Division staff also routinely sent out Rain Alerts to appropriate City personnel regarding BMPs and NPDES requirements, especially before anticipated rain events (Appendix F-1).

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4.0 MANAGEMENT PROGRAM FOR ILLICIT DISCHARGES AND ILLICIT CONNECTIONS

The general objective of this program is to improve the quality of storm water by reducing the pollutants entering the storm drain system that may negatively affect receiving water quality by effectively eliminating illicit discharges and prohibiting illicit connections.

Departments such as Fire, Harbor, Health and Human Services, Development Services, Public Works Street Operations and Construction Services, and Water play important roles in investigating possible illicit connections and discharges. They communicate their findings to the Storm Water/Environmental Compliance Division and other appropriate parties; oversee cleanups, and follow-up as needed. Incident documentation is recorded and maintained by the responsible department. Reports of suspected illicit connections and discharges might also come from the public via the Storm Water Management Program hotline, 562-570-DUMP (3867) and Web site, www.lbstormwater.org.

4.1 ILLICIT DISCHARGES

When the City is informed of an alleged illicit discharge, the Fire Department is the lead responder. The Fire Department evaluates the situation and, when necessary, will dispatch the Hazardous Materials (Haz Mat) unit of the Department of Health and Human Services. The Haz Mat unit will then verify the magnitude of the spill, identify the responsible party, and give instructions on how to proceed with the cleanup. The responsible party is then required to have the area cleaned up. Haz Mat will oversee the cleanup and decide when the situation has been adequately remedied. If the responsible party does not have an established account with a cleanup contractor, the City's contractor is used and the expense is charged to the responsible party. The responsible party may choose to do the cleanup personally if the amount is small. In this case, the responsible party may dispose of materials at a household hazardous waste roundup. These disposals must be verified by presenting a receipt to the Haz Mat Specialist. If no responsible party can be identified, the City will pay for the cleanup through a contractor, or if the discarded amount is small, the Haz Mat Specialist will personally conduct the cleanup.

It is important to note that calls coming in from the public expedite the response to illicit discharges that may have otherwise gone undiscovered. Calls and e-mails are responded to immediately through the Storm Water/Environmental Compliance Division

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and Public Service Street Operations. If a site investigation is warranted Street Operations will dispatch a storm water investigator to assess the problem and take action. Most issues are resolved within one business day.

Annual refresher training for inspectors and field workers is conducted through the use of instructional videos and guest lecturers used in conjunction with a review of Department/Division procedures. This training specifically addresses how to identify and report illicit discharges. The Storm Water/Environmental Compliance Officer will also conduct training and review courses.

4.2 ILLICIT CONNECTIONS

An illicit connection is any man-made conveyance that is connected to the storm drain system through which prohibited flows are discharged. The City of Long Beach rarely issues permits for storm drain connections. The Public Works Construction Division maintains a database of permitted connections. Historically, the City has encouraged through-curb connections rather than direct pipe connections because these are the easiest and least expensive to survey for illicit connections and discharges. They are located above ground and can be easily observed by City staff. In addition, City staff checks the inside of catch basins and the sides of open channels during regular maintenance activities for any illicit connections. All open channels and catch basins owned by the City have been inspected for illicit connections.

Historically, close circuit televising (CCTV) investigation of underground pipes for pipe-to-pipe illicit connections has been the most expensive and least effective means for illicit connection inspection. The City's storm drain maintenance contractor is required to perform CCTV inspections on 1/5th of the storm drain system pipes that are 36 inches in diameter or greater. Any suspected or confirmed illicit connections must be reported to the Storm Water/Environmental Compliance Officer. If the presence of an illicit connection is suspected, the storm drain is investigated and the necessary action is taken to eliminate the connection. Inspection of system pipes between 15 and 36 inches are being considered for future inspection of illicit connection. Funding must first be acquired by grants and/or other sources.

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5.0 MANAGEMENT PROGRAM FOR PUBLIC INFORMATION AND EMPLOYEE TRAINING

The City of Long Beach takes a comprehensive approach to storm water and urban runoff educational outreach. The goal is to provide information about the impacts of storm water and urban runoff pollution and to encourage behavioral changes that will lead to reducing pollutants at the source. The four-targeted groups include:

- General public / city residents,
- Commercial / industrial establishments,
- School children, and
- City employees.

This effort is lead by the City's Storm Water/Environmental Compliance Division; however, many City departments are also active in educational outreach. Most outreach campaigns include urban runoff pollution prevention messages in their materials. Throughout the year, City staff participates in numerous activities to deliver the storm water message and supply the tools and guidance on how to be the solution to pollution.

The Storm Water/Environmental Compliance Division continues to develop materials that are applicable to more than one targeted audience or pollutant and explain the nature of non-point source pollution and its significant contribution to water quality impairment.

5.1 GENERAL PUBLIC / CITY RESIDENTS

The Long Beach Storm Water/Environmental Compliance Division continues to be the principal player in educating the public on ways to modify behavior that will lead to improved water quality. The information and reporting hotline, 562-570-DUMP (3867), and Web site, www.lbstormwater.org, are excellent educational tools that give the public a way to become active participants in the fight against pollution by being able to easily report illegal dumping via telephone or e-mail 24 hours a day, seven days a week (Appendix K-1).

The City prioritizes inter-agency cooperation when dealing with storm water issues. On a regular basis, the Storm Water/Environmental Compliance Division staff resolves issues with members of other City departments, especially Health and Human Services, Development Services, Public Works Construction Management Division, Water, and

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Fire. On other occasions, the Division staff join forces with other government agencies, in particular the Los Angeles County Department of Public Works and the Los Angeles County Sanitation District.

During special events, such as community meetings and watershed cleanups, the Storm Water/Environmental Compliance Division staff is present to listen to constituent concerns and answer stormwater related questions from the attendees. In FY 11, Storm Water/Environmental Compliance Division staff reached out to over 15,554 people and distributed approximately 15,000 educational giveaways at an Evening at the Aquarium of the Pacific, Read Across the 7th District, Leave No Trace – Cub Scout Pack 32, Earth Day 2011, California Coastal Cleanup Day, the 2011 Congressional Cup, and the Long Beach Unified School District (LBUSD) Science Fair (Appendices G-1, G-2, G-3, G-4, G-5, and G-6). In addition, the City’s Stormwater Program’s Web site is a great vehicle for educating the public and announcing important information about storm water projects.

Table 5-1: STORMWATER/ENVIRONMENTAL COMPLIANCE OUTREACH

Event	Attendees	Giveaways
Aquarium of the Pacific	2,000	2,000
Read Across the 7 th District	200	200
Leave No Trace – Pack 32	50	50
Earth Day	7,050	7,050
California Coastal Cleanup	1,254	1,254
2011 Congressional Cup	1,000	1,000
LBUSD Science Fair	4,000	4,000
Total	15,554	15,554



Read Across the 7th District



Aquarium of the Pacific

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Leave No Trace – Cub Scout Pack 32



Earth Day 2011



California Coastal Cleanup



LBUSD Science Fair



Long Beach Congressional Cup

The City of Long Beach's diverse population creates a unique challenge for conveying storm water information to recipients of outreach and public education efforts. The Storm Water/Environmental Compliance Division is always looking for new opportunities to deliver the message. Promotional items such as magnets, pencils, stickers, and rulers are made available and informational literature is printed in several different languages (English, Spanish and Khmer).

MANAGEMENT PROGRAM FOR PUBLIC INFORMATION AND EMPLOYEE TRAINING

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The Environmental Services Bureau (ESB) staff participated in 45 events and meetings to promote environmental programs in FY 11. These included neighborhood association meetings; safety, community, and environmental fairs; and composting workshops.

Table 5-2: ENVIRONMENTAL SERVICES BUREAU OUTREACH

Outreach and Education	15	# of schools visited by TREC Program.
	0	# of schools starting a recycling program.
	13	Community, Safety, Env. Fair attended.
	7	Neighborhood Association Meeting attended.
	10	Composting Workshop given.

As mentioned in the Public Agency Activities Section, ESB displays street pole banners with the “Litter Free Long Beach” slogan and banners promoting motor oil recycling as a behavior that will lead to cleaner beaches and waterways. ESB also advertises in local newspapers and has numerous flyers, posters, and campaign giveaways. In addition, ESB has an informational and reporting hotline, 562-570-2876, which is staffed by four employees (3 non-career and 1 full time), with one current vacancy, Monday through Friday. After-hours callers have the option to leave a message in the hotline voicemail box, which has a next business day response time.

Long Beach Development Services continues to educate contractors, developers, and homeowners regarding Storm Water Best Management Practices that can significantly reduce pollution from construction activity and help make compliance with storm water regulations easier. In addition, permit applicants have access to staff and various brochures, pamphlets, and handouts relating to permit requirements at the Permit Center, located on the fourth floor of City Hall and via the City’s website.

Water Conservation remains a priority of the Long Beach Water Department (LBWD) and its governing body, the City of Long Beach Board of Water Commissioners, because it is a cost-effective means of enhancing the City’s supply reliability. Enhancing these supplies is essential because water supplies into Southern California have been permanently reduced, yet an unreliable supply has the potential to harm the community and its economy.

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LBWD's highly effective conservation programs have resulted in a reduction in overall potable water use by about 17% (as measured from a 10 year baseline ending 2007).

The primary conservation programs include substantial amounts of public outreach and education, prohibiting certain uses of water and enforcement of those prohibitions, rebates for water-conserving devices, and a very successful turf-elimination program.

In addition to enhancing the reliability of the City's supplies, these programs produce important secondary benefits, one of which is a reduction in urban runoff. For example, the emphasis of the public education program is reducing landscape irrigation, which necessarily means a reduction in runoff; among the uses of water that are prohibited at all times are excessive landscape irrigation and hosing off hardscape such as driveways and sidewalks; rebates are available for water-conserving devices which significantly reduce urban runoff such as weather-based irrigation controllers and rotating sprinkler nozzles; and, finally, "Lawn-to-Garden" provides \$2.50 for each square foot of grass lawn that is removed and replaced with beautiful landscape designed to thrive in our semi-arid region, eliminating turf significantly reduces not just runoff, but the harmful constituents of the runoff such as fertilizers, pesticides and herbicides. Promotional efforts for these programs include advertising in the Long Beach 90H20, a publication mailed to all City residents in their utility bill. (Appendices H-1 and H-2)

Implementation of conservation BMPs is ongoing and a variety of educational outreach programs are integral parts of the Water Department's master plan. The "Water Ambassador" volunteers of the Water Department routinely attend events throughout the year to promote water conservation and water quality issues. Landscape/gardening education classes, which address issues such as water conservation and fertilizer/pesticide use, are sponsored by the Water Department. These are examples of how the City of Long Beach exceeds its NPDES permit requirement (Part 3, I, A, 2, f, Water Conservation Practices).

El Dorado Nature Center of Long Beach Parks, Recreation and Marine serves as an important arm of the City's public information and education program for NPDES. The following are brief descriptions of educational outreach programs that address issues of non-point source pollution and storm water management as defined by our permit.

Nature Center programs described include:

- Adopt-A-Beach is an ongoing conservation program that works in conjunction with the California Coastal Commission, allowing school clubs, businesses, churches, community associations and other groups to get involved by agreeing

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to clean up a quarter mile section of the Long Beach shoreline at least four times annually. People of all ages and diverse backgrounds have become part of the solution to ocean pollution, enlarging public awareness that trash on the land inevitably becomes trash on the beach and in the ocean. With more people becoming aware of the issues with marine debris and pollution during the 2010-2011 fiscal year, more than 8,000 volunteers worked over 24,000 hours to combat non-point source pollution on city beaches.

- Adopt A Wetland Service Learning Program and Monthly Cleanup. During the 2010-2011 fiscal year five students completed the service-learning program, which required they volunteer time to help cleanup debris from the Los Angeles River that collects in the Golden Shore Marine Reserve, located at the mouth of the river for an 8-month period. With those students over 240 volunteers helped throughout the year to removed over 2000 lbs of trash from the fragile wetland ecosystem.
- Special cleanups for 2011 included the California Coastal Cleanup Day held on September 17. This year in Long Beach, 1,600 volunteers helped clean up over 7,000 pounds of trash from local shores and waterways. The City of Long Beach hosted cleanups at six beach sites. The continued theme of California Coastal Cleanup Day theme was “Bring your own”. Participants were encouraged to bring their own bag or bucket to clean up with to help cut the use of plastic bag waste. An additional special event beach cleanup was added this year on Earth Day April 22, 2011. Over 150 volunteers came out to give back to the environment and help remove over 1,000 pounds of trash from the beach.
- El Dorado Nature Center’s Movable Museum program, “Protect Our Watery World” (POWW) continued its program this year sending volunteers into visit approximately 500 elementary school students. The goal of the program is to spread the word on non-point source pollution, the durability of trash in the marine environment and the harmful effects of trash on ocean animals.
- Lastly, during the 2010-2011 fiscal year El Dorado Nature Center’s new 5th grade school tour program “Explore the Shore” went into effect. Staff educated over 800 local students in this hands-on 2-hour program where scientific tools and instruments were used to discover how water sustains all life on earth, and how the water cycle shapes our local watershed and affects the marine ecosystem. Each program concluded with a mini beach cleanup.

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5.2 COMMERCIAL / INDUSTRIAL ESTABLISHMENTS

The City’s Department of Health and Human Services (DHHS) conducts educational site visits to distribute and discuss applicable BMP and educational materials to business owners/facility operators. The visits include information about the City’s Municipal NPDES permit and requirements regarding Notices of Intent (NOI) and Storm Water Pollution Prevention Plans (SWPPP). DHHS has enhanced its database that is used to track visits and other information. Additionally, we have continued our outreach to local businesses, especially in areas where the potential for illicit discharge is greater, e.g. areas with a high concentration of restaurants and other food facilities.

5.3 SCHOOL CHILDREN

The Storm Water/Environmental Compliance Division once again contributed \$4,000 to support **Heal the Bay’s Key to the Sea** marine education program (Appendices I-1 and I-2). The program provides students, teachers, and informal educators with access to environmental education curricula and hands-on learning opportunities. The program offers professional development workshops for educators, field trips, and bus stipends for field trips to: Cabrillo Marine Aquarium, Roundhouse Marine Studies Lab & Aquarium, SEA Lab, and Santa Monica Pier Aquarium. This year, the program was successful in reaching 1,390 K-5th grade students in the Long Beach Unified School District:

Table 5-3: KEY TO THE SEA

School	Students	Teachers	Field Trips	Buses
Barton	45	2	1	1
Gompers	81	3	1	0
Grant	123	6	2	2
Jane Addams	326	16	6	5
Lincoln	112	5	2	1
Lowell	83	3	2	0
Mark Twain	110	5	2	0
Patrick Henry	80	3	2	0
Riley	80	4	2	2
Roosevelt	159	9	3	3
Willard	191	9	3	3
Total (11)	1,390	65	26	17



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TREC, the Traveling Recycling Education Center, is used by the Environmental Services Bureau (ESB) staff to spread the recycling and anti-littering message to the Long Beach community at public events and to students of LBUSD. During FY 11, the TREC mobile classroom made a total of 15 visits to LBUSD schools, making 45-minute presentations.

Presented the **“Lunch with a Lizard”** school assembly program to 24 Long Beach Unified School District elementary schools (Kindergarten – 3rd grades), teaching approximately 11,268 students the importance of not littering.

The Long Beach Health and Human Services Department’s Bureau of Environmental Health continues to run **The Junior Health Inspector Program**, which teaches children to recognize the benefits of living in a healthy and safe home and ways to improve the environment in their community. Upon completion of the program, students are able to use techniques to reduce and eliminate hazards in the home. The health hazards include mold contamination, lead poisoning, storm water pollution, vector, household hazardous waste and unintentional injuries. The program began in March 2004 and reached 842 students in 6 LBUSD elementary schools in FY 11 for a total of 5,323 over the past 7 years.

The Storm Water/Environmental Compliance Division supports the American Association of University Women (AAUM) at the annual **STEM** (Science, Technology, Engineering & Math) Conference. The Storm Water/Environmental Compliance Division reached out to over 194 middle school girls by providing educational giveaways. (Appendix I-3)

The Storm Water/Environmental Compliance Division contributed \$5,000 to support the **Aquarium Scholarship Fund** in bringing Long Beach students to the Aquarium. The funds received from the Storm Water/Environmental Compliance Division will be specifically directed and used to fund Long Beach Unified School District students for visits to the aquarium, participation in the watershed education program “It All Flows to Me”. Over 230 students will receive free Aquarium admission and transportation. The students will be given the opportunity to participate in the “It All Flows to Me” watershed classroom program, which exposes students to the importance of water conservation and watersheds. By exploring the link between watersheds, ground water and pollution, students learn how they are part of the water cycle and discover how they can help to change their environment for the better. (Appendix I-4)

El Dorado Nature Center’s new 5th grade school tour program **“Explore the Shore”** went into effect. Staff educated over 800 local students in this hands-on 2-hour program

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where scientific tools and instruments were used to discover how water sustains all life on earth, and how the water cycle shapes our local watershed and affects the marine ecosystem. Each program concluded with a mini beach cleanup.

5.4 CITY EMPLOYEES

City employees are educated about storm water issues through web-based trainings, flyers, displays, internet, the City's LBTv8 programs, and other viable means. The Storm Water/Environmental Compliance Division pays to send employees to appropriate external training workshops.

Many Departments incorporate NPDES training into their regular training and safety meetings. The City has web-based Storm Water Training Material, Storm Watch. This video training program describes the fundamental concepts and practices of storm water pollution prevention for municipal operations, and the negative effects of pollution on people, wild life, and the environment. The primary focus of the video is on Best Management Practices. Viewers have the option of taking a quiz after watching the video. A renovation of the Storm Water Management website will also serve as a training tool as well as an informational reference for City employees, residents and businesses.

5.5 STORM WATER/ENVIRONMENTAL COMPLIANCE DIVISION WEBSITE

The Storm Water/Environmental Compliance Division is in the process of reconstructing its Website with an opening launch date tentatively planned for the summer of 2012. The website will be used as an educational tool, an informational reference site for the City residence and businesses providing the City's NPDES requirements and finally to be used by other Departments such as Development Services and the Redevelopment Agency for guidance and enforcement of the Clean Water Act and a reference for the Municipal Code and other City use.



MANAGEMENT PROGRAM FOR PUBLIC INFORMATION AND EMPLOYEE TRAINING

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6 ASSESSMENT

The Long Beach Storm Water Management Program (LBSWMP) continues to be implemented, revised, and expanded as needed to ensure the effective reduction of urban and storm water pollution. The effectiveness of these efforts, as detailed in this report, is confirmed by qualitative and quantitative methods. The methods include surveys, pre and post assessment, feedback received via hotlines and Internet sites, a hands-on interactive NPDES Task Force, one-on-one interaction with (9) Council members and their staff, and monitoring. Four major reporting and informational hotlines remain available to the public 24 hours per day: 570-DUMP (Storm water), 570-2700 (Street Operations), 570-2876 (Refuse), and 570-4199 (Beach Advisory). Despite large fiscal deficits in FY11, the City spent \$49,280,415 (\$107 per capita) on NPDES-related expenditures. This is a 43 percent increase in spending from FY10, or a \$46 increase per capita (Appendix J-1). Considering the tough economy, this is not a large increase.

The successes of the Long Beach Storm Water Programs are directly attributable to the fully implemented LBSWMP and the level of commitment from the City Manager (Appendix A-1), City Council, the Mayor and all City staff. The full implementation of the requirements of the municipal MS4 permit is a prime example of how City Employees are “Working Together To Serve.” The programs highlighted in this report demonstrate a consistent effort to perform at a level above and beyond what’s required.

6.1 ASSESSMENT OF MANAGEMENT PROGRAM FOR PUBLIC AGENCY ACTIVITIES

Overall, the City spent \$40,895,489 (83 percent of LBSWMP expenditures) for expenses associated with Public Agency Activities.

The Litter Abatement and Awareness Campaign, targeted towards changing residents’ behavior, continues to be very successful. Neighborhood cleanup events are held as part of this campaign. The number of volunteers for FY 11 was 1,139. The campaign also sponsored 41 community and business corridor cleanups this year. Another achievement includes engaging 331 businesses to participate in the “No Litter Zone” program.

This year a household hazardous waste roundup was conducted and the collection results reflected the efforts of educating the public on the importance of hazardous waste. There was an increase of certain types of materials collected compared to last

year. For example, there was a 106 percent increase (39,090 pounds) in e-waste collected and a 188 percent increase (8,180 pounds) of batteries collected. In addition, participants turned in 1,000 gallons of used motor oil, 10,319 gallons of paint, and 32,102 computers. People's habits have change and are mindful of not being wasteful which in turn helps to reduce potential waste.

The Department of Parks, Recreation, and Marine and the Long Beach Water Department continues to be vital components in preventing storm water pollution. These Departments helped make the 27th Annual Coastal Cleanup a great success.

In FY 11, street sweeping continued to prove itself as an effective BMP with the collection of 9,534 tons of materials. Although, "Refuse Collection" is not recognized as a direct "NPDES" expense or measure, it deserves recognition. In FY 11, 221,145 tons of waste was removed from City managed routes at a cost of \$26,197,184.

Public Works inspectors are assigned to active construction sites and are routinely in the field to make sure construction work is conducted as specified in the contract or Public Works permit and take enforcement action as needed. In FY 11, Public Works inspectors filed 875 NPDES Inspection Reports.

6.2 ASSESSMENT OF MANAGEMENT PROGRAM FOR DEVELOPMENT PLANNING AND CONSTRUCTION

Development Planning and Construction costs increased by \$310,190, a 55 percent increase from FY 10 to FY 11.

6.3 ASSESSMENT OF MANAGEMENT PROGRAM FOR ILLICIT DISCHARGES AND ILLICIT CONNECTIONS

The expenditures associated with Illicit Connections and Illicit Discharges detection increased by \$514,937, a 16 percent increase compared to FY 10. City departments remain committed to investigating, and if found, eliminating illicit discharges and connections. Notice of suspected illicit discharges and connections come from many sources, including the public through the 570-DUMP hotline, www.lbstormwater.org website, and by directly reporting to City employees. Calls and e-mails are responded to immediately with collaboration among departments.

6.4 ASSESSMENT OF MANAGEMENT PROGRAM FOR EDUCATION AND PUBLIC INFORMATION

There was a 5 percent increase from last year's expenditures related to this program element. This minimal increase can be a result of good educational programs that were put in place over the past several years that does not incur start up cost of new programs but a continuation of good effective programs at lower cost to the City. As an example, the Water Department continues to record less water usage, which results in less runoff reduction.

This program element is one of the most important components of the LBSWMP because its goals include awareness and behavioral changes leading to tangible improvements in our local environment.

6.5 ASSESSMENT OF WATER QUALITY MONITORING CITY OF LONG BEACH STORMWATER MONITORING REPORT 2010/2011

This report provides a summary of the results of the 13th year of monitoring conducted under the terms of Order No. 99-060 National Pollutant Discharge Elimination Systems Municipal Permit No. CAS004003 (CI 8052) for City of Long Beach. Included in this report is a synthesis of key elements of the data set as developed over the duration of the program. The following section provides a summary of the background and purpose of the monitoring program. This is followed by a summary of key findings based upon the full thirteen years of monitoring.

BACKGROUND AND PURPOSE

Under the terms of Order No. 99-060, the City of Long Beach was required to conduct a water quality monitoring program for storm water and dry weather discharges through the City's municipal separate storm sewer system (MS4) beginning in the 1999/2000 wet weather season. The permit was initially issued for the term of five years. At the end of the initial five years the City was directed by the Regional Board to continue operating under the 1999 permit until further notice.

Following the completion of the recently approved NPDES permit for Ventura County, the Los Angeles Regional Water Quality Control Board (LARWQCB) had begun meetings and talks in an effort to begin work on the new NPDES Permit for Los Angeles County. Immediately following the completion of the LA County permit, LARWQCB will

begin work on the Long Beach permit. LA is tentatively scheduled for completion in May of 2012.

Major elements of the current monitoring and reporting program include 1) mass emission monitoring during storm events, 2) monitoring of dry weather discharges at each mass emission site, and 3) special studies. Special studies are intended to improve assessment of impacts on receiving water, identify sources and sink for contaminants, and assess compliance with TMDL targets and water quality objectives. Data from the monitoring program is intended to support decisions necessary to refine BMPs for the reduction of pollutant loading and the protection and enhancement of beneficial use of the receiving waters.

Mass emission monitoring to be conducted at four specified sites during four wet weather storm events each year. Monitoring sites specified in the permit are as follows:

- Dominguez Gap Pump Station
- Bouton Creek
- Belmont Pump Station
- Los Cerritos Channel

This element of the program is intended to characterize stormwater discharges, identify contaminants of concern and develop pollutant load estimates for each major watershed. Monitoring is required to be conducted during the first significant rainfall event of the season. Flow-rated, whole storm composite samples are obtained at each site and analyzed for major constituents of concern, which include conventional constituents, total and dissolved metals, organophosphate pesticides and herbicides. Toxicity testing using sea urchin fertilization tests and water flea survival and reproduction is conducted on the composite storm samples from three of the four mass emission sites. Phase 1 Toxicity Identification Evaluations (TIEs) are performed on all samples that exhibit toxicity in excess of predetermined trigger values. These tests are designed to determine the likely contaminants contributing to the observed toxicity.

Dry weather monitoring consists of inspections conducted at each mass emission site and the collection and analysis of dry weather discharges over 24-hour periods. Monitoring is required to be conducted twice during each dry season. This element of the program is intended to identify pollutants of concern and associated toxicity at the mass emission sites during the dry season. Dry weather discharge samples are subjected to the same chemical analysis and toxicity testing used for the storm water-monitoring program.

The purpose of this report is to submit the results of the storm water and dry weather monitoring conducted as part of the requirements under the City of Long Beach's NPDES permit. Results are summarized for the current monitoring season (2010/2011) and compared with results from the full thirteen years of monitoring.

SUMMARY OF RESULTS

The 2010/2011 season had the second highest rainfall encountered since the start of the City's storm water monitoring effort. Rainfall was still much less than measured during the 2004/2005 season. Over the past eleven years, this is only the third time that we have had above normal precipitation. Normal precipitation for September through April at the Long Beach Airport is 12.51 inches. This season's cumulative rainfall of 18.11 inches is well above both the normal wet season average of 12.27 inches and the average of 10.55 inches since the inception of this program in 1999.

Two dry weather inspections/monitoring events were conducted during the 2010/2011 monitoring year. These surveys are conducted during the summer dry weather period at each of three mass emission stations. Dry weather sampling has not been conducted at the Belmont Pump Station since all dry weather flows were diverted to the sanitary system in 2009. Although the Dominguez Gap Pump Station was always inspected during dry weather surveys, discharges were never observed until last year. This is only the second year that we have sampled dry weather discharges from the Dominguez Pump Station but it is important to note that dry weather flows consist predominantly of water that is drawn from the Los Angeles River and passed through the Dominguez Gap wetlands to provide both treatment and to enhance the constructed wetland habitat.

The first dry weather survey was conducted on September 22-23, 2010 about two weeks prior to the first storm event of the year. The second dry weather survey was conducted on May 10-11, 2011 after more than two weeks of dry weather conditions. With a single exception, the maximum number of storm events for each station (four) was monitored this season. This could be attributed to the above average rainfall encountered during the 2010/2011 wet weather season. Storm water sampling was accomplished over the course of nine separate rainfall events, including the October 6, 2010 "first flush" event of the season. Sufficient sample volume was collected during four events each at Belmont Pump, Bouton Creek and Los Cerritos Channel to complete the full-required suite of analyses. Because of the lack of discharge during events that met antecedent rainfall criteria, only three events were sampled at the Dominguez Gap Pump Station for the full required suite of analyses. In addition to storm events sampled for the full suite of analyses, three events at Belmont Pump, two

events at Bouton Creek, and five events at Los Cerritos Channel were sampled for total suspended solids (TSS) only. TSS events were conducted only when there was not sufficient rainfall and sample volume to conduct the majority of the analyses or after the required four events for the full suite of analyses were completed.

WET WEATHER CHEMICAL AND BACTERIAL RESULTS

For the purpose of this report, water quality criteria or objectives were used to provide reference points for assessing the relative importance of various storm water contaminants, though specific receiving water studies are necessary to quantify the presence and magnitude of any actual water quality impacts. The 2005 California Ocean Plan (SWRCB, 2006), the Los Angeles Region Basin Plan (CRWQCB, Los Angeles Region, 1994), California Department of Fish and Game (Siepmann and Finlayson, 2002) criteria for chlorpyrifos and diazinon, and both saltwater and freshwater criteria from the California Toxics Rule (USEPA, 2000) were used as benchmarks as requested by Regional Board staff. In addition, National Recommended Water Quality Criteria (USEPA, 2009) were used as benchmarks for compounds such as malathion that are not considered to be priority pollutants. Comparisons of storm water concentrations with various water quality criteria are intended to provide a framework for evaluating constituents of concern and allow for identification of watersheds that could benefit from additional BMPs or source identification/reduction efforts.

Benchmark reference values have been often exceeded for dissolved forms of copper, lead and zinc throughout the life of the permit (Kinnetic Laboratories, Inc., 2010). For storm water discharges, the CTR freshwater acute criteria are the most applicable benchmarks for all sites. Copper and zinc continue to exceed benchmark criteria on a frequent basis at all but the Dominguez Gap Pump Station. Dissolved copper exceeded the CTR freshwater criteria in 80% of all storm water samples this wet season. Storm water discharged from the Dominguez Gap Pump Station slightly exceeded the CTR freshwater criterion during only one of three monitored events. Concentrations of dissolved zinc exceeded the CTR freshwater acute criterion just once in Bouton Creek and two times in the Los Cerritos Channel. Although dissolved lead was measured above the chronic criterion during 9 of the 15 station-events, the acute criterion used, as a benchmark for shorter-term storm water discharges was never exceeded.

Other than bacteria, few other constituents have exceeded benchmark values. MBAS minimally exceeded the Basin Plan criteria of 0.5 mg/L in the Los Cerritos Channel during the first storm event and pH was just above the upper limit (8.5) in samples taken from one event in Bouton Creek.

Chlorinated pesticides are typically not measured at high concentrations in storm water due to both strong associations with sediment and the fact that most have been banned for over 20 years. Despite this fact, chlordane compounds are still detected in a large percentage of the samples. The Belmont Pump Station most commonly has the highest levels of these compounds. This year storm water samples from the Belmont Pump Station exceeded CTR chronic freshwater criteria once for chlordane and twice for toxaphene. Although the acute criteria considered more relevant to storm water were never exceeded, the consistency of chlorinated compounds in discharges from this watershed is of concern. The continued detection of low concentrations of chlordane compounds suggest that either some limited use of chlordane may be occurring or the degradation of legacy applications of chlordane has not occurred at rates that one would expect. These low levels may also be continuing to contribute loads to the receiving water sediments. One of the primary components of technical chlordane, alpha-chlordane, is one of the compounds that is incorporated into the chemical testing conducted for California's Sediment Quality Objectives. In addition, sediments within the estuary of the Los Cerritos Channel are currently listed

Storm water discharged from the Dominguez Gap Pump Station to the Los Angeles River continues to contain lower concentration of most major constituents of concern. Total cadmium, dissolved and total copper, and dissolved and total zinc were all found to be significantly lower ($p < 0.05$) than measured at the three other mass emission sites. In the case of lead, no significant differences were evident among stations for dissolved lead but storm water discharges from both the Dominguez Gap Pump Station and Bouton Creek had significantly lower concentrations of total lead than measured at the Belmont Pump Station and the Los Cerritos Channel. Overall, tests confirmed that concentrations of most metals were significantly lower at the Dominguez Gap Pump Station. Both the wetlands and detention provided by this site are credited with providing storm water treatment that allows discharges to the Los Angeles River to meet acceptable water quality standards under most conditions.

Although the Dominguez Gap Pump Station and associated wetlands have shown significant water quality benefits, the potential exists to further improve water quality and have fewer discharges therefore further reducing mass emissions of metals to the Los Angeles River. Water levels in the wetlands during the early part of the season were maintained at 7-8 feet, which provided capacity for at least one inch of runoff. As the season progressed, water levels in the wetlands and sump were often 10 to 10.5 feet. With the major pumps triggering at 11 feet, relatively small storm events cause discharges to the River. We are continuing to work with the Los Angeles County Department of Public Works in order to reach a common ground as to maintenance

practices that will balance both wetland and storm water benefits and comply with the EIR.

DRY WEATHER CHEMICAL AND BACTERIAL RESULTS

The City's NPDES Permit requires two dry weather inspections and sampling events to be conducted at each of the four mass emission stations during the summer dry weather period.

Site inspections are conducted at all sites to determine if water is present and whether water is flowing or just ponded. If flowing water is evident at any one of the mass emission sites, *in situ* water quality measurements, flow estimates, and composite water samples are taken along with general observations of site conditions.

For the past several seasons the Belmont Pump Station dry weather flows have been diverted to the sanitary sewer system either by means of a temporary pump or by the permanent low-flow diverter system completed in December 2009. During the same general time period, the Dominguez Gap infiltration basin has been modified into a wetland treatment system designed to provide a range of both environmental and recreational benefits. During dry weather periods, flow through the wetlands is intended to be maintained by a summer pump.

Dry weather sampling differs slightly at each monitoring site due to the unique characteristics and constraints at each location. Monitoring at the Los Cerritos Channel site is conducted by extending an intake hose of the sampling station to the low flow channel and setting the equipment to take a full 24-hour composite sample. The automatic peristaltic pump sampler is programmed to collect aliquots every half hour for the sampling period.

The Bouton Creek site experiences tidal influences, which limit the times at which sampling, can be performed. Dry weather sampling is conducted during time periods when extreme low tides allow the tidal water to drain from the channel such that flows are dominated by dry weather discharges. A composite sample is typically collected over a 30-minute period preceding tidal waters reentering the channel to isolate sampling to just the freshwater discharge down the creek. Salinity is monitored during a period of roughly two hours before tidal waters reenter the channel in order to determine when the dry weather (freshwater) flows were represented by at least 90% of the flow.

Dry weather flows in Bouton Creek have notably declined in recent years thus requiring relocation of the dry weather sampling station. Prior to the 2009/2010 monitoring

season, dry weather flows in Bouton Creek were not sufficient to flush seawater from the creek for three consecutive events. The salinity remained at or above 10 ppt, which would be toxic to one of the toxicity test species and could not be considered representative of dry weather discharges from the watershed. As had been done for the 2009/2010 season, for the 2010/1011 surveys the sampling location was again conducted at a location 1,250 feet upstream from the primary site location at the LADPW Alamitos Yard. The new location is just below the point where Bouton Creek emerges from under the California State University at Long Beach (CSULB) campus. The salinity of the water where the samples were collected was 0.9 and 1.2 ppt for the two events. Outfalls located along the creek from Alamitos Yard to CSULB were observed to determine if any major dry weather discharges were missed by moving the site upstream. No discharges were identified from downstream storm drains during these tests.

This is the second year that dry weather discharges were documented and sampled at the Dominguez Gap Pump Station following reconfiguration of the Dominguez Gap Treatment Wetlands. A permanent sump pump maintains relatively continuous flows through the wetlands. The sump pump was in operation for the both dry weather events this storm year.

The treatment provided by the wetlands and detention of dry weather discharges has resulted in water that has consistently met bacterial water quality standards. The overall water quality met all applicable standards including trace metal concentrations required by the Los Angeles River metals TMDL.

TEMPORAL TRENDS IN CONSTITUENTS OF CONCERN

Most long-term trends tend to be obscured by factors that are not evident when exclusively looking at changes in concentrations. However, general trends noted in previous years continue to be reflected in the data.

- The dissolved concentrations of different metals exhibit different responses to wet and dry weather conditions. Dissolved concentrations of three metals (cadmium, copper, and nickel) do not vary substantially between wet and dry weather periods. Nevertheless, the highest concentrations of these three metals are typically encountered in association with early season storm events. Concentrations of two other dissolved metals (zinc and lead) tend to increase substantially in response to storm events. Concentrations of these two dissolved metals also tend to be highest during early season events. However, for

dissolved zinc and lead, concentrations measured during early season events often are up to 5 times higher than late season events.

- Concentrations of total copper, lead and zinc are consistently higher in association with storm flows. All three are strongly associated with suspended sediment during storm events. Correlation and multiple regression analysis confirmed that total recoverable metals were highly correlated with TSS and that variability in sediment loads could explain much of the variation in metals.
- Malathion, another organophosphate pesticide, continues to be commonly detected in storm water at levels exceeding chronic national non-priority pollutant guidelines but has not been implicated as a source of significant toxicity. Highest concentrations continue to occur early in the storm season.
- Fecal indicator bacteria typically exceed Basin Plan water quality criteria during both wet and dry weather monitoring. Interestingly, fecal indicator bacteria measured in association with the four consecutive dry weather monitoring events conducted during the past two years at the Dominguez Gap Pump Station were all below applicable water quality criteria.
- Initial testing of pyrethroid pesticides has provided evidence that these pesticides are commonly detected in storm water. In addition, based upon a review of aquatic toxicity data for these compounds, concentrations were identified to be sufficient to cause significant toxicity in receiving waters. Although these compounds were present at potential toxic levels, the bioassay test species (the water flea *Ceriodaphnia*) currently used to measure toxicity would not have been expected to provide a significant response. Sediment loads are known to mitigate pyrethroid toxicity in the water column due to the tendency for these compounds to attach to particles and not be bioavailable. Impacts are more commonly expected in receiving water sediments where pyrethroid pesticides accumulate and persist. Half-lives of these compounds in sediments are believed to range from several weeks to months.

TOXICITY RESULTS

A general trend of reduced toxicity has been observed at all sites in recent years. Comparisons of the actual toxicity versus expected toxicity calculated from the concentrations of key toxicants provided confirmation that little or no toxicity would be expected in either the storm water or dry weather samples.

No significant daphnid mortality was seen at any of the three stations in any of the five storms collected. Minor water flea reproductive toxicity (2 TU_c) was detected two of five

storms (at the Cerritos Channel station in October 2010 and at the Belmont Pump station in December 2010). Both the frequency (18%) and the magnitude of chronic toxicity were decreased from pre-2009 levels.

Toxicity to sea urchin fertilization was not detected at any of the stations during any of the five storm events. The frequency (0%) and magnitude ($2TU_c$) of storm water toxicity to sea urchins during both the 2009/2010 and 2010/2011 monitoring periods were decreased from previous years.

The comparison with storm water samples from early storms in other southern California watersheds detailed in previous reports suggested that the Chollas Creek (San Diego) and Ballona Creek (Santa Monica) urchin results were overall more similar to Long Beach than were the Los Angeles River and San Gabriel River results, as the Chollas and Ballona samples were obtained from smaller highly urbanized watersheds. More recent data show a pattern of decreasing frequency and magnitude of wet weather toxicity to both water fleas and sea urchins in Long Beach and in other southern California watersheds. The reduction in toxicity to water fleas is clearly attributable to the near elimination of chlorpyrifos and diazinon in storm water samples since these chemicals were banned for most applications.

RECOMMENDED PROGRAMATIC CHANGES

Only minor adjustments to the NPDES monitoring program are recommended based upon the results of the 2010/2011 monitoring period as well as work conducted over the past eleven years.

- Pyrethroid pesticides are recommended for continued monitoring at all mass emission sites. Monitoring of these compounds was implemented midyear and yielded relatively high levels compared to other programs in Southern California. They also showed some trends in seasonality with higher concentrations in association with the initial sampling period. In addition it is recommended that the City join with CASQA's (California Storm water Quality Association) efforts to improve pesticide regulation processes and encourage use of IPM (integrated pest management) to minimize use of pesticides.
- Install sensors to monitor run time for the sump pump at Dominguez Pump in order to estimate discharges through the dry season. A request has been submitted to the County to provide open contacts that can be integrated with the storm water monitoring equipment at this site.

- Continue to work with the County to improve operation of the wetlands and pump station during the wet season. This effort should emphasize compliance with the Project's EIR.

6.6 SPECIFIC HIGHLIGHTS AND ACCOMPLISHMENTS DURING THIS REPORTING PERIOD

Despite the financial crisis and other challenges, the City of Long Beach had many accomplishments in FY11. The Los Angeles Gateway Region, Integrated Regional Water Management Joint Powers Authority (LA Gateway Authority) has completed its catch basin project in Long Beach. The work consisted of the installation of 2,684 CPS devices and 670 ARS devices. The first phase of the Colorado Lagoon project, a major Stimulus Funded Project, has been completed with an estimated second phase completion date of Spring 2012. The Termino Avenue Drain Project was complete in September 2010 before the scheduled completion date of December 2011.

6.7 SUGGESTIONS TO IMPROVE LBSWMP

The Storm Water/Environmental Compliance Division is in the process of revisiting plans and development strategies to specifically address future requirements and allocations of resources to meet three existing TMDLs at the Los Angeles River, Los Cerritos Channel, Colorado Lagoon, and three new TMDLs at the Harbor, Beaches and Coyote Creek. Reconstruction of the Division Website will vastly contribute to Education to the Public as well as an informational reference site for the City residence and businesses providing the City's NPDES requirements. This website will also serve other Departments such as Development Services and the Redevelopment Agency for guidance and enforcement of the Clean Water Act and a reference for the Municipal Code and other City use.

6.8 THE FUTURE

The City of Long Beach will continue to work on the following items in the future:

- Work on the City's New NPDES Permit with the LARWQCB, Spring/Summer 2012.
- Assistance in the Implementation of the LID Ordinance.
- Development and Implementation of the City's Underground Storage Tank (UST) Compliance Management System. The goal, to operate and maintain an environmentally safe UST program in accordance with State Water Resources Control Board regulations.

- Implementation of Low Flow Diversion facilities at the 8th and Roswell (Termino Drain Project) as well as other locations in the City.
- Inclusion of structural “TREATMENT TRAIN” BMPs for all new street projects.
- Continue implementation of the USEPA TMDLS for, Los Cerritos Channel and the Los Angeles River.
- Activation of the LFD for the Termino Avenue storm drain system and the Colorado Lagoon Remediation/Restoration project.
- Continue to work with LA River Watershed cities on the LA River Metals TMDL (Compliance Monitoring Plan – Ambient Monitoring and the LA River Bacteria TMDL –Development)
- LA River Trash TMDL – Compliance reporting and enhancements.
- Continue to work with San Gabriel River Watershed cities on the Metals TMDL (Compliance Monitoring Plan – Ambient Monitoring and the Coyote Creek TMDL, Development of the Implementation plan)
- Work with US EPA and the LARWQCB in the development of a new Beaches TMDL.
- Continued assessment of Ab-Tech Sponge performance and development a of replacement program funding source.

INTENTIONALLY LEFT BLANK

APPENDICES



Date: September 21, 2011
To: Department Heads
From: Patrick H. West, City Manager
Subject: Storm Water Annual Report

Each year the City is required to submit an Annual Storm Water Permit and Assessment Report to the Los Angeles Regional Water Quality Control Board on or before December 1. This report summarizes the City's efforts to maximize the use of Best Management Practices in order to minimize the amount of trash and debris that flows through the storm channel system and into the ocean.

Your department's effort to join with other City Departments to support the City's National Pollution Discharge Elimination System (NPDES) permit this past year has led to substantial improvements in the collection of recyclables, beach trash, street sweeping, and dumped items. In total, Long Beach Storm Water Management Plan was implemented at an estimated cost of \$29 million last year on programs and services to make Long Beach a cleaner city and its waterfront a tourist destination.

In order to ensure the City continues to meet NPDES compliance requirements, all departments under my administrative control are requested to supply the Storm Water/Environmental Compliance staff with the information essential to complete the Annual Storm Water Permit and Assessment Report on or before October 14, 2011.

I want to thank you and your staff for contributing to this outstanding effort. Together we can have a positive influence on our community and the residents who call Long Beach home. If you have questions or would like additional information please contact Anthony Arevalo, Storm Water/Environmental Compliance Officer at 562-570-6023.

PHW:AGA:cb



October 28, 2011

Mayor Bob Foster
City of Long Beach
333 West Ocean Blvd.
14th Floor
Long Beach, CA 90802

Dear Mayor Foster:

Congratulations! The City of Long Beach has been chosen to receive **2011 Project of the Year** awards from the Southern California Chapter of the American Public Works Association (APWA). These awards are for the following City projects:

1. Broadway & Third Street Separated Bikeways (Cycle Track)
2. Long Beach Trash TMDL Project

APWA is the professional association of Public Works leaders throughout the United States and Canada. The Southern California Chapter covers Los Angeles, Orange, Riverside and San Bernardino Counties and there are over 1,400 members in the Chapter. The purposes of the Chapter's awards program are to recognize public agencies for their outstanding projects and programs, and to share the wealth of good ideas.

The 2011 awards ceremony and presentation will be held at the APWA Southern California Chapter's 12th Annual Awards Luncheon on:

Wednesday, December 7, 2011
11:30 a.m. – 1:30 p.m.
The Centre at Sycamore Plaza, Lakewood Civic Center.

We hope that you and your staff will attend this important event to receive your plaque personally. Attached is a reservation form with additional instructions. You may also wish to reserve a display table for showcasing information or photos of your worthy project.

Congratulations again and we look forward to recognizing your City.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dino D'Emilia'.

Digitally signed by Dino D'Emilia
DN: cn=Dino D'Emilia, o=AndersonPenna
Partners, ou=Construction Services,
email=ddemilia@andpen.com, c=US
Date: 2011.11.01 19:44:08 -0700

Dino D'Emilia
APWA President

Enclosure

cc: Patrick H. West, City Manager, w/enclosure
Michael P. Conway, Director, Public Works Department, w/enclosure
Kendall Zirkel, AECOM, w/o enclosure
Emma Sorto, KOA Corporation, w/o enclosure



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Ban on Plastic Bags

Beginning August 1, Long Beach retail stores will no longer be offering customers plastic bags upon checkout. Instead, residents are encouraged to use reusable totes. Manager of environmental services Jim Kuhl, brought his friendly mascot Mr. Scales, to his Nonstop News LA interview with

Jul 28, 2011

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Seal Beach Massacre: The Investigation 1:18



LA Firefighters Investigated for Helping... 2:47

The Victims of Seal Beach 1:



Traffic Officer 4:35



Young Men and Women May Share UCLA Dorm... 1:45



Weekend: Haunted Hayride, CicLAvia, Mole... 1:46



Porn Actress Firefighters: "



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SOUTHERN CALIFORNIA -- THIS JUST IN

Long Beach: Water quality shows dramatic improvement

September 27, 2011 | 11:28 am



The much-maligned waters off Long Beach have improved significantly, according to a new report that gives it ratings in a decade.

All of the beaches in the city earned As or Bs in the environmental group Heal the Bay's [End of Summer Beach](#)

It's a dramatic turnaround for Long Beach, whose beaches often rank among the most polluted in the state. L grades. Long Beach is the outlet for the Los Angeles River, a major conduit for polluted runoff.

Statewide, 92% of California beaches earned A or B grades this year, the same as last year, according to the report. But the picture was not rosy at some Southern California beaches.

Cabrillo Beach in San Pedro earned an F for the eighth consecutive summer, despite millions of dollars spent. Also flunking were a number of popular beaches in Malibu, including Surfrider Beach, Malibu Pier, Solstice C Beach at Sweetwater Canyon and Topanga State Beach.

The annual report by Heal the Bay evaluated hundreds of beaches in California, Oregon and Washington from A to F based on tests for bacterial pollution, which indicate how likely the water is to make swimmers sick.

The improvements in Long Beach factored into an overall increase in water quality in Los Angeles County, which went up from 79% last year, according to the report.

Long Beach officials credited the gains to new projects to treat or divert pollution before it flows into the ocean and an effort to clean up what has historically been the city's most contaminated swimming spot: Colorado Lagoon.

[A city report](#) also documented improvements in beach water quality over the summer, saying "major efforts to clean up from storm drains, intercept trash and sediment, and improve circulation and mixing appear to have positive

ALSO:

[Woman's body discovered at Huntington State Beach](#)

[100 years later, Channel Island wetlands to be restored](#)

[Shark warnings issued for beaches in San Luis Obispo County](#)

-- Tony Barboza

Photo: A boy jumps off a bridge into Alamitos Bay in Long Beach during training in July for the city's junior Olympic team. Photo by [unreadable] for the Los Angeles Times

[Daily Whale Watching](#)

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Pete Mizera · I sit comfortably in a cubicle at State of California

Not bad. Too bad Mexico still dumps junk into Calif waters

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A Tribune Web site



Brittany Murray Staff Photographer

Work has begun to repair a culvert, or rain channel, at the intersection of Delta Avenue and Wardlow Road. The intersection has seen 6 inches of water accumulate during past rainstorms.

Draining West LB's rain

PROJECT: Repair near intersection at Wardlow Road and Delta Avenue to limit water buildup.

By **Greg Mellen** Staff Writer

LONG BEACH — Alphonso Gordon didn't have the Public Works Department phone number on speed dial, but it was stored on his cell phone.

Each time the rain would start falling in the West Long Beach neighborhood where he lives, Gordon would be on the phone to have a truck come over and pump water from the intersection of Wardlow Road and Delta Avenue.

Residents said any measurable rainfall would quickly inundate the area.

"In 20 minutes it would be this deep," Gordon said, indicating a depth of about 6 inches.

The intersection blockage is a particular challenge, as it provides the only access to a neighborhood of about 90 homes bracketed by the San Diego (405) and Long Beach (710) freeways.

On a sunny Tuesday morning, without a hint of rain in the forecast, City Councilman James Johnson held a ceremonial groundbreaking near the intersection to announce that the trouble spot was already being repaired.

Mike Conway, the director of Public Works, said at issue was a 1-foot by 4-foot culvert beneath the road that had lacked sufficient reinforcement and had collapsed over the years.

In the course of the next two weeks, about 100 feet of the culvert



Jeff Gritchen Staff Photographer

Jeremy Brown rides through a flooded intersection at Delta Avenue and Wardlow Road in Long Beach after a December storm. Public Works Director Mike Conway says the 1- by 4-foot culvert underneath the road lacked sufficient reinforcement.

is being replaced at a cost of about \$65,000, according to Conway.

"This was more than a nuisance. In this neighborhood it was a hazard," said Johnson, adding that it became a priority when he took office.

"I said, 'We're going to get this done, and we're not going to get it done in years, we're going to get it done in months,'" Johnson said.

Not only did residents have to cut corners to negotiate the intersection, but at times they would drive over curbs if the flooding was particularly bad.

Even more hazardous, children attending nearby John Muir Academy or Stevenson Middle School would have to walk down the road and cross in the middle of the block to get to school, Gordon said.

Johnson said the repairs would

actually save taxpayers money, because crews would no longer need to be dispatched each time it rained.

Art Cox, superintendent for Public Works, said the intersection was problematic because without the culvert there was no natural runoff area, meaning water would stay there until pumped away.

Cox said the city regularly monitors about 30 difficult intersections and ranked Wardlow Road and Delta Avenue among the top three. Although Gordon may not yet be ready to remove the public works number from his phone, he said he is happy to see the work under way.

"I got nothing negative to say now that it's getting fixed," Gordon said.

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Plastic bag ban goes into effect

By Phillip Zonkel, Staff Writer

Posted: 08/01/2011 07:23:40 PM PDT

Updated: 08/01/2011 10:05:15 PM PDT



Margie La Bouff's, of Long Beach, shopping cart is filled with groceries in reusable shopping bags. Monday is the first day of Long Beach's ban on plastic bags for grocery stores Target and Walmart; although La Bouff had already been in the practice of using the reusable bags. (Steve McCrank / Staff Photographer)

PHOTO GALLERY

LONG BEACH - For Margie La Bouff, Monday was just another day at the store.

That's the day when the city's ordinance banning the use of plastic carryout bags went into effect for larger stores.

La Bouff, 56, and a married mother with two daughters, was leaving Target on Bellflower Boulevard with a shopping cart filled with eight tote bags stuffed with groceries.

La Bouff has been shopping with tote bags for several years, she says.

"I like the idea of banning plastic bags," La Bouff said. "These (tote) bags are easier to unpack when I get home."

The ban, enacted by the City Council in May, makes Long Beach the 12th city or county in California to restrict plastic bags since San Francisco's 2007 law.

The ordinance's intent is to reduce litter, plastic debris in waterways and storm drains and waste transported to landfills.

About 66 larger retailers, such as supermarkets, drugstore chains and stores including Target and Walmart, are banned from distributing the bags.

Tim Slope, who also was leaving Target, agrees with the ordinance, too. Slope purchased a reusable bag while shopping, but says he has about 10 additional tote bags at home.

Slope, 47, says he's been using reusable

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bags for three years to reduce waste and save the environment.

"And they don't break," he said.

A high-quality reusable tote can replace 600 plastic carryout bags over its lifetime, according to the city's www.litterfreelb.org.

It's important to keep the reusable bags clean by washing them as frequently as possible. Consumers should designate one bag for meat products and another for produce.

Retailers are allowed to provide customers with paper bags, but must charge 10 cents per bag under the ordinance. The retailers keep the money to offset their costs in purchasing paper bags.

Everyone, however, isn't happy with the plastic-bag ban.

At the other end of the shopping center anchored by Target, Rosario Juraeo, 39, who had a cart stuffed with seven paper bags of groceries from Trader Joe's, says the ban is a bad idea.

"A lot of people use the plastic bags to collect trash in the house, but now they can't," Juraeo said. "They have to buy other plastic bags.

Stores are required to provide a free reusable bag or paper bag for customers participating either in the California Special Supplemental Food Program for Women, Infants, and Children or the Supplemental Food Program.

About 2,000 smaller corner markets, liquor stores and others must comply with the ban beginning Jan. 1.

Businesses not offering perishable foods, such as clothing stores and sporting-goods outlets, are exempt.

phillip.zonkel@presstelegram.com, 562-499-1258

Bag giveaways

Through Aug. 9, Albertsons shoppers can earn a free reusable bag, while supplies last, when they spend \$30 or more on qualifying products in a single transaction with their Preferred Savings Card. Participating locations include:

6255 E. Second St.

644 Redondo Blvd.

101 E. Willow St.

6235 E. Spring St.

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Volunteers to scour 6 Long Beach sites for trash

By Joe Segura, Staff Writer

Posted: 09/14/2011 05:45:29 PM PDT

Updated: 09/14/2011 06:13:33 PM PDT

LONG BEACH - An army of volunteers will fight the forces of debris Saturday, helping to clean up city beaches and other recreational water sites, during the 27th annual California Coastal Cleanup Day.

The volunteers - armed with gloves and trash containers - will work from 9 a.m. to noon at several locations - Alamitos Beach, meeting at the intersection of Ocean Boulevard and Alamitos Avenue; Belmont Plaza Pool, 4000 E. Olympic Plaza; Bluff Park, at Ocean Boulevard and Coronado Avenue; Colorado Lagoon, at East Appian Way and Colorado Street; Mother's Beach, at East Appian Way under the Second Street Bridge; and Pierpoint Landing, 200 Aquarium Way.

"Every year, millions of pounds of trash flow to our ocean through storm drains and rivers and eventually ends up on our beaches. This not only affects how our beaches look, and also the health of the plants and animals that live there," Mayor Bob Foster said in a prepared statement. "Keeping our beaches clean is a great way to support Long Beach and the environment at the same time."

More than 1,600 people cleaned up one ton of trash last year.

A larger gathering of volunteers would be helpful, event coordinator Brooke Davis said.

"People could spend hours on the beach," and find debris needing to be scooped up, Davis added.

The El Dorado Nature Center has coordinated coastal cleanups for at least 10 years, and it has been involved in the annual Coastal Cleanup Day for more

than 20 years.

Inland cities along the Los Angeles River channel are also involved in the cleanup in efforts to reduce the debris washed to the shores following heavy rains, Davis said.

The rain last weekend likely increased the level of debris in Long Beach, Davis said.

"It should be interesting," she added.

Heal the Bay is coordinating areas outside of Long Beach, according to Davis. She added that groups as far as Ontario and Lancaster are involved.



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To participate this year, just show up at any of the six cleanup sites and sign in.

Cleanup supplies and free parking will be provided. However, to minimize the use of plastic bags, volunteers are encouraged to bring their own reusable bag or bucket to pick up trash.

joe.segura@presstelegram.com, 562-499-1274

California Coastal Cleanup Day

When: Saturday, 9 a.m. to noon

Where: Alamitos Beach, meeting at the intersection of Ocean Boulevard and Alamitos Avenue; Belmont Plaza Pool, 4000 E . Olympic Plaza; Bluff Park, at Ocean Boulevard and Coronado Avenue; Colorado Lagoon, at East Appian Way and Colorado Street; Mother's Beach, at East Appian Way under the Second Street Bridge; and Pierpoint Landing, 200 Aquarium Way.

Information: For group registrations, call 562-570-4876. For more information, go to www.longbeach.gov/naturecenter and click on "California Coastal Clean Up," or go to www.coast4u.org.

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Termino Storm Drain Project Beats Rainy Season

By Harry Saltzgaver

Executive Editor | Posted: Wednesday, October 5, 2011 1:44 pm

After two years, \$25 million and at least a few upset neighbors, the Termino Avenue Storm Drain Project will be complete as of next Wednesday.

The party will take place on Termino Avenue between 11th Street and Anaheim Boulevard, the same place the groundbreaking ceremony occurred in October 2009. That is the neighborhood that has suffered repeated flooding due to an undersized storm drain over the last several decades.

Los Angeles County Public Works oversaw the project, which Fourth District County Supervisor Don Knabe says he has worked on for nearly two decades. Kerjon Lee, spokesman for the Public Works Department, said the project never would have happened without help from Third District Councilman Gary DeLong, Fourth District Councilman Patrick O'Donnell and Mayor Bob Foster.

A decade ago, a plan to put a new storm drain ending at Colorado Lagoon was successfully challenged in court by area residents. It took eight more years to design a new project ending at Marine Stadium, with a low-flow diversion connecting directly to the sewer system.

“Our original completion date was November 2011,” said Brittany Barker, project manager for LA County. “So we finished early and we stayed within budget.”

About two miles of storm drain was installed, starting with a 36-inch in diameter pipe at Redondo Avenue and Anaheim Street and gradually growing to a double box 18 feet high and 8 feet wide at the entrance to Marine Stadium. Several lateral storm drains, including others that had dumped into Colorado Lagoon, were connected to the main drain.

There are 111 new catch basins along with the drain, and all of those basins will include double screen system designed to eliminate all debris from the flow. The low-flow diversion means the highly polluted urban runoff that occurs from lawn watering and other sources will no longer go to the lagoon or Alamitos Bay without being treated.

Once work began at Marine Stadium and started moving west along the Pacific Electric right-of-way, controversy erupted over dirt piles placed next to homes. A number of public meetings took place, the piles were covered and kept moist, and the project continued.

“There are inconveniences with any construction,” Barker said. “There’s going to be dust, etc. We appreciated the community’s patience and support. At the end of the job, I think we can say we had a successful project.”

Rain this week provided a bit of a test run for the drain, which already is carrying water. Barker said that installation of some of the last screens should take place in the coming week.

Then Knabe and Long Beach officials will be joined by the contractor, county workers and residents from Colorado Lagoon to Termino Avenue to celebrate. The party is at 10 a.m. next Wednesday.

MAKE A NOTE BRING A TOTE

OR POST THIS NOTE AS A REMINDER

Beginning August 1, 2011,
retailers in Long Beach will no
longer provide plastic carryout bags.

Long Beach Municipal Code Chapter 8.62

To help keep Long Beach neighborhoods litter-free,
the Long Beach City Council has adopted an ordinance to
discontinue the distribution of plastic carryout bags by retailers.

Please remember to bring a reusable tote to avoid a 10¢ fee
per paper bag.

Tips for remembering your totes:

- ✓ Jot a reminder down on your shopping list
- ✓ Keep this flyer in your car as a reminder if you're
storing totes in the trunk of your car
- ✓ Ask kids to remind you to bring your totes
- ✓ Keep a tote in the office and in your purse or backpack



For more information, visit www.litterfreeLB.org or call the
Environmental Services Bureau Hotline at 562-570-2876.



ENVIRONMENTAL SERVICES BUREAU

WINNER NATION'S BEST SOLID WASTE MANAGEMENT PROGRAM AWARD

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TOME NOTA DE TRAER UNA BOLSA

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Comenzando el primero de Agosto del 2011
las tiendas en Long Beach ya no proveerán
bolsas de plástico

Código Municipal de Long Beach Capitulo 8.62

Para ayudar a mantener los barrios de Long Beach libres de
basura el ayuntamiento de la ciudad de Long Beach ha
adoptado una ordenanza que descontinúa la distribución de
bolsas de plástico.

Por favor recuerde de traer una bolsa reutilizable para evitar un
cargo de diez centavos por cada bolsa de papel.

Consejos para recordar sus bolsas:

- ✓ anote un recordatorio en su lista de compras
- ✓ mantenga este cartel en su coche como recordatorio si esta guardando bolsas en la cajuela del coche
- ✓ pida que los niños le den un recordatorio
- ✓ mantenga una bolsa en la oficina, en su bolso, o en la mochila

Para mas información visite www.litterfreeLB.org o llame al
Environmental Services Bureau Hotline al 562-570-2876.



ENVIRONMENTAL SERVICES BUREAU

WINNER NATION'S BEST SOLID WASTE MANAGEMENT PROGRAM AWARD

IMPRESO EN PAPEL RECICLADO



BRING A TOTE FOR SHOPPING

Starting January 1, 2012,
plastic bags will not be
provided in Long Beach.

Long Beach Municipal Code Chapter 8.62

Paper bags will cost 10¢ each.



www.litterfreeLB.org

Environmental Services Bureau Hotline: 562-570-2876



ENVIRONMENTAL SERVICES BUREAU

WINNER NATION'S BEST SOLID WASTE MANAGEMENT PROGRAM AWARD

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TRAIGA UNA BOLSA PARA SUS COMPRAS

Comenzando el primero de
Enero del 2012, bolsas de plástico
no serán proporcionadas
en Long Beach.

Código Municipal de Long Beach Capitulo 8.62

Bolsas de papel costaran diez centavos
cada una.



www.litterfreeLB.org

Environmental Services Bureau Hotline: 562-570-2876



ENVIRONMENTAL SERVICES BUREAU

WINNER NATION'S BEST SOLID WASTE MANAGEMENT PROGRAM AWARD

IMPRESO EN PAPEL RECICLADO



Plastic bags are no longer provided in Long Beach.
Bring a tote bag.



www.litterfreeLB.org



www.litterfreeLB.org

Bolsas de plástico ya no serán proporcionadas en Long Beach.

Traiga una bolsa.

Starting 2012,
plastic bags will
not be provided in
Long Beach.

Long Beach Municipal Code Chapter 8.62

Paper bags will cost 10¢ each.

Bring a tote bag.



www.litterfreeLB.org

Environmental Services Bureau Hotline:
562-570-2876



www.litterfreeLB.org

Environmental Services Bureau Hotline:
562-570-2876

Comenzando el
primero de Enero del
2012, bolsas de plástico
no serán proporcionadas
en Long Beach.

Código Municipal de Long Beach Capitulo 8.62

Bolsas de papel costaran diez
centavos cada una.

Traiga Una Bolsa.



CITY OF LONG BEACH ENVIRONMENTAL SERVICES BUREAU
WINNER NATION'S BEST SOLID WASTE MANAGEMENT PROGRAM AWARD

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To enroll in the next class, call
(562) 570-4694 or email
recycle@longbeach-recycles.org

www.longbeach-recycles.org



The City of Long Beach intends to provide reasonable accommodations in accordance with the Americans with Disabilities Act of 1990. This information is available in an alternative format by request to 562-570-2850.

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The Right Oil Change ends with Recycling



www.longbeach-recycles.org

Used motor oil and filters are collected by request only.

Call (800) RECYCL2 by 4 p.m. to request free collection containers, or to schedule an oil and filter pick up on your next recycling collection day.



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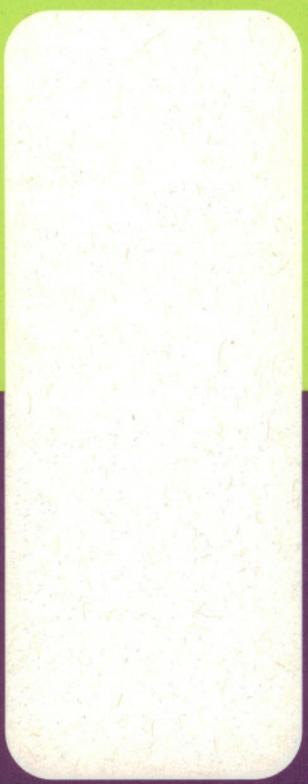
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ENVIRONMENTAL SERVICE BUREAU



Environmental Services Bureau
2929 East Willow Street
Long Beach, CA 90806
(562) 570-2876



Tired of your mailbox being stuffed with endless catalogs, credit card offers, and coupons? Junk mail may seem as inevitable as death and taxes, but a few simple steps can make a big difference. Reducing your junk mail not only makes your life less cluttered, it saves precious resources like trees, energy, and landfill space.

Use this kit to substantially reduce your unwanted mail. Fill out, sign, and mail the attached postcards. Make sure to write your name and address exactly as they appear on your junk mail.



THE BULK OF YOUR JUNK

Businesses and organizations subscribe to the Direct Marketing Association (DMA), giving them access to the largest mailing list in the country. Sending the attached postcard to the DMA's Mail Preference Service will eliminate the largest portion of your junk mail.

After receiving the postcard, the DMA will remove your address from its list and it will remain "deleted" for 5 years. It may take 3 months or more for your request to take effect. If you want to remain on some mailing lists, such as a particular catalog, notify them individually.

UNADDRESSED MAIL

Stopping the bundles of unaddressed flyers that come to your mailbox is a 2-step process. First, send the attached postcards to ADVO and Harte-Hanks. That will stop the address card that goes with the flyers. If you continue to get the flyers even without an address card, call the supervisor at your local post office and tell them you received unaddressed mail. Point out that you have specifically asked to be taken off the lists so they understand you're serious about eliminating junk mail.



MORE TIPS TO REDUCE JUNK MAIL

- Call your bank and credit card companies to find out how to request that they don't sell, trade, or lend your name to other mailing lists.
- Avoid participating in sweepstakes and contests unless you can request to not have your name added to a mailing list. When completing warranties, product registrations, or questionnaires, don't include personal information—companies don't need it for your warranty.
- When giving your name and address to a business or organization, request that they not rent, sell, or exchange it with anyone else.
- Recycle any junk mail that you do receive.

To learn more tips for preventing waste, check the California Integrated Waste Management Board's Waste Reduction World at www.ciwmb.ca.gov/wpw/home.

In accordance with the Americans with Disabilities Act of 1990, this material is available in an alternate format by calling (562) 570-2850.

Printed on recycled paper.

PROTECT YOUR NAME

Think twice before entering a contest, joining a store's club card program, or sending in a warranty card. Your name could go on a mailing list that gets sold or rented, resulting in more junk mail.

CREDIT CARD OFFERS

To reduce credit offers from any of the 4 major credit reporting companies (Equifax, Experian, Innovis, or Trans Union), call the Credit Reporting Industry Pre-screening Opt Out number: 888-5-OPTOUT

JUNK PHONE CALLS

Stop getting telemarketing sales calls you don't want. Put your phone numbers on the Federal Trade Commission's *Do Not Call Registry*. Sign up on-line at DONOTCALL.GOV, or call toll-free, 888-382-1222 (TTY 1-866-290-4236) from the number you wish to register.

JUNK E-MAIL

The e-Mail Preference Service (e-MPS) is a consumer service sponsored by the DMA. The DMA does not provide marketers with consumer e-mail lists. The e-MPS is available to companies for the sole purpose of removing your e-mail address from their lists. Register at www.dmaconsumers.org.

HAND-DELIVERED FLYERS

Attach a NO ADVERTISING sign to your mailbox, front door, and any other place that you get hand-delivered flyers. This may not stop the deliveries entirely, but it should reduce the number of flyers that you get. Visit www.litterfreeLB.org to find out how you can obtain a free door sign.

DON'T FORGET TO RECYCLE

RECYCLE junk mail and any other mixed paper you don't want.



PLACE
STAMP
HERE

ADVO
Consumer Assistance
P.O. Box 249
Windsor, CT 06095

Mail Preference Service
Attn: Dept: 10088342
Direct **M**arketing **A**ssociation
P.O. Box 282
Carmel, NY 10512

PLACE
STAMP
HERE

Please remove my name and address from your mailing and marketing lists.

Name _____
Address _____
City _____ State _____ Zip _____
Variations of my name _____
Variations of my address _____
Signature _____ Date _____

Please remove my name and address from your mailing and marketing lists.

Name _____
Address _____
City _____ State _____ Zip _____
Variations of my name _____
Variations of my address _____
Signature _____ Date _____

Please remove my name and address from your mailing and marketing lists.

Name _____
Address _____
City _____ State _____ Zip _____
Variations of my name _____
Variations of my address _____
Signature _____ Date _____

PLACE
STAMP
HERE

Harte-Hanks Circulation
C/O Pennysaver
2830 Orbiter Street
Brea, CA 92821

Please remove my name and address from your mailing and marketing lists.

Name _____
Address _____
City _____ State _____ Zip _____
Variations of my name _____
Variations of my address _____
Signature _____ Date _____

PLACE
STAMP
HERE

Valpak Direct Marketing Systems, Inc.
8605 Largo Lakes Drive
Largo, FL 33773

Clean and Safe Neighborhoods in Long Beach



www.litterfreeLB.org

Neighborhood cleanliness is a shared responsibility of property owners, managers and tenants. When properties, homes and neighborhoods are kept clean, it improves property values and the quality of life in Long Beach. There are many ways to help, from placing litter and debris in the trash to reporting abandoned items and illegal dumping. Help create a clean, safe and healthy environment for your children and yourself.

LITTER REDUCTION

STORM DRAINS

The City of Long Beach must comply with the National Pollutant Discharge Elimination System (NPDES) mandates of the Clean Water Act. The goal of the Clean Water Act is to prevent all non-storm water discharges from entering the storm drain system (streets, gutters and catch basins) which leads directly to the ocean.

Debris and pollutants can enter the storm drain from streets, gutters and catch basins. The law requires that all property owners and/or tenants maintain their properties and the adjacent area, including sidewalks, streets, gutters, catch basins and alleys. All pollutants – including trash, leaves, litter, cigarette butts, oil, hazardous waste, and pesticides — are prohibited by law from entering the storm drain system. The City has the right to impose liens on properties that are not properly maintained and cause pollution to enter the storm drain system. Enforcement actions such as civil or criminal prosecution, resulting in fines (up to \$50,000/day) and/or imprisonment may also occur. To report illegal dumping into the storm drain system, call 570-2876.

GARDENING

Gardeners may not blow, hose or sweep any debris into the streets, gutters or storm drains. Yard waste can be composted or belongs in a refuse container for collection. Property owners and managers are responsible for the actions of their gardeners. It is also the responsibility of property owners, managers and tenants to keep weeds around the property under control.

www.litterfreeLB.org
CITY OF LONG BEACH
ENVIRONMENTAL SERVICES BUREAU



ABANDONED ITEMS

It is illegal to abandon items in the street, alleys, sidewalks or any area adjacent to your property. These items include vehicles, old mattresses and furniture, shopping carts, and hazardous waste.

If you observe someone illegally dumping large items, trash or hazardous waste, call the Police Department (911).

Call 570-2850 to receive a free "No Dumping" sign to post on your property.

Residents with City-provided refuse service may dispose of bulky, oversized items including furniture, appliances (with doors removed), tree branches, yard debris and other odd items by calling the Environmental Services Hotline at (562) 570-2876 and scheduling a pickup. Two free pickups are available to each residence each year.

GRAFFITI REMOVAL

The City of Long Beach provides several programs for controlling graffiti. These include a Free Paint Program for property owners choosing to remove the graffiti themselves; a Graffiti Removal Program which utilizes a professional paint contractor (to ensure perfect paint match when necessary), or misdemeanor offenders performing community service by removing graffiti from major city corridors; and a Graffiti Prevention Landscape Program, employing a landscape contractor to recommend and provide graffiti-deterrent vines and shrubs for walls and fences attractive to vandals. To report "graffiti sightings" or request free paint, call the 24-hour GRAFFITI HOTLINE at (562) 570-2773.

RECYCLING & REFUSE

SUFFICIENT REFUSE SERVICE

It is the responsibility of the refuse account payer (usually the property owner or tenant) to arrange for sufficient refuse collection service in order to prevent refuse bins from overflowing. Account holders who have overflowing bins will be required to increase refuse service and pay for the removal of overflow debris (LBMC 8.60.020).

RECYCLING AND SOURCE REDUCTION

All Long Beach residents are encouraged to implement recycling programs. This includes buying products with less packaging (source reduction), re-using materials as much as possible and recycling cardboard, paper, plastic and metal. Property owners are encouraged to work with a private hauler or independent recycling company to develop these programs, or take the materials directly to a recycling center. For more information, call the City's Recycling Hotline at (562) 570-2876.

In accordance with the Americans with Disabilities Act of 1990, this information is available in an alternate format by calling (562) 570-2850 or calling TDD# 570-2863.

Printed on recycled paper.

There are two ways Long Beach residents can recycle their used motor oil and filters. It's easy and keeps our neighborhoods clean and safe.

1. Call for a pick-up by the Residential Recycling Program.
Used motor oil and filters are collected by request **ONLY**.

Call (800) RECYCL2 by 4 p.m. to request free collection containers, or to schedule an oil or filter pick up on your next recycling collection day. Place motor oil and filters two feet away from your recycling cart or bin (not inside them) and **ONLY** if a pick up has been scheduled.

2. Drop it off at a Certified Collection Center.

If you do not receive residential recycling service, call (562) 570-2876 for a list of certified used oil recycling centers in Long Beach. Place used motor oil or filters into any sealed container and take it to one of the conveniently located centers. You'll receive 16¢ for each gallon of motor oil you recycle at these centers.



Hay dos formas para que los residentes de Long Beach reciclen el aceite y los filtros usados de los motores. Es sencillo y mantiene nuestros vecindarios limpios y seguros.

1. Llame a un recolector del Programa de Reciclado Residencial.
El aceite y los filtros usados de los motores son recolectados **ÚNICAMENTE** a pedido.

Llame al (800) RECYCL2 hasta las 4 p.m. para solicitar contenedores de recolección sin cargo o para programar una recolección de aceite o filtro el próximo día su recolección de reciclables. Coloque el aceite y los filtros de motores a dos pies de distancia de su carro o cubo de reciclaje (no dentro de ellos) y **ÚNICAMENTE** si se ha programado su recolección.

2. Dépositelo en un Centro de Recolección Certificado.

Si no recibe el servicio de reciclado residencial, llame al (562) 570-2876 para solicitar una lista de los centros certificados de reciclaje de aceite usado en Long Beach. Coloque el aceite o los filtros de motores usados en cualquier contenedor sellado y llévelo a uno de los centros convenientemente ubicados. Recibirá 16¢ por cada galón de aceite de motor que recicle en estos centros.



Environmental Services Bureau
2929 East Willow Street
Long Beach, CA 90806



**LEAVING DEBRIS
ON THE STREET OR IN
THE ALLEY IS ILLEGAL**

**DEPOSITAR ESCOMBROS
EN LA CALLE O EN LOS CALLEJONES ES ILEGAL**



LB Municipal Code 8.60.111

No person shall put, place, sweep, throw, brush or in any other manner deposit any refuse, litter, vegetation, or any other waste in or on any public right-of-way or any portion of the storm drain system. This includes but is not limited to streets, gutters, sidewalks, parkways and alleys.

Violators can be fined up to \$1,000

Two Free Special Collections

Each residential refuse account receives two free special collections per year to pick up oversized items.

Código Municipal de Long Beach 8.60.111

Ninguna persona debe dejar, colocar, barrer, arrojar, cepillar o depositar de cualquier otra forma ningún residuo, basura, vegetación o todo otro desperdicio en o sobre cualquier servidumbre de paso público o cualquier parte del sistema de desagüe pluvial. Esto incluye, pero no se limita a las calles, desagües, aceras, bulevares y callejones.

Los infractores pueden ser multados hasta \$1,000

Dos recolecciones especiales sin cargo

Cada cuenta de recolección de residuo residencial recibe dos recolecciones especiales sin cargo por año para recoger los artículos grandes.

CALL 570-2876

to schedule your special collection or visit www.longbeach-recycles.org

Items that can be picked up include:

Televisions	Furniture
Computers and monitors	Tires No rims, 16" max. size
Appliances For safety, refrigerators and freezers must have doors removed	Tree branches, yard debris 4-ft, 40-lb tied bundles

In accordance with the Americans with Disabilities Act of 1990, this information is available in an alternate format by calling (562) 570-2850 or calling TDD# 570-2863. Printed on recycled paper.

LLAME AL 570-2876

para solicitar su recolección especial o visite www.longbeach-recycles.org

Los artículos a recolectarse incluyen:

Televisores	Muebles
Computadoras y monitores	Llantas Sin rines, tamaño máximo de 16"
Electrodomésticos Por seguridad, se les debe quitar las puertas a los refrigeradores y congeladores	Ramas de árboles, desechos del jardín Bultos atados de 4 pies y 40 libras

Conforme la Ley de Estadounidenses con Incapacidades de 1990, esta información se encuentra disponible en un formato alternativo llamando al (562) 570-2850 o llamando a TDD# 570-2863. Impreso en papel reciclado.

Preparing items for special collection

- Size:** Each item or bundle can be a maximum of 72" x 48" and 40 lbs (25 lbs if in bags). Do not place sharp objects such as branches, sticks, broken glass, etc. in plastic bags. All yard waste must be contained (bagged) and branches bundled.
- Oversized items:** Please let us know when you schedule your pickup if it includes oversized items like a sofa or mattress.
- Special handling:** Appliances, televisions, computer monitors, and tires will be picked up by a special truck and should be kept separate from other items.
- A maximum of five large items will be allowed for each scheduled pickup. A fee will be charged for additional items.
- Place all items at your weekly refuse collection location no later than 6:00 a.m. on the day your special collection is scheduled.

Please be aware that the refuse employees who are scheduled to pick up your bulky items cannot go onto private property because of insurance liabilities.



CITY OF LONG BEACH ENVIRONMENTAL SERVICES BUREAU

Preparación de los artículos para su recolección

- Tamaño:** Cada artículo o bulto puede tener un máximo de 72" x 48" y 40 libras (25 libras si está embolsado). No coloque objetos cortantes como ramas, varas, vidrios rotos, etc. en bolsas de plástico. Todos los desechos del jardín deben estar empaquetados (embolsados) y las ramas, atadas.
- Artículos grandes:** Por favor, al programar su recolección háganos saber si incluye artículos grandes como un sofá o un colchón.
- Manipuleo especial:** Los electrodomésticos, televisores, monitores de computadoras y neumáticos serán recolectados por un camión especial y deben estar separados de los demás artículos.
- Se permite un máximo de cinco artículos grandes por cada recolección programada. Se cobrará una tarifa por artículos adicionales.
- Coloque todos los objetos en su lugar de recolección de residuos semanal, antes de las 6:00 a.m. el día en que se haya programado la recolección especial.

Por favor, tenga en cuenta que el personal de recolección de residuos que tiene programada la recolección de sus bultos no puede ingresar a una propiedad privada debido a responsabilidades de seguro civil.

3 GOOD REASONS TO RECYCLE

1. PRESERVE OUR NATURAL RESOURCES
2. LOWER CO₂ EMISSIONS
3. INCREASE THE LIFESPAN OF LANDFILLS

YES! RECYCLE THESE ITEMS

Place these items in your recycling cart:

Aluminum, steel and tin cans

Includes cans for soda, soup, beer, beans, fruit or vegetables or any other can that is made of aluminum, steel or tin.

Beverage containers

Includes bottles for water, milk, soft drinks, wine, beer or any other bottle that is made of plastic or glass.

Cardboard

Includes boxes used for moving and shipping or any other box made of corrugated cardboard.

Empty paint and aerosol cans

Be sure these cans are empty and dry.

Film Plastic

Includes bags for groceries or dry cleaning.

Glass jars

Includes jars for jams or jelly, spaghetti sauce, olive oil, pickles, preserves or any other jar made of glass.

Mixed paper

Includes paper used for junk mail, catalogs, cereal boxes, tissue boxes, milk cartons, telephone books, magazines, juice boxes, newspapers or paper used for computer printing.

Plastic containers (#1 through #7)

Includes containers for peanut butter, mayonnaise, shampoo, yogurt, margarine, CDs or any other plastic container marked with the #1, 2, 3, 4, 5, 6 or 7 on the bottom.

Clean Polystyrene (Styrofoam®)

Includes Styrofoam® cups and containers, packaging, such as Styrofoam® eggshell cartons and block packing and Styrofoam® clamshell packaging.

Styrofoam® packaging peanuts are not recyclable, but they are reusable.



Printed on recycled paper

NO! DO NOT RECYCLE THESE ITEMS

Keep these items out of your recycling cart:

Cans or bottles with poisonous contents

Includes containers for pesticides and insecticides.

Disposable diapers

Fast food containers

Includes pizza boxes or other containers soiled with grease.

Glass in forms other than bottles or jars

Includes glass used for windows, pyrex, light bulbs, mirrors, plates or cups.

Paper in thin form or soiled

Includes paper used for pets, tissues, paper towels or napkins.

Polystyrene Peanuts

Styrofoam® packaging peanuts are not recyclable, but they are reusable. Many mailing and packaging stores accept donations.

Yard waste

The City of Long Beach provides free composting workshops the third Saturday of every month.

RECYCLE YOUR USED MOTOR OIL & FILTERS

Used motor oil & filters are collected by request **ONLY**.

Call (800) RECYCL2 by 4 p.m. to request free collection containers, and to schedule an oil and filter pick up on your next recycling collection day. Do NOT place used these items in your recycling cart.

OR

Visit www.longbeach-recycles.org for a list of certified drop-off collection centers.



Funded by a grant from the California Integrated Waste Management Board
Zero Waste—You Make It Happen!



3 BUENAS RAZONES PARA RECICLAR

1. PRESERVAR NUESTROS RECURSOS NATURALES
2. REDUCIR LAS EMISIONES DE CO₂
3. AUMENTAR EL PERIODO DE VIDA DE LOS VERTEDEROS

¡SÍ! RECICLE ESTOS ARTÍCULOS

Coloque estos artículos en su carro de reciclado:

Latas de aluminio, metal y hojalata

Incluye latas de refrescos, sopa, cerveza, frijoles, frutas o verduras o toda otra lata hecha de aluminio, metal u hojalata.

Envases de bebidas

Incluye botellas de agua, leche, bebidas gasificadas, vino, cerveza o cualquier otra botella hecha de plástico o vidrio.

Cartones

Incluye cajas que se usan para mudanzas y envíos o toda otra caja hecha de cartón corrugado.

Latas de pintura y aerosoles vacíos

Asegúrese de que estas latas estén vacías y secas.

Láminas plásticas

Incluye bolsas de compras o de la tintorería.

Frascos de vidrio

Incluye frascos de mermeladas o jalea, salsa para espagueti, aceite de oliva, escabeches, conservas y todo otro frasco hecho de vidrio.

Papel en general

Incluye papel usado para correo en general, catálogos, cajas de cereales, cajas de pañuelos desechables, cartones de leche, directorios telefónicos, cajas de jugos, periódicos o papel utilizado para impresión de computadora.

Envases de plástico (No.1 al No.7)

Incluye envases de mantequilla de maní, mayonesa, champú, yogurt, margarina, CD o todo otro envase de plástico marcado con el número 1, 2, 3, 4, 5, 6, ó 7 en el fondo.

Poliestireno Limpio (Styrofoam®)

Incluso vasos y platos, envases de poliespuma como cajas de huevos y todo tipo de empaques moldeados hechos de poliestireno.

Empaques en forma de cacahuates no se reciclan pero se pueden reusar



Impreso en papel reciclado

NO RECICLE ESTOS ARTÍCULOS

Mantenga estos artículos fuera de su carro de reciclado:

Latas o botellas con contenidos venenosos

Incluye envases para pesticidas e insecticidas.

Pañales desechables

Envases de comidas rápidas

Incluye cajas de pizza u otros envases manchados con grasa.

Vidrio en otras formas que no sean botellas ni frascos

Incluye vidrio usado en ventanas, pyrex, bombillas eléctricas, espejos, platos o tazas.

Papel delgado o manchado

Incluye papel usado para mascotas, pañuelos desechables, toallas o servilletas de papel.

Poliestireno

Incluye espuma de poliestireno para empaques, productos para embalaje, tazas o platos.

Poliestireno En Forma De Cacahuates

Empaques en forma de cacahuates no son reciclables pero se puede reusar.

Muchos negocios que proveen servicio de correos y empaque aceptan donaciones de este material.

Desechos de jardín

La Ciudad de Long Beach proporciona talleres gratuitos sobre desechos orgánicos el tercer Sábado de cada mes.

RECICLE ACEITE Y FILTROS USADOS DE LOS VEHÍCULOS

El aceite y los filtros usados de los vehículos son recolectados ÚNICAMENTE ante solicitud.

Llame al (800) RECYCL2 antes de las 4 p.m. para solicitar contenedores de recolección sin cargo y para coordinar la recolección de aceite y filtros el próximo día de recolección de reciclado. NO coloque estos artículos usados en su carro de reciclaje. O Visite www.longbeach-recycles.org para una lista de centros de recolección certificados.



Patrocinado por una concesión de la Junta Administrativa de Desperdicios Integrados de California. Nada de residuos: ¡...Uds. lo hacen posible!





ENVIRONMENTAL SERVICES BUREAU
2929 EAST WILLOW STREET
LONG BEACH, CA 90806

YOUR GUIDE TO USED MOTOR OIL RECYCLING IN THE CITY OF LONG BEACH

The Right Oil Change Ends With Recycling



RECICLAR EL ACEITE DE MOTOR USADO

សេចក្តីណែនាំ ដើម្បីបង្វិលប្រើប្រាស់ម៉ាស៊ីនចាស់ទៀត នៅក្នុងជីក្រុមខ្យល់រិច



Take care of the environment while taking care of your car. Recycle your used motor oil and filters after every change. Pouring motor oil on the ground or in the gutter is against the law because it is toxic to the environment. Recycling is the safest way to dispose of used motor oil and filters...and it's easy!

Below are two convenient ways to recycle used motor oil and filters in Long Beach.

For more information on waste reduction and recycling, visit www.longbeach-recycles.org, or call the City of Long Beach Recycling Hotline at (562) 570-2876.

Funded by a grant from the California Integrated Waste Management Board. Zero Waste: You make it happen!
In accordance with the Americans with Disabilities Act of 1990, this information is available in an alternate format by calling (562) 570-2850 or calling TDD# 570-2863.



Visit our web site
www.longbeach-recycles.org

HELP KEEP OUR STREETS CLEAN

Did you know that it's against the law to throw anything into the gutter like litter, leaves, pet waste, motor oil and other auto fluids because they will pollute our ocean?

So, do your part to keep our ocean clean by not washing materials into the gutter. Call the City of Long Beach at 570-2876 if you see any large or hazardous items in the street or gutter.



When used motor oil is dumped in a storm drain, it flows straight to the ocean.

1

RESIDENTIAL RECYCLING PROGRAM

Used motor oil and filters are collected by request ONLY. Call (800) RECYCL2 by 4 p.m. to request free collection containers or to schedule a used oil and filter pick up on your next recycling collection day. Place motor oil and filters two feet away from rolling carts (**not inside them**) and place them out **only** if a pick up has been scheduled.

EASY AS 1-2-3:



1. Check to see if you have a purple recycling cart. If you do, this means the City collects recyclables at your residence.
2. Call **(800) RECYCLE2** for delivery of FREE used motor oil and filter containers.
3. After you have filled the containers, call **(800) RECYCLE 2** again to request that your full containers are picked up on your next collection day.
Please place them NEXT to your purple cart, not inside.

2

DROP-OFF COLLECTION CENTERS

If you do not receive City recycling service, please call (562) 570-2876 for a list of certified center locations. Place used motor oil and filter into any sealed container and take it to one of Long Beach's conveniently located certified used oil recycling centers. You will receive 16¢ for each gallon of motor oil you recycle at these centers.

EASY AS 1-2-3:



1. If you do not have a purple cart, the City can not collect recyclables at your residence.
2. Call **(562) 570-2876** for delivery of FREE used motor oil and filter containers if needed.
3. When your containers are full, call (562) 570-2876 or visit www.longbeach-recycles.org for a list of drop-off locations near you.

Printed on recycled paper



Cuide del ambiente

mientras cuida de su automóvil. Recicle su aceite de motor y filtros usados después de cada cambio. Tirar el aceite de motor en la tierra o en la cuneta es contra la ley porque es tóxico para el ambiente. Reciclar es la manera más segura de eliminar el aceite de motor y filtros de aceite usados, ¡y es facilísimo!

A continuación encontrará dos convenientes maneras de reciclar el aceite de motor y filtros de aceite usados en Long Beach.

Para obtener más información acerca de la reducción y el reciclaje de residuos, visite www.longbeach-recycles.org, o llame a la línea de atención de reciclaje de la Ciudad de Long Beach al (562) 570-2876

Patrocinado por una concesión de la Junta Administrativa de Desperdicios Integrados de California. Nada de residuos: ¡...Uds. lo hacen posible!

De acuerdo con la Ley de Americanos con Incapacidades de 1990, este material está disponible en un formato alterno llamando al (562) 570-2850 o llamando al TDD# 570-2863.



Visite nuestro sitio en la red www.longbeach-recycles.org

AYÚDENOS A MANTENER LAS CALLES LIMPIAS

¿Sabía que arrojar cualquier cosa (tal como basura, hojas, desperdicios de mascota, aceite de motor y otros líquidos de automóvil) en la cuneta es ilícito, puesto que eso contaminaría el océano?

Así que haga su parte por mantener el océano limpio absteniéndose de tirar materiales a las alcantarillas. Llame a la Ciudad de Long Beach al 570-2890 si Ud. ve cualquier artículo grande o peligroso en las calles o alcantarillas.



Quando se tira el aceite de motor usado en el desagüe pluvial, éste circula hasta desembocar directamente en el océano.

1

PROGRAMA RESIDENCIAL DE REICLAJE

Se hará **UNICAMENTE** por pedido la recolección de aceite de motor y filtros de aceite usados. Llame al (800) RECYCL2 hasta las 4 p.m. para solicitar los recipientes de colección gratuitos, o para programar la colección de aceite de motor y filtros de aceite usados en el próximo día de colección de basura para reciclaje. Coloque el aceite de motor y filtros usados a dos pies de los carros con ruedas (**no adentro de ellos**) y colóquelos afuera **sólo** si su recolección ha sido programada.

TAN FÁCIL COMO CONTAR 1-2-3:



1. Fijese si tiene un carro de reciclaje color morado. Si es así, esto significa que la Ciudad brinda el servicio de reciclaje en su residencia.



2. Llame al (800) RECYCL2 para solicitar SIN CARGO contenedores para aceite de motor y filtros usados.



3. Cuando haya llenado los contenedores, llame nuevamente al (800) RECYCL2 para solicitar la colección de los contenedores en el próximo día de colección.

Por favor colóquelos JUNTO a su carro morado, no adentro.

2

CENTROS DE COLECCIÓN

Si Ud. no cuenta con el servicio de reciclaje de la Ciudad, llame al (562) 570-2876 para obtener una lista de centros certificados. Coloque el aceite de motor o filtro usado en un recipiente sellado y llévelo al centro certificado de reciclaje de aceite usado más cercano en la ciudad de Long Beach. Recibirá 16 centavos por cada galón de aceite usado que recicle en estos centros.

TAN FÁCIL COMO CONTAR 1-2-3:



1. Si Ud. no tiene un carro de reciclaje color morado, la Ciudad no le puede brindar el servicio de reciclaje.



2. Llame al (562) 570-2876 para solicitar SIN CARGO contenedores para aceite de motor y filtros usados, de ser necesario.



3. Cuando haya llenado los contenedores, llame al (562) 570-2876 o visite www.longbeach-recycles.org para una lista de lugares donde puede llevar su material de reciclaje.

Impreso en papel reciclado



ចូរចែកចាយ បរិដ្ឋាន ក្នុងកាលដែលអ្នកថែទាំឡានរបស់អ្នក ។ យកប្រេងម៉ាស៊ីន និងដំរងប្រេងបានប្រើរួចទៅឆ្នែងធ្វើប្រើទៀត បន្ទាប់ពីប្តូរវាម្តងៗ ។ ការចាក់ប្រេងម៉ាស៊ីនទៅលើដី ឬក្នុងប្រឡាយ គឺជាការលើសច្បាប់ ពីព្រោះវាធ្វើឲ្យពុលដល់បរិដ្ឋាន ។ ការយកវា ទៅឆ្នែងធ្វើប្រើទៀត គឺជាមធ្យោបាយដ៏ល្អបំផុត ដើម្បីចោលប្រេង ម៉ាស៊ីន និងដំរងប្រេងដែលបានប្រើរួច...ហើយវាក៏ងាយផងដែរ!

វាមានមធ្យោបាយពីរប៉ាងដ៏ងាយស្រួល ដើម្បីយកប្រេង ម៉ាស៊ីន និងដំរងប្រេងទៅឆ្នែងធ្វើប្រើទៀត នៅឡុងប៊ិច ។

ដើម្បីឲ្យបានគឺមានថែមទៀត អំពីការបន្ថយសំរាម និងការឆ្នែងធ្វើប្រើទៀត សូម ទូរស័ព្ទទៅខ្សែប្រចាំការនៃការឆ្នែងធ្វើប្រើទៀត នៃទីក្រុងឡុងប៊ិច តាមទូរស័ព្ទលេខ : (562) 570-2876 ។

បានទទួលថវិកាឥតយកសំណងពី គណៈកម្មការប្រមូលគ្រាប់សំរាម California Integrated Waste Management Board ។ សូមសំរាម : ចូរអ្នកធ្វើឲ្យការគោរពសំរាមសោះកើតឡើង!

ដោយស្របតាមក្រឹត្យផ្តន្ទាពិការភាពលើកាំងនៃឆ្នាំ 1990 ។ ព័ត៌មាននេះគឺមាន ជាទំរង់ផ្សេងទៀត ដោយទូរស័ព្ទទៅលេខ (562) 570-2850 ឬទូរស័ព្ទទៅ លេខ TDD# 570-2863 ។



សូមមើល អន្តរបណ្តាញរបស់យើង www.longbeach-recycles.org

ជួយរក្សាផ្លូវថ្នល់របស់យើង ឲ្យបានស្អាតជានិច្ច

តើអ្នកដឹងឬទេថា ការបោះចោលអ្វីៗ — ដូចជា សំរាម ស្លឹកឈើ អាចម៍សត្វ ប្រេងម៉ាស៊ីន និងទឹករចម្រុះផ្សេងៗទៀតទៅក្នុងប្រឡាយ គឺជាការបំពានច្បាប់ សុទ្ធសាត — ពីព្រោះវាធ្វើឲ្យខូចទឹកសមុទ្ររបស់យើង ។

ហេតុដូច្នេះហើយ ត្រូវធ្វើការរួមគ្នាដើម្បីរក្សាទឹកសមុទ្ររបស់យើងឲ្យបានស្អាត ដោយមិនបោះចោលសំរាមអ្វី ទៅក្នុងប្រឡាយ ។ សូមទូរស័ព្ទទៅទីក្រុងឡុងប៊ិច តាមលេខ 570-2876 បើអ្នកឃើញរបស់អ្វីផ្សេងៗ ឬវត្ថុអ្វីដែលនាំឲ្យប្រោះថ្នាក់ នៅក្នុងផ្លូវថ្នល់ ឬនៅក្នុងប្រឡាយ ។



នៅពេលប្រេងម៉ាស៊ីនដែលបានប្រើរួច បានចាក់ចោល នៅក្នុងលូទឹក នោះវាហូរត្រង់ភ្លៀងទៅសមុទ្រ ។

1

កម្មវិធីឆ្នែងធ្វើប្រើទៀត នៅតាមមូលដ្ឋាន

ប្រេងម៉ាស៊ីន និងដំរងប្រេងបានប្រើរួច នឹងបានប្រមូលតែតាមការស្នើប៉ុណ្ណោះ ។ សូមទូរស័ព្ទទៅលេខ (800) RECYCL2 ឲ្យបានមុនម៉ោង 4 រសៀល ដើម្បី ស្នើយកប្រេងដាក់ដោយឥតគិតថ្លៃ ឬគ្រោងពេលឲ្យគេមកយកប្រេងម៉ាស៊ីន និងដំ រងប្រេងដែលបានប្រើរួច នៅថ្ងៃប្រមូលវត្ថុឆ្នែងធ្វើប្រើទៀត នៅលើកម្រោយទៀត ។ ត្រូវដាក់ប្រេងម៉ាស៊ីន និងដំរងប្រេង ឲ្យឃ្លាតពីរទេះមានកង់ចំងាយពីរប៊ូត (គឺមិន ដាក់វានៅក្នុងរទេះទេ) ហើយដាក់វានៅខាងក្រៅលុះត្រាតែបានគ្រោងពេលមក យក តែប៉ុណ្ណោះ ។

ងាយស្រួលដូច 1 - 2 - 3 :



1. សូមពិនិត្យមើលក្រែងណាអ្នកមានរទេះពណ៌ស្វាយ សំរាប់ដាក់វត្ថុឆ្នែងធ្វើប្រើទៀត ។ បើសិនជាអ្នកមាន ការនេះមានន័យថា ទីក្រុងនឹងប្រមូលយកវត្ថុដែល អាចឆ្នែងធ្វើប្រើទៀត នៅតាមលំនៅដ្ឋានរបស់អ្នក ។
2. ទូរស័ព្ទទៅលេខ (800) RECYCL2 ដើម្បីឲ្យគេយក មកឲ្យទូរស័ព្ទដាក់ប្រេងម៉ាស៊ីន និងដំរងប្រេងដែល បានប្រើរួច ដោយឥតគិតថ្លៃ ។
3. បន្ទាប់ពីប្រេងដាក់របស់អ្នកពេញហើយ ទូរស័ព្ទទៅ លេខ (800) RECYCL2 ម្តងទៀត ដើម្បីស្នើឲ្យគេ មកយកប្រេងដាក់របស់អ្នកដែលពេញនោះ នៅថ្ងៃ ប្រមូលសំរាមលើកម្រោយ ។ សូមដាក់វានៅតែខាងក្រៅលុះត្រាតែបានគ្រោងពេលមក យក គឺមិននៅខាងក្នុងឡើយ ។

2

កន្លែងប្រមូល វត្ថុ - ទំលាក់ចោល

បើអ្នកពុំទទួលបានការបំរើយកវត្ថុទៅឆ្នែងធ្វើប្រើទៀតពីទីក្រុងទេ សូមទូរស័ព្ទទៅ លេខ (562) 570-2876 ដើម្បីយកបញ្ជីបញ្ជាក់ទីកន្លែង ដែលអាចយកវត្ថុមក ចោលបាន ។ ត្រូវដាក់ប្រេងម៉ាស៊ីន ឬដំរងប្រេងដែលបានប្រើរួច ទៅក្នុង ប្រេងដាក់ដែលបិទជិត ហើយយកវាទៅកន្លែងណាមួយដ៏ងាយស្រួល ដែលទី ក្រុងឡុងប៊ិច បានបញ្ជាក់ថាជាកន្លែងដែលអាចយកវត្ថុឆ្នែងធ្វើប្រើទៀត ។ អ្នក នឹងទទួលបានប្រាក់ 16¢ សំរាប់ប្រេងម៉ាស៊ីនមួយហាឡុង ដែលអ្នកយកវាមកឆ្នែងធ្វើ ប្រើទៀត នៅតាមទីកន្លែងទាំងនោះ ។

ងាយស្រួលដូច 1 - 2 - 3 :



1. បើអ្នកពុំមានការនេះពណ៌ស្វាយ សំរាប់ដាក់វត្ថុឆ្នែង ធ្វើប្រើទៀតទេ ទីក្រុងនឹងមិនអាចប្រមូលយកវត្ថុដែល អាចឆ្នែងធ្វើប្រើទៀត នៅតាមលំនៅដ្ឋានរបស់អ្នក បានឡើយ ។
2. ទូរស័ព្ទទៅលេខ (562) 570-2876 ដើម្បីឲ្យគេយក មកឲ្យទូរស័ព្ទដាក់ប្រេងម៉ាស៊ីន និងដំរងប្រេងដែល បានប្រើរួច បើសិនជាត្រូវការ ។
3. នៅពេលប្រេងដាក់របស់អ្នកពេញហើយ ទូរស័ព្ទ ទៅ (562) 570-2876 ឬមើលលើសេនៅ www.longbeach-recycles.org សំរាប់ឲ្យ ដឹងបញ្ជីនៃទីកន្លែងយកទៅទំលាក់ចោល ដែលស្ថិត នៅជិតកន្លែងអ្នករស់នៅ ។

បានបោះពុម្ពលើក្រដាសឆ្នែងធ្វើប្រើទៀត

GAFFEY STREET S.A.F.E. COLLECTION CENTER

For the Residents of the City of Los Angeles
and the County of Los Angeles



Residential Special Materials and Electronic Waste

No commercial drop-offs accepted and waste collection is suspended during rain.

WE ACCEPT: paint and solvents; used motor oil and filters, anti-freeze, and other automotive fluids; cleaning products; pool and garden chemicals; aerosol cans; all medicine; auto batteries; household (alkaline) batteries; fluorescent tubes and bulbs, thermostats, and other mercury-containing lamps.

WE ALSO ACCEPT: computers, monitors, printers, network equipment, cables, telephones, televisions, microwaves, video games, cell phones, radios, stereos, VCRs, and electronic toys. *****RESIDENTS ARE LIMITED TO A TOTAL OF SIX PIECES PER VISIT TO A S.A.F.E. CENTER*****

WE DO NOT ACCEPT: business waste, ammunition, explosives, radioactive material, biological waste or tires. *Bulky Items:* furniture, refrigerators, washing machines/dryers, conventional ovens, paper, computer software.

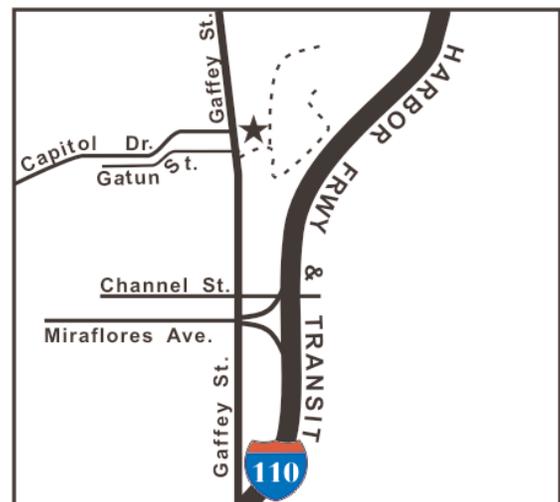
TRANSPORTATION LIMIT FOR CHEMICAL RELATED ITEMS: It is against the law to transport more than 15 gallons or 125 pounds of hazardous waste to collection sites. Please pack your waste properly to prevent tipping or spilling of the waste during transportation.

GAFFEY STREET S.A.F.E. COLLECTION CENTER

**1400 N. Gaffey St.
San Pedro, CA 90731**

HOURS OF OPERATION

**Friday, Saturday,
and Sunday
9:00 a.m. - 3:00 p.m.**



For Information, Please Call 1-800-98-TOXIC (1-800-988-6942)

GAFFEY STREET CENTRO DE COLECCIÓN "S.A.F.E."

Para los residentes de la Ciudad y Condado de Los Angeles



Materiales Especiales del Hogar y Desechos Electronicos

No desperdicios comerciales serán aceptados y la colección se suspenderá si llueve.

ACEPTAMOS: pinturas y solventes; aceite usado y filtros usados de aceite, anti-congelante, y otros químicos para autos; químicos para limpieza de casa, albercas, y jardines; botes de aerosol; todo tipo de medicinas; baterías de auto; baterías de uso en la casa (alcalina), bombillos y tubos fluorescentes, termostatos, y otros bombillos que contengan mercurio.

TAMBIÉN ACEPTAMOS: computadoras, monitores, impresoras, cables, telefonos, televisores, juegos de video, hornos de microondas, telefonos celulares, radios, estereos, videocaseteras, y juguetes electrónicos. *** **Los residentes estan limitados a seis piezas de desechos electronicos por visita a centro de colección "S.A.F.E."** ***

NO ACEPTAMOS: desperdicios de negocio, municiones, explosivos, materiales radioactivos, desperdicios biológicos, ni llantas. Muebles, refrigeradores, lavadoras, secadoras de ropa, hornos convencionales, papel.

LIMITE DE TRANSPORTACIÓN (desechos tóxicos de hogar): Es contra la ley transportar más de 15 galones ó 125 libras de desperdicios tóxicos. Favor de empacar sus desperdicios para evitar que se caigan o derramen durante su transporte.

CENTRO DE COLECCIÓN "S.A.F.E."

EN GAFFEY STREET

**1400 N . Gaffey Street
San Pedro, CA 90731**

HORARIO DE COLECCIÓN:

**Viernes, Sábado, y Domingo
9:00 a.m. - 3:00 p.m.**

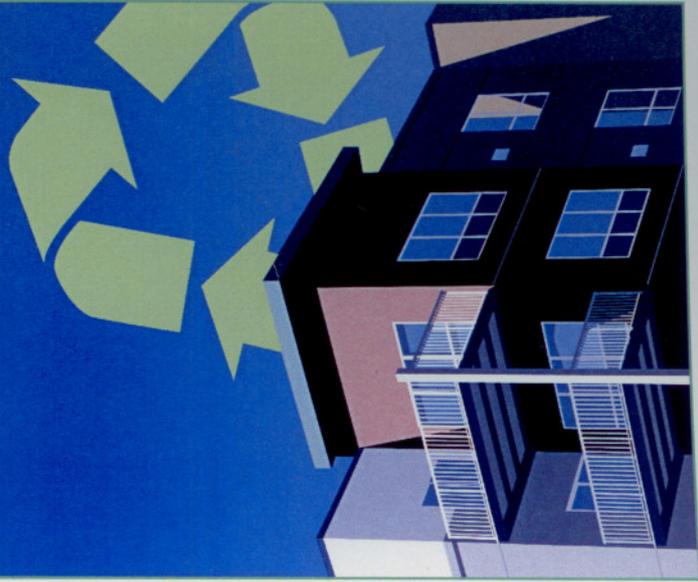


Para mas información, llame al 1-800-98-TOXIC (1-800-988-6942)

Help your building show its GREEN side

RECYCLING FOR MULTI-FAMILY DWELLINGS

CITY OF LONG BEACH
ENVIRONMENTAL SERVICES BUREAU



Environmental Services Bureau
2929 East Willow Street
Long Beach, CA 90806



Did you know...

- Recycling newspapers in a household of four can reduce CO₂ emissions by 737 pounds per year. That's the equivalent of having eight carbon-reducing trees grow for ten years.
- Recycling aluminum and tin cans in a household of four can reduce CO₂ emissions by 663 pounds per year. That's the equivalent of heating your daily shower for an entire year.
- California cities are required by state law to divert a minimum of 50% of solid waste from landfills. Long Beach has exceeded this mandate by achieving a 66% level of recycling and solid waste diversion.
- Currently, Long Beach ranks #1 in the United States for solid waste diversion.



**City of Long Beach
Environmental Services Bureau**

In accordance with the Americans with Disabilities Act of 1990, this information is available in an alternate format by calling (562) 570-2850 or calling TDD# 570-2863.

Printed on recycled paper
with 30% post-consumer content.

Why offer your tenants the option of recycling?

Multi-family dwellers make up approximately 56% of the households in Long Beach – it's important that multi-family dwellings have the option to recycle.

Providing recycling services to your tenants is easy. Simply contact your waste hauler and tell them you would like recycling services provided at your designated properties. Your hauler is required to provide appropriate containers, signage and instructions for you and your tenants.

What is the role of the City?

There is an increasing demand for recycling services at multi-family dwellings.

The Long Beach City Council

has mandated that all private haulers provide recycling services to all accounts they service in Long Beach. This mandate ensures equal access to recycling collection services for all residents of Long Beach.



Multi-family dwellers make up approximately 56% of the households in Long Beach

CITY INSPECTION

The City's Refuse Field Investigators will periodically inspect multi-family dwelling sites to ensure that the recycling program is in compliance with the City's program mandate (sufficient storage for recyclables to prevent overflow, sufficient collection schedule signage, availability of instructional materials, etc.).

MULTI-FAMILY DWELLING RECYCLING WORKSHOPS

The Long Beach Environmental Services Bureau will be offering periodic workshops for private haulers and building owners.

For Workshop schedule, visit www.longbeach-recycles.org/multifamily



When setting up your recycling program, it's important to remember ...

- All waste haulers permitted to operate in Long Beach must recycle the same commodities that the City's curbside residential recycling program collects
- Your waste hauler must include recycling collection charges in their base service level price quote and/or service contract
- Your building's recycling collection schedule must be posted on containers and/or your building so that the information is visible to your tenants and City inspectors
- Recycling storage bins need to be secure to discourage scavenging of recyclables

For information on what the City currently collects in its curbside residential recycling program, visit www.longbeach-recycles.org



LBDPW SERVICES

PUBLIC SERVICES BUREAU (562) 570-2700

AGENCIA DE SERVICIOS PUBLICOS

Potholes, Spills, Sidewalks and Curbs, Street Flooding,
Storm Drain Blockage and Standing Water, Street Trees,
Traffic Signals, Signs, Street Lights and Striping
*Baches, Derrames, Aceras, Encintados de Aceras, Inundaciones,
Obstrucciones de Drenajes de Tormentas y Agua Estancada,
Árboles Municipales, Semáforos, Letreros y Aceras Pintadas y
Faroles de la Calle*

AFTER HOURS EMERGENCIAS (562) 435-6711

EMERGENCIAS DESPUES DE HORA

ENVIRONMENTAL SERVICES BUREAU (562) 570-2876

AGENCIA DE SERVICIOS AMBIENTALES

Refuse and Recycling, Motor Oil Recycling, Street Sweeping,
Special Collections, Parking Citations, and Illegal Dumping
*Basura y Reciclaje, Reciclaje de Aceite de Motor, Barredoras,
Recolecciones Especiales, Multas de Estacionamiento, Abandono
legal de Basura*

ABANDONED SHOPPING CARTS (800) 252-4613

CARRITOS DE LA COMPRA ABANDONADOS

HAZARDOUS WASTE (888) CLEANLA

DESHECHOS PELIGROSOS

GRAFFITI HOTLINE (562) 570-2773

LINEA DIRECTA PARA REPORTAR GRAFFITI

www.longbeach-recycles.org | www.litterfreeLB.org



LITTER-FREE

Long Beach, CA





A litter effort
goes a long way.

FIND,

JOIN,

OR

POST

a litter clean-up
event near you.

@

www.litterfreeLB.org

Long Beach:
We like it litter-free.



FIVE
things I can do to
help make Long
Beach litter-free:

- 1.**
Always throw litter
in a trash can.
- 2.**
Be part of a
neighborhood
clean-up event.
- 3.**
Remind friends and
family NOT to litter.
- 4.**
Recycle as much
as possible.
- 5.**
Look for ways
to reduce waste,
like using
reusable items.

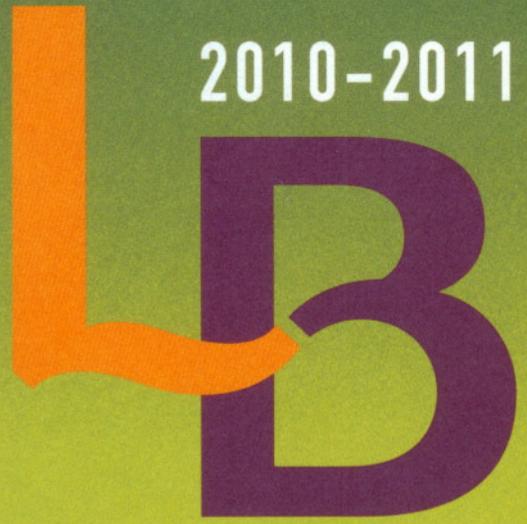
CITY OF LONG BEACH
ENVIRONMENTAL
SERVICES BUREAU

Printed 30% post-consumer
recycled paper.

PRESORTED
STANDARD
U.S. POSTAGE
PAID
LONG BEACH, CA
PERMIT NO.1



City of Long Beach
Environmental Services Bureau
2929 East Willow Street
Long Beach, CA 90806



ECOGUIDE

Programs that benefit our local community, promote waste and litter reduction, and help Long Beach reach its "greener" goals

LONG BEACH



RECYCLE

ENVIRONMENTAL SERVICES BUREAU
WWW.LONGBEACH-RECYCLES.ORG

Happy Holidays

REFUSE/RECYCLING HOLIDAY SCHEDULE

There will be no collection interruption this year, because Dec. 25 and Jan. 1 fall on Saturdays.

A TREECYCLING TRADITION...

December 26, 2010 through January 7, 2011

After the holidays, remove the stand and decorations from your tree and recycle it by dropping it off at one of these locations, Monday – Friday, 9 a.m. to 5 p.m., or Saturday and Sunday, 9 a.m. to 2 p.m.

El Dorado Park

2760 N. Studebaker Rd.,
South parking lot, behind
administration building

CSULB

Recycling Center
5800 Atherton Blvd.
East of Bellflower Blvd.

North Police Substation

4891 N. Atlantic Ave.
at Del Amo Blvd.
Enter on 46th St.

Fire Station #14

5200 Eliot St. at
Colorado Ave.

City Operations Center

Environmental Services Bureau
2929 E. Willow St.

Bixby Park

1st St. at Cherry Ave.

Cesar E. Chavez Park

Golden Shore St. at 4th St.

Houghton Park

Myrtle Ave. at Harding St.

Hudson Park

Hill St. at Webster Ave.

Stearns Park

Corner of 23rd St. and
Roycroft Ave.

Veterans Park

28th St. at Pine Ave.

Wardlow Park

Monlaco Rd. at Rutgers Ave.

Free Pick-up Saturday, January 8, 2011

If you have City refuse service, you may put your tree out where your trash is normally collected by 7 a.m. on Saturday, January 8, and it will be recycled.

Trees over 12' tall should be cut in half. Flocked trees will be accepted.

HOLIDAY PARKING & STREET SWEEPING

Read your meter. All meters and time zones WILL be enforced on December 24 and 31st. Meters with holiday exemptions will NOT be enforced on December 25 and January 1st. All other meters without holiday exemptions WILL be enforced.

Street sweeping will not occur on December 24 and 31. Street sweeping parking violations will not be issued on those days.

At Your Service

To follow us on Twitter or become a fan on Facebook, visit www.longbeach-recycles.org



ENVIRONMENTAL SERVICES BUREAU

WINNER NATION'S BEST
SOLID WASTE MANAGEMENT PROGRAM AWARD

Environmental Services Bureau Hotline (562) 570-2876
www.longbeach-recycles.org

- ▶ Request recycling/refuse carts
- ▶ Request containers to recycle used motor oil and filters
- ▶ Report scavenging of recyclables
- ▶ Report illegally dumped items or hazardous materials
- ▶ Review holiday tree recycling information
- ▶ Purchase discounted compost bins
- ▶ Request a pick-up of bulky or oversized items. Residents with City-provided refuse service may dispose of bulky, oversized items by scheduling a free pickup. Two free pick-ups are available to each refuse account per year.

Register for Free Composting Workshops (562) 570-4694

- ▶ Learn to recycle lawn and yard trimmings into a valuable soil amendment for your garden, or have worms turn your food scraps into a rich fertilizer. Compost Workshops are held on the third Saturday of every month from 10:30 am to 12:30 pm.

Household Hazardous Waste Collection (888) CLEAN LA www.cleanLA.com

- ▶ Long Beach residents can take their e-waste and other hazardous waste to a year-round HHW Collection Center, open Saturday and Sunday, 9:00 a.m. - 3:00 p.m.

Gaffey Street Collection Center

1400 N. Gaffey St.
San Pedro, CA 90021

Schedule pick-up of used motor oil/filters (800) RECYLC2

Report illegal dumping (in progress) 911

Shopping cart retrieval (800) 252-4613

Apartments/Multi-family Recycling

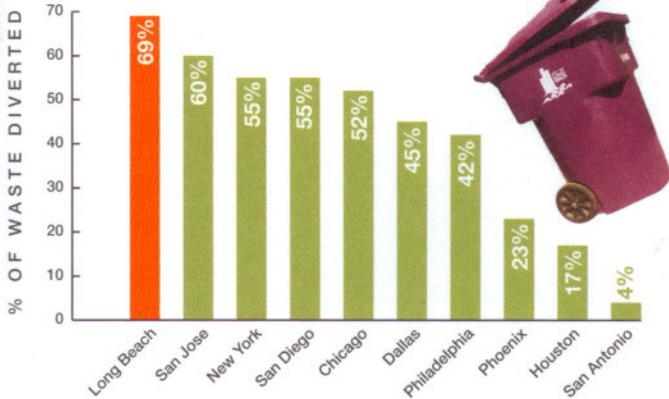
- ▶ To ensure equal access to recycling for all residents, the Long Beach City Council mandated that private haulers provide recycling services to residential accounts they service in Long Beach. If your complex is not recycling, speak with your building's owner or manager.

Recycling That Works

LONG BEACH



In 1990, the Long Beach Environmental Services Bureau (ESB) was formed to manage solid waste resources and launch a comprehensive recycling program for City residents. That year, just 12% of the City's waste stream was being diverted. We've come a long way, currently diverting 69%, which includes more than 30,000 tons of recycled materials from residents per year!



In 1991, ESB brought recycling education to LBUSD schools with the Traveling Recycling Education Center. The 4th grade students who experienced this program in the late 90s are now the young adults of today, making daily choices that affect our environment. ESB continues to partner with LBUSD, providing successful and important environmental education programs.

Although the City is currently at a 69% diversion rate, we are continuously striving for a goal of 75% by 2015. To assist in this effort, the City adopted an ordinance that mandates recycling at multi-family dwellings to ensure all residents have an opportunity to recycle.

Looking beyond 2010, ESB is dedicated to continuing our innovative environmental programs that benefit our local community, promote waste and litter reduction, and help Long Beach reach its "greener" goals.

What Happens to My Recycling?

It's no secret. All material collected in Long Beach's residential recycling program are sorted and sent to various types of processing facilities. From there, the material is made into everyday items and returned to the marketplace. By using recycled materials, manufacturers reduce greenhouse gases, save energy, create local jobs and preserve our natural resources.

Talco Plastics, a Long Beach-based business, processes more than 15,000 tons of recycled plastic each year. Talco uses plastic water bottles and milk jugs from the Long Beach residential recycling program to provide plastic for a variety of new products, including the City's purple recycling carts.



Examples of products made of recycled items:

RECYCLED ITEM	END PRODUCT
Aluminum Cans <i>Aluminum cans are recycled and returned to a store shelf as new cans in as few as 60 days.</i>	New Aluminum Cans
Plastic Soda Bottles <i>A 2010 study finds that recycling plastics results in significant savings in energy and greenhouse gas emissions.</i>	Fiber Fill and Fleece
Steel Cans <i>You may not realize it, but you probably use at least one steel can every day.</i>	Car Parts and Bridges
Glass Bottles & Jars <i>Glass can be recycled endlessly with no loss in quality or purity.</i>	New Glass Containers
Telephone Books <i>You can opt out of receiving certain new phone books. Visit www.yellowpagesgoesgreen.org</i>	Ceiling Tiles

Residential Recycling Progress

1992

Environmental Services Bureau (ESB) launches a comprehensive residential recycling program

1995

LB residents double recycling efforts, achieving a 25% diversion rate

2000

LB is the first large city in California to achieve a 50% diversion rate

Redefine Your Recycling

Are you recycling all that you can?

You might be surprised to learn that these items and more can go in your purple cart.



2005

ESB launches a comprehensive litter-awareness and abatement campaign

2010

LB ranks #2 in the U.S. for its waste diversion and recycling efforts

Residential Recycling List

These items go in your purple recycling cart:

Aluminum, steel and tin cans

Includes soda, soup, beer, beans, fruit or vegetable cans. Any can that is made of aluminum, steel or tin.

Empty paint and aerosol cans

Be sure these cans are empty and dry.

Beverage containers

Includes bottles for water, milk, soft drinks, wine, beer or any other bottle that is made of plastic or glass. Please include caps.

Plastic containers (#1 through #7)

Includes containers for peanut butter, mayonnaise, shampoo, yogurt, margarine, CDs or any other plastic container marked with the #1, 2, 3, 4, 5, 6 or 7 on the bottom. Please include lids.

Glass jars

Includes jars for jams or jelly, spaghetti sauce, olive oil, pickles, preserves or any other jar made of glass.

Mixed paper

Includes paper used for junk mail, catalogs, cereal boxes, tissue boxes, milk cartons, telephone books, magazines, juice boxes, newspapers or paper used for computer printing.

Cardboard

Includes boxes used for moving and shipping or any other box made of corrugated cardboard.

Film Plastic

Includes bags for groceries or dry cleaning.

Clean Polystyrene (Styrofoam®)

Includes Styrofoam® cups and containers, packaging, such as Styrofoam® eggshell cartons and block packing and Styrofoam® clamshell packaging. Styrofoam® packaging peanuts are **not** recyclable.

Used motor oil and filter recycling:

Do not place used motor oil or filters in your cart.

Call (800) RECYCLE2 by 4pm to request free collection containers, or to schedule a free pick up on your next recycling day. Visit www.longbeach-recycles.org for a list of certified used motor oil drop-off centers.



{In Archive} NPDES RAIN ALERT!

Christine Baldwin to:

Michael Conway, Becki Ames, Broc Coward, Anne Cramer, Bridget Sramek, Josh Butler, John Edmond, Ryan Pok, Jonathan Kraus, Edward Kamlan, Ramon Arevalo, Kevin Wattier, Chris Garner, Ron Arias, Craig Beck, George Chapjian, Sandra Gonzalez, Ellen Calomiris, Leslie Horikawa, Anthony Arevalo

04/06/2011 11:20 AM

Mark Christoffels, Arthur Cox, Del Davis, Rebecca Shipley, Dustin Borrelli, Diana Garafano, Cynthia Hennes, Gillis Monroe, Charles Ramey, Douglas McLaughlin, Nelson Kerr, Amy Burton, Dale Wiersma, Steve Nakauchi, Robert C Cheng, Douglas McKee, Steve Raganold, rdborderss, "Bermudez, Victor", dr.tking, joseph, Andrew.Olding, Jowen-Pete Elma, brianw, marks, markg, Ana
Cc: DeAnda, Michael Slama, Andrew Olding, Stephen Bos, Edward Villanueva, Ed Atkinson, Linden Nishinaga, Robert Maldonado, Onofre Ramirez, Anneke VanGelder, Jorge Magana, Danilo Besabella, Rachel Korkos, Jeffrey Sedlak, Arlene Lopez, Lincoln Lo, Frank Ramirez, Joan Collier, Edward Farrell, Alan Winter, Dan Colunga, Rudy Chavez, Nathan Lynch, Emilyn Buenafe, Phillip Carroll

Archive: This message is being viewed in an archive.

NPDES RAIN ALERT - ACTION ITEM (4/06/11 - 4/10/11)

A RAIN ALERT MESSAGE FROM THE STORM WATER COMPLIANCE/ENVIRONMENTAL OFFICER:

The chance of precipitation FOR THE NEXT 5 DAYS are as follows:

Wednesday – 4/06 – 10%
Thursday, 4/07 – 30%
Friday, 4/08 – 30%
Saturday, 4/09 – 10%
Sunday, 4/10 – 0%

(The forecast above is dated as of today)

Please be sure that all necessary Best Management Practices (BMPs – See CA BMP Handbook, Section 3) are in place prior to leaving your construction site/work locations and active permitted work sites. Also be sure to check on the BMPs over the weekend to be sure they were not tampered with. Periodic checks of the BMPs will be necessary for the duration of the rain event. Take whatever precautions are needed, such as clearing off the pathway to the drains and screens at the catch basin in you areas that

have a history of Flooding. Should you need assistance please contact our Public Services Street Operation Bureau at 562-570-2700.

Below, please find important storm related assistance information. Should you have any questions please contact me:

Anthony Arevalo, Acting Storm Water/Environmental Compliance Office
--Cell Phone (24 hours) 424-201-9109

INSPECTORS: Please remember to monitor or have construction site managers monitor any catch basin inlets that are protected (e.g. media filter or sandbags, etc) as once storm flows are high enough they will have to be removed to avoid flooding.

Protect the environment while protecting life and property !

PLEASE PASS THIS MESSAGE TO ALL APPROPRIATE STAFF AND RESPONSIBLE PARTIES

FORECAST WEBSITES:

<http://www.accuweather.com/us/ca/long%20beach/90755/forecast.asp?partner=accuweather&traveler=1&metric=0>

<http://forecast.weather.gov/MapClick.php?CityName=Long+Beach&state=CA&site=LOX&textField1=33.7542&textField2=-118.202>

BMPS:

<http://www.cabmphandbooks.com/Municipal.asp>

<http://www.longbeach.gov/health/>

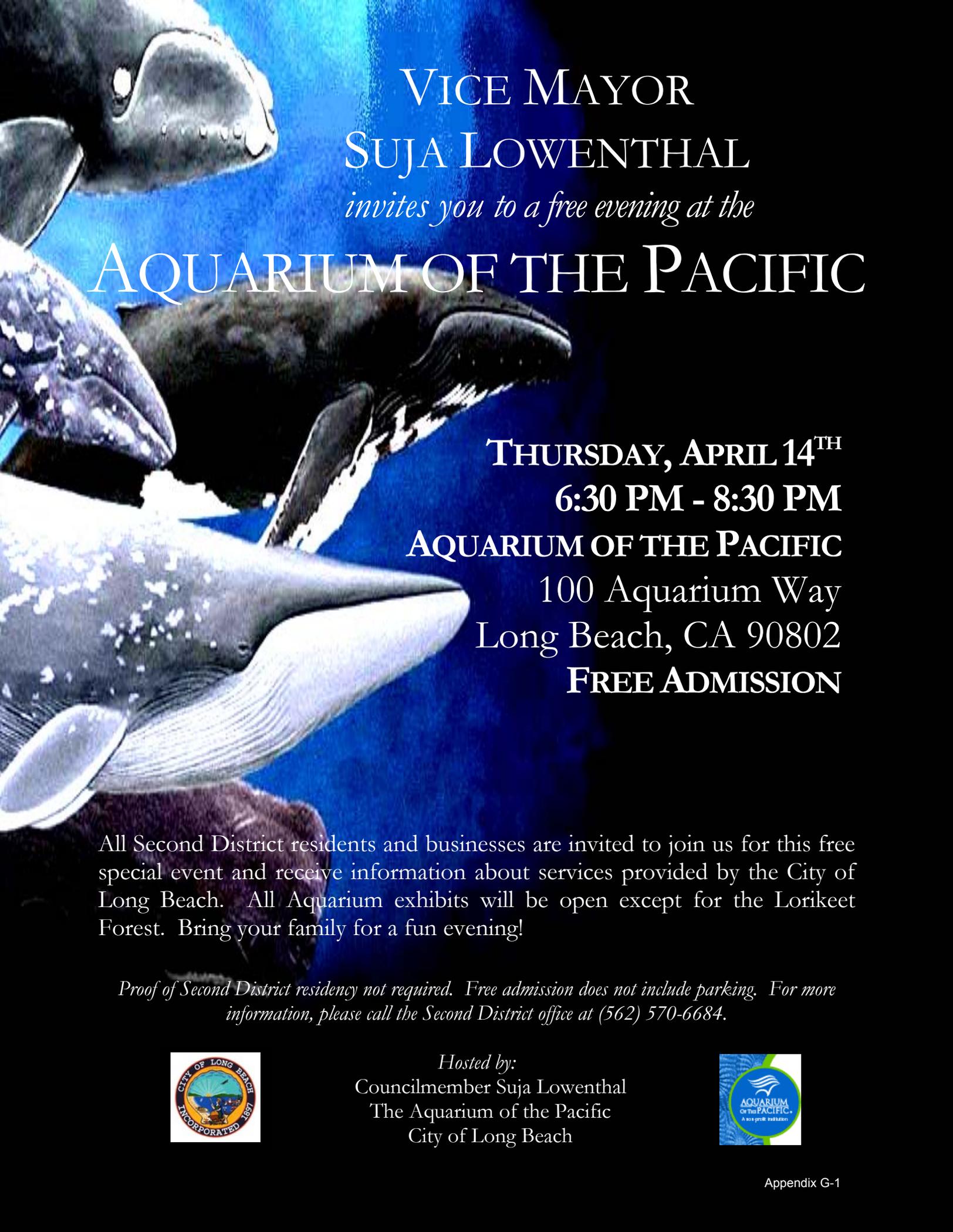


Weather 4.06-04.10.pdf Weather 4.06-4.15.pdf
Christine Baldwin



Department of Public Works
Storm Water & Environmental Compliance Division
Phone: (562)570-5938
Fax: (562)570-6501
email: Christine.Baldwin@longbeach.gov





VICE MAYOR
SUJA LOWENTHAL
invites you to a free evening at the

AQUARIUM OF THE PACIFIC

THURSDAY, APRIL 14TH
6:30 PM - 8:30 PM
AQUARIUM OF THE PACIFIC
100 Aquarium Way
Long Beach, CA 90802
FREE ADMISSION

All Second District residents and businesses are invited to join us for this free special event and receive information about services provided by the City of Long Beach. All Aquarium exhibits will be open except for the Lorikeet Forest. Bring your family for a fun evening!

Proof of Second District residency not required. Free admission does not include parking. For more information, please call the Second District office at (562) 570-6684.



Hosted by:
Councilmember Suja Lowenthal
The Aquarium of the Pacific
City of Long Beach



Councilmember James Johnson invites you to

Read Across the 7th

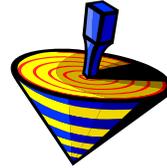
A carnival event for the whole family!

**Games, prizes, and reading! Fun for everyone!
Meet your councilmember, James Johnson, and
explore the Bret Harte Library!**

1-3 pm Saturday, February 26th



**Bret Harte Neighborhood Library
1595 West Willow Street
Long Beach CA 90810
(562) 570-1044 (562)570-7777**



Long Beach Water Celebrates



EARTH DAY

at the Aquarium of the Pacific

Saturday, April 9, 2011

FREE

9:00 am - 4:00 pm

Bring your family; bring your friends! Here are some of the fun things we have planned!

- Free plants
- Face painting, scavenger hunt and more
- Live calypso music
- Free advice from landscape design experts
- Free landscape class

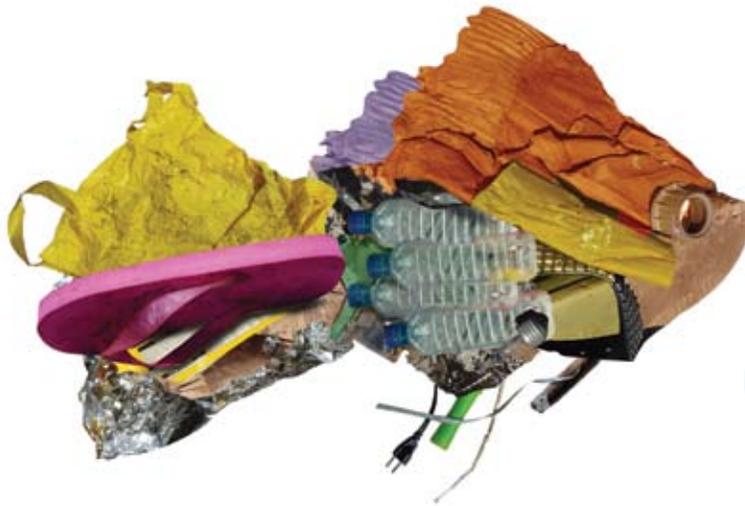
Present this coupon at the Aquarium ticket window and receive \$10.00 off regular adult admission. Limit (4) discounts per coupon. Not applicable with online tickets or any other offer. Not valid at off-site sales locations. Distribution of this coupon on Aquarium grounds is prohibited. No cash value. May not be sold. Valid April 9-10, 2011 only.

D-LBWD

"It's time to make a difference!"

California Coastal Cleanup Day

Six sites in
Long Beach:
Belmont Pool
Alamitos Beach
Bluff Park
Mother's Beach
Pierpoint Landing
Colorado Lagoon



Bags and gloves
will be provided,
or you can bring
your own bag
or bucket.
All you have to
do is show up...

September 17, 2011 9am - noon

**For more information, call (562) 570-4876
or visit www.longbeach.gov/naturecenter**

Long Beach Parks
Recreation and Marine



El Dorado Nature Center



NOTICE
This program, event or activity is not presented, endorsed,
recommended, supervised, approved or sponsored by the Long
Beach Unified School District. This District assumes no liability
or responsibility for any loss or injury arising out of
participation and is merely permitting this material to be
disseminated at this facility because of the possible interest of
students and/or faculty.
DISTRIBUTION AUTHORIZED: _____

47TH ANNUAL CONGRESSIONAL CUP®

FRIEDMANS
APPLIANCE • KITCHEN • BATH

2011 Vendor Expo

Belmont Veterans Memorial Pier

Saturday, March 26th

11:00 am to 4:30 pm



ORLANDO

FEATURED VENDORS

FRIEDMANS • THERMADOR • WHIRLPOOL • ELECTROLUX • JENN-AIR
WOLF • FLYING CLOUD YACHTS • LONG BEACH HYDRO BIKES • MAUI JIM
UNION BANK • JMI CONSTRUCTION & DESIGN • CLAVERAN LAW FIRM
CITY NATIONAL BANK • F&M BANK • COFFEY ENVIRONMENTS • METLIFE
LB HOLIDAY INN / CATALINA CANYON RESORT & SPA • SEA FEVER GEAR
GAMBOL INDUSTRIES • LONG BEACH AREA CHAMBER OF COMMERCE
YACHTSMAN MARINE SURVEY • CABRILLO BOAT SHOP • THE BREAKERS
FULLER INSURANCE AGENCY • CITY OF LONG BEACH PUBLIC WORKS
A MICHAELS PHOTOGRAPHY • ANCHOR MARINE CANVAS • GO GREEN
SURFBOARDS • RONDAR BOATS / VIPER 640

You are cordially invited
to attend the



Saturday, May 21, 2011
at Cabrillo High School

9:35 a.m. ~ Opening Ceremony

9:45 a.m. to 12:00 noon ~ Project Review
Interactive Science Exhibits throughout the morning!

Come see LBUSD students' creative ideas
and hands-on science in action
as these excited young scientists present to you
their original science projects,
chosen as the very best at their school sites!

Presenting the work of students from grades Kindergarten through High School
from our schools in Long Beach, Lakewood, and Signal Hill since 1996.

Publication authorized:
Christine Domínguez, Deputy Superintendent



CURRICULUM, INSTRUCTION & PROFESSIONAL DEVELOPMENT

Science Curriculum Office
Teacher Resource Center, Room 7
1299 E. 32nd Street, Long Beach, CA 90807
(562) 997-8000 Ext. 2963 ■ FAX: (562) 426-8448

June 23, 2011

Mr. Anthony Arevalo
Acting Officer, Stormwater & Environmental Compliance Division
City of Long Beach Department of Public Works
333 West Ocean Blvd.
Long Beach, CA 90802



RE: **16th Annual, Long Beach Unified School District K-12 Science Fair, Interactive Science Sessions
Saturday, May 21, 2011 Cabrillo High School, 2001 Santa Fe Ave, Long Beach, California**

Dear Mr. Arevalo:

On behalf of the Long Beach Unified School District (LBUSD) K-12 Science Fair Steering Committee, I would like to thank you and your organization for participating in our Interactive Science Sessions at our 16th Annual, Science Fair held Saturday, May 21, 2011. Thank you for making our interactive sessions a resounding success. I have attached photographs of you and your organization actively engaged with our students. I believe your interactive session was an asset to our program. I hope you will consider joining us in 2012; we will be holding our **17th Annual LBUSD Science Fair on Saturday, May 19, 2012**, at Cabrillo High School from 8:30 a.m. to 12:30 p.m. I will send an invitation letter in February to remind you of the date.

What an exciting day for the fair. This year, we had 56 schools participate in the fair with about 1,100 students presenting projects. This number does not account for families and other non-Science Fair students, which we believe increased our attendance numbers in excess of 4000 attendees. We had 23 Interactive Science Sessions, of which your organization was a valued participant. I received excellent comments from parents, teachers and excited students who truly enjoyed the day. I hope you keep us as an annual event worthy of your participation.

Please do not hesitate to contact me if you have questions, or would like electronic copies of the photographs I took (562/234-4055 or ssgarcia55@gmail.com). Take care and I look forward to your organization's participation at our 17th Annual, K-12 Science Fair May 19, 2011.

Sincerely,

Susan Garcia
LBUSD K-12 Science Fair Steering Committee,
Interactive Session Chairperson

Cc: E. Brundin,
Ana DeAнда
Christine Baldwin



LONG BEACH 90H2O



Long Beach Water Department

October 2011

The Long Beach Water Department

in conjunction with

GreaterLongBeach.com

is pleased to offer

a unique opportunity to learn from one of Southern California's foremost experts in California Native Landscaping.

A Special Invitation

Mike Evans

from the

Tree of Life Nursery

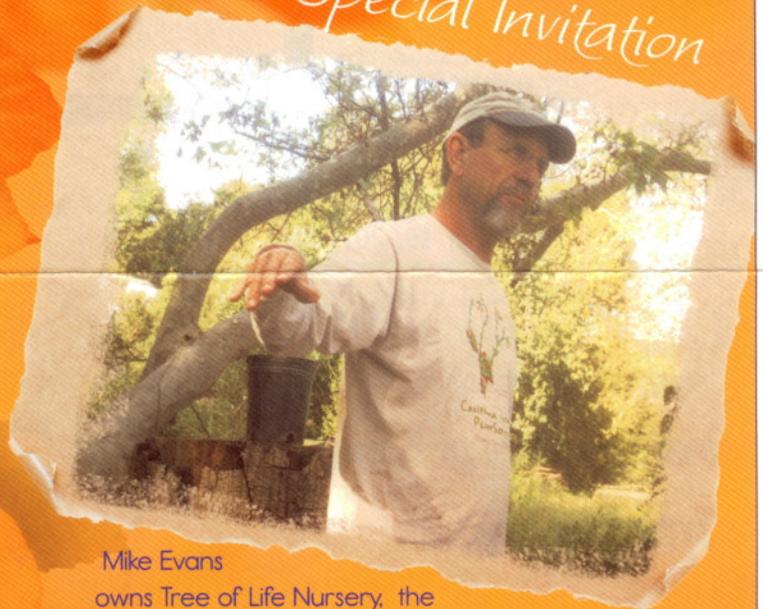
will discuss how (and why it's important) to create beautiful, water conserving landscapes that feature a wide variety of native plants.

Event Details

Date: Thursday, November 10th

Time: 6:30 pm

Location: Long Beach Groundwater Treatment Plant
2950 Redondo Avenue
Long Beach, CA 90806



Mike Evans owns Tree of Life Nursery, the state's largest nursery devoted exclusively to California native plants. Mike has over 30 years experience with native landscaping.

RSVP to 562.570.2309 with your name and the number in your party.

Free parking and Refreshments will be provided

Lawn To Garden Incentive Program

With the Beautiful Long Beach Lawn to Garden Incentive Program you can create a stunning coastal garden landscape with many benefits – you will create habitat for wonderful wildlife such as hummingbirds, prevent polluted urban run-off from spoiling our coastal waters, add tremendous beauty to your neighborhood, and, of course, save money, water and time.



Before



After

REBATES UP TO \$2,500

FUNDING IS AVAILABLE!! VISIT THE WEBSITE AT WWW.LBLAWNTOGARDEN.COM

FREE LANDSCAPE CLASSES SPACE AVAILABLE

All landscape classes are held at the Long Beach Water Department 1800 E. Wardlow Rd. Classes are from 9:30 AM to 1:00 PM.

Designing Your New Landscape
(also available via webinar)
November 5, 2011

Choosing the Best Plants for You
November 19, 2011

Residential Irrigation
December 3, 2011

CALL 562.570.2313 TO SIGN UP FOR CLASSES

Long Beach Business Profit from Water Conservation

Get your rebate for conserving water AND watch your monthly water and sewer bills decrease:

- 1) Apply for a Proven Water Savings rebate created exclusively for the business community
- 2) Get potentially \$1,000's in special business-only rebates

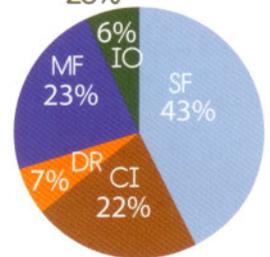
Go to <http://www.lbwater.org/conservation>

Water Conservation By the Numbers

How much less water did Long Beach Water customers use this year* compared to 2006?

Single Family Homes
Multi-Family Residents
Duplex Residents
Commercial and Industrial
Irrigation Only Customers

21%
13%
16%
15%
26%



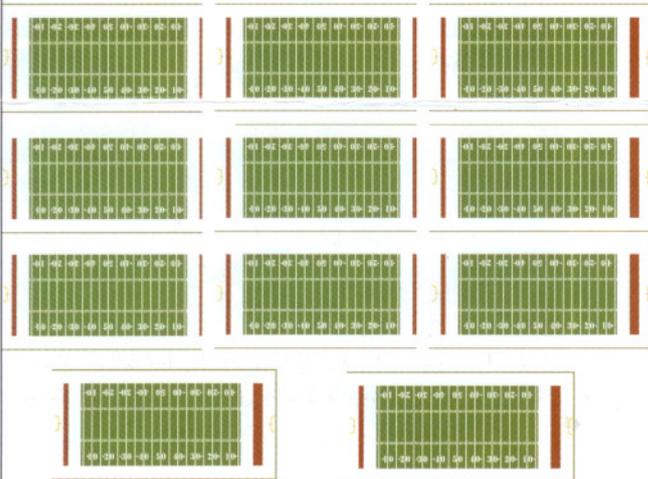
How much of the total water conserved did each customer category contribute during this time?

*September 2010 - August 2011

Interesting FACTS

Through the Water Department's Lawn-To-Garden Program, over 11 acres of grass has been removed and replaced with drought tolerant landscape.

That's enough grass to cover eleven football fields!



OVER 10 YEARS, REMOVING THAT MUCH GRASS WILL SAVE OVER 160 MILLION GALLONS OF WATER.

Introducing our new website More Interactive & Easier to Use

WWW.LBWATER.ORG

The screenshot shows the Long Beach Water Department website with a navigation menu including Home, Board & Agenda, Conservation, Water & Sewer Services, Billing & Rates, Water Quality, Capital Projects, Outreach & Education, News & Media, and Inside LBWD. A prominent banner features a large orange flower and the text 'Turn Your Front Yard into a Beautiful Long Beach Landscape'. Below the banner, there are sections for 'LONG BEACH 90H2O' (a 100 by 100 anniversary logo), a calendar for October, and a 'BOARD OF WATER COMMISSIONERS' section. A sidebar on the right contains links for 'Contact LBWD', 'FAQs', 'Pay Online', and 'Conserve'. At the bottom, there are social media icons and a footer with contact information.



**FREE
LANDSCAPE CLASS**

Learn how to select the best drought tolerant plants for your landscape.

8:00AM - NOON

Call 562-570-2308 to make a reservation, space is limited

- Face painting, scavenger hunt and more
- Live calypso music
- Free advice from landscape design experts
- 20+ participants sharing earth friendly ideas

Planting Conservation

Learn about California Friendly Gardens and other ways that you can help Planet Earth

EARTH DAY APRIL 9, 2011

Aquarium of the Pacific

9:00AM - 4:00 PM

100 Aquarium Way . Long Beach, CA 90802

\$8 PARKING . EVENT IS FREE

www.lbwater.org

 **Long Beach Water**
The Standard in Water Conservation & Environmental Stewardship


**AQUARIUM
OF THE PACIFIC**
A non-profit institution

PARTICIPANTS: Food and Water Watch . Port of Long Beach . City of Long Beach Office of Sustainability . Eco-Link Bike Long Beach . Algalita Marine Research Foundation . Long Beach City College Horticulture . Long Beach Clean Cities Coalition . Water Replenishment District of Southern California . South Bay Wildlife Rehab . Long Beach Airport . CSULB Green Campus Program . El Dorado Audubon . CSULB Associated Students Inc. . El Dorado Nature Center . Los Cerritos Wetlands Stewards . South Coast Supply . Back to Natives Restoration . Green Long Beach . City of Long Beach Public Works Storm Water Division . Santa Monica Baykeeper



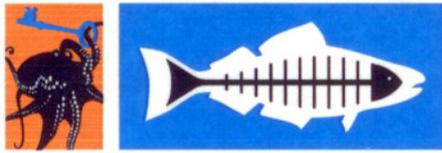
1444 9th Street
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Heal the Bay®

KEY TO THE SEA



July 25, 2011

Nancy Villasenor
Department of Public Works
Storm Water Management Division
City of Long Beach
333 W. Ocean Blvd. 9th Floor
Long Beach, CA 90802

Dear Ms. Villasenor,

On behalf of Heal the Bay and the Key to the Sea program, we would like to thank you for your support. Included is the Key to the Sea Annual Report for this past school year 2010-11, showing participation data, program assessment measures, student work samples, and photo pages.

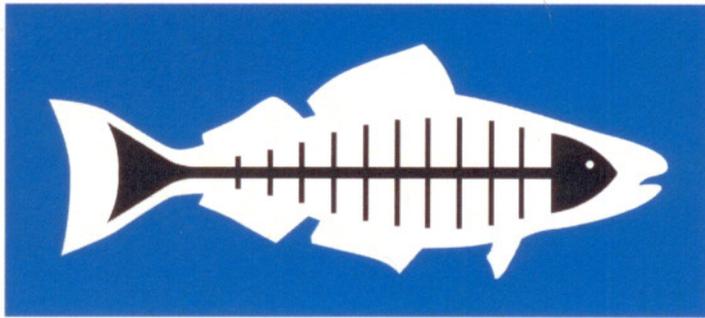
We hope that you will find it both informative and exciting! Should you have any questions, please feel free to contact me. Again, thank you,

Emily Pratt

** Education Programs Coordinator **

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KEY TO THE SEA



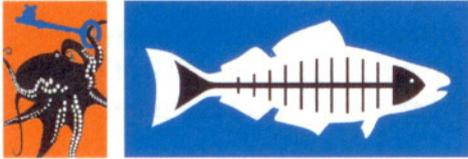
where your classroom meets the ocean

Annual Report: 2010-11 School Year

Mission Statement

In the spirit of openness, and through collaboration, communication and resource sharing, Key to the Sea strives to provide teachers with supportive professional development and multi-disciplinary, marine science curricula, which meets state and national science standards. Key to the Sea endeavors to promote environmental stewardship in students by stimulating their sense of wonder, learning and empowerment through key experiences in the environment.





Heal the Bay's Key to the Sea 2010-11 Annual Report

During the 2010-11 school year, the *Key to the Sea* program provided nearly 10,000 Los Angeles County-based individuals, including K-5th grade students, classroom teachers, and informal educators, with access to environmental education curricula and hands-on learning opportunities. The numbers of students, teachers, and field trips have increased over the previous year. Due in a large part to your support and that of our program partners, this year was successful as shown by quantitative measures as well as qualitative feedback.

Participation Numbers

A **total of 402 teachers** participated in the program.

Key to the Sea 2010-11 Summary	
Total Teachers/Program Participation	402
Workshop I Attendance	133
Workshop II Attendance	93
Veteran (Year 3+) Teachers	164
Non-Workshop/ Only Field Trip	12
Field Trips	177
Bus Stipends	105
Schools Participating	99
Districts	21
Students	8846
Title One Students	7624
% Title One Students/ Total Students	90%

Of all the teachers who participated in the program, 226 individuals completed the program's professional development workshops; a total of **133 individuals attended Workshop I** and a total of **93 persons attended Workshop II**. During each six-hour workshop, teachers received a curriculum guide aligned to California state standards, teaching supplies, and strategies on empowering their students to take action in their communities through environmental stewardship as well as leading their students to be environmentally aware while they participate in both the classroom and beach component of the program.

We welcomed back **164 teachers as veterans (year 3+)**; these teachers have already completed both workshops and may continue to receive teaching supplies, bus transportation stipends, and a field trip to the beach. Over the past several years, a trend of increasing numbers of returning participants reflects the program's relevancy and popularity as a trusted educational resource.

A total of **177 Key to the Sea field trips** took place at partnering facilities, including Cabrillo Marine Aquarium, Roundhouse Marine Studies Lab & Aquarium, SEA Lab, and Santa Monica Pier Aquarium. This represents an increase of 8 field trips over the last school year (2009-10).

Out of the 177 field trips, **105 bus stipends** (\$300/bus) were provided for transportation to the field trip site. The bus stipends, which are completely supported by grant funds, subsidized about 60% of the total field trips, allowing many students and teachers to participate who otherwise would not have been able. Many students experienced the beach for the first time.

Overall, the program reached **99 schools**, in **21 school districts**, for a total of **8,846 students** (90% of the students, or 7,624 students, attended Title 1 schools). The schools, districts, and students participating, all increased this school year in comparison to the past few years. In particular, this represents an increase of 8 schools, 1 district, and 385 students, over the last school year (2009-10). Due in large part to your support, we have been able to extend the program to more schools and students as well as educators in the region.

Qualitative Measures

We received extremely positive feedback on evaluations filled out by participating teachers; they rated the professional development workshops as meeting their expectations 98% of the time and the program as having a positive impact on their students' behavior 99% of the time.

Additional qualitative program accomplishments include:

- Two presentations on activities and model partnerships of the program were given at the National Marine Educators Association (NMEA) annual conference in July 2010.
- Both the Workshop I and Workshop II newly revised and updated Curriculum Guides were used in this school year (2010-11). They received positive feedback as to the look, layout, and design, the educator-friendly format, additional resources, and the enhanced lesson plans with new activity ideas plus modifications for students in upper (4-5) and lower (K-3) grades.
- Additional programs with a *Key to the Sea* beach component, namely Coastal Cleanup Education Day and Duke's Lunch N Learn, served approximately 1,200 students.

Contents of the Report

In this package, you will find:

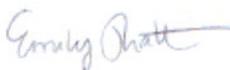
- Participation data, charts, and graphs;
- A summary of teachers' evaluations;
- Copies of completed teachers' evaluations;
- Student work samples; and,
- Photo pages illustrating various aspects of the program.

Looking Ahead / Thank You

As we approach the 2011-12 school year, which will be the 12th year of this unique long-standing educational opportunity, we will continue to implement the program. Your support has allowed it to thrive this school year and will be vital to its continued success. The great importance of, and need for, the *Key to the Sea* program is paramount in teaching young people and their teachers about our impact on the environment and solutions to some of the biggest issues we face today. We will depend upon your funding and support, in order to provide this program in the coming year and we look forward to your generous support.

We recognize the contributions of all those involved with the program, including beach naturalists, instructors, partnering site representatives, classroom teachers, informal educators, grantors, and other supporters. On behalf of Heal the Bay and partnering facilities, we thank you for your support of the *Key to the Sea* program.

Sincerely,



* *Education Programs Coordinator* *

Heal the Bay | 1444 9th Street | Santa Monica CA 90401
ph 310.451.1500 x147 | fax 310.496.1902 | epratt@healthebay.org

Key to the Sea 2010-11 School Participation List

#	SCHOOL	CITY	DISTRICT	TITLE 1?	# of STUDENTS	# of TEACHERS	FIELD TRIPS	BUSES
1	20th St Elem	Los Angeles	LAUSD	Y	57	2	1	0
2	61st St Elem	Los Angeles	LAUSD	Y	49	2	1	1
3	74th St School	Los Angeles	LAUSD	Y	58	2	1	1
4	Adams Elem	Torrance	Torrance Unified	Y	67	3	1	0
5	Alpine Elem	Littlerock	Keppel Union SD	Y	72	4	2	0
6	Ambassador School Global Edu	Los Angeles	LAUSD	Y	72	3	2	0
7	Armetoy Elem	Gardena	LAUSD	Y	186	10	3	2
8	Anatola Elem	Van Nuys	LAUSD	Y	50	3	1	1
9	Annandale Elem	Los Angeles	LAUSD	Y	49	2	1	1
10	Arlington Elem	Torrance	Torrance Unified	Y	120	4	2	0
11	Balboa Blvd Elem	Northridge	LAUSD	N	96	4	2	0
12	Baldwin Hills Elem	Los Angeles	LAUSD	Y	21	2	1	1
13	Bell Gardens Elem	Bell Gardens	Montebello USD	Y	187	6	3	0
14	Billy Mitchell Elem	Lawndale	Lawndale USD	Y	110	5	2	2
15	Bitely Elem	Rosemead	Garvey USD	Y	166	7	3	3
16	Blythe St School	Sherman Oaks	LAUSD	Y	40	2	1	1
17	Buchanan St Magnet Center	Los Angeles	LAUSD	Y	57	2	1	1
18	Camellia Ave Elem	North Hollywood	LAUSD	Y	42	2	1	0
19	Canterbury Elem	Arleta	LAUSD	Y	85	4	2	0
20	Castle Heights School	Los Angeles	LAUSD	N	95	4	2	0
21	Celerity Octavia Charter School	Los Angeles	Celerity Educational	Y	22	1	1	0
22	Central Elem	Baldwin Park	Baldwin Park Unified	Y	112	6	2	2
23	Cesar Chavez Elem	Bell Gardens	Montebello USD	Y	122	4	2	2
24	Clara Barton Elem	Long Beach	LBUSD	Y	45	2	1	1
25	Coldwater Canyon Elem	North Hollywood	LAUSD	Y	50	2	1	1
26	Desert Rose Elem	Palmdale	Palmdale USD	Y	250	10	5	3
27	Dixie Canyon Ave Elem	Sherman Oaks	LAUSD	N	30	1	1	0
28	Dolores Huerta Elem	Lennox	Lennox SD	Y	90	4	2	2
29	Don Benito Elem	Pasadena	Pasadena USD	Y	49	2	1	1
30	Downtown Value School	Los Angeles	LAUSD	Y	45	2	1	0
31	El Oro Way School	Granada Hills	LAUSD	N	112	4	2	2
32	Eshelman Ave Elem	Lomita	LAUSD	Y	60	2	1	1
33	Fenton Primary Center	Lake View Terrace	LAUSD	Y	428	24	9	9
34	Fletcher Drive Elem	Los Angeles	LAUSD	Y	47	2	1	0
35	Frederick Douglass Academy	Los Angeles	ICEF Inner City Edu	Y	61	2	1	1
36	Gardena Elem	Gardena	LAUSD	Y	223	10	5	2
37	Germain Elem	Chatsworth	LAUSD	Y	65	2	1	0
38	Gompers Elem	Lakewood	LBUSD	Y	81	3	1	0
39	Grandview Blvd Elem	Los Angeles	LAUSD	Y	40	2	1	1
40	Grant Elem	Long Beach	LBUSD	Y	123	6	2	2
41	Grant Elem	Los Angeles	LAUSD	Y	117	4	2	2
42	Greenwood Elem	Montebello	Montebello USD	Y	60	2	1	0
43	Jane Addams Elem	Long Beach	LBUSD	Y	326	16	6	5
44	Joseph Gascon Elem	Los Angeles	Montebello USD	Y	49	2	1	1
45	Kester Magnet School	Sherman Oaks	LAUSD	Y	164	7	3	1

#	SCHOOL	CITY	DISTRICT	TITLE 1?	# of STUDENTS	# of TEACHERS	FIELD TRIPS	BUSES
46	Kit Carson Elem	Hawthorne	Lawndale USD	Y	117	5	2	2
47	La Tijera Elem	Inglewood	Inglewood USD	Y	47	2	1	1
48	Latona Ave Elem	Los Angeles	LAUSD	Y	39	2	1	1
49	Leichman School	Reseda	LAUSD	Y	30	3	1	1
50	Lincoln Elem	Long Beach	LBUSD	Y	112	5	2	1
51	Lincoln Elem	Redondo Beach	Redondo Beach USD	Y	88	4	2	0
52	Lockhurst Elem	Woodland Hills	LAUSD	N	60	2	1	0
53	Lorne St Magnet School	Northridge	LAUSD	Y	59	2	1	0
54	Los Angeles Elem	Los Angeles	LAUSD	Y	32	1	1	1
55	Lowell Elem	Long Beach	LBUSD	N	83	3	2	0
56	Lucille Smith School	Lawndale	Lawndale USD	Y	80	3	1	1
57	Madison Elem	South Gate	LAUSD	Y	148	6	3	3
58	Magnolia Science Academy	Reseda	LAUSD	Y	32	2	1	1
59	Manchester Ave Elem	Los Angeles	LAUSD	Y	60	3	1	0
60	Mark Twain Elem	Lawndale	Lawndale USD	Y	100	4	1	1
61	Mark Twain Elem	Long Beach	LBUSD	N	110	5	2	0
62	McKinley Elem	Pasadena	Pasadena USD	Y	46	2	1	0
63	Meadows Elem	Manhattan Beach	Manhattan Beach USD	N	80	4	2	0
64	Multicultural Learning Center	Canoga Park	LAUSD	Y	50	3	1	0
65	New Heights Charter School	Los Angeles	LAUSD	Y	48	2	1	0
66	New World Montessori School	Los Angeles	private	N	14	2	1	0
67	Norwood St Elem	Los Angeles	LAUSD	Y	110	4	2	2
68	Our Lady of Guadalupe	Hermosa Beach	LA Archdiocese	N	41	2	2	0
69	Palmdale Learning Plaza	Palmdale	Palmdale USD	Y	47	2	1	0
70	Paseo del Rey Magnet School	Playa del Rey	LAUSD	Y	91	4	2	0
71	Patrick Henry Elem	Long Beach	LBUSD	N	80	3	2	0
72	Pennekamp Elem	Manhattan Beach	Manhattan Beach USD	N	90	3	2	1
73	Plummer Elem	North Hills	LAUSD	Y	41	2	1	1
74	Ramona Elem	Alhambra	Alhambra USD	Y	157	8	3	3
75	Ramona Elem	Los Angeles	LAUSD	Y	53	3	1	1
76	Ranchito Ave Elem	Panorama City	LAUSD	Y	84	4	2	2
77	Riley Elem	Lakewood	LBUSD	Y	80	4	2	2
78	Roosevelt Elem	Long Beach	LBUSD	Y	159	9	3	3
79	Roosevelt Elem	Lawndale	Lawndale USD	Y	140	7	2	2
80	Rosemont Ave Elem	Los Angeles	LAUSD	Y	46	2	1	1
81	San Antonio Elem	Huntington Park	LAUSD	Y	135	7	3	2
82	Solano Ave School	Los Angeles	LAUSD	Y	98	4	2	2
83	Soto St Elem	Los Angeles	LAUSD	Y	45	2	1	1
84	St. Joseph School	Hawthorne	LA Archdiocese	N	73	4	2	0
85	Taper Ave Elem	San Pedro	LAUSD	Y	44	2	1	0
86	Tom Bradley Elem	Los Angeles	LAUSD	Y	66	3	1	1
87	Valley Regional Elem #6	Panorama City	LAUSD	Y	47	2	1	1
88	Van Deene Elem	Torrance	LAUSD	Y	30	1	1	0
89	Vanalden Elem	Reseda	LAUSD	Y	76	4	2	2
90	Verdugo Woodlands Elem	Glendale	Glendale USD	N	103	4	2	0

#	SCHOOL	CITY	DISTRICT	TITLE 1?	# of STUDENTS	# of TEACHERS	FIELD TRIPS	BUSES
91	Village Glen Elem	Sherman Oaks	LAUSD	N	60	2	1	0
92	Ward Elem	Downey	Downey USD	Y	120	4	2	2
93	West Vernon Elem	Los Angeles	LAUSD	Y	38	2	1	1
94	Westport Heights Elem	Los Angeles	LAUSD	Y	175	8	4	4
95	Wilbur Ave Elem	Tarzana	LAUSD	N	95	5	2	0
96	Will Rogers Elem	Santa Monica	SMMUSD	Y	98	4	2	0
97	Willard Elem	Long Beach	LBUSD	Y	191	9	3	3
98	William Green Elem	Lawndale	Lawndale USD	Y	198	9	3	2
99	Williams Elem	Downey	Downey USD	Y	50	2	1	0
GRAND TOTALS:				Y = 83 N = 16	8846	395	177	105

Note: 395 is number of teachers **with** a field trip. It does not include 7 teachers who took a workshop but not the field trip.

Student Participation by District

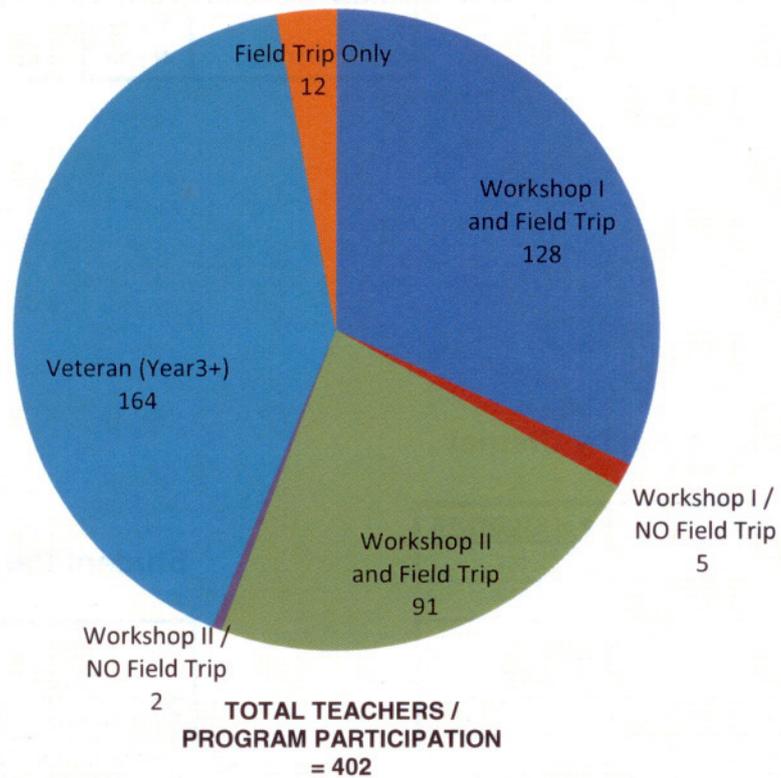
#	DISTRICT	# of STUDENTS
1	Alhambra USD	157
2	Baldwin Park Unified	112
3	Downey USD	170
4	Garvey USD	166
5	Glendale USD	103
6	ICEF Inner City Edu	61
7	Inglewood USD	47
8	Keppel Union SD	72
9	LA Archdiocese	114
10	LAUSD	4230
11	Lawndale USD	745
12	Lennox SD	90
13	Long Beach USD	1390
14	Manhattan Beach USD	170
15	Montebello USD	418
16	Redondo Beach USD	88
17	Palmdale USD	297
18	Pasadena USD	95
19	Private-Other	36
20	Torrance Unified	187
21	Santa Monica Malibu USD	98
		8846

Student Participation: Title I Status

%TITLE I	# of STUDENTS	FIELD TRIPS	BUSES
Title I Students = 90%	7624	149	102
Non-Title I = 10%	1222	28	3
	8846	177	105

Key to the Sea 2010-11 Teacher Participation Data

Attended Workshop I and Field Trip	128
Attended Workshop I / NO Field Trip	5
Attended Workshop II and Field Trip	91
Attended Workshop II / NO Field Trip	2
Veteran (Year 3+) Participants with Field Trip	164
Attended Field Trip Only	12
TOTAL TEACHERS / PROGRAM PARTICIPATION	402



The "total teachers/program participation" of 402 includes all teachers who were involved with the program in some way - workshop attendees, veteran participants, and teachers who only had a field trip. It is greater than the number of teachers as listed on the school participation table (395), because some teachers did NOT have a field trip (7).

Key to the Sea 2010-11

Professional Development Workshop Evaluation Summary

WORKSHOP I -- OVERALL

	n/a or no response	(negative) 1	2	3	4	5 (positive)
Expectations Met Today?	1%		0%	1%	16%	82%
Will Be Effective for Students?	11%		0%	0%	9%	80%

WORKSHOP I -- ACTIVITIES

	n/a or no response	(negative) 1	2	3	4	5 (positive)
Introduction	7%		0%	2%	17%	73%
Wonders of Watersheds	8%		0%	2%	21%	69%
Beach Topics	8%		1%	2%	12%	77%
Connections	7%		0%	1%	18%	74%

WORKSHOP II -- OVERALL

	n/a or no response	(negative) 1	2	3	4	5 (positive)
Expectations Met Today?	1%		0%	0%	8%	91%
Will Be Effective for Students?	1%		0%	0%	2%	97%

WORKSHOP II -- MAKE-N-TAKE ACTIVITIES

	n/a or no response	(negative) 1	2	3	4	5 (positive)
Introduction	2%		0%	0%	8%	90%
Water Everywhere	2%		0%	0%	8%	90%
Storm Drain System	3%		0%	1%	5%	89%
Sewage Treatment	7%		0%	3%	8%	82%
Marine Debris & Plastics	3%		0%	1%	12%	84%
Beach Exploration	3%		0%	1%	21%	75%
Ocean Habitats	5%		0%	1%	7%	87%
Sustainable & Safe Seafood	3%		0%	1%	8%	88%

** Percentages may not add to 100% due to rounding.

Key to the Sea 2010-11

Post-Program Evaluation Summary

After teachers have completed the workshop, taken their students on the field trip, and utilized the curriculum guide in the classroom, they fill out and send in the Post Program Evaluation. The ratings from evaluations are recorded to help assess the effectiveness of the program.

LOGISTICS	n/a or no response	(negative) 1	2	3	4	5 (positive)
Reservations at Centers?	3%		0%	3%	16%	78%
Registrations for Workshop?	1%		0%	0%	15%	84%

FIELD TRIP	n/a or no response	(negative) 1	2	3	4	5 (positive)
Overall Field Trip?	1%		0%	1%	13%	85%
Bird Observations?	6%		0%	6%	23%	64%
Sandy Beach Exploration?	7%		0%	4%	20%	69%
Pollution Info/Relay?	11%		0%	5%	18%	67%
Interaction with Naturalists?	1%		0%	0%	11%	88%
Classroom Teacher's Role?	5%		0%	0%	21%	74%

CURRICULUM	n/a or no response	(negative) 1	2	3	4	5 (positive)
Easy to Understand & Use?	0%		0%	3%	35%	62%
Layout and Look?	1%		0%	1%	28%	70%

IMPACT	n/a or no response	(negative) 1	2	3	4	5 (positive)
Effect on Student Behavior?	1%		0%	0%	12%	87%

** Percentages may not add to 100% due to rounding.



Teacher Professional Development Workshop Evaluation

Name: Laura Miller Grade Taught: 2/3 Combo
 School: Central Elementary Baldwin Park
 Workshop Date: 1-22-11 Location of Training: Santa Monica Heal The Bay off.

Thank you for your participation in today's *Key to the Sea* workshop! This evaluation will help us continue to offer a high quality workshop that meets the needs of teachers.

PART 1

1. How many years have you been a **classroom teacher**? Circle one.

1-2 years 3-5 years 6-10 years 11-19 years 20+ years n/a

2. How did you **hear about the Key to the Sea program**? Circle all that apply.

- a. Co-worker
- b. Paper Flyer
- c. Online
- d. Aquarium/Public Venue
- e. Other:

3. Please rate the **convenience of** the following:

Workshop dates: (not convenient) 1 2 3 4 5 (very convenient)

Workshop locations: (not convenient) 1 2 3 4 5 (very convenient)

Comments:

4. How would you describe your initial impression of the Key to the Sea **curriculum guide layout and design**?

I was impressed. The curriculum guide is beautiful. I was happy to get extra copies of each activity sheet.

5. One thing I will take back to **use in my classroom right away is:**

The Watershed materials. I plan to start with the local area, storm drains, water usage, littering, etc and then connect it to the ocean.

PART 2

1. How were your expectations met for today's workshop?

(did not meet) 1 2 3 4 5 (exceeded expectations)

Comments:

scheduled well - flowed well - liked the walk & visiting two sites. Snacks!!

OVER →





2. Please rate and share comments regarding each of the sections of the workshop.

Introduction

(negative) 1 2 3 4 5 (positive)

Comments: The presenters were approachable, clear, and used hands on activities. Great affect!

WOW: Wonders of our Watersheds

(negative) 1 2 3 4 5 (positive)

Comments: I like the worksheets (map & Diagrams)

Know Before You Go/ Beach Topics

(negative) 1 2 3 4 5 (positive)

Comments: _____

Connections

(negative) 1 2 3 4 5 (positive)

Comments: _____

3. Overall, how effective do you feel the *Key to the Sea* program will be for your students?

(not effective) 1 2 3 4 5 (highly effective)

Comments: This will be a great opportunity for my students. For many of them this will be their first experience at the beach. The real life connection will really enforce their learning. Thank you!



Teacher Professional Development Workshop II Evaluation

Name: Patricia Loomis Grade Taught: 3rd

School: 61st Street ES

Workshop Date: 11/20/10 Location of Training: Cabrillo

Thank you for your participation in today's *Key to the Sea* workshop! This evaluation will help us continue to offer a high quality workshop that meets the needs of teachers.

PART 1

1. Please rate the **convenience** of the following:

Workshop dates: (not convenient) 1 2 3 4 5 (very convenient)

Workshop locations: (not convenient) 1 2 3 4 5 (very convenient)

Comments:

Great location and amenities.

2. How would you describe your initial impression of the Key to the Sea **curriculum guide layout and design**?

Organized and inviting.

3. One thing I will take back to **use in my classroom right away is**:

A drop in the bucket. Easy to do and effective.

PART 2

1. How were your expectations met for today's workshop?

(did not meet) 1 2 3 4 5 (exceeded expectations)

Comments: Information and lesson plans are student friendly.

2. Please rate and share comments regarding each of the sections of the workshop.

Introduction

(negative) 1 2 3 4 5 (positive)

Comments:

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OVER →



Water – It's Everywhere (Globe Toss, A Drop In The Bucket)

(negative) 1 2 3 4 5 (positive)

Comments:

Makes an impression.

Storm Drains & The Story of Pollution (Who Pollutes Story)

(negative) 1 2 3 4 5 (positive)

Comments:

Sewage/Wastewater Treatment (Environmentally-Friendly Cleaner, Growing Green Experiment)

(negative) 1 2 3 4 5 (positive)

Comments:

Marine Debris & Plastics in Our Ocean (Trash Timeline)

(negative) 1 2 3 4 5 (positive)

Comments:

Will make a great hands on activity.

The Sandy Beach: Currents, Waves & Tides (Ocean Locomotion, Slinky Demo, Reading a Tide Chart)

(negative) 1 2 3 4 5 (positive)

Comments:

Great visuals

Ocean Habitats (Habitat Bingo)

(negative) 1 2 3 4 5 (positive)

Comments: Very informative.

Sustainable Safe Seafood (Overfishing Game, Seafood Watch, Going Fishing Be Safe!)

(negative) 1 2 3 4 5 (positive)

Comments:

Learned a lot !!

3. Overall, how effective do you feel the Key to the Sea program will be for your students?

(not effective) 1 2 3 4 5 (highly effective)

Comments:

This will increase their awareness

Thank you for taking the time to attend today's workshop and to share your thoughts about the experience!

tremendously.

65

Thanks!



Post Program Evaluation

Name: Herolinda Recendez Grade Taught: 1
 School: Westport Heights
 Field Trip Location: Cabrillo Beach Date of Field Trip: Feb. 23rd

Please fill out this evaluation after you have finished the Key to the Sea program for the school year, including your workshop, field trip, and classroom curricula. Your feedback is appreciated.

Please mail to: Heal the Bay; attn: Key to the Sea

1444 9th Street
 Santa Monica, CA 90401
 OR, fax: 310.496.1902

Thank you for helping to make *Key to the Sea* the best it can be!

Registration/Logistics

1. Making reservations at marine science center:

(difficult/bad) 1 2 3 4 5 (easy/excellent)

Comments:

2. Registering for Key to the Sea workshop or submitting Key to the Sea veteran form:

(difficult/bad) 1 2 3 4 5 (easy/excellent)

Comments: I was able to change my workshop date with ease.

Field Trip

1. Overall, how was the outside Beach Exploration portion of your field trip?

(bad) 1 2 3 4 5 (excellent)

Comments: Excellent & memorable experience of all my students.

94



2. How effectively (engaging, age appropriate, key concepts, etc.) was the bird observation station with binoculars taught?

(not effective) 1 2 3 4 5 (highly effective)

Comments:

3. How effectively was the sandy beach station with digging in the sand taught?

(not effective) 1 2 3 4 5 (highly effective)

Comments: For some of my students, it was their first experience at the beach.

4. How effectively was the pollution info/ fatal food relay/ storm drain system taught?

(not effective) 1 2 3 4 5 (highly effective)

Comments: They continue identifying storm drains and the importance of not polluting.

5. How was your interaction with the Key to the Sea naturalists?

(negative) 1 2 3 4 5 (positive)

Comments: We loved our Sea Naturalists! Very patient and engaging.

6. How was your experience (as the classroom teacher) in leading/facilitating activities on the beach?

(negative) 1 2 3 4 5 (positive)

Comments: Our Sea naturalists had everything under control that all I did was have fun.

Classroom Curriculum

1. Please check the boxes of lessons used in your classroom over the course of this school year and provide comments.

WOW: Wonders of Our Watersheds

- What Is a Watershed
- Permeability Experiment
- Storm Drain System
- Neighborhood Survey
- Trash Cleanup

Comments: They enjoyed all the hands-on activities.



The Sandy Beach Environment

- Prep Guidelines
- Sandy Beach
- Critter Cards
- Quadrat Craze
- Algae Algae Everywhere
- Fatal Food Relay
- Birds of a Feather Flock Together

Comments:

Connections

- Enviro-Frame
- Word-Out Postcard
- Environmental Excellence Award
- Plan A Project (Mural, PSA, Recycling Program, Etc.)

Comments:

2. How was your experience in understanding and implementing lessons in the curriculum guide?

(negative) 1 2 3 4 5 (positive)

Comments: The guide was very clear & easy to follow

3. How was your experience with the overall layout and look of the curriculum guide?

(negative) 1 2 3 4 5 (positive)

Comments:

4. What challenges, if any, have you encountered with using the curriculum?

None - I just wish I had time to do it all.

Impact

1. Overall, what effect has participating in the Key to the Sea program had on your students, with regards to environmental stewardship and pollution prevention?

(negative) 1 2 3 4 5 (positive)

Comments:



2. What, if any, changes have been implemented by you or your students at home or at school since participating in Key to the Sea?

This field trip has brought an environmental awareness that was not previously taught.

3. What, if any, feedback have you received from parents, family members, or community persons, about Key to the Sea?

Additional Comments

Please share any further comments, suggestions for improvement, or stories.

Overall, the field trip was very organized and a great learning experience of all my students and parents. The workshop itself was very engaging and I look forward to attending Workshop II!

Thank you!!

Thank for completing and sending in this Post-Program Evaluation. We look forward to your participation next school year!



Dear Friends,
Thank you for teaching
us about how to take care
of sea animals and our
environment. I had
fun going to Cabrillo
beach.

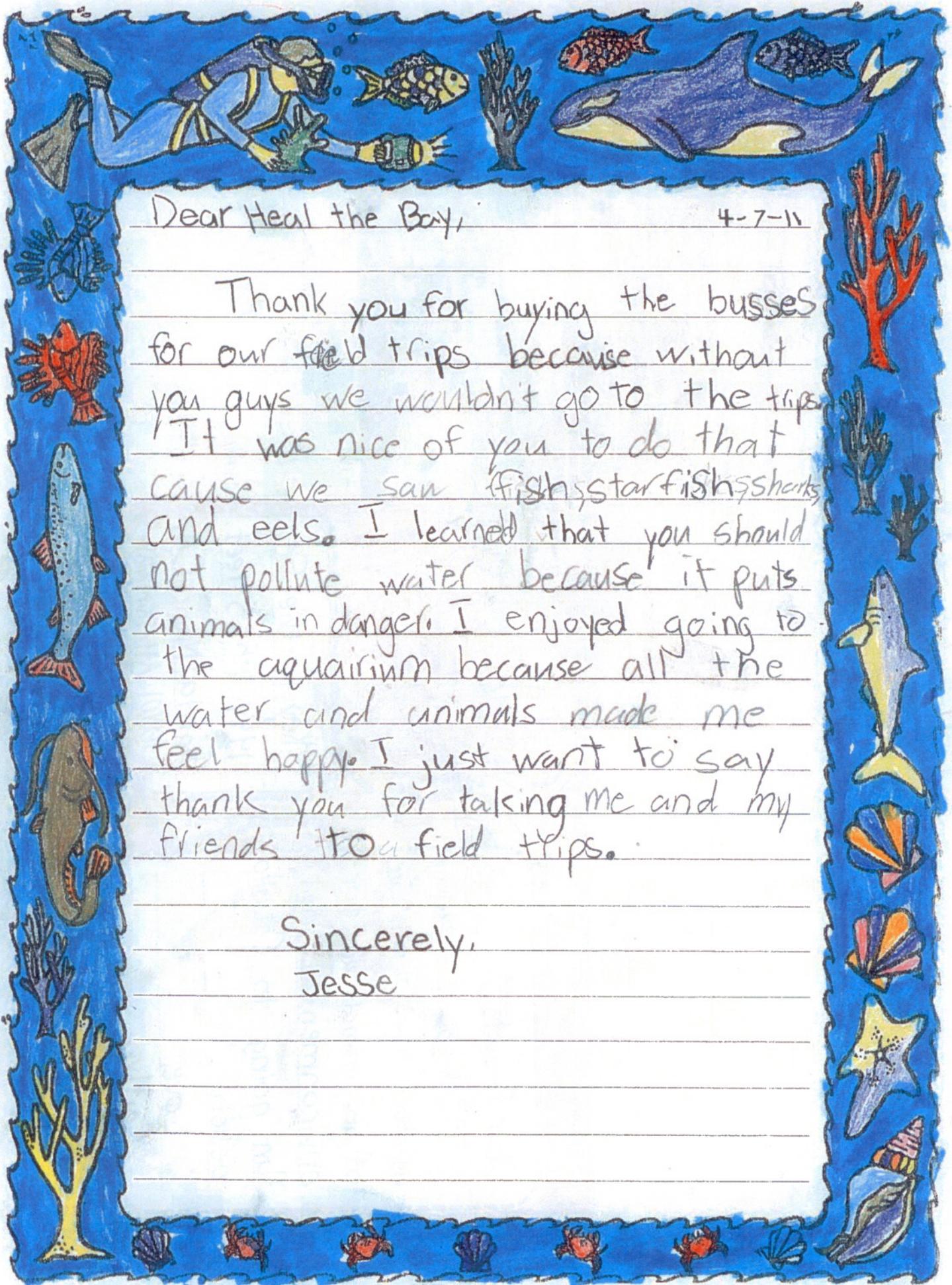
Love,
Caitlyn

to Key to the Sea
1444 9th Street
Santa Monica, CA
90401 Attn: Kim and Paul

Heal the Bay, 1444 9th Street, Santa Monica, CA 90401
800-HEAL-BAY | www.healthebay.org/key2sea

KEY TO THE SEA

Printed on recycled paper



Dear Heal the Bay,

4-7-11

Thank you for buying the busses for our field trips because without you guys we wouldn't go to the trips. It was nice of you to do that cause we saw fish, starfish, sharks, and eels. I learned that you should not pollute water because it puts animals in danger. I enjoyed going to the aquarium because all the water and animals made me feel happy. I just want to say thank you for taking me and my friends to a field trip.

Sincerely,
Jesse

Field Trips



Learning about kelp on the beach
(Cabrillo Marine Aquarium)

Using binoculars and an identification guide
to observe birds (Roundhouse Aquarium)



KEY
TO THE
SEA



Digging for sand crabs along
the shoreline (SEA Lab)



**KEY
TO THE
SEA**

Field Trips



Learning about pollution, the storm drain system and how we can help (Cabrillo Marine Aquarium)



Engaging in a sandy beach exploration (Santa Monica Pier Aquarium)

Playing the “fatal food relay” to learn about the effects of pollution on ocean animals (SEA Lab)



Professional Development Teacher Workshops



KEY
TO THE
SEA



Preparing for the field trip
by making bird observations
with binoculars
(Cabrillo Marine Aquarium)

Learning about activities to
bring back to the classroom
(Cabrillo Marine Aquarium)



Key to the Sea * 1444 9th Street, Santa Monica, CA 90401 * 800 HEAL BAY * www.healthebay.org



Long Beach Branch, Inc

March 5, 2011

Mr. Anthony Arevalo
Stormwater Compliance Division
333 West Ocean, 9th Floor
Long Beach, CA 90802

Dear Tony:

Thank you for donating the rulers, stickers and magnets to AAUW's 8th Annual STEM (Science, Technology, Engineering & Math) Career Conference. These items went into the goody bags for the 194 middle school girls who attended the conference to learn more about careers available to them.

We appreciate your help in making this conference a success.

Sincerely,

A handwritten signature in cursive script, reading "Deloris Mayuga". The signature is written in a dark ink and is positioned above the typed name and title.

Deloris Mayuga
Program Chair
AAUW, STEM Conference



October 26, 2011

Ana DeAnda
Department of Public Works
Storm Water & Environmental Compliance Division
City of Long Beach
333 W. Ocean Blvd., 9th Floor
Long Beach, CA 90802

Dear Ana,

The Aquarium is grateful for the \$5,000 grant from the City of Long Beach for our scholarship program. Local students will be provided transportation and experience a grade level appropriate, science standards based classroom program and visit here at the Aquarium. The follow schools will be accommodated through this grant within the upcoming month:

- Jordan High School: 72 kids with visits, classroom program and bussing \$1,448
- Marshall Academy of the Arts: 20 kids with visits, classroom program and bussing \$580
- McKinley Elementary School: 140 kids with visits, classroom program and bussing \$2,460
- Program management/admin at 10% of grant: \$500
- Balance of \$12 will be transferred to General Scholarship Fund and pooled for other visits.

A full report on this grant will be submitted upon completion of all visits. Thank you again for your support of our local schools!

Sincerely,

Heather George

Heather George,
Grants Associate

City of Long Beach Stormwater Management Program Expenditures

	Water	Airport	Library	Harbor	PW	PR&M	Health	DV
Program Management	\$7,188		\$222	\$150,500	\$2,287,495	\$19,289	\$2,209	
Illicit Connections/Illicit Discharges				\$2,228,500		\$610,073	\$407,605	
Development Planning/Construction		\$55,450		\$235,000			\$269,715	
Construction Inspection Activities								
Public Agency Activities		\$1,026	\$5,589	\$651,448	\$37,321,309	\$2,765,787	\$4,967	\$145,363
<i>operations and maintenance</i>					\$159,210			
<i>municipal street sweeping</i>								
<i>fleet and public agency facilities</i>								
<i>landscape and recreational facilities</i>								
Capital Costs								
Public Information and Participation		\$3,000	\$383	\$30,000	\$1,056,659	\$8,273	\$36,145	
Monitoring Program		\$4,000		\$225,000	\$158,360	\$64,000		
Other				\$331,500			\$35,149	
Department Total	\$7,188	\$63,476	\$6,194	\$3,851,948	\$40,983,033	\$2,785,076	\$689,522	\$893,977
TOTAL FY '08 EXPENDITURES-CITYWIDE								\$0
PROGRAM TOTALS								
Program Management	\$2,466,903							
Illicit Connections/Illicit Discharges	\$3,246,178							
Development Planning/Construction	\$560,165							
Construction Inspection Activities	\$0							
Public Agency Activities	\$40,895,489							
<i>operations and maintenance</i>	\$159,210							
<i>municipal street sweeping</i>	\$0							
<i>fleet and public agency facilities</i>	\$0							
<i>landscape and recreational facilities</i>	\$0							
Capital Costs	\$0							
Public Information and Participation	\$1,134,460							
Monitoring Program	\$451,360							
Other	\$366,649							
TOTAL FY '11 EXPENDITURES-CITYWIDE	\$49,280,415							

Storm 12/20/10 - Flood/West

Section	St.No.	St.Name	Description of Request	Action Taken	Contractor	Date Completed
1 W	252	Cherry Ave	clogged storm drain	water running slow - too much water for the system	N	12/20/2010
2 W	540	Walnut Ave	clogged storm drain	contractor needed for clean out storm drain	Y	12/20/2010
3 W	1200	3rd St, E	clogged storm drain	water running slow - too much water for the system	N	12/20/2010
4 W	248	San Antonio Dr	alley rear is flooded	water running slow - too much water for the system	N	12/20/2010
5 W	3rd St	Lime Ave	Flooded	contractor needed for clean out storm drain	Y	12/20/2010
6 W	Broadway	Lime Ave	Flooded	contractor needed for clean out storm drain	Y	12/20/2010
7 W	2519	Earl Ave	Flooded	water running slow - too much water for the system	N	12/20/2010
8 W	5th St	Cedar Ave	Flooded n/w corner	water running slow - too much water for the system	N	12/20/2010
9 W	Atlantic Ave	btwn Del Amo & 46th St	Flooded	water running slow - too much water for the system	N	12/20/2010
10 W	37th St	Olive Ave	Flooded over sidewalk	water running slow - too much water for the system	N	12/20/2010
11 W	Atlantic Ave	Carson St	Flooded	water running slow - too much water for the system	N	12/20/2010
12 W	San Antonio Dr	Long Beach Blvd	clogged storm drain	water running slow - too much water for the system	N	12/20/2010
13 W	1901	Atlantic Ave	Flooding - going into business	water running slow - too much water for the system	N	12/20/2010
14 W	780	Atlantic Ave	clogged storm drain	clogged sd	Y	12/20/2010
15 W	1305	PCH, E	water coming out from SD	water running fine	N	12/20/2010
16 W	Walnut Ave	btwn PCH & 20th St	Flooded	water running slow - too much water for the system	N	12/20/2010
17 W	Wesley Dr	btwn Walnut & Orange Ave - 1339 Wesley Dr, 1356 Wesley Dr, 1346 Wesley Dr, Wesley W/O Walnut	Flooded	water running slow - too much water for the system	N	12/20/2010

Section	St.No.	St.Name	Description of Request	Action Taken	Contractor	Date Completed
18 W	Delta Ave	Wardlow Rd	Flooded	contractor needed to pump out water - PW place 6 -12' barricades on the median adjacent to private property to detour traffic	Y	12/20/2010
19 W	4th St	Linden Ave	Flooded	water running slow - too much water for the system	N	12/20/2010
20 W	1054	Daisy Ave	Flooded	water running slow - too much water for the system	N	12/20/2010
21 W	15th St	Junipero Ave	Flooded	water running slow - too much water for the system	N	12/20/2010
22 W	1100	16th St, E	Flooded	water running slow - too much water for the system	N	12/20/2010
23 W	1086	16th St, E	Flooded	water running slow - too much water for the system	N	12/20/2010
24 W	Willow	Atlantic Ave	Flooded	water running slow - too much water for the system	N	12/20/2010
25 W	Willow	Magnolia Ave	Flooded	water running slow - too much water for the system	N	12/20/2010
26 W	273	Del Amo Blvd, E	Flooded	too much water for the system	N	12/20/2010
27 W	20th St	Palmer Ct	Flooded	too much water for the system	N	12/20/10 8p.m.
28 W	1348	Baker St	Flooded	too much water for the system	N	12/20/10 7:10p.m.
29 W	2605	67th St, E	Flooded	UTL	N	12/20/2010
30 W	Carson	Via De Oro, west side	Flooded	too much water for the system	N	12/20/10 8p.m.
31 W	9th St	Elm Ave	Flooded	clogged sd	Y	12/20/2010
32 W	Atlantic Ave	btwn Bixby & Roosevelt	Flooded	too much water for the system	N	12/20/2010
33 W	443	Freeland	Flooded	water running slow - too much water for the system	N	12/20/2010
34 W	903	Atlantic Ave	Flooded	water running slow - too much water for the system	N	12/20/2010

Section	St.No.	St.Name	Description of Request	Action Taken	Contractor	Date Completed
35 W	7th st	Linden Ave	Flooded	water running slow - too much water for the system	N	12/20/2010
36 W	Willow	Long Beach Blvd	Flooded	water running slow - too much water for the system	N	12/20/2010
37 W	Obispo Ave	Sawyer St	Flooded	too much water for the system	N	12/20/10 8:30p.m.
38 W	S/B 710 Fwy	PCH	Flooded	pumps are operating, too much water for the system	N	12/20/2010
39 W	209	Scott St, E alley rear	Flooded	too much water for the system	N	12/20/10 8:25p.m.
40 W	TI	Willow	Flooded	street closure	N	12/20/2010
41 W	556	20th St, E	Flooded - alley rear	clear	N	12/20/2010
42 W	PCH	Lewis Ave	Flooded	too much water for the system	N	12/20/10 7:31p.m.
43 W	600	Long Beach Blvd	Flooded	too much water for the system	N	12/20/10 7:20p.m.
44 W	4600	Virginia Rd	Flooded	too much water for the system	N	12/20/10 9:05p.m.

Port of Los Angeles and Port of Long Beach Annual Progress Report, October 2011

Water Resources Action Plan



Port of
LONG BEACH
The Green Port



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SECTION 1: Introduction

The Water Resources Action Plan (WRAP) developed by the Port of Los Angeles (POLA) and Port of Long Beach (POLB) represents a collaborative effort by the two ports to address water and sediment quality issues within their respective port districts. The Port of Los Angeles and the Port of Long Beach adopted the WRAP at a joint meeting of the two Boards of Harbor Commissioners in August of 2009. The ports' stated goals for the WRAP are: (1) to support the attainment of full beneficial uses of harbor waters and sediments by addressing the impacts of past, present, and future port operations; and (2) to prevent port operations from degrading existing water and sediment quality.

The WRAP has two main driving forces: (1) the ports' need to achieve their broad mission to protect and improve water and sediment quality, and (2) the imminent promulgation by the Los Angeles Regional Water Quality Control Board (LA-RWQCB) and the U.S. Environmental Protection Agency (EPA) of Total Maximum Daily Loads (TMDLs) for harbor waters, and the associated Clean Water Act (CWA) permits. The WRAP's purpose is to put in place the programs and mechanisms for the ports to achieve the goals and targets that will be established in the relevant TMDLs and to comply with the Industrial Activities, Construction Activities, and Municipal Separate Storm Sewer System (MS4) permits issued to the ports and their respective cities and tenants through the National Pollutant Discharge Elimination System (NPDES) program. Throughout the process of implementing the WRAP, the ports will be guided by the basic principle of promoting science-based studies and methods in the integration of regulatory requirements with water and sediment management programs.

1.1 WRAP Development, Review, and Adoption

The ports developed the WRAP with the guidance and participation of the EPA, the LA-RWQCB, and the WRAP Plan Advisory Committee (PAC), a public stakeholder group composed of regulatory agencies, non-governmental organizations, and community representatives. Development of the WRAP included a comprehensive analysis of potential pollutant sources and contaminants of concern, identification of key issues associated with water and sediment quality, examination of existing programs, analysis of key issues in water and sediment quality, and evaluation of what additional control measures were needed to achieve the mission of the ports with respect to water and sediment resources. Throughout the process the input of the EPA, the LA-RWQCB, and the PAC was solicited, evaluated, and incorporated into the WRAP; information on the WRAP and its development, including the PAC meeting minutes, is available on the two ports' websites (www.portoflosangeles.org; www.polb.com). The WRAP outline and the schedule for developing the document were presented to the PAC in September 2008, a list of the proposed control measures was presented to the PAC at the November 2008 meeting, and a draft of Section 4, containing the control measure write-ups, was provided to the PAC in March 2009. The comments of PAC members, EPA, and the LA-RWQCB



on the draft measures and WRAP text prompted a number of refinements to the document, including the addition of two control measures (LU-8 and S-2) that were not originally envisioned.

SECTION 2: Annual Progress Reports

The WRAP is a living document in the sense that the ports expect to modify it over time as circumstances warrant. Periodic review of the WRAP by the ports will determine the need for updates. Updates could be warranted by regulatory changes such as issuance of TMDLs and/or substantially modified NPDES permits, by technological advances in pollution control, or by the addition of new control measures. Rather than produce annual updates to the WRAP, the ports identified that annual reports identifying the progress of the various control measures, would be developed and presented to their Boards, with document updates occurring on an as-needed basis only.

The first progress report was completed and released in October 2010. The report focused on each individual control measure and included a summary and status update for each port. Milestones for each control measure were noted, including the current status of each control measure and future plans. The 2010 Progress Report is available on each port's website (http://www.polb.com/environment/water_quality/wrap.asp and <http://www.portoflosangeles.org/environment/wrap.asp>).

2.1 Permitting and Regulatory Update

2.1.1 Total Maximum Daily Loads

As discussed in Section 2.4.5 of the WRAP, specific water bodies within each port's (POLB and POLA) jurisdiction are identified as impaired for several pollutants on the 303(d) list of impaired water bodies. For the impaired water bodies, TMDLs are being developed to identify pollutant load reductions for each listed pollutant. Since 2005, the ports have been supporting the LA-RWQCB and EPA on the development of the Draft TMDL for Toxic Pollutants in the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (Draft TMDL) by collecting and providing significant amounts of data, reviewing work product, and providing technical input and resources. The WRAP hydrodynamic model was used extensively to analyze data and provide pollutant fate and transport scenarios.

On December 17, 2010, the LA-RWQCB and the EPA released the Draft TMDL for public review. In response to environmental impairments identified for sediment, fish tissue, and biota, the TMDL set numeric water quality targets for 303(d) listed pollutants based on the State's water quality objectives. The TMDL would require responsible parties to achieve the final waste load allocations and demonstrate attainment of the water quality objectives in the impaired water bodies within 20 years. The ports submitted over 200 specific technical comments with over 5000 pages of supporting material on the Draft TMDL in an attempt to ensure the TMDL would be technically sound, based on accurate data, and would not cause additional adverse environmental impacts.

The LA-RWQCB incorporated some of the ports' comments into the Draft Final TMDL, and on March 5, 2011, the Final TMDL was adopted. The Final TMDL is expected to be

forwarded to the State Water Board and EPA for final approval no later than March 2012. The ports will continue to participate and make comments throughout the adoption process.

2.1.2 NPDES Permits

Along with TMDLs, the ports must comply with NPDES permits that cover stormwater discharges from both industrial and construction-related activities in the ports. The LA-RWQCB held a preliminary meeting with each port to discuss potential permitting structures. Both ports have been independently moving forward with implementation and compliance for the construction NPDES permit. The first annual report for construction projects covered under the construction stormwater NPDES permits were due to the LA-RWQCB by September 1, 2011. Similarly, both ports are continuing to implement their respective stormwater programs for the industrial and municipal NPDES permits. POLA annual facility inspections began in August 2011 and will be completed prior to the start of the rainy season. The POLB completed facility spot inspections throughout the first two quarters of 2011 and began annual facility inspection in August 2011, which will be completed by late-September. Both ports are also in discussion with LA-RWQCB regarding the NPDES permit structure governing the port areas, which is subject to change as NPDES permits continue to evolve in the Los Angeles region.

On January 28, 2011, the State Water Board released a draft NPDES permit for industrial discharges. This draft permit, if finalized, would replace General Permit Order 97-03-DWQ which currently covers stormwater discharges for general industrial facilities. Among the proposed changes, the draft permit included effluent benchmarks for facility stormwater discharges. The POLB reviewed the permit and provided comments. These comments, as well as comments submitted by other stakeholders, can be found on the State Water Board's website at the following link:
http://www.swrcb.ca.gov/water_issues/programs/stormwater/igp_cmmnts042911.shtml.

The POLA and POLB each hosted a workshop (March 2011) for their respective tenants on the draft permit. The workshops included a presentation on the draft industrial permit and provided an opportunity for tenants to discuss the proposed permit with port staff. The input received from the tenants helped to inform the ports' comment letters.

SECTION 3: Control Measure Summary and Update

The ports, with assistance from regulatory staff and stakeholders, identified 14 control measures in the WRAP aimed at fulfilling each port’s water resources mission. Four basic types of sources are addressed by the WRAP through existing and proposed control measures: land-use discharges (LU in the table below), on-water discharges (OW), sediments (S), and watershed discharges (WS). While both ports are committed to developing and implementing programs and policies for each of the 14 control measures, some control measures contain different goals and implementation timelines for each port, based on their respective existing programs and overall priorities. The following section describes each of the 14 control measures, followed by a brief summary of each port’s current status. The final documents related to the various control measures will be posted on the ports’ respective websites

(<http://www.portoflosangeles.org/environment/wrap.asp> and http://www.polb.com/environment/water_quality/wrap.asp).

CONTROL MEASURE	SUMMARY	WRAP SCHEDULE	CURRENT STATUS
LU-1: Housekeeping BMPs	Enhance and expand housekeeping BMPs in maintenance and fueling areas, automobile dismantling and boat repair facilities, oil production facilities, and building maintenance and landscaping areas.	POLA: Develop and initiate inspection strategy by end of 2009, identify first set of new measures by end of 2010. POLB: Identify and implement first set of new measures by end of 2009.	POLA: Strategy complete. Program ongoing. POLB: Complete. Program ongoing.
LU-2: Design Guidance Manual	Develop a port-wide guidance manual for design of new and redeveloped facilities, including design criteria and structural BMPs.	Complete draft manual mid-2010.	POLA: Draft completed by mid-2010. Coordinating with City of L.A. re: LID Ordinance requirements. POLB: Draft completed by mid-2010.
LU-3: Structural BMPs	Evaluate the need for structural BMPs for key discharges and targeted pollutants at existing facilities and install where necessary to ensure compliance.	POLA: Develop and initiate inspection strategy by end of 2009; identify new measures by end of 2010. POLB: Identified through annual inspections.	POLA: Strategy complete. Program ongoing. POLB: Continued implementation of existing program through annual inspections.
LU-4: Stormwater/ Dust Control for Orphan Sites	Continue and expand existing stormwater/dust control programs for vacant/undeveloped property.	POLA: End of 2010. POLB: Ongoing.	POLA: Program ongoing. POLB: Program ongoing.



**Annual Progress Report 2011
WATER RESOURCES ACTION PLAN**

CONTROL MEASURE	SUMMARY	WRAP SCHEDULE	CURRENT STATUS
LU-5: Litter Control Program	Enhance and expand litter control programs and implement relevant elements of those programs in specific sources.	POLA: End of 2010. POLB: Mid-2010.	POLA: Program ongoing. POLB: Program ongoing, with expanded efforts in development and expected to launch in late-2011.
LU-6: Public Area Sweeping Program	Enhance and expand street and public parking area sweeping/cleaning programs.	POLA: Program recommendations by mid-2010. POLB: Program recommendations by end of 2009.	POLA/POLB: Complete. Program ongoing.
LU-7: Port-Wide Stormwater Construction Permits	Evaluate construction permit compliance procedures and enhance as necessary.	Ongoing.	POLA/POLB: Evaluation complete. Program enhancements ongoing.
LU-8: Remote Sites Stormwater Compliance	Evaluate port-owned properties within the watershed but outside the harbor districts, and ensure permit compliance as necessary.	Program implementation by end of 2010.	POLA/POLB: Complete. Continuing as required.
OW-1: Vessel Guidance Manual	Develop guidance manual for on-water activities (e.g., allowable and prohibited vessel maintenance activities and discharges).	Complete guidance manuals by end of 2009.	POLA/POLB: Completed. Regulatory and compliance updates ongoing.
OW-2: Piling Replacement Policy and Standards	Develop port policy and standards for maintenance, in-kind replacement, and eventual phasing out of exposed treated pilings from in-water applications.	End of 2010.	POLA: Strategy complete. Program ongoing. POLB: BMP standards completed. Program ongoing.
OW-3: BMPs & Standards for Cathodic Protection	Develop BMPs and port standards for zinc-based cathodic protection of port structures and vessels.	Standards developed by end of 2010.	POLA/POLB: Standards developed and in place.



**Annual Progress Report 2011
WATER RESOURCES ACTION PLAN**

CONTROL MEASURE	SUMMARY	WRAP SCHEDULE	CURRENT STATUS
S-1: Operations Sediment Management Plans	Develop sediment management policy/guidance establishing priorities for removal, disposal, and management of sediment with a clear decision-making framework.	Mid-2010: Complete draft plans. End of 2010: Adopt final management plans.	POLA/POLB: Draft complete. Finalization in process.
S-2: Legacy/Hotspot Management Plan	Develop a sediment management policy establishing priorities for management of areas of legacy contaminated sediments and hotspots.	Subject to completion of the TMDL process.	POLA/POLB: Draft implementation plan developed; will be finalized through the TMDL process. POLB: Dredging at IR Site 7 was completed in February 2011.
WS-1: Support Pollutant Loading Reduction Efforts	Employ all available means to support efforts to reduce upstream pollutant loadings that adversely affect harbor water and sediment quality.	Ongoing.	POLA/POLB: Participation in watershed activities is ongoing.

3.1 Control Measure Updates

Land-Use Discharge Control Measures

Land-use control measures are focused on discharges from the various land uses in the ports, including industrial uses such as cargo and passenger terminals, port-related industrial facilities, roads and rail lines; related activities such as equipment maintenance; and non-industrial uses such as shops and restaurants, fishing piers, beaches, and marinas.

POLA: In 2010 under LU-1 and LU-3, POLA fully implemented its stormwater Tenant Outreach Program (TOP), visiting 90 tenants, recognizing good procedures, and providing suggestions on additional BMPs to implement. POLA has continued to improve the TOP, coordinating with the City of Los Angeles' Watershed Protection Division and LA-RWQCB staff. Under LU-2, the port is coordinating with the city's Watershed Protection Division regarding measures to comply with the city's Low Impact Development Ordinance, which is still being finalized and needs to be included in the port's Design Guidance Manual, along with Standard Urban Stormwater Mitigation Plan (SUSMP) measures. Under LU-4, orphan sites most at risk for dust creation and sediment erosion have been identified and solutions will be applied before the start of the 2011 rainy season in October. POLA staff continue to implement programs under LU-5, LU-6, LU-7, and LU-8.

POLB: All control measures focused on land-use discharges have been completed in accordance with the initial WRAP schedule. The POLB's Master Storm Water Program has been in place since the early-1990s. The program was designed to assist participating facilities/tenants with NPDES permit compliance. In many cases, implementation of the WRAP control measures included enhancements to existing stormwater programs. POLB staff will continue to update stormwater programs under LU-1, LU-3, LU-5, and LU-7 to ensure compliance and improved environmental protection within the port. For LU-2, a draft Design Guidance Manual was completed and vetted internally by Environmental Planning and Engineering staff. The Design Guidance Manual is expected to be presented to the Regional Water Board for review as part of future NPDES permitting discussions.

On-Water Discharge Control Measures

Control measures for on-water discharges focused on vessel discharges such as bilge water, black water, and gray water as well as leaching from bottom paint and corrosion, among others.

POLA: In July of 2010, the ports completed the Vessel Discharge Rules and Regulations document, a guidance manual summarizing the various regulations pertaining to vessel discharges and maintenance activities. POLA continues to guide activities for small vessel discharge and maintenance through its Clean Marina Program. As of July 2011, eleven marinas in L.A. Harbor had received Clean Marinas Program certification, and POLA developed and distributed a boat maintenance policy for

recreational vessels. POLA has also developed and is implementing a Pile Evaluation Program.

POLB: As stated above, in July of 2010, the ports completed the Vessel Discharge Rules and Regulations document, a guidance manual summarizing the various regulations pertaining to vessel discharges and maintenance activities. In February of 2011, the POLB developed a similar rules and regulations document focused on small vessel discharge and maintenance activities. The documents were provided to POLB staff and tenants, and are available on the WRAP website. Cathodic protection BMPs were completed and provided to the POLB Engineering Division. Several alternative pile pilot projects are currently in place within the port and are being evaluated for performance. POLB will continue to monitor the various alternative piling types to determine what would be acceptable for long-term use within the POLB environment. Revised BMPs for the storage, installation, and removal of treated piles have been developed and are being followed.

Sediment Control Measures

As mentioned in the WRAP, harbor sediments have been subjected to pollutant inputs for many decades. Through dredging and other remediation programs, portions of the contaminated sediments have been removed from the harbors. However, legacy contaminants still remain. Most of the control measures developed for land-use, on-water, and watershed discharges will, in the long term, benefit sediment quality by reducing the influx of pollutants that could make their way into the sediments.

POLA: A draft Sediment Management Guidance document (S-1) was completed in 2010 and is currently being finalized. The final document will also contain the port's strategy for managing legacy contamination/hot spots (S-2) which is consistent with the strategy outlined in the Harbor Toxics TMDL recently approved by the LA-RWQCB. Implementation of the S-2 strategy will be done through the port's TMDL compliance activities.

POLB: A draft Operations Sediment Management Plan (S-1) was completed in 2010. The plan is currently being finalized. The final Operations Sediment Management Plan will also contain a draft legacy/hotspot management plan that is consistent with the framework outlined in the Final TMDL. The final legacy/hotspot management plan will be completed as part of the TMDL process.

Watershed Control Measure

Watershed discharges originate outside the harbors (and beyond the jurisdiction of the ports), and are conveyed into the harbors by larger inputs, such as the Dominguez Channel and the Los Angeles River, and by storm drains that drain areas outside the harbors and discharge into the harbors.

POLA and POLB: Participation in watershed activities is ongoing. Staff attends Dominguez Watershed Advisory Committee meetings and periodically updates the attendees on WRAP activities. POLA is also participating as a stakeholder in discussions regarding the upcoming new Los Angeles County municipal NPDES permit. See Section 2.1.1 for a discussion of the ports' involvement in the TMDL.

3.2 Technology Advancement Program

The WRAP's Technology Advancement Program (TAP) is intended to evaluate, demonstrate, and incorporate new technologies into the suite of control measures by which the ports will advance towards their goal of protecting and improving water and sediment quality in the harbor complex.

For emerging technologies that appear to warrant testing in the port environment, the ports and other stakeholders will work together to identify funding opportunities, secure field testing locations, establish testing protocols, and pursue the actual demonstration projects.

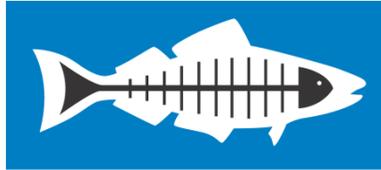
POLA: The POLA is developing a formalized TAP program to implement a pending available budget. Funding for fiscal year 2012/2013 will be requested. Identified technologies to install, pending budget approval, include in-water trash skimmers and trucker trash cans.

POLB: The POLB established a number of pilot projects through the WRAP TAP, starting in 2009. These pilot projects included automatic retractable screens which were installed on more than 40 catch basins within the port, the continued development of trucker trash cans as part of POLB's litter control program, the installation of three fiberglass reinforced plastic piles, in-water trash skimmers, and solar powered trash cans that provide on-site compaction to reduce waste buildup.



SECTION 4: NEXT STEPS

Staff at both ports have determined that a formal update of the WRAP document is not necessary at this time. As control measures continue to be developed and implemented, staff of the two ports will report to their Boards on progress, recommended actions, and on any other relevant information. Annual progress reports will continue to be provided to stakeholders and the Boards.



Heal the Bay

2011 End of Summer Beach Report Card

Executive Summary

Heal the Bay's End of Summer Beach Report Card provides beachgoers with essential water quality information by grading 447 monitoring locations in California, from Humboldt County south to San Diego County. This summer also marks the second summer of beach water quality grades from our northern neighbors, Oregon and Washington. The 2011 End of Summer Beach Report Card incorporates 240 additional monitoring locations along the coast of Washington and Oregon. The data presented in this report was collected from Memorial Day through Labor Day 2011. The Beach Report Card is intended to give an overview of summer dry weather water quality for beaches throughout California, Oregon and Washington.

The Beach Report Card is based on the routine monitoring data provided by over 20 different agencies and dischargers. Marine water samples are analyzed for bacteria that indicate pollution from numerous sources, including fecal waste. The better the grade a location receives, the lower the risk of illness to beach users. The report is not designed to measure the amount of trash or toxins found at beaches. The Beach Report Card would not be possible without the cooperation of all of the shoreline monitoring agencies in California, Oregon and Washington.

This was the fifth consecutive summer that California earned excellent water quality grades statewide, with 92% of sites receiving A or B grades during the high-use beach-going season. The Pacific Northwest also saw very good water quality this summer. While 28 beaches were monitored throughout the summer in Oregon, only 14 beaches were monitored frequently enough (at least weekly) to be considered for this report. All of Oregon's 14 regularly monitored beaches received A grades. Washington beaches were also mostly clean with 89% of the 226 monitoring locations receiving A and B grades.

Beach Breakdown

The 2011 End-of-Summer Beach Report Card showcased beach water quality grades along the entire U.S. Pacific Coastline for the second year.

Washington: The State of Washington exhibited very good water quality this summer with 89% A or B grades, but slipped slightly from last summer (93% A or B grades). This summer Washington added 31 beaches to their water quality monitoring program, for a total of 81 beaches with 226 monitoring locations (typically each beach contains three monitoring locations). Washington now has one of the most robust beach monitoring programs in the

country based on the number of sample sites per mile of beach. Twenty-four out of the 226 monitoring locations (10.6%) received fair to poor water quality grades throughout the state (5 Cs and 19 Fs).

The following monitoring locations received poor water quality grades (Fs) both last summer and this summer: Oak Harbor City Beach Park (west) Freeland County Park Holmes Harbor (east), and Pomeroy Park's Manchester Beach (north).

According to Washington's Department of Ecology, Oak Harbor City Beach is located in a highly developed area where urban runoff may be contributing to elevated bacteria levels. Possible sources contributing to poor water quality grades at Pomeroy Park's Manchester Beach may be associated with fecal contamination from boats, and/or wet weather runoff from a large suburban area that drains to the beach. Kitsap County continues to investigate and abate possible pollution sources at Pomeroy Park's Manchester Beach.

Since 2007, monitoring results from Larrabee State Park Wildcat Cove have exceeded bacteria standards. As a result, two additional monitoring stations, located near freshwater discharges, were added for the 2011 summer beach season. The freshwater drainage locations had consistently high levels of bacteria. Further investigation was performed by Washington's BEACH program, Whatcom County Health District, Washington State Park, and local Surfrider volunteers to identify possible bacteria sources. Results showed high bacteria counts were originating near a wetland area, commonly used by raccoons and other wildlife. The results were negative for septic system intrusion. As source actions are implemented, follow-up monitoring will be conducted to indicate effectiveness and decrease bacteria loading to Wildcat Cove.

Heal the Bay looks forward to working with Washington in order to highlight and address those monitoring locations that demonstrate poor water quality. Washington's Departments of Ecology and Health are currently analyzing their BEACH program data for quality assurance purposes, but graciously made the preliminary data available to Heal the Bay to include in this report.

Oregon: The State of Oregon exhibited excellent water quality this summer, earning all A grades. Oregon agencies monitored over 28 beach locations throughout the state this summer, but only 14 (50%) of these locations were monitored frequently enough (at least once a week) to receive a grade in this report. Furthermore, only two out of seven coastal counties in Oregon were monitored at least on a weekly basis. Heal the Bay anticipates working with Oregon agencies to increase beach monitoring frequency, as well as the number of sampling locations covered by the Beach Report Card.

California: From 1999 through 2008, California's Department of Public Health (DPH) provided approximately \$1 million annually to implement the beach water quality monitoring program. These funds were used for the collection and processing of beach water samples, as well as posting water quality notification signs alerting the public of potential health risks. In 2008 the entire program was cut from the state budget under Governor Schwarzenegger, and many county monitoring programs have struggled to survive ever since.

In order to cover the loss of funding, the State Water Resources Control Board (State Board) provided supplemental bond money through the end of 2010. Once this money ran out, the State

Board committed \$984,000 of Clean Beach Initiative (CBI) grant program funds to continue the program through the 2011 season. Unfortunately, these sources of funding have now been exhausted. Ideally, a sustainable funding source is needed to develop a model monitoring program for California, resulting in collaboration between monitoring agencies and a more efficient public health program.

In the current legislative session (2010-2011), Senator Christine Kehoe introduced Senate Bill 482 to help remedy the funding shortfall. SB 482 assigns the primary responsibility for State oversight of the local program to the State Water Board while retaining the responsibility of setting public health standards at the State Department of Public Health. Further, SB 482 allows the State Board to direct permit fees collected, up to \$1,800,000 annually, to fund beach water quality monitoring. The bill has passed the state Senate and Assembly and is now waiting for the Governor's signature. It is critical that this bill become law, in order to ensure the stability of beach water quality monitoring programs for years to come. Increased funding may allow more beaches to be monitored, some popular surfing beaches to be monitored year round, and some highly polluted beaches to be monitored with rapid methods to better protect public health.

In order to ultimately improve water quality at beaches with chronic pollution problems, a \$4 million, three year Source Identification Pilot Program (SIPP) began this summer with researchers from Stanford University, University of California Santa Barbara, University of California Los Angeles, US Environmental Protection Agency Office of Research and Development and the Southern California Coastal Water Resource Project (SCCWRP).

Researchers are developing and implementing sanitary survey/source tracking protocols at some of California's most polluted beaches. The goals of the study are to: 1) develop a suite of the best available methods for identifying the sources of fecal contamination in environmental samples; 2) conduct a reconnaissance of fecal pollution along the coast of California; and 3) develop methods to conduct upstream source identification in problem watersheds and to transfer technology to other laboratories across California.

Water quality data collected at California beaches this past summer were very similar to last year, and one of the cleanest summers on record. Despite a few problem areas, statewide water quality was very good with 92% A and B grades. There were 37 locations (8%) throughout the state that received fair-to-poor water quality grades (9 Cs, 9 Ds and 19 Fs).

San Diego County: Overall water quality at beaches in San Diego has been excellent and very similar to last summer, with all locations receiving an A or B grade. Of the 73 water monitoring locations, 72 received A grades with only one location earning a B grade.

There were six known sewage related beach closures this summer in San Diego County. Three closures were due to sewage contaminated runoff from the Tijuana River, from the U.S. border up to Imperial Beach (closure dates: April 9-April 12, April 18-April 27, and May 19-May 24). Carlsbad Batiquitos Lagoon outlet was closed for two days at the end of April due to an approximately 4,600 gallon sewage spill into the lagoon on April 27. Point Loma (Bermuda Avenue) was closed from July 8 to July 10 as a result of 8,505 gallons of sewage spilled, of which 250 gallons went to the ocean. An approximately 250,000 gallon sewage spill in

Escondido resulted in a closure at Cardiff State Beach (at the San Elijo Lagoon) from August 28 to September 2.

Orange County: Water quality at beaches in Orange County this past summer was just slightly lower than last summer, but still excellent overall with 94% of beaches receiving an A grade. Poche Beach still continues to have poor water quality and received an F grade this summer. The historically poor water quality at Doheny Beach near Dana Point (North Beach) improved from last year by jumping from a C grade up to an A grade this summer. Other Doheny Beach monitoring locations just south of North Beach continue to earn poor grades. Although Dana Point's Baby beaches showed excellent water quality the past two summers, two of four monitoring locations (Baby Beach buoy line and Baby Beach swim area) received C grades this summer.

There were three known sewage spills in Orange County during summer 2011. In early May, Balboa Pier in Newport Beach was closed (1000 feet up coast and down coast) for two days due to a sewage spill. On May 12 a 10,000 gallon sewage spill due to line blockage closed Three Arch Bay in Laguna Beach for two days. On June 18 approximately 54,700 gallons of sewage spilled, resulting in a four day beach closure from upper Newport Bay (at Jamboree Road) to Newport Dunes in Newport Beach.

Los Angeles County: Compared to last summer, Los Angeles County water quality grades improved from 79% to 85% of beaches receiving A and B grades. Avalon Beach is no stranger to Heal the Bay's infamous "Beach Bummers" list, which marks the 10 most polluted beaches in our annual report throughout California. Unfortunately this trend has continued at Avalon Beach this summer, as all five monitoring locations exhibited extremely poor water quality by scoring all D and F grades. This is the seventh summer in a row that none of the five monitoring locations have received A or B grades. Although Clean Beach Initiative (CBI) funding has provided a partial subsidy to help replace aging sewer infrastructure throughout the city, water quality will not show signs of improvement until the project is completed next year. Avalon's beach water has been chronically polluted for more than two decades.

There have been small signs of movement in Avalon this year. Early in 2011, the operation of City of Avalon's Waste Water Treatment Plant (WWTP) underwent major reorganization, including ending a 20-year relationship with United Water Services, Inc. The City of Avalon also budgeted over \$5 million towards a proposed beach water quality improvement plan including sewer upgrades and repairs. Actual repair and renovation work is scheduled to begin on October 15th and be completed by March 1, 2012. Hopefully, the long overdue sewer infrastructure improvements will result in much improved water quality by spring of 2012. It is also critical that the Regional Water Quality Control Board adopt a bacteria TMDL for this severely impaired beach, in order to keep Avalon on track with improvements.

Overall water quality at Santa Monica Bay beaches was very good. Santa Monica Bay beaches had slightly better water quality than last summer, with 63 (89%) of 71 monitoring locations receiving A or B grades (compared to 87% last year). This is the second year in row that the chronically polluted Santa Monica Pier earned a much improved A grade. A combination of water quality improvement projects including new storm drain infrastructure, runoff diversion

replacement and the installation of bird exclusion nets under part of the pier, may have contributed to the drastically improved grades. Marie Canyon's storm drain at Puerco Beach (24572 Malibu Rd.) earned an F grade this summer, despite the presence of a runoff treatment facility. Although the treatment facility appears to be working efficiently, the treated effluent may be affected by large amounts of algae and rotting kelp (possibly harboring bacteria) that accumulates downstream before the treated flow reaches the open ocean.

The following Santa Monica Bay beaches received F grades this summer: Escondido Creek, Solstice Canyon at Dan Blocker County Beach, Surfrider Beach (breach point), Malibu Pier, Carbon Beach at Sweetwater Canyon, and Topanga State Beach: all of them in the North Bay. Clearly, the City and County of Los Angeles' dry weather runoff diversions at Will Rogers Beaches and other locations are doing a good job.

Of note, the Los Angeles County of Public Health and Public Works, the City of Los Angeles Environmental Monitoring Division, Bureau of Sanitation, Department of Public Works, and the Southern California Coastal Water Resource Project (SCCWRP) conducted a rapid methods pilot project for eight weeks this summer, with the goal of generating same-day beach water quality results to increase public health protection. Current water quality methods (for measuring bacteria) take 18 to 24 hours to process results, meaning that the most current beach water quality information is from the day before. During the pilot project, a total of nine beaches were sampled daily with the goal of having results no later than noon on the same day. Results from the eight weeks of daily sampling are currently being analyzed and will be made available to the public this fall.

This summer marks a dramatic improvement in Long Beach's beach grades, with 100% of beaches receiving A and B grades. This is an impressive 27% improvement over last year (73% A and B grades), as well as the third summer in a row Long Beach has shown improved water quality. In general, beach water quality at the main beaches in Long Beach tends to be impacted by the Los Angeles River. This is supported by an extensive source tracking study which showed the vast majority of bacterial contamination at Long Beach beaches was a result of pollution from the Los Angeles River. The City of Long Beach has remained dedicated to improving beach water quality through the implementation of several mitigation projects, including at Colorado Lagoon, which is listed on the State of California's 303(d) list as an impaired water body. Phase 1 of the Colorado Lagoon Project included installing bioswales, storm drain diversions, and removing large amounts of bioaccumulation, was completed in April 2011. Phase 2 will be underway this fall and focuses on further improvements to the tidal connection between the lagoon and Marine Stadium.

Once again, poor water quality grades continue to persist at Cabrillo Beach in San Pedro. Cabrillo Beach harborside at the restrooms has had chronically poor water quality and earned F grades for all time periods over the last eight years. The City of Los Angeles has implemented several water quality improvement projects totaling \$15 million to no avail. In August of 2009, pilot circulators were installed in the beach water to improve circulation. Additionally, bird exclusion devices were installed in the spring of 2010. However, water quality did not show an improvement from either of these measures. This summer, the first phase of a modified TMDL/water quality improvement project for Inner Cabrillo Beach began with pump/circulation

enhancements. Subsequent phases, contingent on phase one results, include: the extension of existing bird exclusion device and sand removal. Currently, the pump/circulation pilot project's initial data results show promise.

In 2005 the Los Angeles Regional Water Quality Control Board imposed a Total Maximum Daily Load (TMDL) for bacteria in Santa Monica Bay. This means every beach from the Ventura County line south to Palos Verdes has to meet state beach bacteria health standards 100% of the time during the AB411 period (April 1 through October 31).

There were no known sewage spills in Los Angeles County that resulted in beach closures this summer.

(Please see table on page 11)

Ventura County: Overall water quality at beaches throughout Ventura County remains among the best in the state. All monitored beaches received A grades in this report.

There were no known sewage spills in Ventura County reported to Heal the Bay this summer.

Santa Barbara County: The water quality at beaches in Santa Barbara County was good and similar to last summer, with 87% of beaches receiving A or B grades (compared to 88% last summer). Gaviota State Beach (C) and Arroyo Burro (F) were the only two locations that did not earn an A or B grade for Santa Barbara County this summer. Guadalupe Dunes was not sampled this summer due to an inaccessible road.

There were no known sewage spills in Santa Barbara County reported to Heal the Bay this summer.

San Luis Obispo County: Water quality at beaches in San Luis Obispo County was excellent again this past summer, with only one monitoring location receiving lower than an A or B grade. Overall 95% of beaches in San Luis Obispo received A or B grades, exactly the same amount as the past two summers. Pismo Beach Pier received an F grade for the second summer in a row, and continues to earn the county's only poor water quality grade. This beach has received the poorest grades in the county for seven years in a row. Numerous water quality improvement projects, including a 2007 comprehensive source tracking and fate and transport study, have initiated source identification and abatement efforts but they have yet to lead to major water quality improvements. Last winter renovation projects began at Pismo Beach including blocking-off sections under the pier (bird deterrent) and completing a stormwater infiltration system. The City plans to install netting under the pier's unblocked portions this winter, in order to fully detract pigeon roosting.

One known sewage spill (<1000 gallons) occurred in San Luis Obispo County causing beach closures at Avila Beach and Olde Port Beach from April 29 to April 30.

Monterey County: Beach water quality improved in Monterey County, with 88% of beaches earning an A or B grade. Last summer 75% of beaches earned A or B grades. Seven out of the eight monitoring locations received an A or B grade with only one location, Stillwater Cove,

earning the lowest overall county grade (C).

There were no known sewage spills in Monterey County reported to Heal the Bay this summer.

Santa Cruz County: This is the second summer in a row that Santa Cruz's beaches have shown improved water quality, with 77% of beaches receiving A grades (71% receiving A or B grades last summer). The chronically poor water quality at Cowell Beach continues to persist, with two out of three monitoring locations receiving the worst grades in the county (F grades). There are data as far back as 1970 showing persistent elevated bacteria levels at Cowell Beach, despite source identification and remediation projects. Santa Cruz Environmental Health Service has been tracking the problem the past three summers and is fairly certain that quantities of decaying kelp on the beach are a major source of high bacteria in the area. Urban runoff may also be a potential source contributing to increased bacteria concentrations. This past summer Cowell Beach underwent an intensive study as part of a Source Identification Pilot Project (SIPP), to identify and abate sources of bacteria. Results are currently pending. Capitola Beach received the county's only other poor grade (D). All other Santa Cruz county beaches scored excellent grades (A).

There were no known sewage spills in Santa Cruz County reported to Heal the Bay this summer.

San Mateo County: This summer San Mateo's overall beach water quality was good with 82% A or B grades, but slipped slightly from last summer (90% A or B grades). Four locations displayed poor water quality this summer including: Aquatic Park (D), Pillar Point Harbor end of Westpoint (F), Oyster Point (F), and Lakeshore Park (F).

There were no known sewage spills in San Mateo County reported to Heal the Bay this summer.

Alameda County: This is the fifth year in a row that Alameda County beaches have shown nearly perfect summer-time water quality, with all seven monitoring locations receiving (100%) A grades.

There were no known sewage spills in Alameda County reported to Heal the Bay this summer.

San Francisco County: Beach water quality in San Francisco County was excellent this summer and last year, with 93% of beaches earning an A or B grade both summers. Of the 14 monitoring locations that were sampled regularly over the summer, 13 received A or B grades. Baker Beach at Lobos Creek, known for having consistently poor water quality, has shown great improvement by earning a respectable B grade this summer. Candlestick Point (at Jackrabbit Beach) received a D grade.

A seven-minute treated combined sewer discharge occurred at Baker Beach on June 4 but did not result in elevated bacteria levels in the receiving waters. There were no other known sewage releases in San Francisco County reported to Heal the Bay this summer.

Contra Costa County: This year, two Keller Beach locations received C grades and one received a B grade for repeated exceedances of the geometric mean standard for total coliforms.

Total coliforms are generally not associated with human source contamination (sewage) or increased human health risk, but are more indicative of decomposing marine vegetation (eel grass, seaweed, etc.) that tends to be routinely deposited at the Keller Beach site due to San Francisco Bay tidal action.

There was one known sewage spill that occurred at Keller Beach on August 19. The beach water was sampled the following day and showed no signs of increased bacteria levels. Though the spill did not reach receiving waters, the beach was closed as a precautionary measure from August 19 at 5 p.m. until noon on August 21. No other known sewage spills were reported to Heal the Bay this summer.

Marin County: Water quality grades at beaches throughout Marin County were excellent again this summer and among the best in the state, with all 24 monitoring locations (100%) receiving A or B grades (21 receiving As). There were no known sewage spills in Marin County reported to Heal the Bay this summer.

Sonoma County: This is the fourth summer in a row Sonoma County's beaches earned superb water quality grades. All seven monitoring locations received A+ grades, meaning no exceedances of bacteria standards during the entire summer.

There were no known sewage spills in Sonoma County reported to Heal the Bay this summer.

Mendocino: Only three monitoring locations were monitored in Mendocino County frequently enough to earn grades in this report. All monitoring locations received A+ grades. There were no known sewage spills in Mendocino County reported to Heal the Bay this summer.

Humboldt County: This summer Humboldt County's grades slipped slightly compared to past years, with only 40% of beaches earning A grades. Although there were no F grade beaches, Trinidad State Beach near Mill Creek and Clam Beach County Park near Strawberry Creek both received C grades. Luffenholtz Beach earned a D grade, which is the lowest grade in the county. There were no known sewage spills in Humboldt County reported to Heal the Bay this summer.

Del Norte County: This was the first year Heal the Bay was able to obtain beach water quality data from a single monitoring location in Crescent City. Unfortunately, not enough data were obtained to determine a grade. Heal the Bay looks forward to working with Del Norte County in order to determine future beach water quality grades. There were no known sewage spills in Del Norte County reported to Heal the Bay that led to beach closures this summer.

Standardized Monitoring

While some beaches have seen dramatic improvement in water quality over the years, others still have a long way to go. Vital beach water quality issues that still need to be tackled include improving coordinated monitoring between counties, guaranteeing that beaches are monitored year-round in a standardized fashion, and ensuring that chronically polluted beaches receive the

necessary funding for remediation and are able to use this funding to complete projects in a timely manner. Another water quality issue brought to our attention during our expansion to Oregon and Washington was the inconsistency in beach water quality criteria among states. Heal the Bay believes that water quality criteria should be uniform among states for constancy in public health protection. Heal the Bay will continue to work with health agencies to bring awareness about the discrepancy and implement the appropriate criteria.

Most public agencies monitor for fecal indicator bacteria using monitoring plans that have been developed without collaboration with other regions. Eight years ago, Heal the Bay worked with the United States Environmental Protection Agency (USEPA) to formulate a model monitoring and public notification program. This plan recommended for public agencies to monitor beaches at a certain depth and distance from a storm drain and ensure the appropriate posting of warning signs to the public. A number of these measures were incorporated into health department monitoring plans. But there are still disparities among counties with regards to the distance at which their samples are taken from a storm drain. Some counties, such as Los Angeles, measure right in front of the storm drain, while other counties are ignoring plan recommendations by measuring at 25, 50, or even 83 yards from the storm drain. This discrepancy makes it difficult to compare results from county to county or even beach to beach, and is not adequately protective of the public health. Further efforts will be made in the coming year to unite all stakeholders in a standardized monitoring process. Heal the Bay will work to implement a standardized monitoring plan that can be applied statewide to allow more accurate comparison of beach water quality and improve public health protection.

About the Beach Report Card

Heal the Bay's Beach Report Card is based on weekly water quality monitoring data provided by dischargers and health agencies. Data are analyzed when made available by these agencies. Grades are updated every Friday. The report is a comprehensive examination of coastal water quality throughout California, Oregon, and Washington. Exact methodology used in determining grades for each location is available online at www.healthebay.org/brc/methodology.

Beachgoers can view Heal the Bay's Beach Report from any computer, or download a Beach Report Card mobile app for their iPhone or Android, at beachreportcard.org.

The new, free Beach Report Card app provides the only access anytime and anywhere to a comprehensive, weekly analysis of coastline water quality. The mobile app provides A through F grades, weather conditions and user tips for more than 650 beach locations in California, Oregon and Washington at the fingertips of those who swim, surf and play at the beach.

The report is not designed to measure the amount of trash or toxins found at local beaches. Heal the Bay reminds you not to swim or surf within 100 yards of any flowing storm drain or for three days after a rainstorm. After a rainfall, indicator bacteria counts at beaches throughout California usually *far exceed* health criteria stipulated in the state's Beach Closure and Health Warning Protocol. Data analysis is currently in process to analyze rainfall thresholds and effects in Oregon and Washington.

Table 1

California, Oregon, and Washington's Summer Beach Water Quality 2011							
State	A	B	C	D	F	A-B%	C-F%
California	397	13	9	9	19	92%	8%
Oregon	14	0	0	0	0	100%	0%
Washington	196	6	5	0	19	89%	11%

Table 2

California's County Summer Beach Water Quality 2011							
County	A	B	C	D	F	A-B%	C-F%
Humboldt	2	0	2	1	0	40%	60%
Mendocino	3	0	0	0	0	100%	0%
Sonoma	7	0	0	0	0	100%	0%
Marin	21	3	0	0	0	100%	0%
Contra Costa	0	1	2	0	0	33%	67%
San Francisco	11	2	0	1	0	93%	7%
Alameda	7	0	0	0	0	100%	0%
San Mateo	16	2	0	1	3	82%	18%
Santa Cruz	10	0	0	1	2	77%	23%
Monterey	6	1	1	0	0	88%	13%
San Luis Obispo	17	1	0	0	1	95%	5%
Santa Barbara	13	0	1	0	1	87%	13%
Ventura	40	0	0	0	0	100%	0%
Los Angeles	77	2	1	3	10	85%	15%
LA without Long Beach	63	1	1	3	10	82%	18%
Long Beach only	14	1	0	0	0	100%	0%
LA TMDL beaches	62	1	1	2	5	89%	11%
Orange County	95	0	2	2	2	94%	6%
San Diego	72	1	0	0	0	100%	0%
State without LA County	320	11	8	6	9	94%	6%

Table 3

Oregon's County Summer Beach Water Quality 2011							
County	A	B	C	D	F	A-B%	C-F%
Clatsop	11	0	0	0	0	100%	0%
Tillamook	3	0	0	0	0	100%	0%

Table 4

Washington's County Summer Beach Water Quality 2011							
County	A	B	C	D	F	A-B%	C-F%
Clallam	26	1	0	0	0	100%	0%
Grays Harbor	9	0	0	0	0	100%	0%
Island	4	0	1	0	4	44%	56%
Jefferson	18	0	0	0	0	100%	0%
King	33	0	0	0	0	100%	0%
Kitsap	28	1	4	0	9	69%	31%
Mason	11	0	0	0	3	79%	21%
Pierce	33	0	0	0	0	100%	0%
Snohomish	17	0	0	0	1	94%	6%
Thurston	6	0	0	0	0	100%	0%
Whatcom	11	2	0	0	2	89%	11%

Washington's Department of Ecology and Health are currently analyzing their BEACH program data for quality assurance purposes, but graciously made the preliminary data available to Heal the Bay to include in this report.

Below is a table of Santa Monica Bay beaches water quality exceedances so far for the AB411 period (the number of times the beach exceeded legal bacteria levels) between April 1 and September 5.

Santa Monica Bay Beach TMDL Exceedance Count 4/1/2011 -- 9/5/2011	
Exceedances	Location
88	Cabrillo Beach - harborside at restrooms
79	Surfrider Beach daily
61	Topanga State Beach at creek mouth
42	Dockweiler State Beach at Ballona Creek mouth
25	Marie Canyon storm drain at Puerco Beach, at 24572 Malibu Rd.
25	Solstice Canyon at Dan Blocker County Beach
24	Malibu Pier- 50 yards east
18	Escondido Creek, just east of Escondido State Beach
14	Santa Monica Municipal Pier
13	Cabrillo Beach - harborside at boat launch
12	Will Rogers State Beach at Santa Monica Canyon drain
11	Redondo Municipal Pier - south side
11	Santa Monica Beach at Pico/Kenter storm drain
8	Carbon Beach at Sweetwater Canyon
7	Latigo Canyon Creek mouth
7	Zuma Beach at Zuma Creek mouth
6	Marina del Rey, Mothers' Beach-Playground area
4	Broad Beach at Trancas Creek mouth
4	Puerco State Beach at creek mouth
4	Marina del Rey, Mothers' Beach-lifeguard tower
3	Leo Carrillo Beach at Arroyo Sequit Creek mouth
3	Will Rogers State Beach at Santa Ynez drain
3	Paradise Cove Pier at Ramirez Canyon Creek mouth
3	Redondo State Beach at Topaz St. - north of jetty
2	Will Rogers State Beach at Bel Air Bay Club
2	Ocean Park Beach at Ashland Ave.
2	Venice City Beach at Topsail St.
2	Big Rock Beach at 19948 PCH stairs
1	Pena Creek at Las Tunas County Beach
1	Cabrillo Beach, oceanside
1	Malaga Cove, Palos Verdes Estates-weekly
1	Will Rogers State Beach at Pulga Canyon storm drain
1	Dockweiler State Beach at Imperial Hwy drain
1	Santa Monica Beach at Wilshire Blvd. drain
1	Dockweiler State Beach at Culver Blvd. drain
1	Venice Fishing Pier- 50 yards south
1	Herondo Street storm drain

Heal the Bay is a nonprofit environmental organization making Southern California coastal waters and watersheds, including Santa Monica Bay, safe, healthy and clean. We use science, education, community action and advocacy to pursue our mission.

Heal the Bay's Beach Report Card is made possible by the generous support of:

The Diller-von Furstenberg Family Foundation

simplehuman®

LAcadGuy

Surf Industry Manufacturers Association (SIMA)

The Grousbeck Family Foundation

CITY OF LONG BEACH SUMMER BEACH WATER QUALITY REPORT - 2011



BEACH MONITORING PROGRAM

The City of Long Beach Health Department’s Recreational Water Quality Program collects samples weekly at 15 locations on recreational beaches in order to assure that water quality meets standards necessary to protect public health. Waters are tested for total coliform, fecal coliform, and *Enterococcus* as mandated by AB 411. Basin Plan recreational use criteria and State Health and Safety Code requirements apply to these beaches. Standards exist for both single samples (SS) and those averaged over a period of 30 days prior to when the sample was taken (30-day geometric means – GM). Exceedance of either standard constitutes potential increased health risks and results in a posted advisory at the sample site.

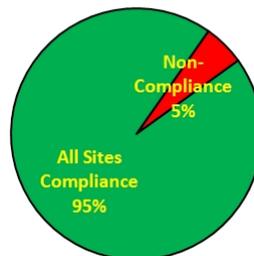
SUMMARY OF RESULTS

Results for the 2011 summer season (Memorial Day through Labor Day, 2011) indicate that single sample (SS) bacterial water quality standards at these City beaches were met 95 percent of the time, continuing a trend of improvement. While many factors influence water quality, major efforts taken by the City to reduce dry weather

discharges from storm drains, intercept trash and sediment, and improve circulation and mixing appear to have positively impacted water quality.

California Health and Safety Code (AB411) Recreational Water Quality Standards	
Single Sample Standards	
Total Coliform	10,000/100 ml
Fecal Coliform	400/100 ml
Enterococcus	104/100 ml
Total Coliform if Fecal-to- Total Coliform exceeds 0.1	1,000/100 ml
30-Day Geometric Mean Standards	
Total Coliform	1,000/100 ml
Fecal Coliform	200/100 ml
Enterococcus	35/100 ml

Single Sample Compliance



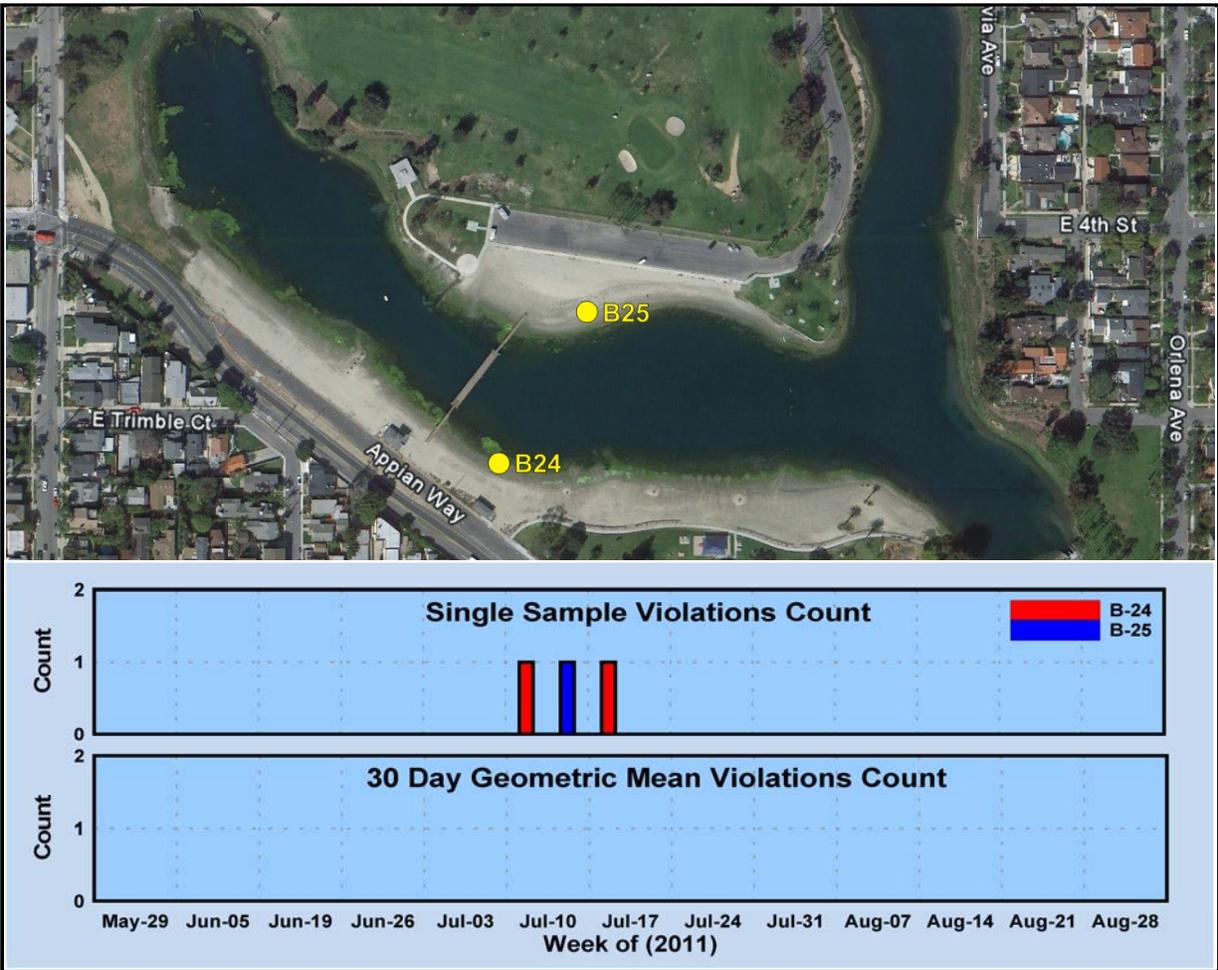
All Sites

Percent Compliance

Year	SS
2011	95%
2010	81%
2009	82%
2008	74%
2007	78%
2006	67%

SUMMARY OF RESULTS BY SITE LOCATION

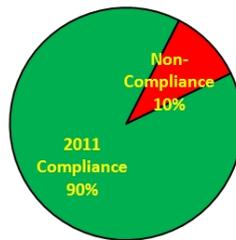
COLORADO LAGOON



During the 2011 summer season, Colorado Lagoon beaches were found to be in compliance with water quality standards 90 percent of the time based upon single sample (SS) criteria, and 100 percent of the time based upon the geometric mean (GM) criteria. These results differ from previously years when compliance was in the 40 to 60 percent range or lower.

Improvements at Colorado Lagoon have included installation of a bioswale to treat direct local discharges to the Lagoon, clearance of biofouling and sediment in the culvert connecting to the Marine Stadium to improve salt water flushing, and recent low-flow diversions and trash traps on the three major storm drains that discharge to the Lagoon. These improvements were all operational by April 2011.

Single Sample Compliance

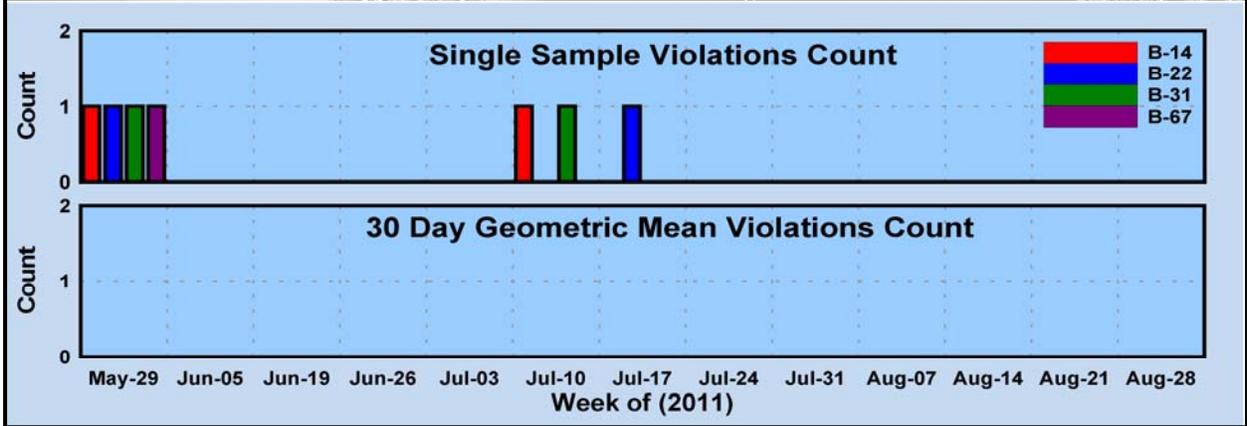


Colorado Lagoon Compliance Percentage

Year	SS	GM
2011	90%	100%
2010	61%	45%
2009	67%	62%
2008	56%	29%
2007	85%	52%
2006	48%	2%

Substantial improvements in compliance with bacterial water quality criteria correspond with completion of major elements of the Colorado Lagoon Improvement Project.

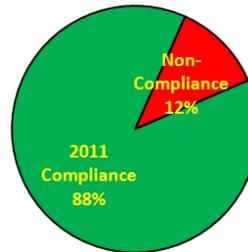
ALAMITOS BAY



In past years, periodic exceedances of bacterial water quality standards have been documented within Alamos Bay but they have been most common at Mother’s Beach (B-22). For the 2011 summer season, compliance was achieved 88 percent of the time for all single sample criteria and 100 percent of the time for the geometric mean criteria. A closer evaluation of the data shows that two-thirds of the violations (one violation at each station on that day) occurred on the first monitoring day of the summer, two weeks after a 0.6 inch rainfall and a day after showers of < 0.05 inches were measured at the City of Long Beach Airport.

impacted all protected beaches in Alamos Bay at that time. Exclusion of rain impacted measurements from the first monitoring survey increases the percent single sample compliance to 94%.

Single Sample Compliance



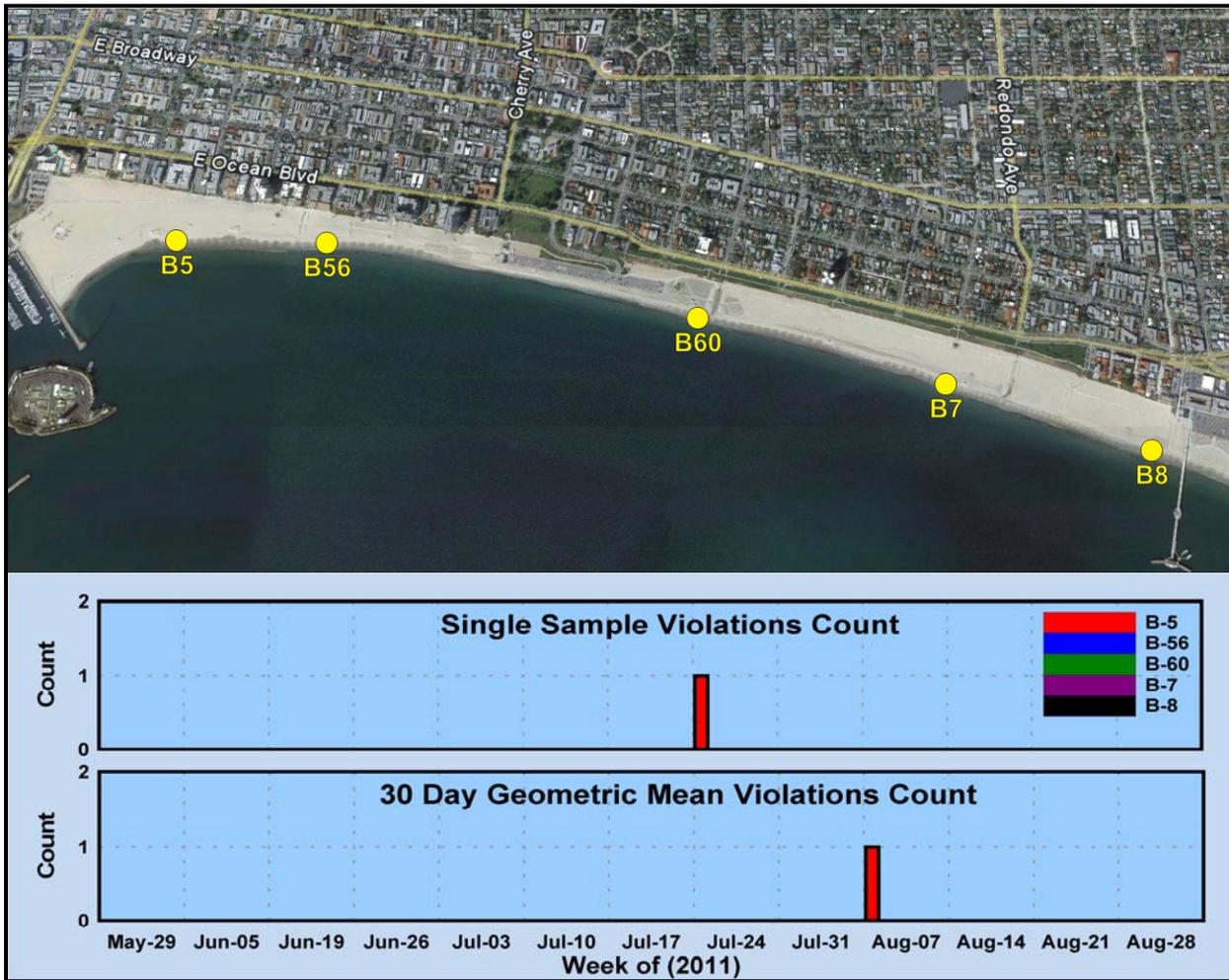
Alamos Bay Compliance Percentage

Year	SE	GM
2011	88%	100%
2010	86%	94%
2009	78%	87%
2008	88%	89%
2007	82%	88%
2006	75%	57%

Although the magnitude of rainfall preceding the first weekly survey did not meet the wet weather criterion (more than 0.1 inches of rain in 72 hours), it was clear that these rain showers

Dry weather discharges from three of the four major stormwater pump stations in Alamos Bay (Appian Way, Belmont and Alamos Pump Stations) have been diverted to the sanitary system since 2007.

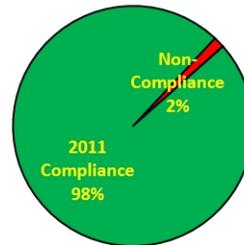
WEST MAIN BEACH



The City of Long Beach’s San Pedro Bay beaches located to the west of Belmont Pier showed excellent bacterial water quality for the 2011 summer season. Compliance with bacterial water quality standards was achieved 98 percent of the time, up from 65 to 76 percent measured during the previous two years.

An extensive bacterial source tracking study conducted by the City of Long Beach has shown that the majority of contamination in this portion of the City beaches can be traced to a surface plume from the Los Angeles River that is driven by the dominant SSW wind. Dry weather discharges coming from the Molino storm drain and pooling on the beach were identified as a secondary, localized source of bacterial contamination.

Single Sample Compliance

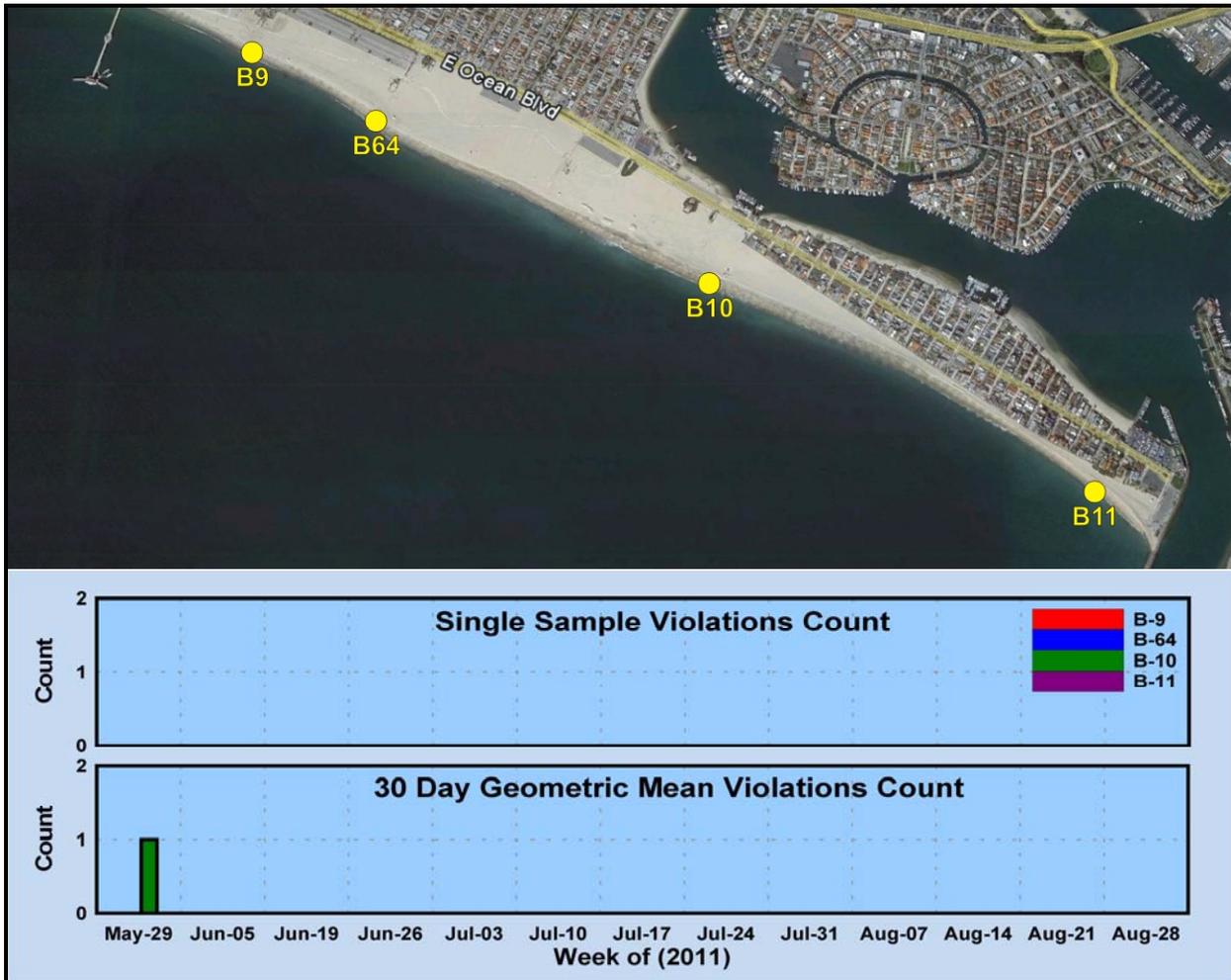


West Main Beach
Compliance Percentage

Year	SS	GM
2011	98%	98%
2010	84%	65%
2009	84%	76%
2008	59%	42%
2007	72%	44%
2006	65%	33%

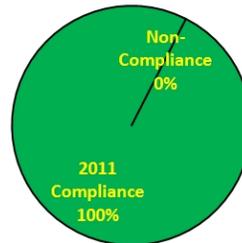
Though sources in the Los Angeles River drainage have been shown to account for a majority of water quality violations on this West beach, the 2011 data still showed outstanding water quality with 98% of the samples meeting single sample criteria.

EAST MAIN BEACH



The portion of the City beach extending east from Belmont Pier to the Alamitos Bay breakwater has had a history of generally good water quality with occasional exceedances at B11 at the easternmost end of the beach. Since 2007, both single sample and geometric mean criteria have been met in the range of 80 to 90 percent of the samples. For the 2011 summer season, water quality along this portion of the beach met single sample criteria 100 percent of the time. The geometric mean criteria were exceeded once at B10 during the first survey following a number of rain events that occurred during the previous 30-days. Including this minor excursion, compliance with the 30-day geometric mean criteria was still 98 percent.

Single Sample Compliance



East Main Beach
Compliance Percentage

Year	SS	GM
2011	100%	98%
2010	86%	86%
2009	95%	100%
2008	86%	95%
2007	89%	84%
2006	67%	33%

Although this eastern portion of City Beach had excellent water quality through the summer, it does tend to trap litter and organic debris from the Los Angeles River. Trash and organic debris tend to harbor bacteria and are suspected to be the primary source of contamination in this region. Reduced litter loads from the Los Angeles River are expected to continue to benefit water quality.



CONCLUSIONS AND DISCUSSION

The following conclusions can be made from the 2011 summer season AB411 beach monitoring results:

- Results for the 2011 summer season (Memorial Day through Labor Day, 2011) have shown bacterial water quality compliance 95 percent of the time, continuing a trend of improvement of these City beaches.
- Marked improvement in water quality compliance was achieved in this 2011 summer season at the Colorado Lagoon beaches. The improvements in water quality corresponded with completion of low flow diversions, installation of trash traps and clearance of biofouling and sediment in the culvert that was impairing water exchange between the Lagoon and Marine Stadium.
- Alamitos Bay beaches continued to show good water quality, especially if exceedances associated with the first day of the season are discounted. Monitoring followed significant rainfall during the previous week and light rain the day prior to the first survey.
- The western portion of the City's San Pedro Bay beaches extending from Shoreline Marina to the Belmont Pier exhibited excellent bacterial water quality for the 2011 summer season. Compliance with all single sample water quality standards was achieved 98 percent of the time. This was up from 65 to 76 percent during the previous two years. Water quality in this portion of the beach was demonstrated to be most strongly impacted by brackish water plumes from the Los Angeles River being driven onto the recreational bathing beach by the prevailing SSW winds. These improvements suggest that either actions taken to improve water quality in the Los Angeles River have had a measurable positive impact or the plume has not been impacting the beach as frequently as in previous years.
- The eastern portion of the City's San Pedro Bay beaches extending from the Belmont Pier to the entrance to Alamitos Bay continued to show good water quality. All single sample bacterial water quality standards were met 100% of the time and the geometric mean standards were met 98 percent of the time during the summer.

Colorado Lagoon. Since 2004 the City has been working develop and implement major improvements to Colorado Lagoon in an effort to improve both water quality for recreational uses and the biological functioning of the Lagoon habitat. Construction of improvements started in September 2009 with a bioswale designed to treat stormwater from surface runoff that directly discharges to the Lagoon. The culvert that connects Colorado Lagoon to Marine Stadium was cleared of biofouling in late July and early August of 2010. This was expected to have a major impact on tidal exchange. Most recently,

construction of low flow diversions and trash traps were installed for three major storm drains that discharge to the Lagoon. The trash nets have been in place since early October 2010 and the low flow diversions were fully operational by April 16, 2011. This summer provided the first glimpse of the effects that these major improvements are having on water quality. The next major step will be the removal of sediments from the Lagoon that have accumulated since the initial construction of the Lagoon. Further plans are in place to provide an open connection to Marine Stadium that is intended to further improve water exchange and provide the opportunity for expanding eelgrass beds that provide essential habitat for many marine fish and invertebrates.



Alamitos Bay. Improvements in Alamitos Bay have focused on diversion of dry weather flows from the stormwater pump station into the sanitary system during the dry season. Diversions from Alamitos Pump station were originally diverted in 2000. Improvements were made to this system in 2007. Dry weather flows from two additional pump stations, the Belmont Pump Station and the Appian Way Pump Station, were diverted to the sanitary system in 2007. The Belmont Pump Plant is located near 2nd Street and the Appian Way Pump Station is located near the southern end of Mother’s Beach. The first pump station to be bypassed, the Alamitos Bay Pump Station, discharges just off the swim beach at the southern end of Alamitos Bay. In addition to these diversions, the City funded a modeling study to evaluate options for increasing circulation in Alamitos Bay. This included an assessment of the potential for the AES cooling water system improved the circulation and flushing of Alamitos Bay. While modeling suggested circulation would be enhanced when the station was actively pumping cooling water, an analysis of the AB411 monitoring data and daily pumping rates at the AES Power Plant failed to demonstrate any strong relationships.

West Main Beach. During the summer of 2011, City beaches along San Pedro Bay and west of the Belmont Pier showed excellent water quality with 98 to 100 percent compliance with all criteria. This beach is subject to contamination from offshore. An extensive bacterial source tracking study was carried out on the San Pedro Bay beaches by the City of Long Beach in 2009. Results of this study showed that the vast majority of bacterial contamination was a result of pollution from the Los Angeles River. During certain tide and wind conditions, the discharge plume from the Los Angeles River was traced to the Main Beach, mostly impacting the beaches to the west of the Belmont Pier. Other local sources included ponds of stagnant water with high bacterial content and bird activity, but only discharges from the Molino Storm Drain were large enough to occasionally reach the beach. This occurred only when extreme high tides allowed waves to breach the berm and provide a pathway to the recreational beach waters. The Los Angeles Regional Water Quality Control Board has since developed several TMDLs (Total Maximum Daily Load) that focus on reducing trash, toxics, and bacteria. Although the bacteria TMDL is not yet implemented, efforts to reduce trash and sediment loads and encourage infiltration are expected to also lower bacterial loading to the recreational waters. Despite development of a bacterial TMDL, compliance in this large urban river system will be challenging and require a substantial amount of time.

East Main Beach. The City beaches along San Pedro Bay and east of the Belmont Pier have historically had generally good water quality. The source study results described above indicated that the influence of the Los Angeles River discharge is diminished since the surface water plume from the River travels a

greater distance and has increased time for concentrations of bacteria to decrease through both mixing and die off. At the extreme east end of this beach, trash and organic debris from the Los Angeles River tends to collect due to the breakwater at the entrance to Alamitos Bay. Historically, this particular site (B11) has had relatively frequent exceedances of water quality criteria relative to other monitoring sites in this region. As would be expected, the trash and organic debris harbor bacteria by providing protection from ultraviolet light as well as sources of organic matter for population growth. This segment of the beach is quite narrow due to erosion and littoral transport of beach sand in a westward direction. The beach requires periodic replenishment from sand deposits that collect on the west end of the littoral cell. The beach face in this area is quite steep due to the erosion and not particularly suited for families with small children. Although this stretch of the beach is not heavily used for swimming, fishermen are often encountered wading well offshore on the shallow sand bottom. During the summer of 2011, compliance with the single sample criteria was 100 percent. The 30-day geometric mean was exceeded at one site during the first week of the summer monitoring. This minor excursion was associated with a number of rainfall events during the prior 30 days that totaled 0.66 inches. The majority of this rain occurred within 2 weeks of the first summer sample and light showers were recorded the day before this sample was taken.



SUMMER 2011 MONITORING DATA

Area	Site																	
		May-31	Jun-01	Jun-07	Jun-21	Jun-28	Jul-06	Jul-12	Jul-13	Jul-18	Jul-19	Jul-25	Jul-26	Aug-02	Aug-09	Aug-16	Aug-23	Aug-30
Total Coliform SSE > 10,000																		
Alamitos Bay	B-14	233	20	51	10	146	52	605	161	465		51	110	30	30	20	41	
	B-22	650	31	63	31	158	20	373		1467	364	31	122	52	121	31	41	
	B-31	538	31	20	10	97	63	512	350	839		84	144	63	52	20	41	
	B-67	708	10	73	20	74	73	121		683		548	95	52	85	41	10	
Colorado Lagoon	B-24	85		63	20	62	20	591	479	2603	683	650	148	364	181	355	364	
	B-25	75		31	10	10	10	479	402	546		1956	175	218	108	288	336	
East Main Beach	B-9	10		20	10	110	31	301		74		201	20	4352	31	63	20	
	B-10	10		73	10	175	10	336		98		327	118	4611	20	74	120	
	B-11	10		63	75	135	30	435		74		417	134	3654	31	63	41	
	B-64	30		31	20	135	41	384		41		272	10	5794	52	97	98	
West Main Beach	B-5	20		20	52	2105	110	402		74		933	211	31	4611	20	98	148
	B-7	20		31	30	121	10	402		41		331	10	3873	20	158	63	
	B-8	20		20	20	171	148	457		148		317	10	2359	10	86	85	
	B-56	31		20	73	1334	122	259		86		333	41	3873	41	211	110	
	B-60	10		41	10	1782	75	388		122		650	10	2723	31	122	84	
Fecal Coliform SSE > 400																		
Alamitos Bay	B-14	228	10	10	10	68	26	256	26	112		26	10	10	10	10	13	
	B-22	634	10	13	13	53	10	109		402	82	13	13	40	10	10	10	
	B-31	430	10	10	10	26	10	208	98	254		13	10	13	10	10	26	
	B-67	708	10	39	13	26	10	53		268		13	10	13	10	10	10	
Colorado Lagoon	B-24	13		10	10	53	10	174	281	538	246	40	53	68	10	13	13	
	B-25	10		10	10	10	10	143	333	281		53	26	13	10	10	13	
East Main Beach	B-9	10		13	10	10	13	10		68		10	20	98	26	53	20	
	B-10	10		40	10	10	10	10		98		13	26	68	13	53	82	
	B-11	10		10	13	26	10	26		40		13	13	127	13	63	26	
	B-64	10		10	10	10	26	26		26		10	10	82	13	97	53	
West Main Beach	B-5	20		10	10	68	13	26		53		933	26	13	82	13	98	112
	B-7	10		13	10	10	10	10		41		13	10	112	10	81	26	
	B-8	10		10	10	40	40	10		82		13	10	68	10	82	13	
	B-56	13		10	10	26	13	26		68		26	13	53	13	170	82	
	B-60	10		13	10	53	53	13		82		313	10	26	13	98	66	
Enterococcus SSE > 104																		
Alamitos Bay	B-14	207	5	5	5	64	5	384	10	20		5	5	42	5	5	10	
	B-22	207	5	20	5	64	5	87		5	5	10	5	5	10	5	5	
	B-31	288	5	5	5	31	5	344	10	10		20	10	20	5	5	5	
	B-67	504	5	5	10	64	5	10		5		5	20	5	5	5	42	
Colorado Lagoon	B-24	5		5	5	5	5	384	10	20	5	20	10	5	5	5	10	
	B-25	10		5	5	5	5	306	5	10		5	5	5	5	5	5	
East Main Beach	B-9	31		5	5	20	53	10		20		5	5	31	5	5	10	
	B-10	5		5	5	5	10	31		20		5	5	10	10	5	53	
	B-11	5		5	5	42	10	31		20		5	10	42	5	5	10	
	B-64	31		5	5	53	5	20		5		5	5	5	42	5	64	
West Main Beach	B-5	10		5	5	10	5	53		64		111	31	10	20	5	5	42
	B-7	20		5	5	31	10	31		75		5	5	5	31	10	53	
	B-8	10		5	5	10	20	20		31		10	10	10	10	5	53	
	B-56	42		5	5	42	10	5		10		20	5	5	5	5	31	
	B-60	42		5	5	31	5	10		5		20	5	10	10	5	64	

Note: All samples are collected and tested by the City of Long Beach Department of Health and Human Services. Weekly sample results may be viewed online at http://www.longbeach.gov/health/eh/water/water_samples.asp.



SUSTAINABLE
LONG BEACH

SUSTAINABLE

Sustainable City Commission Work Plan 2011 - 2012

**Gordana Kajer, Chair
Lisa Wibroe, Vice Chair**

Approved by City Council August 23, 2011

Accomplishments 2010-2011

2010-2011

Awards & Distinctions

In 2010-2011, the City received numerous awards and distinctions for its sustainable city efforts:

- 13th most solar-friendly municipality
- No. 3 in the nation for the most community garden plots per 10,000 people (Trust for Public Land)
- No. 5 Green Fleet in the nation for 2010, the City's third year in a row in the top 10
- The Environmental Services Bureau received the 'Nation's Best Solid Waste Management Award'

Green Grants

In 2010-2011, the City received numerous grants that will facilitate investment in sustainable infrastructure:

- Awarded \$108,025 for tree planting
- Awarded \$500,000 for implementing a safe routes to school program
- Awarded \$3.5 million from two grants for the DeForest Wetlands Restoration Project (*joint with County*)
- Approved \$3.3 million by State Water Board for final cleanup and restoration of Colorado Lagoon
- Awarded \$4.3 million in Federal Stimulus to clean the underground culvert connecting Alamitos Bay

Events & Celebrations

In 2010-2011, the City celebrated sustainable local events:

- Celebrated Earth Week 2010 & Earth Week 2011
- Hosted Earth Day 2011 at City Hall
- 3rd Annual Bike Festival
- 7th Annual Green Port Fest
- Participated in the 3rd Annual Green Long Beach Day Festival
- Participated in the 1st Creative Reuse Day
- Participated in the 1st Really Really Free Day
- Participated in CSULB's Eco Week
- Participated in CSULB's Green Generation Mixers
- Promoted Car Free Fridays and Bike To Work Day
- Promoted and participated in several beach clean ups, including the 22nd Annual Great LA River Cleanup

Commission Recommendations

The Sustainable City Commission addressed the following issues from the 2010-2011 Work Plan:

- Green Business Recognition Program
- Low Impact Development Ordinance
- Bike Boulevard Project
- Urban Agriculture Ordinances Update
- Municipal Mulch Delivery Program
- Gray Water Pilot Program
- Green Purchasing Policy Update
- Plastic Ban Ordinance

Accomplishments 2010-2011

2010-2011

The City of Long Beach successfully implemented the following programs in 2010-2011:

- In July 2010, the Sustainable City Commission approved the Work Plan 2010-2011.
- Since July 2010, the Office of Sustainability has assisted in educating and placing over thirty individual youth workers in Green Job Training programs. Youth workers continue to contribute valuable work to the Mulch Delivery and Rain Barrel programs, native and drought-tolerant gardens, tree plantings, community gardens, and urban farms.
- In August 2010, the City and Southern California Edison implemented the Energy Efficiency Opportunity Drawing to encourage Long Beach residents from the nine council districts to complete and build energy efficient installations.
- In August 2010, the City of Long Beach started to complete municipal building energy efficiency retrofits as part of the Energy Efficiency and Conservation Block Grant. Seven municipal buildings have completed these retrofits.
- In August 2010, the City of Long Beach started construction on the LA Gateway Cities Catch Basin Insert Project, a program aimed at stopping debris at its source before it reaches public waterways. The program began retrofitting an estimated 12,000 storm drains with catch basin screens to capture trash and other debris before it enters the Los Angeles River.
- Starting in the 2010-11 school year the City implemented the Safe Routes to School Program which provides workshops for elementary and middle school children to improve bike safety.
- In December 2010, the Office of Sustainability implemented the Mulch Delivery Program. The mulch is made available by the City's tree trimming maintenance, which generates 6,000 tons of green waste annually. The program delivers mulch to residential, commercial and municipal buildings.
- In January 2011, Long Beach started to enforce the 2010 Edition of California Building Standards Codes, which is also known as CALGreen which institutes minimum green building requirements for all construction projects.
- In January 2011, the Vista Bike Boulevard was opened. Bike Boulevard's facilitate safe and convenient bicycle travel for cyclists of all ages and skill levels. The Vista Bike Boulevard extends along Vista Street from Temple Avenue to Nieto Avenue.
- In April 2011, the City Council approved the implementation of the Graywater Pilot Project, which will provide laundry-to-landscape graywater systems for thirty-six Long Beach residents.
- Also in April 2011, the creation of Long Beach's first separated bikeways was completed. The separated bikeways extend along Broadway and 3rd Street from Alamitos Avenue to Golden Avenue.
- In May 2011, the Council voted unanimously to pass a Plastic Bag Ban Ordinance, which will start being phased in starting August 1, 2011. The ban is in line with the County's similar ordinance in December 2010.
- As of July 2011, 380 residents have participated in the lawn-to-garden program in the City through the Long Beach Water Department.
- As of July 2011, five local businesses have been recognized through the Green Business Program.
- In the past year Long Beach Airport has continued to implement green programs that are aimed at reducing congestion, utilizing solar power, reducing water consumption and reducing emissions.

Work Plan 2011 - 2012

These actions, which are part of the Sustainable City Action Plan, were chosen by the Sustainable City Commission to be included in the 2011-2012 Work Plan. These complementary actions are intended to guide the Commission and City Staff in creating green projects, programs and policies and making recommendations to the City Council over the next year.

Buildings and Neighborhoods



- Green Spaces and Community Gardens: Develop Vacant Lot and Community Garden Database to promote the use of open space for green uses.
- City of Long Beach Street Tree Policy and Urban Forestry Policy: Develop and update the City's approved street tree list to incorporate a diverse species list including California native, drought tolerant, and low VOC emitting trees.
- Green Residential Renovation: Identify and provide a resource library of how residents in Long Beach can move forward with home renovations focusing on green improvements.

Energy



- Southern California Edison Partnership: Continue working on partnership goals to elevate the City's status to a Silver Level Partner.
- Continue efforts to implement energy saving measures in municipal facilities.
- Energy Efficiency Conservation Block Grant: Complete expenditure of EECBG funds through residential rebate and city facility energy retrofit programs.
- Energy Upgrade California: Become a participating City to establish decreased long-term energy use

Green Economy & Lifestyle



- Green Business Recognition Program: Continue to promote this program and recognize local businesses who participate.
- Green-Collar Jobs: Generate a working database of identified Green Collar Jobs in Long Beach for opportunities and development.
- Participation with the Southern California Green Economic Council and the Long Beach Chamber of Commerce of Green Business Council

Transportation



- Sustainable Transportation Programs: Identify opportunities and support the installation of bike boulevards, pedestrian improvements, bike share programs, and other sustainable mobility policies.
- Electric Vehicle (EV) Infrastructure Plan: Identify opportunities for EV installations and create opportunities to test new EV technology in Long Beach.

Work Plan 2011 - 2012

Urban Nature



- Urban Agriculture Policies: Continue to support the establishment of policies that enable and allow for urban agriculture practices, such as urban farms, chickens, bees, and other agricultural practices, throughout Long Beach.
- Tree Planting Program: Complete the AQMD tree planting program and continue to pursue funding for additional tree plantings
- Longview Eco Park and Willow Spring Gulch: Begin construction of the Vista Lookout Park on the hilltop.
- The Civic Center Edible Garden Project: Generate new educational and promotional materials and develop ongoing workshops and classes to illustrate how to grow edible foods in any space.

Waste Reduction



- Commercial Recycling Policy: Work with the Environmental Services Bureau to explore the creation of a commercial property recycling policy.
- Residential Mulch Delivery Program: Continue with the Residential Mulch Delivery program through the Low Impact Development Academy and launch a Free Mulch Pick Up Program.
- Plastic Bag Ban Policy: Work with the Environmental Services Bureau to promote and educate the public about the plastic bag ban in the City and the use of reusable bags.
- Food Service Waste Reduction Program: Develop a restaurant compost pick-up program and provide resources for ways to reduce waste.
- Architectural Salvage Yard: Identify locations for salvaged architectural pieces to be repurposed in home renovations.

Water



- Low Impact Development Policy: Implement the low impact development ordinance and incorporate this policy in the City's new MS4 permit.
- Rain Catchment Program: Identify funding to facilitate another round of the City's Rain Barrel Program and identify City facilities for rain catchment system installations.
- Gray Water Pilot Project: Implement the installation of Gray Water systems in residential homes as a part of the Low Impact Development Academy .
- Gray Water Project Registration: Establish an online process where local residents can register their gray water systems and provide best practices and information to the community.