

City of San Diego
Urban Runoff Management Plan
Fiscal Year 2006 Annual Report



THE CITY OF SAN DIEGO

January 31, 2007

Phil Hammer
Environmental Scientist
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Subject: City of San Diego Urban Runoff Management Plan FY 2006 Annual Report and
Response to Review of FY 2005 JURMP Annual Report (SWU:10-5015.02:hammp)

Dear Mr. Hammer:

Attached please find paper and electronic copies of the City of San Diego's Urban Runoff Management Plan Fiscal Year 2006 Annual Report, and associated Appendices, submitted as part of the County of San Diego's Unified Jurisdictional Urban Runoff Management Program Annual Report.

The Annual Report also contains responses to the comments provided by the Regional Board in its September 15, 2006 letter (SWU:10-5015.02:hammp) to the City. Text in the Annual Report addressing a comment is followed in parentheses by the comment's corresponding number in, and the Regional Board's code number for, the September 15, 2006 letter.

If you have any questions, please contact Drew Kleis, Storm Water Specialist, at (619) 525-8623.

I certify under penalty of law that this Urban Runoff Management Plan Fiscal Year 2006 Annual Report 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, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Chris Zirkle
Deputy Director

CZ/up

Attachments: 1. Fiscal Year 2006 Urban Runoff Management Plan Annual Report
(with Appendices)



Storm Water Pollution Prevention Program

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- Appendix F: Storm Water Division Enforcement Actions
- Appendix G: 2006 Sewer Spill Reports to Regional Board

1 EXECUTIVE SUMMARY

San Diego is a beautiful city with its picturesque coastline and bountiful aquatic resources. In addition to supporting an abundance of wildlife, San Diego's natural surface water resources—its creeks, beaches and bays—provide miles of recreational opportunities for residents and serves as the centerpiece to San Diego's tourist industry. Pollution in urban runoff has the potential to harm the region's creeks, beaches, and bays and threatens its social and economic quality of life. Preserving San Diego's natural water resources is one of the most important goals of the City of San Diego (City). The Storm Water Pollution Prevention Division (Storm Water Division) was designated as the lead City agency to achieve this goal.

The City's Urban Runoff Management Plan establishes the blueprint for actions that the City would take to protect and improve the water quality of the creeks, beaches, and bays in the region and achieve compliance with San Diego Regional Water Quality Control Board Order Number 2001-01 (Municipal Permit). The plan, adopted by the City Council in January 2002, outlines a phased implementation approach allowing for increased activities as additional funding is identified.

As with the previous four years, the City has worked diligently over the past year to implement the Urban Runoff Management Plan. In addition, the City leveraged its resources in program areas that could achieve the most efficient benefits to water quality: special projects, which leverage funding and efforts in the region; education and training efforts in pollution prevention; and good housekeeping activities.

1.1 PROGRAM ACCOMPLISHMENTS

1.1.1 *Special Projects*

Special projects are an integral tool in the City's effort to leverage limited resources with grant dollars and partnerships with environmental organizations and agencies. The City's Storm Water Division achieved significant benefits to water quality beyond its FY 2006 \$13.56 million budget by leveraging \$18,683,300 (this amount includes both grant and match funding) in special projects, as summarized below. In addition to these water quality improvement projects, the Storm Water Division also participated in six Total Maximum Daily Load (TMDL) programs and numerous special water quality monitoring investigations to determine the sources of various water quality problems.

Table 1-1. Summary of Special Project Accomplishments in FY 2006.

Project	Accomplishments in FY 2006	Project Budget (Grant & Match Funding)
<i>Areas of Special Biological Significance (ASBS) Project Planning and Implementation</i>	The City continued to work with the Scripps Institution of Oceanography and San Diego Coastkeeper to develop the La Jolla Coastal Watershed Management Plan. In addition, a concept proposal for Consolidated Grants Program funding was submitted by the partners to install a dry weather low flow diversion system; the partners received notice in April 2006 inviting them back to submit a full proposal.	\$5,000,000 (\$500,000 for planning +\$4,500,00 for diversion system)

Project	Accomplishments in FY 2006	Project Budget (Grant & Match Funding)
<i>Low Flow Storm Drain Diversion Program, Phase III (Beach Areas)</i>	The City continued work on Phase III of the Low Flow Storm Drain Diversion Project to serve the La Jolla, Ocean Beach, and Pacific Beach areas. The construction contract was awarded in November 2005, and construction began in January 2006.	\$2,452,800
<i>San Diego Region Integrated Pest Management (IPM) Education Project</i>	The City continued implementation of an education program directed primarily towards residential pesticide users. Outreach and monitoring activities focused on the Chollas Creek Watershed. In FY 2006, the City conducted distributed IPM cards through print media, the Internet, and attendance at community events. Water quality monitoring also occurred.	\$1,352,500
<i>San Diego Watersheds Common Ground Project: San Diego Bay Watershed Demonstration</i>	The City continued to work with its partners and consultant in the creation of a GIS- and web-based database to track and analyze conditions and trends associated with the region's water resources. In FY 2006, preliminary versions of the web-based resource was launched, and input/comments from stakeholders were solicited through various avenues. Water quality sampling also occurred, and the data collected was added to the project's database. Work on this project is anticipated to be completed in FY 2007.	\$1,362,000
<i>Mission Bay Computerized Irrigation Control System Project</i>	The City continued work installing a computerized irrigation control system in Mission Bay Park to reduce over-irrigation and the washing of bird wastes into Mission Bay. A contractor was selected in November 2005. Construction began in December 2005 and terminated in April 2006.	\$1,300,000
<i>Chollas Creek Water Quality Protection and Habitat Enhancement Project</i>	The City continued to implement this grant project. Staff completed the environmental review process and secured the necessary permits from regulatory agencies. The City also completed a public bidding process for the construction plans and specifications. The City is currently in negotiations with a landowner to assume responsibility for the construction of the project.	\$2,987,000
<i>Rose and Tecolote Creeks Water Quality Improvement Projects</i>	The City continued work on installing a hydrodynamic separator near the Tecolote Canyon Natural Park to treat runoff before reaching Rose and Tecolote creeks. Installation of one of two separators began in May 2005 and terminated in September 2005.	\$2,000,000

Project	Accomplishments in FY 2006	Project Budget (Grant & Match Funding)
<i>Ocean Beach–San Diego River Water Quality Improvements</i>	The City continued work on improvements to check valves, the existing low flow diversion system, and a storm pipe to reduce bacteria counts in Ocean Beach and the San Diego River. Most work was completed in FY 2006. Receiving water monitoring is anticipated to occur to assess the effectiveness of the improvements in reducing bacteria counts.	\$2,229,000
Total value of special projects:		\$18,683,300

1.1.2 Education and Outreach

The City’s Storm Water Pollution Prevention Program goals for its FY 2006 public information campaign were the same as those the Program started with. These goals are as follows:

- Increase awareness that storm water flows to water bodies untreated
- Change behaviors from those that pollute water bodies to those that do not
- Increase awareness of the *Think Blue* slogan

June 30, 2006, concluded the fifth year of the *Think Blue* Media, Education, and Public Advocacy Campaign. The campaign was able to put forth a broad, multifaceted effort, which included educating and training municipal employees, targeting external audiences as identified in the Municipal Permit (residential, business, and industrial audiences as well as school-aged children and the construction and development sectors), participating in grant education and outreach activities, and actively participating in regional outreach and education efforts with the Copermitees.

1.1.3 Enforcement

In FY 2006, Storm Water Division received 1,902 contacts from the public and others. The public awareness and activism contributed to 1,531 investigations, 235 Administrative Citations, 729 Notices of Violation, and 149 Civil Penalties being issued to polluters for violating the Storm Water Ordinance (San Diego Municipal Code §43.03). The remainder of the contacts (371) was not related to potential storm water enforcement issues. The breakdown of investigations shown in Figure 1-1 shows investigator efforts in response to calls, and does not necessarily reflect breakdown of storm water sources in reality. The fact that many people reported wastewater violations indicates the public’s growing awareness and ability to recognize prohibited discharges. Other issues to consider are the willingness to report on a single violator (perhaps a neighbor) versus willingness to report on an agency. In addition, the Consumer and Environmental Protection Unit of the City Attorney’s Office successfully prosecuted two water pollution cases. Through the City’s enforcement efforts, numerous sources of storm water pollution were identified and abated.

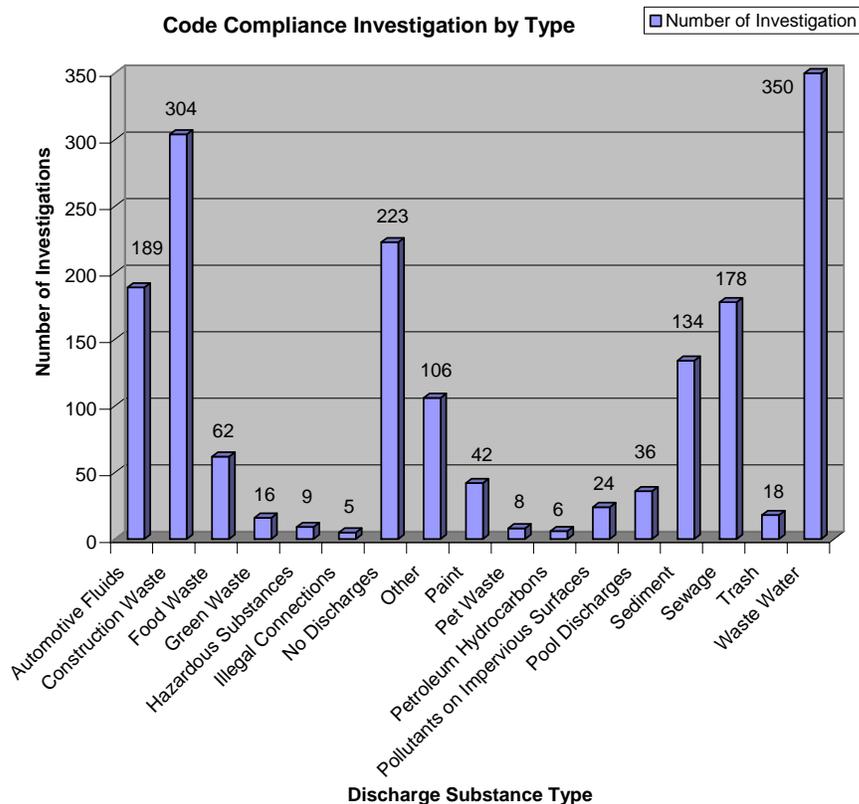


Figure 1-1. Code Compliance Investigation By Type.

1.1.4 Water Quality Monitoring

The City's Storm Water Division staff conducted routine water quality monitoring at 12 coastal beach and five lagoon stations on a monthly schedule from November to March and on a semimonthly schedule from April to October. Staff also conducted routine water quality monitoring at 308 Dry Weather Monitoring sites from May through September to help the City identify and characterize sources of pollution.

1.1.5 Development and Construction

The City continued to refine and improve its implementation of permanent storm water controls in new public and private development projects with continued internal staff training in FY 2006.

1.1.6 Industrial and Commercial Programs

The City continued to expand its industrial and commercial programs in order to institute effective measures to reduce pollutants. This year's efforts included the inspection of 315 industrial facilities and 4,473 commercial facilities. Beginning in April 2004, a mailing insert has accompanied business license renewals and business tax certificate mailings to inform businesses of storm water best management practices requirements and ordinances. This information reached approximately 45,000 businesses in FY 2006.

1.1.7 *Municipal Activities*

The City continued to place emphasis on storm water pollution prevention practices and awareness integrated into all field operations and activities at municipal facilities in FY 2006. Notable efforts in FY 2006 include:

- Street Division conducted street sweeping of nearly 87,472 curb miles and collected approximately 4,122 tons of debris.
- Street Division cleaned 8,561 storm drain structures, 11,691 feet (2.21 miles) of drainage pipe, and 0.8 miles of drainage channels, removing 6,737 tons of debris from the storm drain system.
- In total, the Street Division's street sweeping and storm drain system cleaning activities removed 10,859 tons of debris from the City's storm drain system in FY 2006.
- The Environmental Services Department cleaned or collected over 3,116 tons of trash, debris and recyclables in FY 2006.
- Through continued sewer cleaning, maintenance and tracking efforts by the Metropolitan Wastewater Department, the number of sewer spills in the City dropped from 144 in FY 2003 to 127 in FY 2004 to 95 in FY 2005 to 71 in FY 2006, an 80.5 percent reduction since 2000 (see Figure 1-2). The City feels that their JURMP water quality protection efforts contributed to these gains.

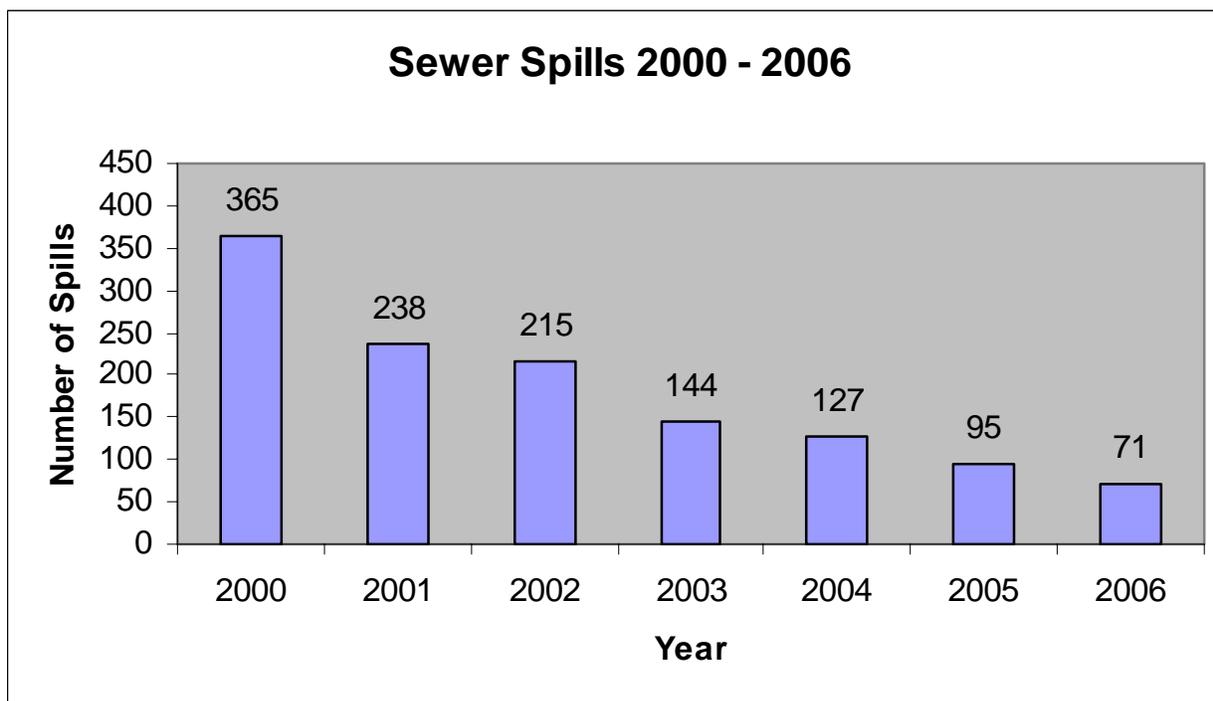


Figure 1-2. Number of Sewer Spills in City of San Diego Between 2000 and 2006.

1.1.8 *Focused Water Quality Efforts – Watershed Programs*

The City is a part of six watersheds as defined by San Diego Regional Water Quality Control Board Order Number 2001-01 (Municipal Permit). However, in actuality, watershed scale is

relative. For example, all areas within the City are also part of the San Diego Basin, a larger watershed draining Western San Diego County into the Pacific Ocean. It is at this larger watershed scale that watershed implementation of many programs, such as inspection or enforcement programs, are most efficiently implemented Citywide due to economies of scale and City structure.

Although the City's implementation may often occur jurisdictionally, watersheds, and in many cases sub-watersheds, form the appropriate scale for analysis of water quality problems and identification of pollution sources. Independently, and in coordination with other jurisdictions in the region, the City will continue to pursue focused, watershed-based source identification efforts throughout the City's six watersheds.

1.2 FUTURE DIRECTIONS

Currently, the City is subject to multiple water quality regulatory programs, namely: the Municipal Permit, Total Maximum Daily Loads (TMDLs), Areas of Special Biological Significance (ASBS), and Cleanup and Abatement Orders (CAOs). By setting stringent water quality standards that the City must meet, these regulatory programs in effect mandate the implementation of structural (e.g., capital improvement projects) and non-structural (e.g., education and outreach, street sweeping) activities. Given that these regulatory programs essentially require similar, parallel efforts, careful program coordination is needed to avoid unnecessary overlapping efforts, wasted resources, and loss of time. Therefore, the City is taking an integrated approach towards meeting the requirements of these regulatory programs simultaneously. The Storm Water Division began planning for an integrated approach to implementation in FY 2006 and continues this effort in FY 2007. Although initially the focus will be on the City's watershed-based programs and activities (particularly in the Chollas Creek, Tecolote, and Rose watersheds), implementation and assessment of these activities will ultimately help improve the City's jurisdictional activities as knowledge is gained from the watershed-based efforts.

The City will be working with the other Copermittees in refining their reporting and effectiveness assessment standards to facilitate cross-jurisdictional and cross-programmatic comparisons and evaluations. It is hoped that the refined standards would lead to a more regionally integrated approach to water quality improvement efforts. In addition to continued inter-jurisdictional cooperation, the Storm Water Division will be using the program updates that will be required by the next Municipal Permit as an opportunity to coordinate with its various departments and further increase City employee awareness of storm water pollution prevention principles as they go about their daily business. The anticipated commencement in the latter half of FY 2007 of the process to update the JURMPs and WURMPs and develop the RURMP will provide the context for achieving these City objectives.

Staff continued to study long-term alternative funding mechanisms in FY 2006, including an increase in the current storm drain fee, to support the anticipated expansion in the City's storm drain and water quality protection programs over time. This effort included analysis of projected program needs. However, over the near term, the City will continue to pursue short-term alternative funding sources for urban runoff management and water quality protection. Currently, the City is benefiting from a number of grant-funded projects that will reduce pollutants. Meaningful special studies to identify the pollutant sources are also being conducted. The City will also continue to partner with other stakeholders to develop water quality projects in order to compete for grant funds and leverage outside sources of funding. Staff will continue to work closely with the other storm water program managers in the region to

collaborate on program implementation strategies. It is the City's objective to institute the most effective and efficient strategies in the San Diego region to clean and protect its creeks, beaches and bays for future generations.

To provide focus for program improvements in FY 2007, the Storm Water Division has identified the following objectives:

- Continue strategic, integrated approach to planning program efforts;
- Refinement and/or expansion of the Division's data management and tracking capabilities;
- Improvements in monitoring to aide in program and activity effectiveness assessment;
- Refinement/increase in municipal training;
- Refinement of the City's industrial and commercial inventories;
- Improvements in industrial and commercial inspection programs.

1.3 RESPONSE TO REGIONAL BOARD COMMENT LETTER (SWU:10-5015.02:HAMP)

This Annual Report also contains responses to the comments provided by the Regional Board in its September 15, 2006 letter (SWU:10-5015.02:hammp) to the City. Text in this Annual Report addressing a comment is followed in parentheses by the comment's corresponding number in, and the Regional Board's code number for, the September 15, 2006 letter. For example, the text below demonstrates how Comment No. 26 is addressed:

Municipal employees continue to be aware of the importance of storm water pollution prevention and the implementation of BMPs. They continue to implement BMPs throughout the course of their work as evidenced in the *Annual Reporting Form* in Appendix B (**Comment No. 26, SWU:10-5015.02:hammp**).

2 INTRODUCTION

2.1 PROGRAM OVERVIEW FOR FISCAL YEAR 2005

The mission of the Storm Water Pollution Prevention Division (Storm Water Division) is to:

“Protect and improve the water quality of rivers, bays, and the ocean for the citizens of San Diego and future generations by eliminating and reducing pollutants in urban runoff and storm water in an efficient, effective, and professional manner as part of a high-performing team through public education, employee training, watershed collaboration, field testing, investigations, enforcement, regional programs, and coordination.”

The Storm Water Division in the General Services Department is the lead office for the efforts of the City of San Diego (City) to reduce pollutants in urban runoff and storm water to the maximum extent practicable and achieve compliance with San Diego Regional Water Quality Control Board (Regional Board) Order Number 2001-01 (Municipal Permit).

In order to improve and protect our region's natural water resources, the Storm Water Division is actively engaged in a number of activities that will cumulatively result in improvements to water quality. The Citywide blueprint for protecting natural water resources is the Urban Runoff Management Plan (URMP), adopted by the City Council on January 28, 2002. The primary activities that the City continues to implement include, but are not limited to, public education, employee training, water quality monitoring, source identification, code enforcement, watershed management, and storm water best management practices development and implementation within the City's jurisdictional boundaries.

The Storm Water Division represents the City on storm water and Municipal Permit issues before the Principal Permittee (County of San Diego) and the Regional Board. In addition, the Storm Water Division provides technical expertise and guidance to all City departments to ensure implementation and compliance with the Municipal Permit. Furthermore, the Storm Water Division prepares and transmits this annual report of all City activities governed by the Municipal Permit to the County of San Diego for submittal to the Regional Board and is the responsible entity that certifies that the City is in compliance with all Municipal Permit requirements.

2.2 REPORT ORGANIZATION

This Fiscal Year (FY) 2006 Annual Report has been organized into sections matching the table of contents agreed to and submitted by the Copermittees to the Regional Board. Like the FY 2005 report, the City continued to include several sections not identified in the table of contents submitted by the Copermittees, namely: Enforcement, Monitoring, and Special Projects.

Each section of the FY 2006 Annual Report is consistent with the components of the Municipal Permit and, where applicable, identifies priority pollutant sources, applicable requirements, and notable implementation efforts. Each section also addresses future activities that the City intends to implement or has begun implementing in FY 2007. Where future activities identify

changes that conflict with what is represented in the URMP, the section also discuss proposed amendments. Copies of the amended URMP components are included in Appendix B.

2.3 REPORTING PERIOD

This Annual Report provides information for FY 2006: July 1, 2005, to June 30, 2006.

3 MUNICIPAL

The City continued to assess and implement its URMP for municipal facilities and activities in FY 2006. Storm Water Division staff held periodic URMP management meetings with key personnel from various City departments to address municipal issues and ensure that program objectives and municipal Permit requirements were met. This section identifies the actions the City took during the reporting period to meet these objectives and requirements.

3.1 PRIORITY SOURCES

There have not been any updates to the prioritized municipal inventory because none was required.

3.2 BEST MANAGEMENT PRACTICE (BMP) REQUIREMENTS

The City implemented BMPs consistent with those set forth throughout Chapter 2, *Storm Water Best Management Practices*, of the City's Urban Runoff Management Plan, including the implementation of Storm Water Pollution Prevention Plans (also called Water Quality Management Plans). City departmental personnel complied with the City's Storm Water Ordinance and additional internal departmental policies established to reduce pollution in urban runoff.

3.3 BMP IMPLEMENTATION

The City implemented BMPs, including pollution prevention measures, to prevent and reduce pollutants in runoff from municipal areas and activities. BMPs that were implemented during FY 2006 are summarized below according to municipal facility and/or activity.

3.3.1 *Municipal Areas/Activities*

3.3.1.1 *Roadways*

The City currently maintains over 2,800 miles of roadways and alleys. The Street Division is responsible for inventorying, inspecting, maintaining, and repairing all roadway structures. For a detailed description of the BMPs implemented by the Street Division for roadway operations, refer to the Street Division's FY 2006 *Activity Reporting Form* in Appendix B.

Street Sweeping

The targeted street sweeping schedule performed by the Street Division based on generalized location is summarized in Table 3-1. Actual street sweeping frequencies may be more or less frequent in specific areas of the City, depending on available budget, the identification and sweeping of new or known problem areas, and unique events (e.g., fires). Refer to Appendix B for the record of the actual street sweeping that occurred in FY 2006 (**Comment No. 1, SWU:10-5015.02:hammp**).

Table 3-1. General Street Sweeping Schedule.

Location	Frequency
Downtown	5 times per week
Residential	Once per month
Commercial/Office/Industrial	Once per week

Areas surrounding Chollas Creek in the Pueblo San Diego Watershed are considered priority areas. Sixty-six (66) curb miles were swept twice a month on residential routes, and sixty-eight (68) curb miles were swept on commercial routes four times a month to prevent pollutants from entering watercourses. In addition, where possible, sub-watershed areas with water bodies identified on the Clean Water Act Section 303(d) List of Water Quality Limited Segments as impaired for sediment receive additional sweeping as part of commercial and residential sweeping routes. In total, the Street Division conducted street sweeping of nearly **87,472 curb miles and collected approximately 4,122 tons of debris** in FY 2006.

Roadway Field Operations

The Street Division continued to implement site-specific BMP plans during field operations in FY 2006. Examples of these field operations include painting and asphalt or concrete repair activities.

Roadway Material Disposal

Material collected from Street Division operations (dredged material, litter, debris, and sediment from streets or storm drains) was properly transported to a designated materials decanting site. BMPs were used during transport to ensure that material did not escape from the vehicles. Materials were dried out prior to disposal according to site-specific BMPs. For example, excess water from the material was captured, collected, and properly disposed of, and perimeter BMPs were properly maintained to ensure effectiveness.

Street Sweeper Maintenance

Sweeper operators are each responsible for the daily maintenance of their assigned sweeper, which includes washing, changing gutter brooms, lubricating all necessary fittings, checking and cleaning all filters, and checking for fluid leaks.

Daily washing of the sweepers and the vactors occurred at municipal yards in designated wash areas provided by the Street Division. These wash areas collect all runoff into a sump. The water is then vacuumed by a vactor truck weekly and deposited into the wastewater collection system. Any solid material is removed from the sump and dried at the materials decanting location discussed above and then deposited at the accepted landfill. Each vactor or sweeper operator is required to properly complete a vehicle operator's daily inspection report that is kept on file for two years.

In FY 2006, the Street Division replaced older, less effective street sweepers with Johnston 4000 mechanical sweepers. Plastic gutter broom segments were also replaced with reusable aluminum ones. These replacements provided improved performance and greater efficiency in street debris removal.

3.3.1.2 *Municipal Separate Storm Sewer System (MS4)*

The City has over 75,000 storm drain structures and 889 miles of drainage pipe. The Street Division is responsible for the inspection, maintenance, and repair of the MS4 in the public right-of-way and in drainage easements. The Street Division regularly inspected the City's MS4 and surrounding areas and removed and properly disposed of sediment, debris, and trash from the storm conveyance channels, storm drains, and catch basins through hand cleaning, mechanical removal, and street sweeping. The Street Division also identified problem areas and conducted additional cleaning, where necessary, and recorded information about cleaning frequencies and material removed. In addition, the Street Division operated a daily,

round-the-clock telephone hotline and online service request program to address citizens' request for services.

In FY 2006, the Street Division continued efforts to accurately and completely map the City's drainage infrastructure. Specifically, efforts focused on the mapping and surveying of major and minor channels, basins, and storm drains. GIS mapping and biology surveys will also occur simultaneously and be organized geographically.

In FY 2006, the Street Division continued efforts to develop a plan for the televising and evaluation of the City's corrugated metal pipes for their eventual full replacement. Replacement of the pipes would help minimize significant risk to life and property and result in water quality improvements through a decrease in slope failures, erosion, and downstream sediment.

MS4 Debris Removal

Storm drain system was inspected and cleaned as described below.

- Drainage structures that empty into or border on a body of water were identified, inspected, and cleaned before the wet season.
- Drains designated as problem areas based on field observations were identified, inspected, and cleaned twice a year.

Material collected from cleaning operations was properly transported to the appropriate disposal site. Absorbent material was used during transport to prevent liquids from leaking during transport. Material that was removed by machine cleaning (the vacuumed gunk removed from the storm drain system by vactor trucks) was dumped at the materials decanting site (discussed in Section 3.3.1.1 above), and all water was vacuumed by a vactor truck and disposed of into the wastewater collection system.

During FY 2006, Street Division inspected **7,669 storm drain structures** (10.2% of the 75,000 structures in the City), and cleaned **8,561 storm drain structures** (11.4%), and **cleaned 11,691 feet (2.21 miles) of drainage pipe**, and **0.8 miles of drainage channels**. A total of **6,737 tons of debris** was removed directly from the storm water conveyance system, including open channels. In combination with the Street Division's street sweeping activities discussed in Section 3.3.1.1 above, **the Street Division cleaned 10,859 tons of debris from the City's storm drain system in FY 2006.**

In addition, the Street Division continued efforts in FY 2006 to secure local, state, and federal permits for channel maintenance and made progress towards the preparation of a Program Environmental Impact Report and obtainment of permits from various resource agencies to conduct City-wide storm drain conveyance system cleaning and maintenance.

The City will continue to study alternative funding sources, including an increase in the current storm drain fee, to enhance its storm drain structure inspection and cleaning efforts in future fiscal years. Per the Mayor's 5-year financial outlook, expenditure on storm water-related activities is anticipated to rise significantly. In the meantime, the Street Division will continue to make the most of its current resources through prioritization, focusing on structures most in need of attention as identified (**Comment No. 2, SWU:10-5015.02:hammp**).

Cleanup Activities

Other measures and operations were conducted to help reduce pollutants from the City's MS4.

In FY 2006, the Environmental Services Department collected trash and debris during cleanup activities and events throughout the year that had the potential to be transported to the City's MS4 or directly to drainages and water bodies. Table 3-2 summarizes these activities.

Table 3-2. Environmental Services Cleanup Data.

Event/Activity	Trash/Debris Collected (tons)
Public calls for cleanup (11,810 calls) of illegal dumping, litter, transient encampments, etc.	1,355.36
Debris clearing at Ridgehaven building	1
Public calls regarding dead animals (3,517 calls)	60.36
Community Cleanup Events (87)	1,699.47
Total Trash/Debris*:	3,116.19
*Note: Total excludes City-sponsored cleanup events identified in the City's six Watershed Urban Runoff Management Plan Fiscal Year 2006 Annual Reports, and municipal trash collection services, which collected and properly disposed of 370,127 tons of trash and 70,958 tons of curbside recyclables in FY 2006.	

In addition, the Environmental Services Department collected **534 tons of household hazardous wastes (HHW) in FY 2006** as shown in Table 3-3 below.

Table 3-3. Environmental Services HHW Collection Data.

Event/Activity	HHW Collected (tons)
Load Check Program	11
Auto Product Recycling Events	68
HHW Transfer Facility	443
Door-to-Door Collection	12
Certified Oil Collection Centers (waste oil and oil filters)	5,035
Total HHW:	5,569

By law, HHW cannot be collected through regular refuse collection. When HHW is found, drivers tag the waste. The tag explains the proper disposal method for the HHW and the City's hotline (1-800-694-7000) where more information can be obtained on proper HHW disposal methods.

Although HHW collection is a service provided by the Environmental Services Department for reasons beyond those of storm water pollution prevention, it is reasonable to conclude that additional hazardous waste is not being dumped into the storm drain system and is instead being properly collected due to the Environmental Services Department's educational and collection efforts. Refer to the department's FY 2006 *Activity Reporting Form* in Appendix B for more details.

Low Flow Diversion System

The City's Low Flow Diversion System is designed to capture urban runoff or sewage overflows from the City's MS4 during dry conditions and divert them to the City's wastewater collection system for treatment at the Point Loma Water Treatment Plant. During the reporting period, the City operated and maintained 54 Low Flow Diversion Facilities: 47 facilities in operation protecting Mission Bay and another seven facilities located in the La Jolla community. The facilities have proven to be extremely effective in capturing and diverting urban runoff and sewage overflows before they reach our coastal waters.

Stencils

Stencils with the storm water message and picture as shown here were created in FY 2003 to be used at storm drain inlets at municipal facilities. Stenciling is an effective way to educate the public and discourage illegal dumping into the storm drain. Before the end of FY 2003, a trial run of one of the stencils was conducted at the City's municipal yard at 20th and B streets to ensure that the message was legible.



Figure 3-1. Storm Drain Inlet Stencil.

After a final design was selected, the Storm Water Division in FY 2004 made 15 mylar copies of the stencil to use at the City's municipal yards and other appropriate municipal facilities. During the first part of FY 2004, all municipal yards were stenciled with the message. In addition, Qualcomm Stadium, all major Environmental

Services Department facilities, and some Water Department facilities were stenciled in FY 2004. The Storm Water Division continued to work with other City departments to identify existing and new storm drain inlets on municipal properties to be stenciled.

In addition, the City distributed copies of the mylar stencil and specifications for creating the stencil to the non-profit organization *I Love A Clean San Diego* (ILACSD). ILACSD used the stencil for all volunteer stenciling activities the organization conducts in the City. During FY 2006, 359 volunteers worked 1,141 hours to stencil 213 storm drains. The Storm Water Division made 24 referrals to ILACSD regarding storm drain stenciling.

To ensure that new storm drains are stenciled during construction of both private and public development projects, the Storm Water Division coordinated with the Development Services Department and Field Engineering Division to write standard development permit language requiring contractors to stencil all new storm drains. This requirement was in effect for all of FY 2006.

To make the stencil available to the public and private contractors, the Storm Water Division posted the specifications for creating a stencil on the City's *Think Blue* website (<http://www.ThinkBlueSD.org>).

3.3.1.3 *Wastewater Collection System (including Wastewater Treatment Plants and Pump Stations)*

The Metropolitan Wastewater Department (MWWD) is responsible for the collection and conveyance of wastewater from residences and businesses in the City of San Diego, serving a 330 square mile area with a population of 1.3 million people. MWWD currently maintains nearly 3,000 miles of City sewer line with over 250,000 city connections. MWWD also maintains a GIS inventory of wastewater structures. During FY 2006, the department conducted field inspections and televised sewer lines to monitor the condition of sewer lines. Televising sewer lines has been an invaluable way of assessing the condition of a sewer line in real time. It can

reveal blockages from debris to roots to grease and show pipeline cracks, breaks, or deterioration.

With the passage of four annual Sewer Rate increases by the Mayor and City Council in October 2001, MWWD embarked on an aggressive Sewer Spill Reduction Program. The key elements of this program include the cleaning of all 3,000 miles of the municipal sewer system by March 2004; the televising of more than 1,000 miles of the oldest and most problematic sewer lines in the system; and an increase in the number of miles of sewer lines replaced or rehabilitated from 15 miles per year to 60 miles per year by calendar year 2004. The results of this program are readily apparent in a sharp decrease in the number of sewer spills and beach closures due to sewer spills in the City. **The number of sewer spills in the City dropped from 193 in FY 2003 to 115 in FY 2004 to 95 in FY 2005 to 71 in FY 2006.**

The notable accomplishments MWWD completed in FY 2006 to help reduce the number of sewer spills and protect water quality include:

- Replacement of 26.30 miles of sewer line
- Rehabilitation of 0.29 mile of sewer line
- Televising of 51.72 miles of sewer line
- Cleaning of 2,336.56 miles of sewer line
- Food Establishment Wastewater Discharge (FEWD) performed:
 - 9,141 facility inspections
 - 1,897 permit inspections
 - 7,460 Grease Removal Equipment inspections
 - Issued 1,835 permits
- Continuation of BMP implementation at 11 treatment facilities and pump stations as part of Storm Water Pollution Prevention Plans (SWPPPs) prepared in accordance with the State General Industrial NPDES Permit
- Quarterly inspections by Safety & Training personnel of 11 MWWD facilities with Industrial Permit SWPPPs
- Implementation of emergency BMPs at sewer spills to quickly contain spills and minimize discharges.
- Development and implementation of standard operating procedures called IMAPs (interim maintenance access plans) for field crews working in the right of way
- Strategic installation of canyon access paths to minimize impacts to wetlands and water quality

MWWD also continued to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aims to educate residents and business on the proper disposal alternatives for fats, oils, and grease and provide residents a place to dispose oil and grease at the Miramar Landfill. This program is described in greater detail in Section 6.3.3.

While monitoring storm drain runoff at dry weather monitoring stations, in FY 2006, the City's Storm Water Division also continued to investigate other possible sources of pollutants, including leaking or broken sewer lines. Monitoring staff tested water samples and documented odors of suspect flows. If tests or observations indicated a possible sewer spill, staff used maps to identify locations of sewer lines and investigate the spill location. When potential spills were found, monitoring staff immediately notified MWWD to take appropriate action. In FY 2006, there were no referrals to MWWD regarding potential spills.

Staff Training. In FY 2006, MWWWD conducted three general training classes (53 attendees) and one construction-based training class (24 attendees). These classes covered storm water principles. Most of MWWWD's employees had been trained on storm water pollution prevention in previous fiscal years.

3.3.1.4 *Water System*

The Water Department owns and operates the potable water supply and distribution system for the residents of the City. The City's water system includes 3,000 miles of pipeline, 49 pump stations, three treatment plants, 32 potable water reservoirs, nine raw water reservoirs, and eight groundwater basins. Some of the City's water resources (raw water reservoirs and groundwater basins) are located outside the City limits. The system serves 1.3 million City customers and provides water and water storage to other municipalities and water districts in San Diego County.

In FY 2005, the Water Department received ISO 14001 Certification after its Water Operations Division successfully implemented the ISO 14001 Environmental Management System (ISO 14001 EMS) program. Under this program, the Water Department establishes annual objectives and targets for improvements in environmental performance, and Department employees perform their daily activities with an increased awareness and commitment to water quality protection and pollution prevention. In FY 2006, the Water Department continued to implement ISO 14001 Certification requirements, which included implementation of BMPs during cleaning and construction, responsible material delivery and storage, habitat/water quality protection, hazardous waste management, etc.

The Water Operations Division also maintains a Watershed/Storm Water Program that strives to meet the objectives set forth in the City's Urban Runoff Management Plan. In FY 2006, the Watershed/Storm Water Program continued to enforce existing BMPs, perform storm water site inspections at Department facilities, conduct storm water training with Department staff with the help of Department training personnel, and do external education and outreach. A listing of the Water Department's accomplishments is provided below.

Storm Water Pollution Prevention Plans (SWPPPs). The Water Department had previously produced and continued to implement a SWPPP for each of its water treatment plants (Alvarado, Miramar, and Otay) and its maintenance and equipment facilities at the Chollas and San Vicente municipal yards. Construction projects are underway at all three water treatment facilities to meet the future water demands of the City. Each facility is undergoing an expansion to provide increased treatment capacity, and the SWPPP for each facility is updated to reflect these changes as necessary. In FY 2006, the Water Department continued to use as-needed consultants to monitor and inspect the construction activities at these water treatment facilities and other large construction sites to ensure the implementation of the SWPPPs.

Currently, the Water Department maintains 32 potable water distribution reservoirs and 49 pump stations as part of the overall water distribution system. Providing a SWPPP for each of these facilities is considered unnecessary since most pump stations occupy a small area and, therefore, contribute very little runoff. The distribution reservoirs occupy a much larger area but are surrounded by landscaped buffer zones that serve to collect most of the runoff produced on site. A pollution prevention matrix has been developed as an alternative SWPPP. It lists each facility and the main storm water issues related to the facility. In FY 2006, every pump station

and reservoir was inspected at least once per quarter; those facilities that were known to accumulate significant amounts of leaves, pine needles, and other debris were inspected more frequently.

Facility Inspections. In FY 2006, the Water Department frequently inspected all its high priority facilities, namely the water treatment plants and the municipal yards. Monthly site inspections, which included a visual walk-through inspection, were performed by facility maintenance employees. Staff prepared and sent out advisory e-mails to all project and construction managers at the start of the rainy season and in advance of predicted storm events, which reminded them of the need to monitor and maintain storm water BMPs before, during, and after anticipated storm events. A thorough inspection and assessment of each high priority site was performed in September 2005 as part of the annual pre-wet season inspections. Structural BMPs were repaired or replaced as necessary (and as funding allowed). All comments and suggestions noted on the monthly inspection were reviewed, and corrective actions were taken for each site. The SWPPP for each high priority site was maintained by the Water Department's Operations Division and updated as necessary.

The Water Department's distribution reservoirs and pump stations have been classified as low priority by the Watersheds/Storm Water Section and received a quarterly inspection schedule in FY 2006; every three months, the facility maintenance planner scheduled site inspections to be performed by maintenance personnel. Deficiencies that were noted during these inspections were assessed during the pre-wet season inspection of these facilities. Deficiencies that were reported on the inspection forms were corrected before the beginning of the wet season (or when funding was available). Most deficiencies reported were slope stabilization issues that required placement of fiber rolls at the toe of the slope and/or sprayed tackifiers to promote growth of vegetation along the slope.

Staff Training. In FY 2006, the Water Department continued to integrate storm water pollution prevention courses into its training program. These courses included instruction on proper BMP selection and installation, spill containment, good housekeeping practices during cleaning and construction, responsible material delivery and storage, solid waste recycling management, and overall water quality protection. Table 3-4 summarizes the staff training conducted by the Department.

Table 3-4. FY 2006 Water Department Storm Water Staff Training.

Course Name	Course Length	Number of Courses	Number of Attendees
WU14SW01: Storm Water Pollution Prevention (General)	1 hour	19	151
WU14SW10: Storm Water Pollution Prevention (Lakes)	1 hour	1	2
WU14ZW13: Storm Water Pollution Prevention (Field Operations)	2 hours	3	31
Tailgate Training (general storm water topics; BMP implementation; good housekeeping)	varied	unknown	unknown

In FY 2006, the Water Department continued to produce and display posters throughout various work areas of each Department division and section to celebrate employee commitment to working in an environmentally sensitive manner. Photos featured employees integrating environmental awareness into their jobs, such as carefully handling hazardous waste materials, cleaning up at the jobsite, and recycling paper. They also served as reminders to Department

employees of their role in protecting the environment and valuing customer service in complying with ISO 14001 EMS standards.

3.3.1.5 *Airports*

The City operates two general aviation airports: Brown Field and Montgomery Field. Operations at these facilities are conducted in compliance with General Industrial Permit requirements and according to the storm water program described in the facilities' SWPPPs, and Section 2.1.1, *Airports*, of the City's Urban Runoff Management Plan. BMPs implemented at these facilities, including inspection and monitoring information, are described within each facility's SWPPP.

Numerous industrial tenants and activities comprise airport operations. Therefore, in FY 2006, the City continued to rely on storm water representatives at each airport to work with tenant managers and owners to ensure storm water requirements are implemented at all times. Representatives also worked with vendors and the Environmental Services Department to ensure that hazardous materials, such as fuel/oil, batteries, and cleaning solvents, were stored and used appropriately and that hazardous wastes were disposed of properly.

Facility Inspections. In FY 2006, the aviation facilities, including tenant space, were inspected per the procedures outlined in their facility SWPPPs. The following inspections were conducted at Brown Field: four industrial activity area observations; four BMP evaluations and observations; eight storm water visual inspections; and one group leader inspection. No deficiencies were noted. Deficiencies noted during the 2006 Annual SWPPP Inspections at Montgomery Field were corrected the same day for all industrial activities, and the General Industrial Permit Annual Report was submitted to the consultant firm, Environmental Compliance Options (ECO). Where issues had been identified, City staff conducted follow-up inspections to ensure that issues had been addressed.

For a description of the BMPs implemented by the City and its tenants at its aviation facilities, refer to the Brown Field's and Montgomery Field's FY 2006 *Activity Reporting Forms* in Appendix B.

Staff Training. In FY 2006, two of the four members (50%) of the Brown Field staff received storm water training at Newport Beach.

3.3.1.6 *Solid Waste Facilities*

The City of San Diego currently operates and maintains one active and six inactive landfills. During the reporting period, activities in compliance with General Industrial Permit requirements were performed at all active and inactive landfills, and the BMPs established in each facility SWPPP were implemented. A summary of the BMPs implemented at City-operated landfills is provided below:

Active Landfill (West Miramar Landfill)

The Environmental Services Department (ESD) maintains the siltation basins at the landfill to ensure effectiveness. Material from the basins is collected when necessary and disposed of properly. Erosion and sediment control measures, including mulch, tackifier, and straw wattles are put in place, where necessary. Concrete and asphalt areas, including parking areas, are swept monthly and hand sweeping was done as needed. Monthly inspections are performed at the site to ensure the working condition of BMPs and drainage structures. Hazardous wastes are properly stored and inspected on a weekly basis.

Inactive Landfills

In FY 2006, erosion and sediment control measures (such as mulch) were put in place, where necessary. Quarterly inspections were performed at the sites to ensure working condition of BMPs and drainage structures.

For detailed information about the BMPs implemented at City landfills, refer to ESD's FY 2006 *Activity Reporting Form* in Appendix B.

3.3.1.7 *Solid Waste Services*

Program achievements during FY 2006 include: numerous workshops and presentations on various topics, including recycling, energy, and composting; holding community recycling events; informing residents about recycling and various programs through public service announcements and newsletters; implementing recycling programs for City staff; and conducting awards ceremonies to recognize businesses for implementing environmentally sound practices.

In addition, additional BMPs were continued to be implemented during trash collection activities in FY 2006. Each trash truck carried sand, and additional sand was stored in containers at the Miramar operations yard to be used in the event of hydraulic/fluid spills. Vehicle operators were trained to cover an oil spill with sand and to protect nearby storm drains.

3.3.1.8 *Household Hazardous Waste Transfer Facilities*

ESD implements the Household Hazardous Waste (HHW) Program for the City and is responsible for the investigation, maintenance, collection, and remediation of hazardous substances, including HHW, from facilities, residents, vacant land, and other City departments. ESD operates one permanent HHW Transfer Facility at Miramar Landfill, as well as several temporary collection facilities throughout the City. A summary of the BMPs implemented in FY 2006 at these facilities is provided below.

Permanent Facilities

Parking Lots/Landscaped Areas

Erosion and sediment control measures, such as mulch, woodchips, and silt fences, were implemented and maintained, where necessary. Asphalted areas were street swept monthly and hand sweeping was done, as needed. Absorbent materials were used to clean up any fluids leaking from vehicles, which were sent to the Equipment Division for repairs.

Trash Bins/Roll-offs

Measures were taken to prevent pollution from trash bins and roll-off containers. Lids or covers were provided for trash bins and kept closed. Empty containers were bagged prior to being placed inside roll-off containers. Cardboard bins were covered or stored under cover.

HHW Operations Area

Sorting and packaging of hazardous waste were performed only in designated areas. BMPs were implemented when loading and unloading hazardous wastes from vehicles and in designated areas to prevent pollution from potential spills. All hazardous wastes were stored inside in storage lockers equipped with fire suppression and secondary containment, or outside on secondary containment pallets and covered. The storm drain at the site was protected with a gate valve and kept closed during hours of operation. Storage areas were inspected weekly for leaks.

Temporary Facilities

Sorting and packaging of hazardous waste was performed only in designated areas. BMPs were implemented when loading and unloading hazardous wastes from vehicles and in designated areas to prevent pollution from potential spills. Leaking material was immediately packaged into containers to prevent spills. Wastes were packaged in drums or pumped into a truck for transportation. Steps were taken to ensure that nearby storm drains and other areas were protected from leaking material or in the event of a spill. All wastes were removed from the site at the end of the day. Waste materials were stored on pallets to prevent pollutants from contaminating asphalt/concrete areas. If inclement weather was predicted, BMPs were put in place to prevent waste materials from coming into contact with precipitation. Good housekeeping measures were implemented at all sites. Hand sweeping and litter pickup were performed at the end of events, as needed. Operations such as hand washing stations were conducted on pervious areas.

For more detailed information on BMPs conducted at HHW facilities, refer to ESD's FY 2006 *Activity Reporting Form* provided in Appendix B.

3.3.1.9 Qualcomm Stadium

The City owns and operates Qualcomm Stadium, a multi-purpose facility built to accommodate a wide variety of activities, including field events, such as baseball, football, concerts, and soccer matches, and parking lot activities, such as new and used car sales, drag racing, community service events, and RV shows. Qualcomm Stadium's water quality protection activities are described in a SWPPP for the 166-acre site. A summary of the BMPs implemented at Qualcomm Stadium in FY 2006 is provided below.

- The area immediately surrounding all storm drains located inside the Stadium were re-painted in white with blue lettering to convey the message: *Think Blue – No Dumping – Goes To Ocean / No Tire Nada – Llega al Mar.*
- The dirt pile stored on site (6,000 cubic yards of soil) used for dirt show events was sprayed with an anti-erosion hydro-mulch stabilizer to prevent soil migration into the storm drains. In addition, sandbags (three stacks high) were placed around the entire dirt pile along with K-Rail in the more susceptible areas to further prevent soil migration.
- Sandbags were set around storm drains along the field perimeter and around those located at the W Tunnel loading dock. All storm drains located in the Stadium's parking lots where major annual events take place (e.g., Street Scene, auto/RV shows, Home Show, etc.) were covered and sealed to prevent any liquids and solids from entering.
- During stadium wash-downs that followed events, street sweepers were operated to capture any water that might have migrated across the parking lots before it reached the storm drains. All trash was cleaned as quickly as possible to reduce the possibility of trash being blown or washed into the storm drain system. In addition, Stadium staff and the San Diego Urban Corps implemented an aggressive and comprehensive cleaning program to capture recyclable trash immediately following events to successfully minimize recyclables making their way to the landfill and storm drains.
- Stadium staff and a Storm Water Division representative met with parking lot vendors and clients on site and discussed storm drain issues and proper storm drain management and protection methods. All parking lot contracts, agreements, and

permits issued to clients and vendors included enforceable language on proper storm drain protection, including the use of sandbags and grate covers.

- On December 7, 2005, there was a major fire at the main entrance to the Stadium caused by an overturned fuel tanker. Immediately following the accident, Stadium staff created a safety zone surrounding the inside area at the main gate by using barricades and caution tape with employees serving as parking lot traffic controllers until Fire-Rescue Department personnel arrived. Stadium staff secured storm drains within the affected area with sandbags and began hauling sand from the on-site storage bins and damming larger areas around the storm drains. When personnel from the City's Street Division arrived with additional heavy equipment to continue with storm drain protection, Stadium staff assisted with its equipment and provided the sand and soil to complete the protection of all storm drains and the San Diego River. Throughout the remainder of FY 2006, Stadium staff continued to assist authorities with storm drain cleanup and soil remediation from the tanker fire.
- During the Street Scene production meetings leading up to the event held in late July 2005, Stadium staff reviewed storm drain protection policies with the promoter. Included in the contract for use of the parking lots was language on covering all affected storm drains to prevent anything from entering the storm water conveyance system throughout the setup, two-day show, and teardown. Prior to and during the event, Stadium staff monitored the storm drains to ensure that they were completely protected throughout the event, as well as during the setup and teardown.

For more detailed information about BMPs implemented at Qualcomm Stadium, refer to the Stadium's FY 2006 *Annual Reporting Form* provided in Appendix B.

Facility Inspections. In FY 2006, daily inspections were performed throughout the Stadium property to detect and prevent any existing and potential problems associated with water and debris reaching the storm water conveyance system. Sandbags around storm drains were inspected, trashed was cleaned away from storm drains and grates, and all storm drains that were to be impacted by events were inspected for proper coverings. Refer to the completed *Municipal Inspection Form* for Qualcomm Stadium in Appendix B (**Comment No. 3, SWU:10-5015.02:hammp**).

Staff Training. In FY 2006, all Stadium staff received month training on storm drain issues by way of tailgate meetings. Items covered during the meetings included the importance of keeping storm drains clean and clear by not allowing anything to enter them. Each staff member was directed to stop anyone from pouring anything into a storm drain and to immediately contact their supervisor if such activity occurred. In total, 11 storm water staff training events were held. Thirty-five employees (58%) received training on activity specific storm water principles.

3.3.1.10 *Municipal Yards and Operation Stations*

City departments perform a variety of activities at the three municipal yards (Chollas Operations Yard, Rose Canyon Operations Yard, and the Central Operations Station [also called "20th & B"]) and other operation areas. During FY 2006, City departments operating at the three municipal yards implemented SWPPPs. A summary of BMPs implemented at the municipal yards is provided below.

Sweeping

Parking lots and operation areas were swept at all municipal yards either by hand or by street sweeping vehicles. Some areas, such as the sand storage area, were swept based on a schedule, while other lower priority areas were swept as needed. For example, the Facilities Maintenance Division's areas at the 20th & B Operations Station were swept quarterly. Two street sweepers purchased by the Environmental Services Department and the Water Department in FY 2003 were used to facilitate routine maintenance and cleanup at municipal facilities. An additional small street sweeper was purchased by the Equipment Division and used at the Rose Canyon Operations Yard.

Trash

Municipal yards were inspected at least annually for litter and debris (among other issues) and cleaned as needed. High use areas with the greatest potential to collect trash/debris were generally inspected and swept more frequently as part of yard employees' standard procedures. Municipal grounds, including parking areas, were kept free of trash and other items that could possibly enter the MS4. "Annual Yard Cleanup Days" were conducted to clean municipal grounds of litter and debris and involve City staff in performing good housekeeping measures.

Trash receptacles were provided throughout municipal yards and emptied as needed. Trash bins were provided with lids and kept closed. Overhead cover for open recycling bins was provided to prevent contact with storm water. Trash receptacles were washed in designated areas to prevent wash water from entering the MS4.

Materials Storage

Materials at municipal yards were properly stored to prevent pollutants from entering the MS4. Where possible, materials, such as used batteries, were stored inside. BMPs such as tarps, secondary containment, or berms were used when materials were stored outside. Materials were stored away from storm drain inlets and in many cases were placed on pallets off the ground. Hazardous materials/waste were always stored inside or within secondary containment areas.

Vehicle Maintenance/Operations

The Equipment Division of the General Services Department dedicated one crew member to maintain all wash/steam racks and automated truck washes at each applicable municipal yard.



Figure 3-2. Grass Swale at Municipal Yard.

The Equipment Division of the General Services Department dedicated one crew member to maintain all wash/steam racks and automated truck washes at each applicable municipal yard. These crew members were trained in activity-specific storm water issues and conducted bi-weekly inspections.

Drip pans were used for vehicles with potential leaks to capture any automotive fluids. Vehicle repairs were performed inside, when possible, with the exception of minor repairs that did not involve fluids. Absorbent materials were used to clean up any fluids leaking from a vehicle.

Structural BMPs installed in FY 2003 at the 20th and B Operations Station vehicle wash area continued to be used to reduce and prevent excess water from discharging to the MS4 (see **Error! Reference source not found.**). In addition, berms constructed in FY 2003 to contain

runoff in other areas where vehicles are washed also continued to prevent excess water from discharging to the MS4.

Equipment Division personnel continued to implement good housekeeping practices, such as regular sweeping instead of hosing down.

At the Chollas Operations Yard, construction of a major remodel of the fuel island began in February 2004. The remodel, completed in FY 2005, included grade and elevation changes to control runoff, installation of a storm water sump with filtering system, and installation of a canopy. In FY 2006, the storm drain filter/separator serving the fuel island was cleaned on a monthly basis.

Spill Prevention and Cleanup

BMPs, such as good housekeeping and materials for spill capture and cleanup, were used to prevent pollutants from entering the MS4. Absorbent materials were used in many areas, such as around storage bins and as mats in garage areas, to catch leaks. These materials, in addition to spill kits, were made available in the event of an accidental spill. Procedures were also put in place for the prompt containment and cleanup of spills. Catch basins and drip pans were commonly used to capture leaks. Materials such as fiber rolls were used around selected storage bins and drain inlets.

Erosion and Sediment Control

Erosion and sediment control measures, such as silt fences were implemented at municipal facilities, as needed to prevent sediment from being transported to the MS4. At the Chollas Operations Yard, the Street Division replaced standard gravel bags with new longer-lasting Kevlar bags at the Roadways materials storage area, created a berm and weir to control runoff from the storage area, and installed a silt fence and Kevlar bags to reduce sediment runoff. These BMPs were maintained on a quarterly basis or as needed during the rainy season.

Other BMPs

- Wood pallets were used to place all Electrical Section stored material off the ground.
- Sumps contained runoff from washrack areas. These sumps were maintained and cleaned out as needed.
- Measures such as gravel bags straw wattles and grass swales were used to protect storm drain inlets.
- No garden hoses were connected to outside spigots.
- Activities were performed inside, where possible.
- Operations conducted outside were contained, when possible and areas were cleaned up when activities were completed.
- All debris, such as paint, concrete, plaster, etc. occurring as a result of operations were disposed of properly.
- Soiffloc™ was dispensed in the main silt basin at the West Miramar Landfill to enhance the settling of silt and clay (small particles) before discharging to San Clemente Creek.
- Silt-laden runoff was pumped from the main silt basin at the West Miramar Landfill between storm events and redispersed into the top deck mulch area.
- Silt was removed from the main silt basin at the West Miramar Landfill.
- Silt fencing was maintained at the active West Miramar Landfill.
- Mulch was applied to slopes at the West Miramar Landfill as needed.
- Tackifier was applied to selected landfill slopes as needed.

- Straw wattles were added to landfill slopes where necessary.

Inspection

Municipal areas were inspected at various frequencies (bi-weekly, monthly, quarterly) to ensure that BMPs were in good working order and that grounds were free of debris and spills and leaks from equipment or materials. At a minimum, all municipal facilities were inspected once in FY 2006. Wastewater collection drains were also inspected and maintained when needed.

For detailed BMPs implemented at municipal yards and operations stations, refer to the Equipment Division's, Street Division's, Environmental Services Department's, Water Department's, and the Facilities Maintenance Division's FY 2006 *Annual Reporting Forms* provided in Appendix B.

3.3.1.11 *Environmental Services Department Facilities*

The Environmental Services Department continued to implement the following BMPs at the Ridgehaven Court "Green Building" in FY 2006:

- Excess and fallen debris/vegetation was collected from the surrounding canyons to prevent from entering the storm drain system.
- Walkways were swept daily to remove trash and debris.

3.3.1.12 *Parks and Recreational Facilities*

The City's Park and Recreation Department is responsible for overseeing and maintaining 36,300 acres of developed and undeveloped open space; 337 parks including Balboa Park, Mission Trails Regional Park, and Mission Bay Park; 25 miles of shoreline from Sunset Cliffs to La Jolla; 13 pools that are open year round; three public golf complexes; 51 recreation centers; and 25 tennis sites.

In FY 2006, the Park and Recreation Department continued to implement its *Master Set of Best Management Practices Manual*, which was developed as a storm water pollution prevention reference guide for employees. The Manual includes 31 specific BMPs that are divided into four categories: organic, maintenance, chemical, and administrative. The Manual was developed to provide employees with a standard and consistent approach for performing job activities and reducing and eliminating impacts to water quality.

In FY 2006, ESD staff coordinated with Petco Park staff on the removal of 70,000 square feet of sod and reused it to cover nearly two football fields of a Park and Recreation Department site. This activity prevented the loose dirt from the site from entering the storm drain channel.

Staff Training. In FY 2006, 768 out of 1,235 (62%) Park and Recreation Department employees received training in activity-specific storm water principles, and 245 supervisors received training on storm water statistics collection. Twelve storm-water-related training sessions were conducted.

Cleanup Activities. In FY 2006, the Park and Recreation Department collected through staff and contract programs over 19,785 tons of trash. Cleanups were conducted during and after major holidays (e.g., Independence Day).

Facility Inspections. In FY 2006, the Park and Recreation Department performed inspections of its facilities, including those that it shared with other entities (such as schools). Refer to the completed *Municipal Inspection Forms* for Park and Recreation Department facilities in Appendix B (**Comment No. 3, SWU:10-5015.02:hammp**).

For more information on the BMPs implemented at City parks and recreational facilities, refer to the Park and Recreation Department's FY 2006 *Annual Reporting Form* in Appendix B.

3.3.1.13 *Police Facilities*

The City's Police Department maintains 13 facilities. These facilities consist of a police headquarters, police stations and garages, a horse stable, a pistol range, and a canine facility. A summary of the practices implemented by the Police Department in FY 2006 is provided below:

- Operational BMPs were implemented for the Police Mounted Unit to provide for the clean up of horse manure on City streets and other public places.
- At the Police Headquarters building, the landscape irrigation was reduced to avoid excess runoff. Trash pickup and tailgate meetings were held twice a week to update staff on the BMPs being implemented for the Headquarters building.
- Informational meetings were held with staff sergeants and other personnel to assure that BMPs were understood and being implemented.
- The Police Department conducted scheduled cleanings of parking lots, inspections of rooftop drains and gutters, trash pickups, and cleaning of storm drain inlets to prevent contaminants from reaching floodways.
- The Police Department spent \$77,186 in FY 2006 to clean up contaminants from City streets and sidewalks. Irrigation components were maintained and repaired as necessary to avoid excess runoff.

Additional BMPs first implemented in FY 2003 and FY 2004 continued to be employed in FY 2006, including:

- Lids were provided for all dumpsters and were kept closed at all times.
- Leaking dumpsters were replaced, as needed.
- Irrigation systems were maintained and adjusted, as needed, to prevent excess runoff.
- Facilities, including storage areas, storm drain inlets, and roof drains, were inspected regularly to prevent contamination of waterways.
- Trash and litter abatement procedures were implemented at all facilities, including parking lots.
- The Police Department implemented BMPs for the Air Support Unit located at Montgomery Field. Personnel assigned to that unit received training on these BMPs.
- Spill kits were provided for prompt cleanup of leaking vehicles or accidental spills.
- Hazardous materials were properly contained.
- BMPs were used to protect storm drain inlets near fueling stations and at the horse facility.
- Roll-off bins were properly covered, when necessary, to prevent storm water contact.
- Modified drainage at the pistol range and stables prevented contaminated runoff from entering the MS4.

- Procedures for washing vehicles and horse trailers were in place. Horses were only washed in designated areas. Horse manure and dog feces were collected and properly disposed of.

Refer to the completed *Municipal Inspection Forms* for Police Department facilities in Appendix B (**Comment No. 3, SWU:10-5015.02:hammp**).

For more information on BMPs implemented at Police facilities, refer to the Police Department's FY 2006 *Annual Reporting Form* provided in Appendix B.

3.3.1.14 *Fire Department Facilities*

The City's Fire-Rescue Department maintains forty-seven facilities and has developed and implemented a SWPPP for operations at these facilities. A summary of the BMPs implemented by the Fire-Rescue Department in FY 2006 is provided below:

In newer fire stations, all equipment was only washed in designated areas where water runoff was contained. Spill kits and drip pans were provided and used at all applicable facilities. Parking lots and other outdoor areas were routinely cleaned using dry sweeping methods. Water used for cleaning or other outdoor activities it was contained and disposed of properly. The irrigation system was adjusted to reduce excess runoff. BMPs were posted at all fire station bulletin boards.

For more information on BMPs implemented at Fire-Rescue Department facilities, refer to the Fire-Rescue Department's FY 2006 *Annual Reporting Form* and completed *Municipal Inspection Forms* provided in Appendix B.

3.3.1.15 *City-Owned Leased Property*

The Real Estate Assets Department (READ) is responsible for overseeing City-owned leased property, including commercial, industrial and residential land uses. In addition to training staff in general storm water requirements, READ implemented additional BMPs in FY 2006. The following is a summary of these BMPs:

- Fifty-three City-owned leased and non-leased properties were inspected in FY 2006. Appropriate storm water pollution prevention fact sheets were distributed at the time of inspection. A copy of each completed checklist is maintained in READ's records retention files. Of the 53 properties, six of them were City-owned non-leased properties, and the completed checklist for each of these properties is included in Appendix B.
- Standard lease language requiring Water Quality Management Plan compliance and preparation was incorporated into all new/renewal leases. During the reporting period, there was a total of seven new or amended leases that included the storm water language.

For more information on BMPs implemented by the READ, refer to READ's FY 2006 *Annual Reporting Form* and completed *Municipal Inspection Forms* provided in Appendix B.

3.3.2 ***Training of Municipal Employees***

City staff received training in general storm water issues and requirements. Employees also received training aimed at reducing or eliminating the discharge of pollutants from specific

activities (activity-specific training). A summary of these trainings are provided in Section 12, *Education*.

3.4 MANAGEMENT OF PESTICIDES, HERBICIDES, AND FERTILIZERS

In FY 2006, the City took measures to reduce the contribution of pollutants associated with the application, storage, and disposal of pesticides, herbicides, and fertilizers from municipal areas and activities to the City's MS4. The Park and Recreation Department implemented BMPs included in its *Master Set of Best Management Practices Manual* developed as a storm water pollution prevention reference guide for employees. BMPs were implemented in priority areas, such as parks, landscaped areas, and municipal yards.

3.5 MUNICIPAL FACILITY INSPECTIONS

The City requires applicable City departments to inspect all high priority municipal facilities annually at a minimum. All municipal facilities were inspected in FY 2006. In many cases during the reporting period, municipal facilities were inspected more frequently, either formally (i.e., filling out a *Storm Water Municipal Inspection Form*) or informally (i.e., visual observations and walkthroughs). A copy of the *Storm Water Municipal Inspection Form* is provided at the end of this section.

The City took measures to ensure that all municipal facilities were in compliance with the requirements of the municipal permit and the City's Urban Runoff Management Plan. During the reporting period, if any issues were identified during facility inspections, the storm water representative responsible for inspections was trained to work with appropriate personnel to ensure that issues were addressed and ultimately resolved. These issues were reported to the Storm Water Division and were documented the using *Storm Water Municipal Inspection Form*.

Table 3-4 below is a summary of issues identified during both routine inspections and program evaluations at municipal facilities in FY 2006 and the actions that were taken to correct the problem (**Comment No. 4, SWU:10-5015.02:hammp**).

Table 3-4. Issues Identified During Inspections of Municipal Facilities.

Storm Water Issue Identified	Action Taken to Correct Problem
Need roof over fueling area	Observation at Fire-Rescue facilities; BMPs currently implemented to prevent/minimize runoff contact with fuel; if capital improvement projects to the fueling areas are required, then placement of the roof will be considered
Need readily available drip pans	Observation at park and recreation facilities; will consider prioritizing the acquisition of pans in future fiscal years
Need to keep trash cans and garbage bins covered	Emptied as required; will consider acquisition of covered trash cans in future fiscal years
Evidence of drips or leaks from equipment	Replaced leaking backflow equipment
Existence of pools/puddles	Reduced/eliminated over-irrigation
Unpaved areas subject to scour or erosion during rainfall	Asked for gravel
BMPs at storm drain inlets, catch basins, and curb inlets neglected	Gravel bags replaced; leaves removed; gravel removed from drains

Storm Water Issue Identified	Action Taken to Correct Problem
Sediment and debris accumulation in concrete swale	Cleaned concrete swale of sediment
Need better housekeeping	Removed dry tree leaves

3.6 ENFORCEMENT AND COMPLIANCE

3.6.1 *Hotline Complaint Investigations*

The Storm Water Division manages the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including municipal areas.

3.6.2 *Enforcement Actions*

The Storm Water Division's Investigation and Enforcement Section enforces the City's *Stormwater Management and Discharge Control Ordinance* (§43.03 of the Municipal Code) Citywide, including municipal facilities and activities. The Storm Water Division took measures to ensure that all municipal facilities were in compliance with the requirements of the Municipal Permit and the City's Urban Runoff Management Plan. As described above, issues identified during municipal inspections are reported to the Storm Water Pollution Prevention Division and are documented on the municipal inspection forms.

In FY 2006, Storm Water Division Code Compliance Officers conducted approximately 32 investigations of potential discharges at municipal facilities or activities. Code Compliance Officers issued eight notices of violation. The remainder of the investigations resulted in the Code Compliance Officer determining that a storm water violation had not occurred, the discharge was not caused by the municipal activity/department/division, education was conducted, or a referral was made. See Appendix F for information about enforcement actions taken at municipal sites.

3.7 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

Future activities to be conducted at municipal facilities and activities are identified throughout the City's Urban Runoff Management Plan. Amendments to the City's Urban Runoff Management Plan associated with the Municipal Program are provided as Appendix A.

With the anticipated adoption of the Municipal Permit in mid FY 2007, the City will be gearing up for a major update of the Urban Runoff Management Plan. Storm Water Division staff will coordinate with the various departments and divisions to refine their storm water programs.

Figure 3-3. Municipal Inspection Form.

City of San Diego - Urban Runoff Management Plan
ANNUAL MUNICIPAL FACILITY SITE COMPLIANCE INSPECTION CHECKLIST
 Page 1 of 2

Inspector: _____ Phone Number: _____ Date/Time: _____		
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I. Facility Information

Facility Name		
Street Address	Zip Code	
Facility Contact Person	Phone	
Standard Industrial Classification Code	Waste Discharge Identification Number	APN No.

II. Shared Facility Information
 Is there more than one City department and/or division sharing this facility?
 _____ No (skip this section) _____ Yes (complete this section)

Name of City Departments and/or Divisions Sharing Facility	Contact Person and Phone Number	Covered by this Inspection?

III. General Site Conditions and Runoff Management Practices Review

		S*	U*	N/A	Comments
General	Employees trained in storm water pollution prevention practices?				
	Common areas of yard reasonably clean and free of litter and debris?				
	Are parking areas generally clean and swept as needed?				
	Are storm drain inlets reasonably clean and free of debris?				
	Is there evidence of discharges, spills, and or leaks in any areas?				
Trash storage areas	Is area reasonably clean and uncluttered?				
	Are trash cans and garbage bins kept covered?				
Fueling areas	Is there a roof on fueling area?				
	Is there a mechanism in place for spill overflow protection?				
Vehicle/equipment maintenance area	Area reasonably clean and free of spills, leaks, or any other deleterious materials?				
	Is area covered overhead?				
	Dry clean up methods implemented?				
	Are there drip pans readily available for use?				
	Spill containment and cleanup kits readily available?				
	Storage areas covered and properly maintained?				

* S = Satisfactory, U = Unsatisfactory

Figure 3-4 Continued.

Page 2 of 2

III. General Site Conditions and Runoff Management Practices Review (Cont.)

		S	U	N/A	Comments
Vehicle/equipment washing areas (cont)	Are related activities contained within designated area?				
	Hazardous materials/liquids stored above ground?				
	Are there containment mechanisms in place?				
Materials loading and storage areas	Area reasonably clean and free of litter and debris?				
	Designated area covered overhead?				
Chemical handling areas	Areas reasonably clean and organized?				
	Is area indoors or properly covered?				
	Spill containment cleanup kits readily available?				
	If outdoors, is water from surrounding areas prevented from reaching chemical handling areas?				
	Hazardous materials/liquids stored above ground?				
	Dry clean up methods implemented?				

IV. Water Quality Management Plan (WQMP) Review**
 Has a WQMP (or SWPPP) been developed for this yard? _____ Yes (complete this section and skip section V)
 _____ No (skip this section and complete section V)

		S	U	N/A	Comments
Facility site map	Identifies drainage areas and direction of flow				
	Identifies location of storm water conveyance system including ditches, inlets and storm drains				
	Identifies location of any existing storm water controls (e.g., berms, filters, grass swales, etc.)				
	Identifies location of building(s) and activity areas (e.g., fueling islands, hazardous materials storage areas, washing areas, etc.)				
Materials/activities used on site	List materials stored and handled on site, including storage location and typical quantities				
	Includes a narrative description of activities conducted on site which have the potential to result in discharges to storm drain system				
Potential Pollutants	Identifies potential pollutants which could be discharged from site given activities conducted at facility				
Best Management Practices (BMPs)	Describes BMPs implemented at facility to deal with each potential pollutant source identified				
	Minimum City wide BMPs listed				
	Storm water system regularly inspected/monitored				
Record keeping	Employee training records				
	Quarterly inspections records, if any				
	Storm water conveyance system monitoring (2/yr) ¹				

**The term Water Quality Management Plan (WQMP) is replacing the term Storm Water Pollution Prevention Plan (or SWPPP) for municipal facilities.

V. Water Quality Management Plan Status
 Is facility in the process of developing a WQMP?
 _____ Yes, expected completion date: _____
 _____ No, this facility does not need a WQMP because _____

VI. Additional Comments (attach additional pages if necessary)

¹ Only required for NDPES General Storm Water Permit holders

4 INDUSTRIAL

The City continued to implement its Industrial Program during FY 2006. The City hired an environmental consultant/contractor qualified in conducting industrial inspections during this past fiscal year to assist with implementation of the industrial inspection program, to conduct inspections of industrial facilities, and to maintain an industrial inspection database. In addition, the City uses other City programs to conduct additional inspections of industrial facilities. The FY 2006 accomplishments achieved in each of these program elements are further described below.

4.1 PRIORITY SOURCES

The City commissioned its environmental consultant to review all available records in order to determine an inventory of industrial businesses. The City’s consultant evaluated over 68,800 entries in order to determine an inventory. The City’s watershed based prioritized inventory is included in Appendix C-1, which includes the name and address, watershed, a description of the activities, NAICS code, and priority taking into account pollutants generated and proximity to environmentally sensitive areas (**Comment No. 24, SWU:10-5015.02:hammp**).

The City’s consultant, using the process illustrated in the flow chart in Figure 4-1, determined the priority of evaluated businesses. The City’s method for prioritizing industrial facilities is illustrated in the flow chart below. This prioritization flow chart shows the six water quality threat factors considered when assigning priority, including the factors raised in **Comment No. 5 of SWU: 10-5015.02:hammp**. If the water quality threat for a facility is “yes” from any of the first five factors, the facility is ranked as high priority. A “yes” to the sixth water quality factor ranked the facility as medium priority. Facilities that receive “no” for all six factors were ranked as low priority.

The City’s consultant, based on prioritization, identified 530 businesses that potentially needed inspection, summarized in Table 4-1.

Table 4-1. Summary of Businesses Selected for Inspection.

Facility Category ¹	Number Selected
BMP Follow-Ups	63
Paperwork Follow-ups	32
Annual HPI Inspections / Aggregate Facilities	10
Annual HPI Inspections / Recycling Facilities	30
Routine Inspections / New NOI	16
Routine Inspections / Potential Non-Filers	348
Routine Inspections / Hanson Tenant	14
Routine Inspections / Miscellaneous Additions	17
Total	530

¹ WHILE SOME BUSINESSES FELL INTO MORE THAN ONE FACILITY CATEGORY, BUSINESSES ARE ONLY REPRESENTED ONCE IN THE TABLE ABOVE, INCLUDED IN THE CATEGORY THAT BEST DESCRIBES THE PRIMARY REASON THE BUSINESS WAS SELECTED FOR INSPECTION.

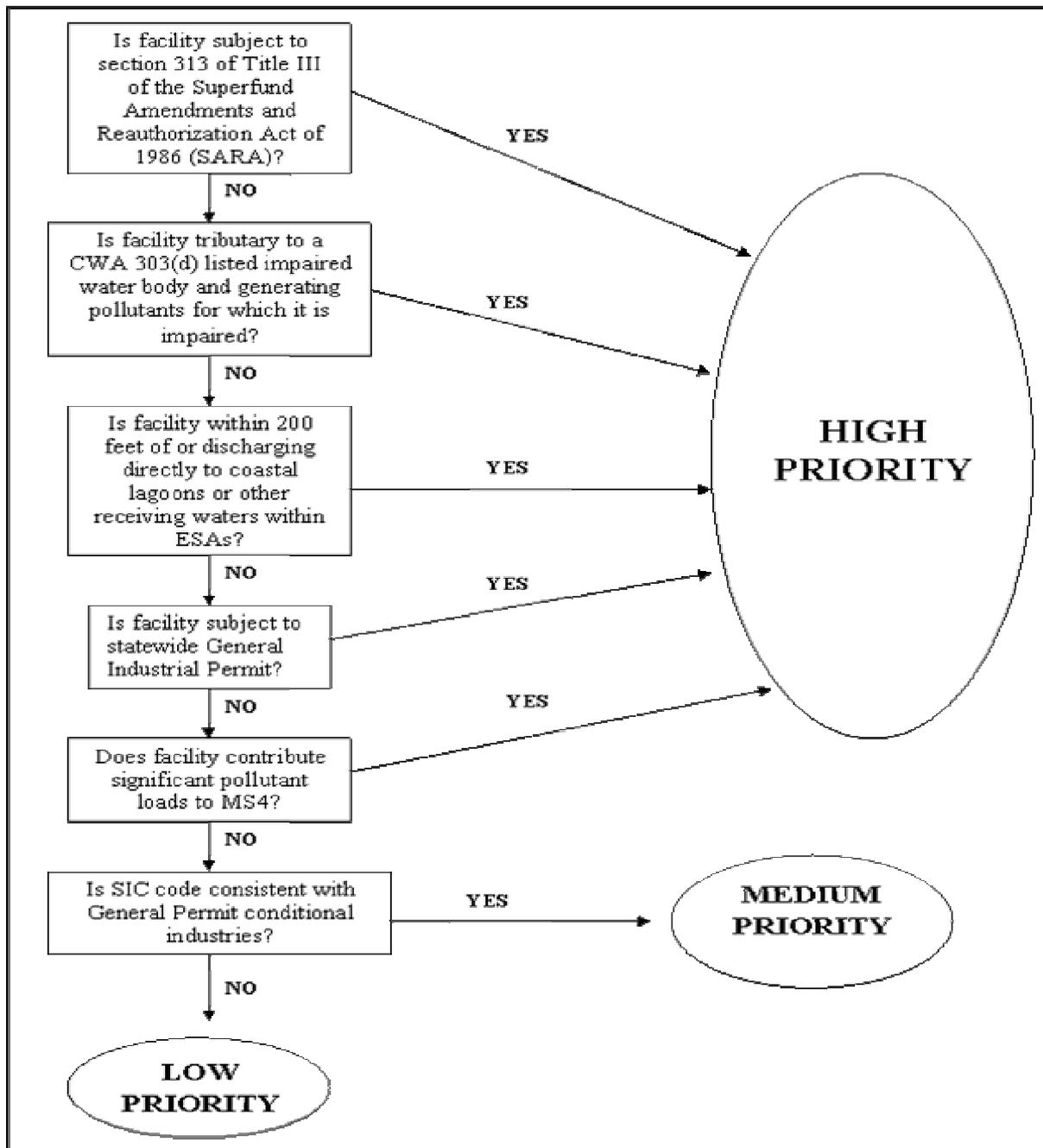


Figure 4-1. Industrial Facilities Water Quality Threat Prioritization Flow Chart.

4.2 BMP REQUIREMENTS

Minimum BMPs required for industrial facilities within the City are identified in Section 2.5, *Industrial and Commercial Uses*, of the City's Urban Runoff Management Plan. Industrial Facilities must also comply with the requirements set forth in the City's Storm Water Ordinance. The City also uses the California Stormwater Quality Association (CASQA) Industrial Handbook as a guidance document for industries implementing the required BMPs. When reissued by the San Diego Regional Water Quality Control Board, the City will review the newly updated Industrial Storm Water General Permit for changes in BMP requirements.

4.3 BMP IMPLEMENTATION

To ensure facility compliance of these required BMPs and other storm water regulations, the City conducts inspections and investigations of facilities and takes enforcement actions where appropriate. A very important element of the Industrial Program is conducting education and outreach efforts to industries. These program components are further described below.

4.3.1 Education and Outreach

The City has an ongoing education and outreach element included in its industrial sector management. Industrial inspectors distributed fact sheets and educational information during inspections as appropriate. These materials are described and highlighted in the following sections.

Fact Sheets

Fact sheets with information specific to industrial facilities and activities were distributed during inspections conducted during the reporting period. Fact sheets with topics applicable to both industrial and commercial activities include:

- Best Management Practice Websites
- Industrial Facilities/Regulations
- Industrial Facilities/Permit Compliance
- Impervious Surfaces
- Dumpsters & Loading Dock Areas
- Spills

In FY 2006, these fact sheets were provided to industries during inspections, investigation, via the *Think Blue* website, or whenever requested. Over 45,000 were distributed with business license renewals during FY 2006 as well.

Think Blue Website

In FY 2006, the *Think Blue* website continued to provide information for industrial facilities within the City about storm water regulations and facility and activity requirements. The website posted the fact sheets created for industrial facilities as well as the City's Urban Runoff Management Plan, which outlines required BMPs for industrial sites. The website also provided resources and links for industries on BMPs.

Industrial Facility Leases

The Real Estate Assets Department amended new and renewing leases to include storm water requirements for City-owned leased property, including industrial sites. This language educates leaseholders that they must take measures to reduce the discharge of pollutants in runoff and can and will be accountable if storm water requirements are not met. In FY 2006, all new and amended leases contained language on storm water pollution prevention.

4.4 ENFORCEMENT AND COMPLIANCE

The City takes measures to ensure that facilities are complying with industrial storm water regulations. These include routine inspections, hotline complaint investigations, and enforcement actions, where necessary. These steps are described below.

4.4.1 Industrial Facility Inspections

Based on the prioritization process, 315 facilities received full industrial inspections. A complete inventory of inspections is included as Appendix C-2. The inspection inventory includes the prioritization, watershed, and inspection date for each facility. A list of those facilities that were inspected by the Metropolitan Waste Water's Pretreatment Program is included as Appendix C-3. A list of those facilities that were identified but not inspected and justifications is included as Appendix C-4. The City certifies that the industrial facilities listed in Appendix C-5 meet all the requirement of Order No. 2001-01, Section F.3.b.(6).(b).ii.

4.4.2 Complaint Investigations

The Storm Water Division operates the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including industrial facilities. A total of 1,902 contacts were logged by staff and 1,531 investigations were carried out by Code Compliance staff (remaining contacts were requests for information). Of these, approximately 19 investigations were conducted at industrial sites in FY 2006.

4.4.3 Reporting of Non-Compliant Sites

All inspections performed at industrial facilities, including inspection information and findings, are reported to the Regional Board. A complete list of facilities report to the Regional Board for violation of the State Industrial Permit is included as Appendix C-6.

4.4.4 Enforcement Actions

The City's process for inspection of industrial facilities ensures that appropriate enforcement actions are taken on facilities with violations of the City's storm water ordinances. During this reporting period, there were no instances of active discharges requiring enforcement; violations noted were concerned with improper or inadequate BMP installation and maintenance. Due to the non-discharge nature of the violations noted during inspections, education was the main enforcement action conducted. Appendix C-7 and Table 4-2 provide a summary of the enforcement actions (primarily educational) taken (**Comment Nos. 7 and 8, SWU:10-5015.02:hammp**).

Inspections also identified a number of businesses that did not conduct the required monitoring (Appendix C-8). These businesses will receive a letter from the City informing them of the monitoring requirements. All but one of these businesses have State Industrial Permits and have been previously reported to the Regional Board for not conducting monitoring. This one business is new to the Industrial Program this reporting year and not subject to the State Industrial Permit. The City will work with this one business in order to ensure it is aware of and complies with all monitoring requirements (**Comment No. 6, SWU:10-5015.02:hammp**).

Table 4-2. Education Materials Distributed During Inspections.

Educational Material	# Distributed
Clean Water 3 C's Handout	33
Agua Limpia 4 C's, Spanish Language Handout	15
NONA/NEC Info and Forms	55

NOI Info	32
General BMP Overview, handout	54
<i>Think Blue</i> Flyer: Industrial Facilities	13
<i>Think Blue</i> Flyer: Impervious Surfaces	17
<i>Think Blue</i> Flyer: Automotive Fluids	4
<i>Think Blue</i> Flyer: Spills	11
<i>Think Blue</i> Flyer: Dumpsters & Loading Docks	3
Total	237

Refer to Appendix F for information about other enforcement actions taken at industrial sites as a result of investigations in FY 2006.

4.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will continue to implement the Industrial Program as permitted in Order No. 2001-01 and all subsequent revisions.

5 COMMERCIAL

The City continued to implement the Commercial Component of its Urban Runoff Management Plan to reduce pollutants from commercial activities. Highlights of the Commercial Program include development and dissemination of educational materials for businesses, participation in outreach events, storm water inspection of commercial facilities, and enforcement actions on non-compliant sites. These program components are described below.

5.1 PRIORITY SOURCES

The City's inventory of facilities is included in Appendix D-1.

5.2 BMP REQUIREMENTS

Minimum BMPs required for industrial and commercial facilities within the City are identified in Section 2.5, *Industrial and Commercial Uses*, of the City's Urban Runoff Management Plan. Commercial businesses must also comply with the prohibitions and requirements set forth in the City's Storm Water Ordinance. The City also uses the California Stormwater Quality Association (CASQA) Commercial Handbook as a guidance document for businesses currently implementing required BMPs and those businesses that began implementing BMPs due to enforcement activities.

5.3 COMMERCIAL BMP IMPLEMENTATION

To ensure facility compliance of these required BMPs and other storm water regulations, the City conducts education and outreach efforts, performs inspections and investigations of facilities, and takes enforcement actions where appropriate. These program components are further described below.

5.3.1 *Education and Outreach*

The City conducts important education and outreach efforts for commercial activities. These efforts are an essential component to ensuring compliance and understanding of applicable storm water requirements.

5.3.1.1 *Business License Storm Water Compliance Flier*

The City developed the Business License Storm Water Compliance Flier. The flier describes the interest businesses have in clean beaches and bays, summarizes the relevant Municipal Code section, highlights business activities that reduce storm drain pollution, and provides telephone, email, and website address should businesses need additional information. These fliers are mailed to businesses during the business license department annual renewal process. Approximately 45,000 notices were sent in FY 2006 (**Comment No. 9, SWU:10-5015.02:hammp**).

5.3.1.2 *Fact Sheets*

The Storm Water Division created and distributed fact sheets to educate businesses on topics related to storm water. Storm water public education and outreach staff created fact sheets specific to a variety of commercial activities that were distributed by Storm Water Division staff and other city employees during the reporting period. Table 5-1 is a summary of the fact sheets that were distributed in FY 2006. About 6,298 materials were distributed in FY 2006 (**Comment No. 10, SWU:10-5015.02:hammp**).

Table 5-1. Fact Sheets Distributed in FY 2006.

Fact Sheet	Number Distributed
Useful Tips For Cleaning Up Ash	0
Automotive Fluids	1,050
Car Washing	500
Concrete Washout	310
Construction Area Practices	250
Dumpsters & Loading Dock Areas	1,008
Impervious Surfaces	630
Restaurants	975
Sewer Overflows	250
Spills	250
SUSMP	250
Swimming Pools	375
Water Discharges	250
BMP Websites	200
Total	6,298

These fact sheets were provided to businesses during inspections or investigation and were available on the *Think Blue* website (<http://www.ThinkBlueSD.org>).

5.3.1.3 *Think Blue Website*

In FY 2006, the *Think Blue* website continued to provide information about storm water regulations and requirements associated with commercial activities. The City's Urban Runoff Management Plan outlines required minimum BMPs, and the *Think Blue* website posted fact sheets created to assist citizens and businesses understand proper BMPs for specific activities. The website also provided resources and links for commercial activities.

5.3.1.4 *Other Educational Materials*

The City developed a series of mobile business informational cards for businesses to reference when working in the field. The cards provide storm water information, such as pertinent regulations and suggested BMPs to comply with storm water requirements for specific businesses. In FY 2006, 128 materials targeting pressure wash operators and impervious surface cleaning were distributed.

5.3.1.5 *Grease Disposal Program*

In FY 2006, the Metropolitan Wastewater Department continued to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aims to educate residents and business on the proper disposal alternatives for fats, oils, and grease. The Food Establishment Waste Discharge (FEWD) Program regulates restaurants' sewer grease trap to ensure proper function and also reviews disposal procedures for oil and cooking grease. During the reporting period, information was provided to restaurants through the Metropolitan Wastewater Department's website, educational brochures, and a web-based video. The FEWD Program also makes referrals to the Storm Water Division regarding the restaurants that it inspects when necessary.

5.4 COMPLIANCE AND ENFORCEMENT

The City takes measures to ensure that facilities are complying with storm water regulations associated with commercial activities. These include inspections, hotline complaint investigations, and enforcement actions, where necessary.

5.4.1 Commercial Facility Inspections

During this reporting period, 4,473 restaurants were inspected. A table is provided in Appendix D-2 that lists the food establishments inspected in FY 2006.

5.4.2 Complaint Investigations

The Storm Water Division operates the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including commercial facilities. A total of 1,902 contacts were logged by staff and 1,531 investigations were carried out by Code Compliance staff (remaining contacts were requests for information). Of these, approximately 839 investigations were conducted at commercial/restaurant sites in FY 2006 (**Comment Nos. 13 and 14, SWU:10-5015.02:hammp**).

5.4.3 Reporting of Non-Compliant Sites

The FEWD Program makes referrals to the Storm Water Program regarding the restaurants that it inspects when an active discharge is involved. Code Compliance Officers are assigned to the cases to conduct investigations and implement the proper enforcement actions. In FY 2006, the Storm Water Division received and investigated 16 reports from the FEWD Program, as described below (**Comment No. 11, SWU:10-5015.02:hammp**).

5.4.4 Enforcement Actions

The City's process for inspection and enforcement of violations ensures that commercial facility violations are abated. Sites with storm water violations noted during inspections are referred to the Storm Water Division's Investigations and Enforcements Section for follow-up investigation and enforcement. Refer to Appendix F for a table of enforcement actions taken in FY 2006 (**Comment Nos. 11 and 14, SWU:10-5015.02:hammp**).

Specifically, of the 16 reports from the FEWD Program in FY 2006, nine resulted in the issuance of a notice of violation, four citations, and four educational enforcement actions. One site was issued one notice of violation and two citations.

5.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will continue to implement the Commercial Program as permitted in Order No. 2001-01 and all subsequent revisions. The City's consultant will be tasked to conduct commercial inspections as well as industrial inspections, which will contribute to enhancing the City's commercial inspection efforts (**Comment No. 12, SWU:10-5015.02:hammp**).

6 RESIDENTIAL

The City continued to implement the Residential Component of its Urban Runoff Management Plan to prevent and reduce pollutants in runoff from residential areas within the City. Highlights of the City's Residential Component during FY 2006 include distribution of numerous education and outreach materials, development of various residential programs, events to educate residents and reduce pollutants, and enforcement of storm water violations from residential activities. These program elements are further described below.

6.1 PRIORITY SOURCES

All residential areas in the City of San Diego have been identified as high priority. There have been no updates to the designated priority.

6.2 BMP REQUIREMENTS

Minimum BMPs for residential areas are identified in Section 2.6, *Residential Uses*, of the City's Urban Runoff Management Plan. Residential activities must also be carried out in compliance with the requirements set forth in the City's Storm Water Ordinance.

6.3 RESIDENTIAL BMP IMPLEMENTATION

To ensure facility compliance with these required BMPs and other storm water regulations, the City conducts education and outreach efforts, implements various programs, performs inspections and investigations, and takes enforcement actions where appropriate. These program components are further described below.

6.3.1 Education and Outreach

The City implemented a substantial education and outreach campaign directed at residential activities. Education and outreach efforts specific to residential activities are summarized below. For a more detailed description of the City's Education Component, refer to Section 12, *Education*. Education and outreach efforts conducted for residents as part of the Household Hazardous Waste Program is described in below in Section 6.3.2, *Household Hazardous Waste Program*.

6.3.1.1 Public Service Announcements

In FY 2006, the Storm Water Division continued to implement the *Think Blue* media campaign to educate citizens on storm water issues and pollution prevention measures. The campaign was broadcast on local radio and television stations to reach English- and Spanish-speaking communities. A detailed discussion of the *Think Blue* media campaign is provided in Section 12.1.4, *Think Blue Campaign – FY 2006*.

6.3.1.2 Think Blue Website

In FY 2006, the *Think Blue* website (<http://www.ThinkBlueSD.org>) continued to provide information, storm water regulations, and requirements associated with residential activities. The website made available fact sheets created for these activities as well as the City's Urban Runoff Management Plan, which outlines required minimum BMPs. The website also provided an interactive page for residents where they can find tips for preventing or reducing pollutants from different areas of the home. The site also continued to feature the Chollas Creek Environmental Improvement and Awareness Programs, which provided information on the City's

efforts to restore Chollas Creek and improve its water quality. The website is estimated to have received about 400,000 hits in FY 2006.

6.3.1.3 *Fact Sheets and Brochures*

The Storm Water Division creates and distributes educational fact sheets and brochures to educate residents and businesses on topics related to storm water. Fact sheets and brochures, specific to a variety of residential activities include:

- Easy Solutions for Keeping Our Creeks, Bays, and Ocean Clean
- Clean Water Leader Cards
- Clean Water Leader Doorhanger
- Sewer Overflows from Private Property
- Swimming Pools and Spas
- Water Discharges from Private Property
- Spills

These fact sheets are provided to businesses during inspections, investigation, via the *Think Blue* website, or whenever requested. For a tally of the number of residential fact sheets and brochures distributed by the City in FY 2006, refer to Section 12, *Education*.

6.3.1.4 *Outreach Events*

During the reporting period, the Storm Water Pollution Prevention Division with the assistance of City Council office staff and media partners participated in a number of outreach events, particularly to residents in the Chollas Creek Watershed. Refer to Table 12-4 in Section 12 for a listing of the residential outreach events conducted by the City.

6.3.2 *Household Hazardous Waste Program*

The Environmental Services Department (ESD) operates the Household Hazardous Waste (HHW) Program for the City and is responsible for public education and the investigation, maintenance, collection and remediation of hazardous substances including HHW from facilities, residents, vacant land, and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill. ESD also collected HHW from 88 certified collection centers within the City in FY 2006.

In FY 2006, ESD conducted education and outreach efforts directed at disseminating HHW information to residents. These efforts included numerous outreach events promoted with PSAs and other media advertisements, distributing educational materials, establishment of hotline to answer questions and set up appointments for HHW disposal, water bill informational inserts to be included in resident's water bill. Detailed information about these efforts is included in ESD's FY 2006 *Annual Reporting Form* provided in Appendix B.

6.3.3 *Grease Disposal Program*

In FY 2006, the Metropolitan Wastewater Department (MWWWD) continued to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aimed to educate residents and business on the proper disposal alternatives for fats, oils, and grease and directed residents where to dispose oil and grease at the Miramar Landfill. As part of the education and outreach

for this program, MWWD provided information (fact sheet and video) through its departmental website regarding proper grease disposal in both English and Spanish.

6.4 ENFORCEMENT AND COMPLIANCE

The City takes measures to ensure that facilities are complying with storm water regulations associated with residential activities. These include patrol of residential areas, hotline complaint investigations, and enforcement actions, where necessary. These steps are described below.

6.4.1 Residential Investigations

Code enforcement officers conduct routine patrol of residential areas and investigate complaints from the storm water hotline. The Storm Water Division operates the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including residential areas and activities. In FY 2006, a total of 1,902 contacts (not all were residential related) were logged by staff, and 449 investigations pertaining to residential sites were conducted (**Comment No. 15, SWU:10-5015.02:hammp**).

6.4.2 Enforcement Actions

Mechanisms that are available in order to ensure compliance with storm water regulations include distribution of educational materials, issuances of notices of violation, administrative citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney's Office for prosecution. The standard procedure for enforcing the storm water ordinance by means of these mechanisms was described in Section 1.3, *Enforcement of Storm Water Ordinance*, in the City's Urban Runoff Management Plan. Refer to Section 9, *Enforcement*, and Appendix F for information about enforcement actions taken in FY 2006 (**Comment No. 15, SWU:10-5015.02:hammp**).

6.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City intends to continue implementation of the residential component as identified in its Urban Runoff Management Plan.

7 LAND USE PLANNING FOR NEW DEVELOPMENT

The City continued to implement the Planning and Development Component of the URMP to reduce the impacts of new development and redevelopment on storm water quality. Highlights of the City's Land Use Planning Component during FY 2006 include continued implementation of the *Storm Water Standards Manual*, implementation of the *Source Water Protection Guidelines for New Development*, continued integration of storm water protection policies in the City's Community Plans and General Plan, and continued development of the San Dieguito Watershed Management Plan.

7.1 LONG-RANGE PLANNING

7.1.1 General Plan

On October 22, 2002, the City Council adopted the Strategic Framework Element as an amendment to the City's 1979 *Progress Guide and General Plan* (1979 General Plan). This action initiated the comprehensive update of the 1979 General Plan. The Strategic Framework Element provided a new strategy for the City's future growth and development, a basis for a new Land Use Element, and a general policy framework for updating the existing elements in the 1979 General Plan. Water quality and watershed protection principles were incorporated into the Conservation and the Environment section of the document, and the land use strategy proposed in it incorporated a number of site and street design policies that achieve water quality and watershed protection principles, such as reducing impervious surfaces and increasing vegetation. The water quality and watershed principles identified in the URMP were incorporated into the Strategic Framework Element and associated Five-Year Action Plan and adopted by the City Council into the General Plan.

The Five-Year Action Plan included direction to update the Conservation Element to further address storm water and urban runoff. It also included recommendations to update other policies and regulations to address storm water and urban runoff, including amendments to the Street Design Manual, the Drainage Design Manual, and the Land Development Code. In May 2006, the Planning Department released revised drafts of the General Plan Update, and the Strategic Framework Element was incorporated into the introductory section of the Plan and no longer was a separate element.

General Plan elements under development in FY 2006 relevant to urban runoff include:

Land Use and Community Planning Element. The proposed new introductory sections of the General Plan and the Land Use and Community Planning Element (Land Use Element) incorporate the adopted Strategic Framework Element City of Villages strategy and provide policy direction in the areas of community planning, zoning and policy consistency, plan amendment process, coastal planning, airport land use planning, balanced communities, equitable development, environmental justice, and annexations. The element includes the General Plan Land Use and Street Systems Map, a generalized land use and streets composite map based upon adopted community plans.

The City of Villages strategy is a major component of the Land Use and Community Planning Element. This strategy calls for new growth to be targeted in mixed-use village centers in order to create lively activity centers, provide housing, improve walkability, help support a state-of-the-

art transit system, and provide an alternative to the development of outlying areas. Combined with the Citywide policies, the strategy helps to ensure that growth and redevelopment will contribute towards long-term healthy environmental, social, and economic conditions within the City and its communities.

In addition, the Land Use Element clarifies the roles of the General Plan and community plans and their relationships. It establishes community plans as integral components of the General Plan, as the community plans provide the parcel-level detail regarding land use designations, density and intensity that is required by state law. Further, Land Use Element policies require that all projects conform to community plan policies, and that zoning is established which is consistent with the community plan.

The Land Use and Community Planning Element draft is available online at <http://www.sandiego.gov/cityofvillages>.

Conservation Element. The Conservation Element focuses on conserving natural resources, protecting unique landforms, preserving and managing the open space system, beaches and watercourses, preventing and reducing pollution, and ensuring preservation of our quality of life in San Diego. A wide range of policies are proposed in the General Plan Update to help guide development and provide a conservation “blueprint” so that San Diego’s environmental quality and heritage are preserved, maintained, improved and can be sustained for current and future generations. Many of the policies described in the element are already being implemented throughout the City, via specific programs and plans administered by various City departments, such as the Storm Water Pollution Prevention Program, the Sustainable Communities Program, and the Multiple Species Conservation Program (MSCP). The General Plan provides the broad overall context to view the purpose and interrelationships of these and additional programs, and to establish citywide goals for conservation of resources that will be refined based on individual community’s conservation goals. This element extensively discusses storm water and urban runoff issues, especially in relation to land development, habitat preservation, and drinking water supply.

Key points:

- Protect and conserve landforms, community open spaces, habitat areas, agricultural areas, and other environmentally sensitive lands,
- Use a watershed management approach to protecting water supplies. Seek additional dedicated water supplies and increased water conservation. Use best management practices to help prevent storm water and urban runoff pollution,
- Preserve natural habitats pursuant to the MSCP and conserve wetlands through implementation of a “no net loss” approach,
- Encourage the construction and operation of green buildings. Develop and protect a sustainable urban/community forest,
- Support environmental education so that people are aware of and more responsible for their impacts on the environment.

The Conservation Element draft is available online at <http://www.sandiego.gov/cityofvillages>.

Mobility Element. An overall goal of the Mobility Element is to further the attainment of a balanced, multi-modal transportation network that improves mobility and minimizes environmental and neighborhood impacts, including storm water and urban runoff pollution. The element includes a wide range of policies which advance a strategy for congestion relief and

increased transportation choices in a manner that strengthens the City of Villages land use vision and fosters storm water pollution prevention by reducing automobile trips and demand for large parking areas. The Mobility and Land Use elements of the General Plan Update are closely linked. The Land Use Element identifies existing and planned land uses, and the Mobility Element identifies the proposed transportation network and strategies which have been designed to meet the future transportation needs generated by the land uses.

The Mobility Element draft is available online at <http://www.sandiego.gov/cityofvillages>.

Urban Design Element. This element includes language on minimizing the amount of surface parking lots for both aesthetic purposes and to allow for the infiltration of urban runoff into the ground. It calls for the use of trees and other landscape to provide shade, screening, and filtering of storm water runoff in parking lots.

The Urban Design Element draft is available online at <http://www.sandiego.gov/cityofvillages>.

Public Facilities, Services, and Safety Element. This element specifically discusses storm water infrastructure in the City. It calls for the protection of beneficial water resources through pollution prevention and interception efforts. The element states as a goal for the City to have a storm water conveyance system that effectively reduces pollutants in urban runoff and storm water to the maximum extent practicable. It recognizes both the roles of structural and non-structural BMPs in preventing pollution in order to comply with federal and state mandates regarding storm water pollution and the need for the City to engage in comprehensive storm water planning, secure funding sources, and strengthen cooperation with other stakeholders in the region.

The Public Facilities, Services, and Safety Element is available online at <http://www.sandiego.gov/cityofvillages>.

Recreation Element. This element recognizes the importance of parks and open space in the City not only for recreational purposes, but also to allow for the infiltration of urban runoff into the ground.

The Recreation Element is available online at <http://www.sandiego.gov/cityofvillages>.

The City Planning and Community Investment Department anticipates completing the General Plan Update and obtaining City Council adoption of it in spring 2007.

7.1.2 Community Plans

Community plans are documents that guide the growth and development of a community. They include land use designations, design recommendations, and policies on a wide range of topics, including water quality protection. They are a part of the City's General Plan. Plans currently underway are addressing community-specific policies related to urban runoff and water quality (The more general, Citywide policies have been incorporated into the draft Conservation Element of the General Plan.) Community-specific policies include:

- **Ocean Beach.** Broad goals and recommendations relating to urban runoff and water quality have been drafted as part of the update to the Ocean Beach Community Plan. Progress on this community plan is reported in the FY 2006 San Diego River Watershed Urban Runoff Management Program Annual Report.

- **Mission Valley.** Work is proceeding on update to the Mission Valley Community Plan. This plan is significant to water quality since the San Diego River flows through the valley. Progress on this community plan is reported in the FY 2006 San Diego River Watershed Urban Runoff Management Program Annual Report.

7.1.3 Street Design Manual

In November of 2002, the City Council approved a new revision of the Street Design Manual that included guidelines for reduced impervious surfaces and increased natural filter systems. These guidelines included reduced street width standards (curb to curb) for local residential streets, parkway standards (curb to property line) that allow large canopy form tree species to be planted along with a wider area for landscaping opportunities, design provisions that allow landscaping opportunities in the majority of the surface area of raised islands (e.g., raised medians), and design requirements that required all traffic calming installations to have a landscape element. Throughout FY 2006, the Street Design Manual was applied to new development.

7.1.4 Drainage Design Manual

The Engineering and Capital Projects Department began work in FY 2006 on a City supplement to the County of San Diego's *Drainage Design Manual* and *Hydrology Manual*. As part of this effort, the Engineering and Capital Projects Department began coordinating the Storm Water Division staff to incorporate new requirements associated with storm water quality protection.

7.1.5 Source Water Protection Guidelines for New Development

In FY 2004, the Water Department produced the *Source Water Protection Guidelines for New Development* (Guidelines) to guide future activities in the San Diego County watersheds that drain into drinking water reservoirs (i.e., Hodges, Sutherland, San Vicente, El Capitan, Otay, Barrett, and Morena). The Guidelines were prepared to assist municipal agencies, designers, land planners, developers, and citizens to conduct site design planning and select BMPs that protect or improve the quality of runoff draining into drinking water reservoirs. These Guidelines do not address water quality concerns during construction activities but rather are designed to help project proponents and reviewers address potential water quality issues over the life of the project by incorporating better site designs and source controls to protect source water. This process is applicable to nearly all projects. In addition, for large or complex projects, the Guidelines are intended to help focus the selection of treatment BMPs that are most effective (based on published studies) at reducing the pollutants of concern for drinking water protection in San Diego County.

In FY 2006, the Water Department employed the Guidelines during design work for two projects, one at Barrett Reservoir and the other in Sutherland Reservoir.

7.1.6 Watershed & Resource Management Plans

San Dieguito River Watershed Management Plan

This activity is reported in the Fiscal Year 2006 San Diego River Watershed Urban Runoff Management Program Annual Report.

Chollas Creek Enhancement Program

Chollas Creek is a natural drainage system that traverses inner-city neighborhoods within the Greater Mid-City (City Heights, Eastern), Encanto Neighborhoods, Southeastern San Diego, and Barrio Logan communities, from its headwaters in La Mesa and Lemon Grove to San Diego Bay. The historic channel and floodplain of Chollas Creek has been altered substantially as a result of decades of development and human activity. Today, the Chollas Creek-bed is an urban creek with little native vegetation, and much of the channel is armored or is concrete channel and culverts. The Chollas Creek Enhancement Program is intended to foster the restoration and rehabilitation of the creek's remaining wetlands, using existing wetland remnants as the source for wetland mitigation and enhancement for projects that disrupt wetland environments within the Chollas Creek geographic area and hydrological basin.

Progress regarding the implementation of the Chollas Creek Enhancement Program is reported in the FY 2006 San Diego Bay Watershed Urban Runoff Management Program Annual Report.

San Diego River Master Plan

The San Diego River corridor has been degraded by development and sand and gravel mining. The San Diego River Park planning effort, lead by the Park and Recreation Department, seeks to improve water quality, sediment transport, and groundwater recharge, while also expanding riparian habitat. The master plan contains principles and recommendations for restoring San Diego River water quality, among other goals.

Progress regarding the preparation and implementation of the San Diego River Master Plan is reported in the FY 2006 San Diego River Urban Runoff Management Program Annual Report.

San Dieguito River Park Concept Plan

This plan establishes the vision and goals for the future use of the San Dieguito River Valley. It describes the plan context and purposes, discusses planning considerations, and identifies plan objectives. It serves as a policy document for the San Diego River Park Joint Powers Authority. The overall goal of the plan is to: preserve land within the Focused Planning Area of the San Dieguito River Park as a regional open space greenway and park system that protects the natural waterways and the natural and cultural resources; provide compatible recreational opportunities that do not damage sensitive lands; and provide a continuous and coordinated system of preserved lands with a connecting corridor of walking, equestrian, and bicycle trails encompassing the San Dieguito River Valley from the ocean to the river's source and beyond.

Progress regarding the preparation and implementation of the San Dieguito River Park Concept Plan is reported in the FY 2006 San Dieguito River Urban Runoff Management Program Annual Report.

San Pasqual Vision Plan

The purpose of the San Pasqual Vision Plan is to set forth a comprehensive vision for the San Pasqual Valley and action items for its protection. Plan goals include protecting the quality and capacity of the San Pasqual/Lake Hodges groundwater basin to ensure that this invaluable asset as a water resource is not compromised and ensuring the long-term protection of the Valley's unique agricultural, biological, and water resources. This includes, for example,

restricting urban development in the valley, which simultaneously helps protect its agricultural assets and preserve its natural infiltration capabilities to treat storm water. The City Planning and Community Investment Department is responsible for implementing various components of this plan.

Progress regarding the implementation of the San Pasqual Vision Plan is reported in the FY 2006 San Dieguito River Urban Runoff Management Program Annual Report.

7.2 PROJECT PLANNING AND DESIGN

7.2.1 Storm Water Development Regulations

In December 2002, the City began implementation of the *Storm Water Standards Manual* for both private and public projects. The *Storm Water Standards Manual* incorporated additional permanent (including Standard Urban Storm Water Mitigation Plan, or SUSMP, requirements) and construction BMP requirements with the City's existing storm water-related development regulations, to reduce pollutants and control runoff flows from all new development and redevelopment projects. To help simplify the process (and thereby improve the implementation of the requirements), all of the City's storm water-related requirements are included in the *Storm Water Standards Manual*. As an implementation manual to the City's Municipal Code, the *Storm Water Standards Manual* benefits from the unique position of being fully enforceable and "updateable" as new innovations occur or state construction or permanent BMP requirements change. During the project planning and design review phase of development, the permanent and construction BMP requirements in the *Storm Water Standards Manual* are applied to development projects as further described below.

7.2.1.1 Public Projects

The Engineering and Capital Projects (ECP) Department is responsible for planning, design and construction of most capital improvement projects (some capital improvement projects are managed by the Water Department, the Metropolitan Wastewater Department, and the Park and Recreation Department). All project managers of capital improvements program (CIP) projects that awarded construction contracts on or after December 10, 2002, have been required to incorporate the applicable permanent BMP requirements set forth in the *Storm Water Standards Manual* into the project (specifications and plans) during the design and contract award phases to ensure that storm water issues have been addressed in the project's permanent design. To assist project managers, storm water language was included in the CIP contract document (boilerplate) specifications along with standard drawing details. Drawings are routed internally (within the design sections) as part of a process termed "peer plan check" for a check on water quality design measures. Revisions are made to the design and then, at the project manager's discretion, the project is routed to the Storm Water Division staff for a more detailed and formal review. If permanent treatment BMPs are required, the design is discussed and coordinated with the department that will be maintaining the permanent BMP facility after it is built. This phase of the project is being completed at about the 75% or 90% design levels. All ensuing comments are routed back to the project managers for revision prior to the release of the construction drawings

The Storm Water Division provides an optional review of CIP projects for compliance with the City's *Storm Water Standards*. In addition to the plans, the Storm Water Division's engineering review staff often reviews Water Quality Technical Reports (WQTR), Storm Water Pollution Prevention Plans (SWPPP), and Water Pollution Control Plans (WPCP). After each review, a memo is sent to the City project manager informing him or her whether or not the project has

met the requirements of the City's *Storm Water Standards* and, if needed, what additional documents, plan revisions, etc. are required in order for those requirements to be met. In FY 2006, there were **15 CIP priority projects**, which were required to prepare WQTRs (some projects may not have been captured in the URMP reporting) (**Comment No. 16, SWU:10-5015.02:hammp**).

7.2.1.2 *Private Development*

The Development Services Department (DSD) is responsible for managing the development project review services for private development in the City of San Diego. In December 2002, the Land Development Review Division of DSD adopted and began implementation of the *Storm Water Standards Manual*. Private projects are reviewed for conformance with the *Storm Water Standards Manual* requirements by the Engineering Review and Plan Checking sections of the Land Development Review Division. To ensure consistency and adequate implementation of the storm water requirements, staff from these sections meet on a bi-weekly basis to discuss specific issues on development projects. Before discretionary projects are scheduled for decisionmaker approval or ministerial permits are issued, all storm water requirements must be satisfied either on the plans or in the project conditions.

During FY 2006, **251 private priority projects** were reviewed by DSD for conformance with the *Storm Water Standards Manual* (**Comment No. 16, SWU:10-5015.02:hammp**).

7.3 EDUCATION AND OUTREACH

7.3.1 *Fact Sheets*

In FY 2006, the Storm Water Division and Land Development Review Division continued to distribute the fact sheet regarding the *Standard Urban Storm Water Mitigation Plan* to educate developers about storm water regulations associated with new development or redevelopment. This fact sheet was available on the *Think Blue* web site. Approximately 1,000 copies of the fact sheet were distributed by the Land Development Review Division in FY 2006.

Also in FY 2006, DSD continued to make available a brochure and video entitled *Grading: Doing It Right*, which provided information about proper storm water pollution prevention practices. These resources were provided to the public and aired regularly on City TV 24. Approximately 500 brochures were distributed, and the video aired 36 times in FY 2006.

A large color poster promoting proper storm water pollution prevention practices at construction sites continued to be posted throughout the offices of DSD to familiarize staff and the visiting public with these practices. Approximately 1,000 posters were also provided to the construction industry to post on site.

7.3.2 *Websites*

In FY 2006, DSD rolled out its "Development Process: Step-by-Step" website, which guides applicants through the City's development process. The site references both the *Storm Water Applicability Checklist* as well as the *Storm Water Standards Manual*. DSD also continued to provide information on the Department's website regarding storm water issues. A new section of the web site focusing on grading was created, which included visual examples and a "Frequently Asked Questions" page. Additionally, the *Think Blue* web site provided links to resources that could provide additional information on land use planning and storm water regulations for new development and redevelopment.

7.3.3 Training

In FY 2006, the City Planning and Community Investment Department conducted three Community Orientation Workshops (April 29, May 31, and June 29) during which storm water-related informational brochures were distributed to more than 70 community members.

The department also conducted informal internal and external outreach focused mainly on the Department's activities related to storm water, such as the General Plan Update and other policies and programs.

In FY 2006, DSD continued to hold weekly staff meetings to discuss storm water requirements and implementation on private development projects. In addition to these meetings, Land Development Review Division had approximately 70 employees (or 15%) trained in activity-specific storm water principles during the year.

The Land Development Review Division acquired an experienced storm water engineer in FY 2006 who will continue to education staff and ensure that the in-house standards for the review of WQTRs are followed.

In FY 2006, DSD's Inspection Services Division provided individualized training to construction industry member on proper storm water pollution prevention and BMP techniques. There were approximately 20 participants.

In FY 2006, the Field Engineering Division continued to provide storm water activity-specific training to its resident engineers before the start of the dry and wet weather seasons. Storm water topics were discussed as needed at the monthly meeting of resident engineers. Approximately 150 staff (or about 100%) received training on activity-specific storm water principles; this number included support staff in addition those specifically with storm water inspection duties. Quarterly coordination meetings with the construction industry were also held with water quality as a standing topic.

7.4 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will continue to implement the programs set forth in the Planning and Development Component of its Urban Runoff Management Plan. DSD and Field Engineering will continue to conduct informal staff training meetings and sessions and continue to hold bimonthly coordination meetings with the Storm Water Division. City Planning and Community Investment Department staff anticipates continuing to presenting storm water educational material during Community Orientation Workshops, which are introductory training sessions for the members of the City's 42 community planning groups.

8 CONSTRUCTION

The City continued to implement the Construction Component of its Urban Runoff Management Plan in FY 2006 to prevent and reduce pollutants in runoff from construction activities within the City. Highlights of the Construction Component include development of education and outreach materials, development and participation in various trainings and workshops to educate staff and the professional industry, implementation of a review program to ensure compliance with storm water requirements, inspection of construction sites, enforcement of storm water violations from construction activities, and most importantly continued oversight of the implementation of storm water requirements at construction sites through the City's construction inspection programs. These program elements are further described below.

8.1 PRIORITY SOURCES

Prioritized construction inventories are updated and provided to the Regional Board annually prior to October 1st. The construction list for FY 2006 was submitted to the Regional Board in October of 2005.

8.2 BMP REQUIREMENTS

Section 3.4, *Construction Contracts*, of the City's Urban Runoff Management Plan identifies the BMPs required for construction activities. These requirements are made enforceable through a series of regulations in the City's Municipal Code (Storm Water Management and Discharge Control Ordinance, §43.03, and Grading Regulations, §142.02), which are implemented through construction development regulations in the City's *Storm Water Standards Manual*.

In FY 2006, Storm Water Pollution Prevention Plans (SWPPPs) were required for all projects over one acre, and Water Pollution Control Plans (WPCPs) were required for all projects where a SWPPP was not required (under one acre in size), that had a potential to impact water quality during construction (To make this determination, all projects were required to complete a "Storm Water Requirements Applicability Checklist," included as Appendix A to the City's *Storm Water Standards Manual*). Where appropriate, additional site-specific construction storm water BMPs were required in SWPPPs, WPCPs and/or construction contracts.

8.3 BMP IMPLEMENTATION

The City conducts measures to ensure compliance with the required construction BMPs and storm water regulations. The City implements a review and approval process, conducts education and outreach efforts, performs inspections and investigations, and takes enforcement actions, where appropriate. These program components are further described below.

8.3.1 Construction and Grading Approval Process

8.3.1.1 Capital Improvement Projects

The Engineering and Capital Projects (ECP) Department is responsible for planning, design, and construction of a majority of the City's Capital Improvement Program (CIP) projects, and the remainder of CIP projects are managed by the Water Department, the Metropolitan Wastewater Department, and the Park and Recreation Department. All project managers of CIP projects in these departments awarding construction contracts on or after December 10, 2002, have been required to incorporate the construction requirements set forth in the *Storm Water Standards*

Manual. These requirements must be incorporated into the project (specifications and plans) during the design and contract award phases to ensure that construction storm water issues are addressed. To assist project managers, storm water language was included in the Capital Improvements Project contract document (boilerplate) specifications along with standard drawing details. Drawings are routed internally (within the design sections) as part of a process termed “peer plan check” for a check on construction BMP measures. Revisions are made to the design when necessary and then if the CIP Project Manager chooses, routed to Storm Water Division staff for a more detailed and formal review. The drawings are simultaneously routed to the Field Engineering Division of the Engineering and Capital Projects Department for a constructability review and for evaluation of the adequacy and implementation of during-construction storm water protection plans. All ensuing comments are routed back to the project managers for revision prior to the release of the construction drawings.

In addition, the Water Operations Division received their ISO 14001:2004 Environmental Management System (EMS) Certification in spring 2005. Receiving this certification demonstrates the Water Operations Division’s commitment to the environment. Specific examples of this commitment include: implementation of Best Management Practices (ways to prevent runoff into storm drains) during cleaning and construction; responsible material delivery and storage; habitat/water quality protection; solid waste recycling management; hazardous waste management; vehicle and equipment maintenance; individual training and supervision; work inspection and coordination with other City staff.

8.3.1.2 *Private Projects*

The Development Services Department (DSD) is responsible for managing construction and development project review services for private development in the City of San Diego. In addition, DSD is responsible for implementation of the *Storm Water Standards Manual* on private development projects.

During FY 2006, DSD review staff ensured private projects were conditioned to require the incorporation of all necessary construction BMPs prior to the issuance of any construction permits. In addition, projects seeking construction permits were required to incorporate all construction BMPs on the plans and in the appropriate construction storm water plan (Water Pollution Control Plans were required on projects that did not require a State Construction NPDES Permit, and Storm Water Pollution Prevention Plans were required on projects subject to the State Construction NPDES Permit).

DSD issued approximately 461 public improvement and grading permits during FY 2006. Each of these permits had plans, which were reviewed to ensure they complied with the construction requirements found in the *Storm Water Standards Manual*. As part of the review process, DSD enforces the requirement that each development in excess of one acre submit a SWPPP and provide the WDID number.

In addition, in FY 2006, the Construction Storm Water Management Section of Field Engineering Division continued to use SWAT (Storm Water Action Team). E-mails are sent to every RE when rain is forecasted to remind them to check the BMPs on their active sites. In addition, they continued to coordinate with the Inspection Services Division and Storm Water Pollution Prevention Division to address and enforce against activities with the potential to discharge pollutants that were not under our purview.

Education and Outreach

The City conducts important education and outreach efforts for construction activities. These efforts are an essential component to ensuring compliance and understanding of applicable storm water requirements. For detailed information on the City's education efforts, including construction-related education, see Section 12, *Education*. A summary of the construction-related education efforts are provided below.

8.3.1.3 *Informational Material*

- The Field Engineering Division sent wet weather and dry weather letters to every contractor with an active construction grading project summarizing storm water requirements. In addition, notices were also sent to all contractors informing them of the modifications to SWPPP requirements of the State General Construction Permit.
- DSD continued to make available a brochure and video entitled *Grading: Doing It Right*, which provided information about proper storm water pollution prevention practices. These resources were provided to the public and aired regularly on City TV 24. Approximately 500 brochures were distributed, and the video aired 36 times in FY 2006.
- DSD provided approximately 1,000 posters to the construction industry. The posters promoted proper storm water pollution prevention practices at construction sites.
- The Construction Storm Water Management Section of Field Engineering Division distributed a storm water packet at all pre-construction meetings. These packets consisted of storm water-related information which must be discussed with contractors during pre-construction meetings.
- DSD continued to prepare a new construction BMP brochure. The brochure is expected to be distributed in FY 2007.

8.3.1.4 *Websites*

In FY 2006, the *Think Blue* web site continued to provide information about construction activities requirements for storm water compliance within the City. The web site made available fact sheets created for construction activities as well as the City's Urban Runoff Management Plan. The web site also provided links for resources that can assist with selecting and implementing BMPs for construction projects.

In FY 2006, DSD operated a web page devoted to construction industry professionals to provide them with online services and general information about the project review process and requirements.

8.3.1.5 *Outreach Events*

The Development Services Department provided individualized training to members of the construction industry during FY 2006. These trainings were to the industry regarding proper storm water pollution prevention and BMP techniques.

The Field Engineering Division of ECP continued to be an active participant in FY 2006 in educating the public at the following events: Construction Management Academy, Building Industry Association Storm Water Training Sessions, APWA Storm Water Training, minor contracts training, and outreach events to youth and college students. There were a total of 17

storm water-related outreach events conducted by Field Engineering during FY 2006. Approximately 890 storm water-related informational letters/notices were distributed during FY 2006.

8.3.1.6 *Internal Training and Workshops*

The following notable construction BMP-related training sessions and workshops were held for City staff in FY 2006:

- The operations work force from the Water Department received a storm water refresher training session during the 2006 Spring Training session. The two-hour presentation discussed the placement of temporary BMPs in field service situations, and provided updated information on common storm water protection practices. In addition, CIP staff attended most construction project meetings, promoting the importance of the SWPPP.
- The Water Department required supervisors and crews to attend section tailgate meetings to educate them on the implementation of BMP during cleaning and construction; responsible material delivery and storage; and solid waste recycling management.
- Water Department staff education and training were encouraged, including attendance at the Clean Water Summit Conference in July 2005 and at updated construction manager training in storm water BMPs. The Environmental and Permit Section gave monthly storm water compliance presentations to contractors and consultants hired to construct and monitor CIP projects, with a focus on correct application of BMPs.
- The Land Development Review Division and the Inspection Services Division of DSD conducted individualized storm water-related staff training throughout the reporting period.
- The Field Division of ECP held activity-specific training for REs in the form of pre- and post-rainy season training sessions. As-needed training for REs was also provided based on evaluations by the Regional Board, observations of Field Supervisors, and/or sites that are not complying with storm water management requirements. Additionally, storm water quality topics were discussed in the monthly RE meeting as questions arose throughout the reporting period. There were a total of 14 training events conducted by Field Division during FY 2006. Approximately 150 employees were trained, including support staff.
- The Development Services Department Field Inspection Division provided training to staff on storm water pollution prevention for construction sites.

8.4 ENFORCEMENT AND COMPLIANCE

The City takes measures to ensure that construction activities are conducted in compliance with storm water regulations. These include routine inspections, hotline complaint investigations, and enforcement actions, where necessary. These steps are described below.

8.4.1 *Construction Site Inspections*

Construction sites are required to be inspected based on the frequency schedule set forth in the City's Urban Runoff Management Plan. REs in the Field Engineering Division inspect BMPs associated with grading permits (private projects) and many public projects. Those public projects that are not inspected by Field Engineering are inspected by engineers in the department carrying out the project. Building Inspectors in DSD's Inspection Services Division

inspect construction BMPs associated with projects performing construction under building permits.

The Field Engineering Division's Construction Storm Water Management Section, which consists of a staff of six led by a senior civil engineer, is responsible for acting as a support group for the Field Engineering Division on storm water-related issues, development of policies and procedures, and providing internal and external training on storm water requirements. In FY 2006, the Field Engineering Division was able to maintain the Construction Storm Water Management Section with six staff members. Their tasks included assisting with inspections of construction sites for BMP implementation, providing internal and external training, coordinating with other departments and agencies, and assisting in preventing discharges of construction related pollutants into the storm water conveyance system. They continued to patrol four different areas of the City to inspect active construction sites and to document any needed adjustments. The section also pursued enforcement action for sites that did not implement and/or maintain BMPs.

REs inspect and issue Storm Water Notices monthly in the dry season, and at least weekly in the rainy season for high priority projects. In accordance with the City's Urban Runoff Management Plan, medium and low priority projects are inspected twice during the rainy season and as needed during the dry season. The Field Engineering Division's water notice is in triplicate form: one copy is given to the contractor, one is filed with the project, and the last copy is filed in the general storm water files with the Construction Storm Water Management section. Notices are not issued for projects that do not have any potential to discharge and may be near completion (i.e., delays or closeouts). All projects were inspected based on the required frequency. If the Storm Water Notices prove to be ineffective, then Stop Work Orders are issued.

Storm water issues are initially discussed during the pre-construction meeting and construction activities are not to begin (emergency projects are exempt) prior to the contractor having a plan in place to prevent pollutants from leaving the construction site. The plan may come in the form of a SWPPP (for sites that disturb more than one acre of soil) or a WPCP.

Based on the construction inventory that was submitted in October 2005, there were approximately **180 high priority, 239 medium priority, and 680 low priority active construction (CIP and private) sites. All of these sites were inspected according to the frequencies identified in the *Storm Water Standards Manual*.** Depending on the status of any given project, the Field Engineering Division is required to perform more or less frequent construction inspections. A project's priority can change from day to day. For example, a project may be going through the closeout phase in which all construction activities have been completed. For the purposes of reporting, such a project would be considered a low priority site but would not have any storm water inspections occurring. Additionally, the priority of a construction site may change due to the activities being conducted onsite and the potential to generate pollutants that may impact water quality. Therefore, the numbers listed above are a representative approximation. As previously stated, all projects were inspected based on the required frequency.

8.4.1.1 *Capital Improvement Projects*

The construction projects discussed below were inspected by construction management consultants.

Water Department CIP Projects

The Water Department's CIP Program prioritized construction projects and conducted inspections according to the criteria set forth in the City's Urban Runoff Management Plan. A storm water checklist is completed during inspections to ensure compliance with regulatory requirements and evaluate whether the BMPs are adequate and properly implemented or whether additional control practices are needed. In FY 2006, **11 high and two medium priority sites were inspected**. There were no low priority construction sites identified.

Metropolitan Wastewater Department CIP Projects

In FY 2006, the Metropolitan Wastewater Department inspected approximately **600 low priority construction sites** within the Wastewater Collections Division and **two high priority sites** within the Engineering and Program Management Division.

8.4.1.2 *Private Projects*

The Inspection Services Division of DSD inspects building sites routinely for compliance with storm water requirements. Inspectors within the division are assigned a district and are responsible for monitoring projects in that area. Each inspector routinely monitors his/her district on a daily basis. Sites are also inspected at the request of another department or in response to complaints. The Inspection Services Division created and implemented a special correction notice that is issued when corrections pertaining to storm water pollution prevention are needed. This notice is just that: it serves to notify the contractor that improvements must be made immediately. For more egregious or repeat issues, inspectors have been trained to issue re-inspection notices, which effectively stops work on the site until the corrections are made and the site is re-inspected.

In FY 2006, 12,375 building permits were issued. All permits issued were either of medium or low priority. The Inspection Services Division conducted 19,525 inspections; however, this number includes only projects that closed out in FY 2006 and does not include projects that continued to be in progress into FY 2007. Staff members from Inspection Services Division are currently coordinating to determine the processes and procedures necessary to assign, track, and report on the priority level of each building permit issued. Staff will then modify the City's Project Tracking System to enable the active tracking and scheduling of inspections (both routine ones and follow-ups) based on priority level and the rainy/dry seasons. The Development Services Department anticipates implementing these actions within the next 12 months (**Comment No. 17, SWU:10-5015.02:hammp**).

8.4.2 *Hotline Complaint Investigations*

The Storm Water Division manages the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including construction areas. A total of 1,902 contacts were logged by staff, and 1,531 investigations were carried out by Code Compliance Staff (remaining contacts were requests for information). Approximately 337 investigations were conducted at construction sites in FY 2006.

8.4.3 *Enforcement Actions*

Departments will generally coordinate with the contractor through the RE to correct any storm water issues or potential violations. If issues are not resolved and violations occur, stop work orders are generally issued, and work is halted until the site is brought into compliance with

storm water regulations. In FY 2006, stop work orders were issued by Field Engineering Division REs on four construction projects. They are listed in the following table.

Table 8-1. Stop Work Orders Issued by ECP Field Engineering Division.

Project Name	Date Issued	Date Lifted
Lorro Villas	03/22/06	Active to ensure continued compliance
La Jolla Commons/Judicial Drive	04/06/06	04/12/06 partial for LJC)
Judicial Drive	04/06/06	04/19/06
La Jolla Crossroads	04/25/06	04/26/06

For sites that have no activity occurring and issuance of a stop work order would not provide sufficient influence to the contractor to remedy deficiencies, the site is referred to the Storm Water Division for enforcement during rain events or discharges.

The Field Engineering Division also coordinates with the Inspection Services Division of DSD (responsible for inspecting combination permits, building permits, electrical, signs, mechanical and plumbing permits). For example, a site that may have a grading permit for which the grading has been completed but the contractor continues to work under a building permit, any storm water violations can be referred to the Inspection Services Division for further enforcement action.

The Inspection Services Division issued more than **314 warnings** and, of that amount, **24 were charged re-inspection fees** (which essentially stops work until the problem is fixed and approved during a re-inspection by the building inspector). An additional 23 projects were told to stop work except for storm water-related corrections work.

Refer to Appendix F for a table of Storm Water Division enforcement actions taken at construction sites in FY 2006.

8.4.4 Reporting of Non-Compliant Sites

Inspections or investigations where sites are determined non-compliant and pose a threat to human or environmental health are reported to the Regional Board within 24 hours of the finding. During the reporting period, there was no incident of this nature at a construction site (see Appendix B).

8.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will review its Construction Program in light of the re-issuance of the Municipal Permit and make modifications to it as necessary.

9 ENFORCEMENT

9.1 LEGAL AUTHORITY

The City's Municipal Code includes Storm Water Management and Discharge Control (§43.0301) and Storm Water Runoff and Drainage Regulations (§142.01 and §142.02), which both protect citizens and water quality by prohibiting pollutants from entering the storm water conveyance system. The Storm Water Division's Investigations and Enforcements Section enforces the City's storm water ordinance and implements the administrative civil penalties and citation process.

9.2 ENFORCEMENT ACTIONS

Non-compliance with storm water regulations can be detected by several means. Routine inspection of municipal, industrial, and commercial facilities is one method of detection. Others include code compliance officers on patrol, referrals from other agencies and City departments, and hotline calls. Enforcement actions consist of issuances of notices of violation (NOVs), citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney's Office for prosecution. The standard procedure for enforcing the storm water ordinance by means of these mechanisms was described in Section 1.3, *Enforcement of Storm Water Ordinance*, in the City's URMP. Table 9-1 identifies the number of enforcement actions taken during the reporting period and Table 9-2 details cases that were prosecuted by the City Attorney for prosecution.

Table 9-1. FY 2006 Enforcement Actions.

Enforcement Action Taken	Number Issued In FY 065
Notice of Violation	729
Citation	235
Civil Penalty	149
Prosecution	2

Table 9-2. FY 2006 City Attorney Prosecutions.

Case Closed	Case Type	Description	Result
11/20/2006	commercial	Property owner and Bulldog Concrete; concrete equipment washout into Chollas Creek; five counts under Fish & Game Code §5650 and one count under SDMC §43.0904	Charges against property owner dismissed; Bulldog Concrete pled guilty to two counts under Fish & Game §5650, three years probation, fine, 50 hours volunteer work
05/25/2006	agricultural; farming	Leslie Farms; petroleum spill in Los Peñasquitos Canyon referred to City Attorney's Office by Storm Water Division	Fish & Game case resulted in civil settlement of over \$50,000

9.3 FINDINGS

In FY 2006, the City’s storm water Code Compliance Officers completed 1,531 investigations. Investigations are tracked by substance discharged; categories include: Construction Waste (i.e. cement-like material), Wash Water, Petroleum Hydrocarbons (i.e. transmission fluid, oil, gasoline), Sewage, Sediment, Effluent on ground (i.e. pool water, water, ground water), Latex Paint, Waste Water, and Other (i.e. grease, chemicals, trash, green waste, hazardous substance). Figure 9-1 displays the FY 2006 investigations by discharge type.

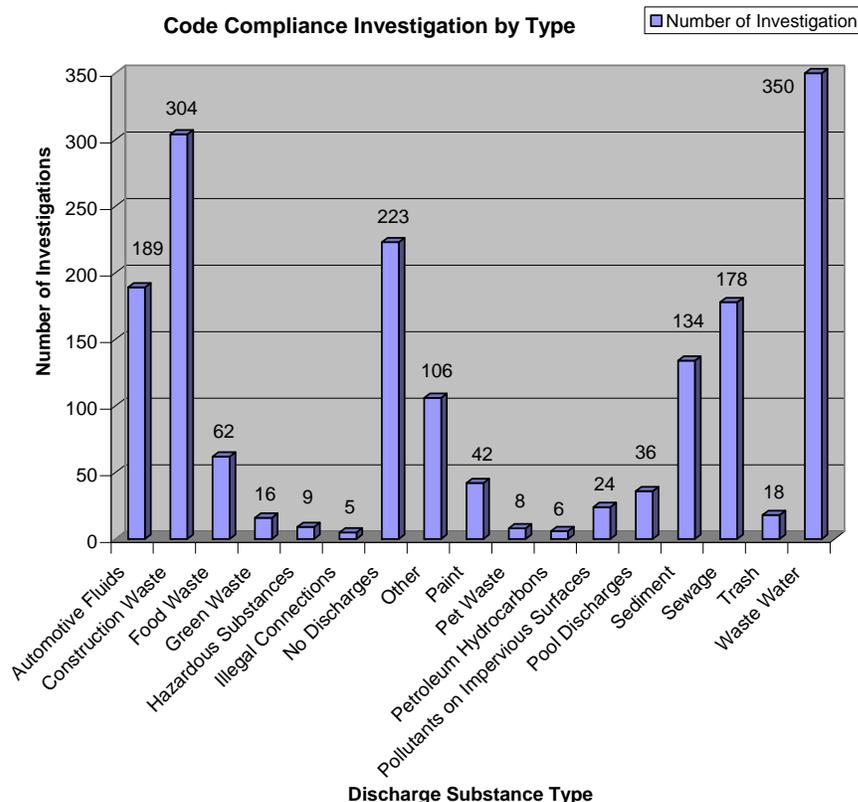


Figure 9-1. FY 2006 Investigations by Discharge Substance Type.

As a result of the City’s investigations, 729 NOVs, 235 Administrative Citations, and 149 Civil Penalties were issued. During the reporting period, total penalties assessed were \$136,230.82 through Civil Penalties and \$23,600 through Administrative Citations, which averages to \$914.30 per Civil Penalty assessed and \$100.43 per Administrative Citation issued.

9.4 FUTURE ACTIVITIES

For future fiscal years, the Storm Water Division will continue to focus on refining and enhancing its investigation and enforcement activities in light of the re-issuance of the Municipal Permit.

10 MONITORING

The City continued to implement the Monitoring Programs as identified in Section 1.4, *Water Quality Monitoring*, of the City's Urban Runoff Management Plan. The Storm Water Division independently conducted, or participated with other agencies and organizations to conduct, numerous water quality monitoring studies in the San Diego region. A summary of the accomplishments in each of the monitoring programs (ongoing or completed) for FY 2006 is provided below. Findings and conclusions for the following programs (with the exception of the Toxic Hot Spots Monitoring in San Diego Bay) can be found in the *San Diego County Municipal Copermittees 2005–2006 Urban Runoff Monitoring Report*.

10.1 DRY WEATHER MONITORING

Section 11, Illicit Discharge Detection and Elimination, of this Annual Report discusses the progress and findings made regarding the City's Dry Weather Monitoring Program in FY 2006.

10.2 URBAN STREAM BIOASSESSMENT MONITORING

To assess the ecological health of watersheds, the Copermittees contracted with Weston Solutions, Inc., to collect and analyze benthic macroinvertebrate samples at numerous locations throughout each watershed in FY 2006. Some of the sampling locations were located near mass loading stations so that a triad data review could be conducted. A copy of the bioassessment monitoring data and interpretation can be found in the *San Diego County Municipal Copermittees 2005-2006 Urban Runoff Monitoring Report*. The report contains information from sampling events conducted at a minimum of 20 reaches and three reference stations during the months of October 2005 and May 2006.

10.3 LONG-TERM MASS LOADING MONITORING

To assess the chemical characteristics of storm water urban runoff and the ability of storm runoff to support life, the Copermittees contracted with Weston Solutions, Inc., to collect flow weighted composite water samples and conduct chemical and toxicological analysis on those samples at 10 locations in San Diego County. The mass loading stations were located near river mouths so that the water samples collected were most representative of the upstream watershed areas.

10.4 COASTAL STORM DRAIN OUTFALL MONITORING

The Coastal Storm Drain Monitoring Program is designed to identify illicit discharges into the storm water conveyance system, monitor the bacteria concentrations in receiving waters near storm drain outlets, and determine if urban runoff is negatively affecting recreational uses. The Storm Water Division coordinated through a regional monitoring work group attended by the County of San Diego Beach and Bay Monitoring staff, coastal Copermittees, and Weston Solutions, Inc. With the adoption of the Storm Water Permit, the City Storm Water Program began coastal monitoring in November 2001. Within November 2005 through October 2006, the City monitored 12 high priority drains along the coast and five high priority drains in Los Peñasquitos Lagoon on a monthly schedule from November to March and on a semimonthly schedule from April to October. The City confirms that 357 sites were visited during this reporting period.

During winter 2005 and into spring 2006, the monitoring staff performed a coastal inventory. There are greater than 90 known storm drain pipes that discharge to the San Diego City coastline (not including Mission Bay). The 12 priority storm drains monitored are drains that capture large drainage areas. The inventory is designed to:

- Identify each known outlet on the existing inventory; record information such as flow condition and accessibility points; and verify GPS coordinates and photographs.
- Identify and add new drains not present in the existing inventory adding information as listed above.
- Update resource binders, paper maps, GPS database, and GIS files.

A more detailed and comprehensive report on coastal storm drain outfall monitoring can also be found in the regional submittal from the principal Copermittee, which represents a collaborative effort among members of the coastal monitoring workgroup. The coastal Copermittees have coordinated a comprehensive review of all monitoring data collected to determine trends, establish descriptive statistics of monitoring results, and provide information for further program evaluation and improvement. At four Los Peñasquitos Lagoon stations, dual samples were unobtainable due to restrictions to entering sensitive habitats.

10.5 AMBIENT BAY, LAGOON, AND COASTAL RECEIVING WATER MONITORING

The Storm Water Division participated in many of the regional monitoring program planning, data review, budgeting, and future monitoring recommendation sessions throughout the year. The monitoring for Phase I and Phase II began in the 2002-2003 reporting period and included activity in San Diego Bay, Mission Bay, Oceanside Harbor, and the Pacific Coastline, coastal lagoons and estuaries. Phase I included contaminant targeting, three areas in each embayment with the finest grain size and highest TOC concentration where identified. Phase II encompassed a Phase I assessment of sediment using a “triad” approach that includes chemistry, toxicity, and biology of the sediments. Much of the Ambient Bay and Lagoon monitoring occurred in coordination with the Southern California Coastal Water Research Project (SCCWRP) Bight 2003 program as recommended by the Municipal Permit. The Bight 2003 monitoring coordinated, evaluated, and drew conclusions on monitoring programs performed by all the coastal counties from San Diego to Santa Barbara. The study assessed the overall health of the receiving waters and monitored the impact of urban runoff on ambient water quality. A detailed description of Phase II is discussed in the San Diego County Municipal Copermittees 2005–2006 Urban Runoff Monitoring Report.

10.6 TOXIC HOT SPOTS MONITORING IN SAN DIEGO BAY

The monitoring of San Diego Bay, formerly known as the California Bay Protection and Toxic Cleanup Program, was implemented for 10 years and identified five San Diego Bay locations that had sediment contamination causing toxicity to marine life and benthic community impairments. The California Bay Protection and Toxic Cleanup Program’s goals and tasks were realigned and incorporated into the Regional Board’s Pollutant Load Reduction Program. Currently, three of these areas of concern are being implemented under two TMDLs and a Cleanup and Abatement Order. For additional information on specific projects see Section 16, *Special Projects*.

11 ILLICIT DISCHARGE DETECTION AND ELIMINATION

The City has developed and implemented an aggressive program to detect and eliminate illicit discharges. The program consists of monitoring efforts, referrals and complaint investigations, MS4 and wastewater collection system inspection and maintenance, spill response and reporting, education efforts, enforcement actions, and hazardous waste collection. This program is detailed below.

11.1 DETECTION OF ILLICIT DISCHARGES AND CONNECTIONS

Detection of illicit discharges and connections is accomplished through a number of activities, including the Dry Weather Monitoring Program, MS4 inspection, Sanitary Sewer Canyon Program, hotline calls, and referrals from other sources. During the reporting period, staff conducted 177 investigations, as described below.

11.1.1 Monitoring for Illicit Discharges

The City's Dry Weather Monitoring Program (DWM) is designed specifically to detect and eliminate illicit connections and illegal discharges to the storm water conveyance system using frequent, geographically widespread dry weather discharge monitoring and follow-up investigations. All of the 306 DWM sites are located at storm drain outlets, manholes, or storm water catch basins. Information gathered from each monitoring site is recorded on a standard DWM Field Sheet. A total of 136 monitoring sites were visited prior to the start of the FY 2006 reporting period and are included in this report for consistency with past reports.

The City confirms the completion of required observations, field screening, and analytical monitoring of all 306 dry weather sites. A summary of monitoring activities is presented in Table 11-1.

Table 11-1. Summary of 2005 Dry Weather Monitoring.

Number	Monitoring Activity
308	Planned dry weather sites
2	Sites lost due to construction
306	Confirmed actual dry weather sites monitored
238	Sites with flowing or ponded water
68	Sites with no flowing or ponded water
113	Sites exceeding one or more action level
37	Sites not re-sampled due to Best Professional Judgment ⁽¹⁾
56	Sites re-sampled that were within acceptable limits
20	Total number of sites requiring extensive investigation
20	Total number of investigations conducted

(1) Best Professional Judgment: Monitoring staff take into account weather conditions, storm drain structure, sample collection technique, possibility of groundwater or tidal intrusion, soil composition, and other pertinent factors.

11.1.1.1 Dry Weather Monitoring Investigation Results

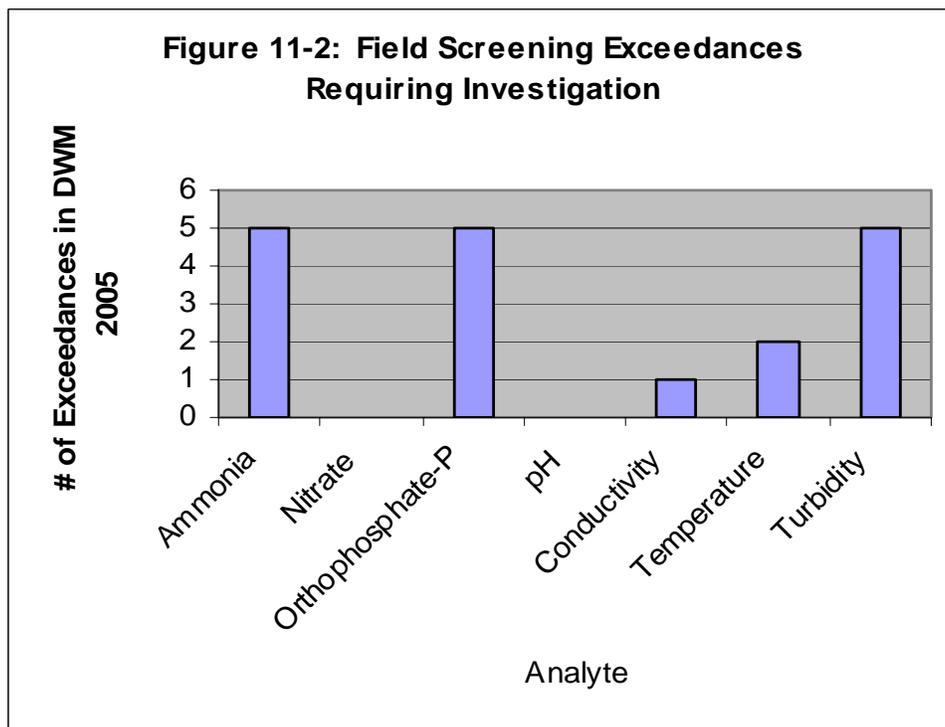
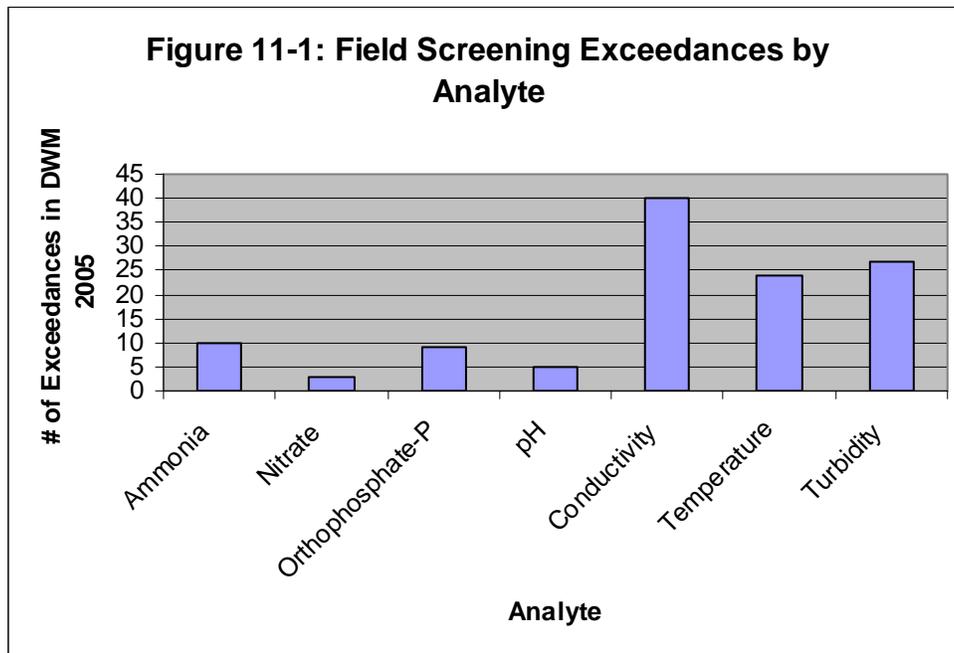
Table 11-2 presents a brief summary of investigation results. Data from the 2005 Dry Weather Monitoring season are located in Appendix E. A copy of each investigation report is available in the *City of San Diego Dry Weather Monitoring Program Illicit Connection/Illegal Discharge Follow-up Investigations 2005, Final Report*, submitted to the Regional Board on November 15,

2006, prepared by Weston Solutions, Inc., or in Appendix E if the investigation was conducted by City staff (**Comment No. 19, SWU:10-5015.02:hammp**).

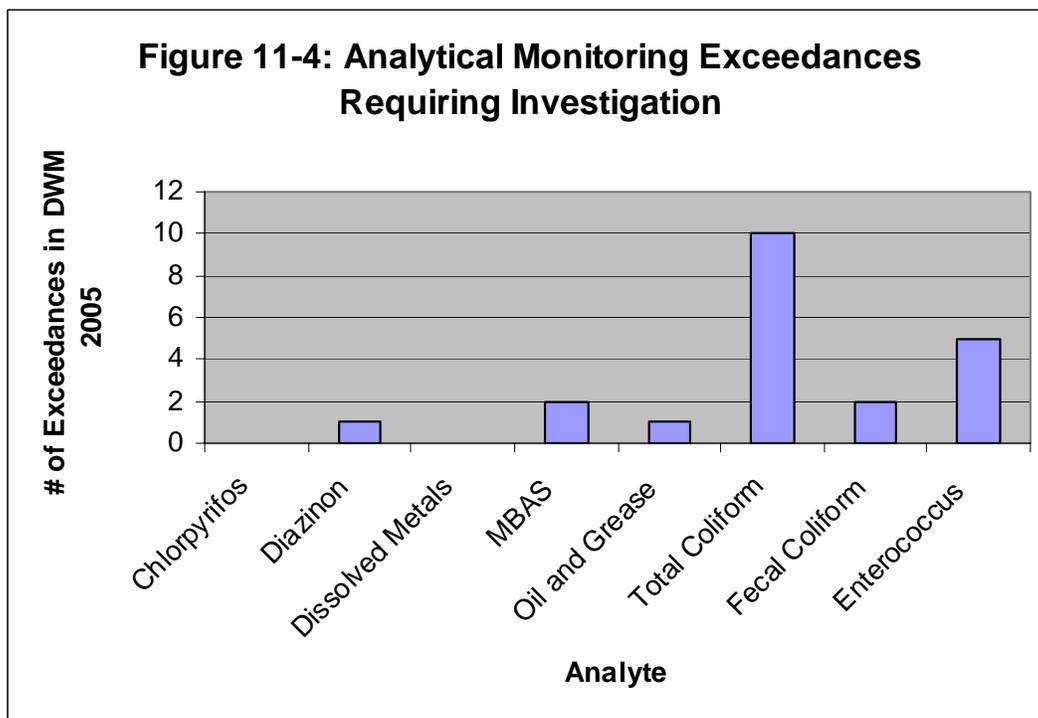
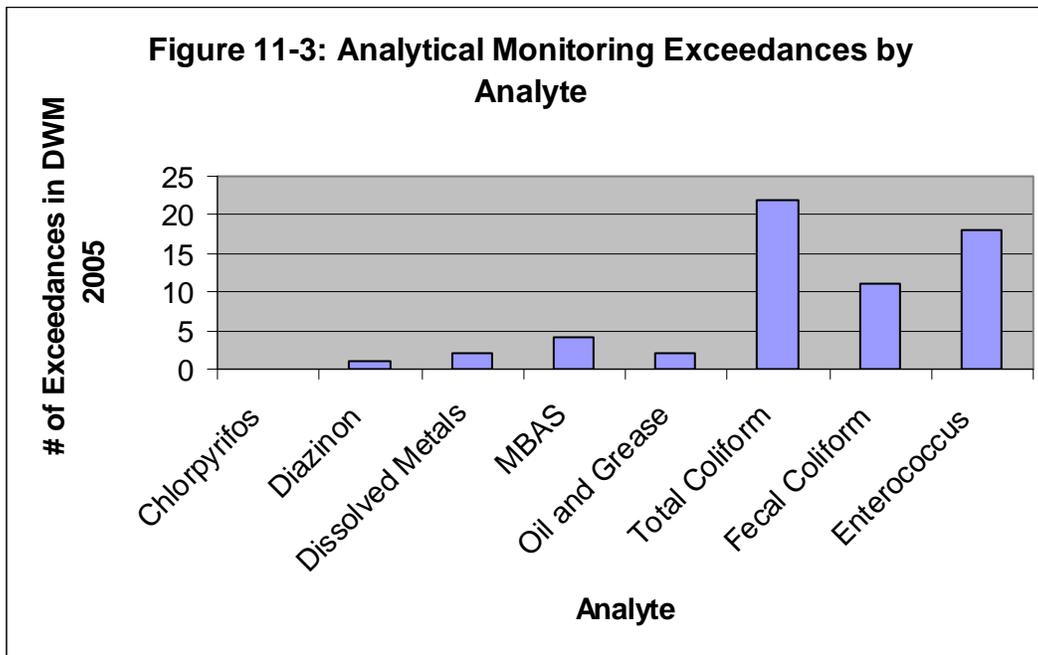
Table 11-2. Summary of Dry Weather Sites Requiring Follow-Up Investigations.

Site ID	Routine Sample Date	Resample Date	Source/Result	Action Taken
DW020	5/16/05	6/26/06	Irrigation Runoff	Education Materials Distributed
DW021	5/16/05	5/16/05	Possible Illicit Discharge	Education Materials Distributed
DW031	7/1/05	9/26/05	Illicit Discharge	NOV Issued
DW063	5/25/05	1/9/06	Possible Illicit Discharge combined with Irrigation Runoff	Education Materials Distributed
DW064	5/24/05	6/2/05, 1/9/06	Possible Illicit Discharge	Education Materials Distributed
DW065	7/26/05	11/6/06	Illicit Discharge	Administrative Citation Issued
DW067	7/12/05	7/28/06	Sediment in Storm Drain	Referred to Street Division
DW114	7/18/05	1/17/06	Irrigation Runoff	Education Materials Distributed
DW128	8/1/05	7/25/06	Standing Water	Referred to Street Division
DW153	7/26/05	5/11/06	Irrigation Runoff	Education Materials Distributed
DW168	5/3/05	5/10/06	Standing Water	Referred to Street Division
DW182	7/18/05	12/13/05	Irrigation Runoff	Education Materials Distributed
DW183	7/18/05	12/12/05	Irrigation Runoff	Education Materials Distributed
DW212	7/20/05	7/21/05	Illicit Discharge	NOV Issued
DW213	5/3/05	6/17/05	Illicit Discharge	Investigation incomplete; impacted by tidal intrusion and upstream construction dewatering.
DW215	6/23/05	6/23/05	Illicit Discharge	Administrative Citation Issued
DW233	6/30/05	11/9/05	Illicit Discharges	Codes & Education Materials Distributed
DW272	8/17/05	8/17/05	Illicit Discharge	NOV Issued
DW305	7/13/05	9/16/05	Not Identified	Manholes Welded
DW318	7/13/05	7/13/05	Broken irrigation line	Reported to Landscapers

The field screening analytes that most frequently exceeded action levels were conductivity, temperature, and turbidity. Many of these exceedances were eliminated by best professional judgment and re-sampling. Of the sites requiring investigation, ammonia, orthophosphate-P, and turbidity were the most common exceedances. See Figures 11-1 and 11-2 below.



The analytical constituents that most frequently exceeded action levels were Total Coliform, Fecal Coliform, and *Enterococcus*. Many of these exceedances were also eliminated by best professional judgment and re-sampling. Of the sites requiring investigation, Total Coliform and *Enterococcus* were the most common exceedances. See Figures 11-3 and 11-4 below.



1.1.1.2 Non-Dry Weather Monitoring Related Investigation Results

The prescriptive monitoring requirements and associated follow-up investigations are not the only source of investigations. Monitoring staff routinely walk canyons and newly developed communities looking for hidden or new drains, drains plumbed over hillsides, and illegal discharges. In addition, monitoring staff respond to citizen and city employee referrals where

complicated conditions exist and/or multiple sources make identifying a responsible party difficult. Once a responsible party is identified, the information is referred to a Code Compliance Officer for enforcement, including follow-up visits to ensure elimination of the discharge.

In FY 2006, the Monitoring Section investigated 101 discharges as a result of these referrals or observations, resulting in 61 Enforcement Actions. See Table 11-3 for a summary of non-routine illicit discharge investigations. Refer to Appendix E for field data sheets and investigation information (**Comment No. 20, SWU:10-5015.02:hammp**).

Table 11-3. Summary of Investigations Not Related to Dry Weather Monitoring.

Number	Action
27	No Evidence of Violation
31	Investigations resulting in Notice of Violation issued to discharger
18	Investigations resulting in Administrative Citation issued to discharger
12	Investigations resulting only in distribution of educational material
10	No responsible party identified for discharge
3	Cases referred to other departments

11.1.2 MS4 Inspection

The Street Division is responsible for the routine inspection and maintenance of the City's MS4 and surrounding areas. If illicit discharges are detected while performing inspections or other field activities, the Street Division is instructed to contact the Storm Water Division for investigation.

11.1.3 Sanitary Sewer Canyon Program

The urban canyons of San Diego pose a unique challenge to the Metropolitan Wastewater Department (MWWD). If a sewer spill occurs in a canyon, it could go undetected. With approximately 250 miles of sewer lines located in the City's canyons and other non-right of way areas, MWWD has taken aggressive measures through the implementation of the multifaceted Canyon Program to reduce the possibility of a canyon sewer spill and to increase the chances that such a spill will be detected and reported quickly.

The Program included the televising of over 1,338 miles of the oldest and most problematic sewer lines in the system between 2001 and 2004, as measures to monitor the condition of sewer lines. Televising sewer lines has been an invaluable way of assessing the condition of a sewer line in real time. It can reveal blockages from debris to roots to grease; show cracks, breaks or deterioration of a pipe. In FY 2006, **51.72 miles** of sewer line were televised.

Physical inspection of canyons is another way to prevent sewer spills in the region's urban canyons. After every significant rainfall, MWWD's Wastewater Collection Division crews hike through portions of "critical canyons" (i.e., canyons where a sewer spill could easily end up in a river, bay or the ocean) to inspect the sewer lines and manholes. MWWD has also partnered with the San Diego Police Department to utilize police helicopters to patrol canyon areas after significant rains. Similarly, the Department uses its Volunteer Canyon Watchers to report any indications of real or potential canyon sewer spills observed during recreational hikes through our urban canyons.

11.1.4 Hotline Calls/Referrals

The Storm Water Division operates the City's Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system detected within the City. The Storm Water Division uses several strategies to capture citizen attention and impart the importance of recognizing and reporting illicit discharges and connections through television and radio programming, the *Think Blue* website, and educational fliers, handouts, flying discs, pencils, dustpans, etc. In FY 2006, a total of 1,902 contacts were logged by staff, and 1,531 investigations were carried out by Code Compliance Officers (remaining contacts were requests for information).

The MWWDD operates and advertises a sewer spill hotline for the reporting of sewer spills 24 hours a day, seven days a week. MWWDD crews are also on call 24 hours a day, seven days a week to respond to the calls.

11.2 ELIMINATION OF ILLICIT DISCHARGES AND CONNECTIONS

Elimination of illicit discharges and connections is accomplished by implementing measures, such as education and outreach programs designed to maintain facilities and promptly respond to and capture spills and enforcement.

11.2.1 Education

The Storm Water Division educates residents and businesses through numerous education and outreach mechanisms. Educational materials, such as flyers, door hangers, and fact sheets, are distributed during events or by Code Compliance Officers while out in the field. The materials promote preventing illicit discharges through implementation of BMPs. The BMPs relate to the three C's (i.e., control, contain, and capture), which is one key component of the storm water pollution prevention message. The City also disseminates information on the *Think Blue* website, through Public Service Announcements, community events, and workshops.

11.2.2 Complaint/Referral Investigations

Storm Water Division staff also conducts investigations of potential polluted discharges based on hotline complaints and referrals from other sources, such as other departments, agencies, etc. During FY 2006, the **Storm Water Division's Monitoring Section initiated 101 IC/ID investigations** from other referrals.

11.2.3 Spill Prevention and Response

The City implements spill prevention measures to eliminate and reduce the occurrence of spills and ensure that spills that do occur can promptly be contained and properly cleaned up. More detailed information about BMPs implemented during the reporting period is located in each department's FY 2006 *Activity Reporting Form* provided in Appendix B.

In addition to conducting spill prevention measures for municipal activities, the City also implements an aggressive program to educate the public and provide citizens and businesses with information needed to prevent, address, and report spills.

11.2.3.1 Sanitary Sewer Overflow Prevention and Response

MWWDD continues to implement the measures of the Sewer Overflow Prevention Plan and the Sewer Overflow Response Plan, to prevent and contain spills, leaks, and overflows from

sanitary sewer pipes, and pump stations in the City. A copy of these plans can be obtained by calling the MWWDC Collections Division at (858) 292-6484. Figure 11-5 shows the number of sewage spills each calendar year, as reported by MWWDC. Spills identified as “Public Water” are defined as those that reach a receiving water.

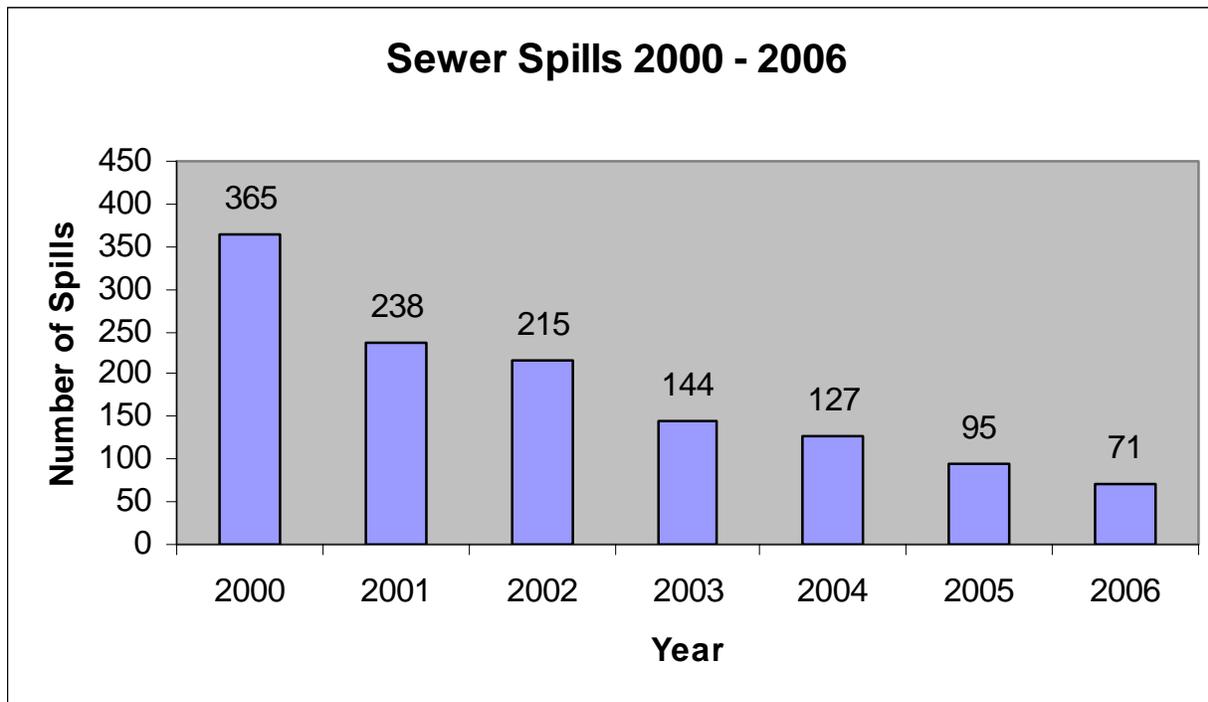


Figure 11-5. Sewer Spills by Year, 2000–2006.

The following actions are implemented to the maximum extent practicable to identify and resolve blockages and overflows and prevent seepage from the sanitary sewer to the City’s MS4:

- Note the condition of sanitary sewer structures during routine maintenance and inspection, and identify areas that need repair or maintenance.
- Document suggestions and requests for repair and report the information to the appropriate manager or supervisor.
- Prioritize repairs based on the nature and severity of the problem.
- Televiser sewer mains to determine their structural integrity and condition.
- Monitor the sewer infrastructure for capacity limitation.
- Patrol canyons where infrastructure exists that may be subject to damage after significant rain events.
- Implement a Capital Improvement Program that is prioritized based on need for a period of up to 10 years.
- Minimize the impact of sewage spills by using established procedures designed to protect water quality.
- Minimize the impact of sewer spills due to construction activities; all sewer contract documents include language requiring the contractor to submit a sewer spill prevention response plan.

- Utilize GPS notebooks to reduce error in logging information and requesting maintenance.
- Utilize new all surface access vehicles to maintain access to manholes while minimize habitat disturbance.

In addition to a number of the procedures listed above, other measures are taken to prevent seepage from the wastewater collection system to the City's MS4. Seepage can occur in areas where the infrastructure for the two systems is in close proximity. As part of this effort, field staff are trained to recognize suspected seepage from the sewer system to the MS4. MWWD also ensures compliance with the Health Department's minimum requirement for the acceptable separation between the newly installed sewer pipelines and the MS4.

MWWD response crews are on call 24 hours a day, seven days a week to respond to, clean up, and repair sewer leaks and spills. Once notified, crews are mobilized and dispatched to the site to capture and contain spills and prevent further discharge. Vactor trucks are generally used to collect the spill. Additional methods may be used, as necessary to properly clean the spill and any debris or litter that was mobilized as a result of the spill. Depending on the location of the spill, it may be diverted to the sewer system by the low flow diversion system if it has already reached the City's MS4.

11.2.3.2 *Grease Disposal Program*

MWWD continues to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aims to educate residents and business on the proper disposal alternatives for fats, oils, and grease and provides. This program is described in greater detail in Section 6.3.3, *Grease Disposal Program*.

11.2.3.3 *24-Hour Reporting of Spills*

In FY 2002, the City developed a 24-hour discharge reporting form, disseminating a copy of the form to applicable departments with instructions on what discharges should be reported to the Regional Board. In addition, MWWD has developed and continues to use a standard sewer overflow form to promptly notify city departments and resource agencies about the date, time, magnitude, location, and receiving water (if applicable) of sewer discharges.

During the reporting period, MWWD responded to and reported spills that either discharged to, or had the potential to discharge to, the City's MS4 or directly to receiving waters. Significant spills were reported to the Regional Board following the 24-hour criteria. Appendix G provides information regarding the 10 spills in FY 2006 that reached receiving waters or the City's MS4.

The Water Department reports all significant discharges to the Regional Board under the Hydrostatic Test and Potable Water Discharge Permit (R9-2002-0020) issued by the San Diego Regional Board in August of 2002. There were no other reports of significant spills during the reporting period.

11.2.4 Enforcement

The City implements education efforts as well as enforcement measures to eliminate illicit discharges and connections. Mechanisms that are available in order to ensure compliance with storm water regulations include distribution of educational materials, issuances of notices of violation, administrative citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney's Office for

prosecution. The standard procedure for enforcing the storm water ordinance by means of these mechanisms was described in Section 1.3, *Enforcement of Storm Water Ordinance* in the City's URMP FY 2002 Annual Report.

11.3 FACILITATE DISPOSAL OF HAZARDOUS MATERIALS

11.3.1 Collection Facilities and Events

The Environmental Services Department (ESD) operates the Household Hazardous Waste (HHW) Program for the City and is responsible for the investigation, maintenance, collection and remediation of hazardous substances including household hazardous waste from facilities, residents, vacant land and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill. ESD also collected HHW from 88 certified collection centers within the City in FY 2006. Refer to Table 3-3 of Section 3.3.1.2, *Municipal Separate Storm Sewer System*, for amounts of HHW collected in FY 2006 and to ESD's FY 2006 *Annual Reporting Form* in Appendix B for details on the events and activities conducted to facilitate the disposal of HHW.

11.3.2 Education

ESD conducts educational outreach programs for City residents and staff and promotes prudent purchase, use, and disposal of household hazardous waste through media announcements and distribution of educational materials. These programs designed and implemented through the Environmental Protection Division are vital to the diversion of dangerous or contaminated substances from the City's land and waterways.

The Storm Water Division conducts extensive education and outreach to San Diego residents and businesses to communicate the importance of proper disposal of hazardous materials and reporting of illicit discharges. These education and outreach efforts consist of distribution of informative materials, creating and running public service announcements on television and radio, and posting information on the *Think Blue* and Storm Water Division websites.

11.4 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will continue to work to enhance its Illicit Discharge Detection and Elimination Program and evaluate it in light of the re-issuance of the Municipal Permit.

12 EDUCATION

The City's storm water education campaign for both the external and internal audiences is managed by the Storm Water Division of the Metropolitan Wastewater Department. The *Think Blue* campaign is a multi-faceted effort that encompasses public outreach and storm water pollution prevention advocacy, media advertising, and employee training. Section 12.1.4 below discusses the Storm Water Division's *Think Blue* campaign. Individual departments also create specific materials for their staff or customer use in protecting San Diego's water quality. Information on each City department's or division's education, outreach, and training efforts can be found in the FY 2006 *Activity Reporting Forms* in Appendix B.

12.1 STORM WATER DIVISION TRAINING OF MUNICIPAL EMPLOYEES

Training was provided to municipal employees via two avenues: training developed and given by Storm Water Division staff either in general storm water training or activity-specific storm water training formats; and department-developed and -provided activity-specific storm water training described in Section 2, *Municipal*.

12.1.1 General Storm Water Training

During FY 2006, *Think Blue* staff attended the City's New Employee Orientation session and trained all new City employees in *Storm Water and You*, a general storm water pollution prevention awareness workshop in fall 2005. Departments performed general or activity-specific storm water training for appropriate staff, as needed. The Storm Water Division will continue to provide the general storm water training as New Employee Orientations are scheduled.

12.1.2 Activity-Specific Storm Water Training

In FY 2006, the Storm Water Division's *Think Blue* training staff did not conduct activity-specific training of targeted City staff. However, see Section 3, *Municipal*, for training that was conducted by individual departments, as well as the number of employees trained (**Comment No. 21, SWU:10-5015.02:hammp**).

12.1.3 Storm Water Division External Education and Outreach

The City is concerned with both inland and coastal urban runoff abatement and the impact of the former upon the latter. This viewpoint stems from the unique boundaries of the City, which gives it the distinction of being both an owner of numerous inland reservoirs and key water resources in the region and the largest coastal jurisdiction. It is this dual responsibility that uniquely positions the City to lead the regional urban runoff education efforts in a logical manner that ties the perspectives of inland and coastal area residents together.

To that end, in 1998, the City, with the assistance of the Unified Port of San Diego, Caltrans District 11, and the County of San Diego, funded *Think Blue*, a bilingual regional education, outreach, and media campaign. The goals of the campaign are to: raise awareness of urban runoff as a major cause of beach, bay, watershed, and recreational water pollution; and change the polluting behaviors of residents and businesses.

12.1.4 Think Blue Campaign — FY 2006

12.1.4.1 Goals and Challenges

The City's Storm Water Division goals for its FY 2006 public information campaign were the same as those with which the campaign started. These goals were as follows:

- Increase awareness that storm water flows to water bodies untreated
- Change some behaviors from those that pollute water bodies to those that do not
- Increase awareness of the *Think Blue* slogan.

The conclusion of FY 2006 on June 30, 2006, was also that of the fifth year of the *Think Blue* Media, Education and Public Advocacy Campaign. Fiscal Year 2006 began in much the same manner as FY 2005 had concluded—with very limited resources to maintain the pre-FY 2004 level of activity. Thus, in FY 2006, the *Think Blue* campaign focused its limited resources on meeting the requirements of existing State Proposition 13 and PRISM grants and developing two new Public Service Announcements (PSAs).

12.1.4.2 2004 Annual Residential Survey

Each FY from 2001 to 2004, the campaign conducted an annual *Storm Water Pollution Program Follow-up Survey of City Residents*. This survey provided data on how well the campaign's efforts had penetrated the general public and quantified the campaign's performance in reaching its goals. Due to funding shortfalls, surveys were not conducted in FY 2006.

Campaign progress in prior years (2001 through 2004), however, is well documented in the *Storm Water Pollution Program 2004 Follow-up Survey of City Residents*, and it is reasonable to assume that most of that progress in public awareness of the causes of storm water pollution and corresponding behavior change by the public has been largely maintained.

Progress through August 2004: By the summer of 2004, two of the campaign's original goals had been substantially exceeded. Over the years since the campaign began, six behaviors have changed in a positive and statistically significant direction. Those behaviors are:

- Fewer vehicle owners are changing their own oil
- The use of curbside recycling rather than the trash for green waste continues to increase on an annual basis
- Use of the trash for lawn clippings has decreased
- Use of the trash for the disposal of leftover garden chemicals has decreased dramatically, while use of hazardous waste collection for this purpose has increased
- Use of inside sinks for washing out paint brushes, rollers, and pans has decreased
- Use of the trash for disposing of leftover paint has decreased

In addition, a number of other indicators are moving in a positive direction, although the changes are not yet great enough to achieve statistical significance. As of August 2004, the data suggested that additional efforts in the area of public education may be successful in furthering program objectives. The mere fact that behavioral change increased from two behaviors in Fiscal Year 2003 to six in Fiscal Year 2004 strongly supported this contention.

Insofar as the *Think Blue* slogan is concerned, the increase in awareness over time has been quite dramatic. Awareness of the slogan has steadily increased over time and extended to over

half of the City's population. In 2001, some 31.2% of the City population registered awareness of the slogan. The change/increase is also statistically significant (see Figure 12-1).

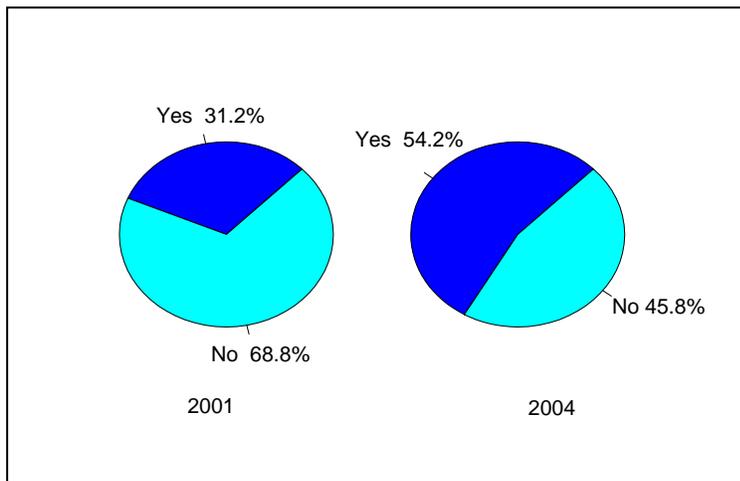


Figure 12-1. FY 2004 Awareness of the Slogan *Think Blue*.

Finally, in terms of the campaign's first objective, i.e., to increase awareness that storm water flows to water bodies untreated, the trend was not as positive. Awareness of this fact decreased in the years from 2001 to 2004, as has awareness of San Diego's storm drain system more generally. Through 2004, residents had been willing to change behaviors without fully understanding the "why"—that storm water flows untreated to the nearest water body. This indicated that an increased effort in outreach is needed to convey the "why" changing behavior is important to residents.

12.1.4.3 FY 2006 Media Purchase and PSA Airtime

In FY 2006, the campaign had limited resources available to air both the new and existing PSAs on television and radio. A summary of the Year Five media buy is provided below (see Table 12-1). The campaign aired from January 2006 through June 2006 on local broadcast stations reaching the English- and Spanish-speaking communities.

The City contracted for \$76,267 in paid television and radio advertising. However, because two new PSAs completed production late in the fiscal year, only \$24,300 of this total aired prior to June 30, 2006. The remaining \$51,967.50 aired after July 1, 2006, and will be included in the FY 2007 URMP Annual Report. Production was delayed due to contract approval delays, which delayed delivery of the PSAs to advertisers into late FY 2006.

The PSAs aired a total of 1,174 times in FY 2006 with 687 of the total PSA airings provided by media partners without charge. The total value of the in-kind contributions of the FY 2006 advertising partners is \$37,500, which is a 155% leveraged-dollar increase to the City's media and promotions budget. This figure was largely due to the non linear distribution of in-kind contributions over FY 2006 and FY 2007. Leveraged in-kind airings are provided when time is available in the advertiser's inventory, which is not equal through 12 months.

Table 12-1. Think Blue FY 2006 Media Buy Year-End Summary*.

STATION	FISCAL YEAR 2006 \$ Expenditure	# Paid PSAs	# Comp N/C PSAs	Value of In-Kind	Total Value	IPM PSA Airings (subset of total PSAs)
RADIO FM KPRI 102.1	11,790	162	30	3,750	15,540	18
KIFM-Jazz 98.1	1,900	13	5	750	2,650	0
FREE FM 103.7 KSCF	5,850	133	580	6,960	12,810	56
TELEVISION COX NETWORK	4,760	176	72	1,800	6,560	0
XEWT 12*	ALL AIRED AFTER JULY 1 ST 2006		TO BE COUNTED IN FY 2007 ANNUAL REPORT			
KUSI TV 9/51	ALL AIRED AFTER JULY 1 ST 2006		TO BE COUNTED IN FY 2007 ANNUAL REPORT			0
TOTALS	24,300	484	687	13,260	37,560	74

*Aired throughout entire County

The in-kind contributions of the City's media partners have been remarkably consistent since the inception of the campaign (see Table 12-2).

Table 12-2. Media Leveraging.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006*
\$ Purchased Air Time	\$253,616.60	\$226,462.00	\$270,219.75	\$79,900	\$24,300
\$ In-Kind Value	\$160,286.56	\$135,252.00	\$139,868.00	\$123,350	\$37,560
% Leveraged	63%	59.7 %	52%	154%	155%

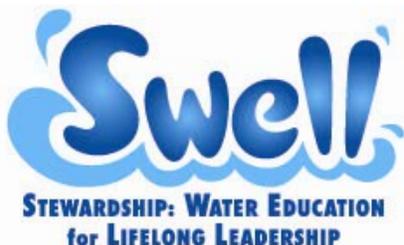
*This number reflects the non-linear distribution of in-kind contributions over FY 2006 and FY 2007. The services were encumbered in FY 2006, but the majority of the PSAs were aired after July 1, 2006. Accordingly, only the PSAs that aired prior to July 1, 2006, are accounted for in Tables 12-1 and 12-2 with the expenditures reflected in each fiscal year. However leveraged in-kind airings are provided when time is available, not equally through 12 months.

12.1.5 *Print Media*

In FY 2006, the City used print media to promote integrated pest management practices in the Chollas Creek area. Readers were able to clip an *Ants in Your Home?* advertisement from local newspapers and post it for future reference. See Table 12-4 for more details regarding the City's print media activities.

12.1.6 *School Age Education – San Diego City Schools*

Project SWELL — Stewardship: Water Education for Lifelong Leadership



The City's effort to educate San Diego's youth stayed on track in FY 2006 as Project SWELL was expanded to more school grades and a new school district.

Project SWELL teaches children about the importance of the region's recreational waterways and human-water interaction through a well-balanced, comprehensive, and hands-on water quality and pollution prevention curricula.

The intent of the Project SWELL curricula is to foster a sense of environmental stewardship among the region's children, the leaders and environmental caretakers of the future. To make this happen, the San Diego City School District, City of San Diego, and San Diego Coastkeeper have united to achieve a goal: enhance the existing science curriculum to address pressing environmental issues. The project partners have made progress in meeting these goals by developing and implementing a water quality and pollution prevention curricula for K-12 classrooms in San Diego City Schools. Below is a summary of the curricula that have been or are currently in development and implementation.

5th Grade: *Water*. Completed and in use. Project SWELL's first unit was issued to correspond with the fifth grade *Water* kit used by San Diego City Schools. The fifth grade unit now reaches 10,668 students. An assessment of the fifth grade curriculum was also conducted; however, the results are not yet available.

6th Grade: *Landforms*. Completed and in use. The sixth grade curriculum, *Landforms* kit, was completed and began circulating to 10,019 students in San Diego City Schools. Professional development is planned for sixth grade educators through the first half of FY 2007.

4th Grade: *Ecosystems*. Curriculum finalized. The fourth grade *Ecosystems* kit will roll out in the first half of FY 2007 to reach 10,661 students with professional development occurring by April 2007.

2nd Grade: *Pebbles, Sand, and Silt*. Curriculum under development. In the second half of FY 2007, the second grade curriculum, *Pebbles, Sand, and Silt*, will roll out to 10,222 students with professional development occurring in the last quarter of FY 2007.

Project SWELL will ultimately reach approximately 140,000 students in San Diego by FY 2010.

12.1.7 Website

In addition to the media campaign, the Storm Water Educational web site (<http://www.ThinkBlueSD.org>) is available to the public and professional organizations as a compliance and education resource. In FY 2006, the City completed the process of moving the site from an external, private web management company and server to a City-managed site and web server. The transfer of the site disrupted the City's tracking of web visitors. The City has data to report for only the last month of FY 2006, which was around 6,000 hits.

Because the site was still available on the outside provider host site until mid June 2006, it is reasonable to assume that the site continued to attract the same volume of visitors as in years past.

The number of web site visits in Fiscal Year 2006 is estimated to have been 400,000.

For reference, in FY 2004, the *Think Blue* website received more than 410,000 visits, averaging more than 34,231 hits a month. The month of October 2003 recorded the highest volume of visits with some 50,047 hits, and January 2004 recorded the lowest number of hits in a month's time with 16,392. The site includes all of the campaign's informational fact sheets, brochures, the City's Urban Runoff Management Plan, the Storm Water Ordinance (Section 43.03 of the San Diego City Municipal Code), information on the Chollas Creek Environmental Improvement and Awareness Programs, a calendar of upcoming storm water events and outreach activities, the PSAs, and other educational videos. A large portion of the site is available to browsers in both the English and Spanish languages.

12.1.8 Hotline and Other Contacts

As a result of the decreased broadcast media campaign, in FY 2006, the City's Storm Water Hotline, (619) 235-1000, and other means of communication realized a decrease in contacts (see Table 12-3). The declining contact volume coincides with two consecutive years of decreased advertising for *Think Blue*.

Table 12-3. Storm Water Division Contacts*.

Fiscal Year	Number of Contacts
2002	2,904
2003	4,206
2004	4,397
2005	3,818
2006	1,902

*This table was presented in previous Annual Reports as only counting contacts made through the Storm Water Hotline.

12.1.9 Speaker's Bureau and Community Events

Table 12-4 below summarizes the outreach and education events that the City implemented and/or participated in FY 2006 to educate the general public on storm water pollution prevention and promote the *Think Blue* slogan (**Comment No. 22, SWU:10-5015.02:hammp**).

Table 12-4. General Public Outreach and Education Events.

DATE	Jurisdiction	Event Type	Event Title	Comments	Audience Type	Specific Audience	Estimated Audience #	Site Name/ Location
02/27/06	City of San Diego	Jurisdiction on Storm water-specific Event	Coalition of Neighborhood Councils	Chollas Creek Restoration Project update	General public	Chollas Creek Watershed residents and business owners	40	Jacob's Foundation
02/03/06	City of San Diego	PSAs	Pixar/Disney on Ice "Submerge Yourself in Water Safety"	Storm water pollution prevention issues	General public	Grade school children	200	iPayOne Center
03/16/06	City of San Diego	Jurisdiction-Hosted Events	Take Your Daughter and Son to Work Day Career Expo	Education for children on watershed concept	General public	Grade school children	300	San Diego Civic Concourse
09/17/05	City of San Diego	Cleanup Event	Chollas Creek Cleanup	Organized collaboratively between City and ILACSD	General public	Chollas Creek Watershed residents	5 volunteers	47 th and Castana Streets
04/29/06	San Diego Bay Copermittes	Cleanup Event	ILACSD 4 th Annual Creek to Bay Cleanup	WURMP Workgroup sponsorship	General public	General public	800+ volunteers in SD Bay Watershed	15 sites within watershed
08/26/05	City of San Diego	San Diego Regional IPM Program	Print media	<i>Star News</i> advertisement	General public	Chollas Creek Watershed residents	32,000 circulation	Chollas Creek Watershed
09/01/05	City of San Diego	San Diego Regional IPM Program	Print media	<i>East County Californian</i> advertisement	General public	Chollas Creek Watershed residents	36,500 circulation	Chollas Creek Watershed
08/25/05	City of San Diego	San Diego Regional IPM Program	Print media	<i>San Diego Voice and Viewpoint</i> advertisement	General public	Chollas Creek Watershed African-American residents	25,000 circulation	Chollas Creek Watershed
09/02/05	City of San Diego	San Diego Regional IPM Program	Print media	<i>La Prensa San Diego</i> advertisement	General public	Chollas Creek Watershed Hispanic residents	30,000 circulation	Chollas Creek Watershed
04/26/06	City of San Diego	San Diego Regional IPM Program	Jurisdiction stormwater-specific event	Cherokee Point Neighborhood Association meeting	General public	Chollas Creek Watershed residents	5	Cherokee Point Elementary School
05/02/06	City of San Diego	San Diego Regional IPM Program	Festival participation	10 th Annual Barrio Logan Grand Prix Health Fair	General public	Chollas Creek Watershed residents	400	Logan Heights Family Center
04/08/06	City of San Diego	San Diego Regional IPM Program	Community-hosted event	Marine Corps Recruit Depot Bay Cleanup	General public	Chollas Creek Watershed military personnel	200	Marine Corps Recruit Depot Boathouse
05/22/06	City of San Diego	San Diego Regional IPM Program	Community-hosted event	20 th Annual Bay Bridge Run/Walk 2006	General public	Runners/walkers	5000	Tidelands Park, Coronado

DATE	Jurisdiction	Event Type	Event Title	Comments	Audience Type	Specific Audience	Estimated Audience #	Site Name/ Location
02/15/06	City of San Diego	San Diego Regional IPM	Jurisdiction stormwater-specific event	The Housing Momentum Team	General public	Chollas Creek Watershed residents	10	4440 Wightman Street
03/14/06	City of San Diego	San Diego Regional IPM	Jurisdiction stormwater-specific event	Mid-City CAN Networking Council	General public	Chollas Creek Watershed residents	40	4440 Wightman Street
03/14/06	City of San Diego	San Diego Regional IPM	Jurisdiction stormwater-specific event	The Fox Canyon Neighborhood Association	General public	Chollas Creek Watershed residents	22	4380 Landis Street
04/14/06	City of San Diego	San Diego Regional IPM	Community-hosted event	Project New Village Earth Day Fair	General public	Chollas Creek Watershed residents	40	583 ½ Logan Avenue
09/22/05	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	41	Active Construction Site
09/26/05	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	53	Active Construction Site
10/11/05	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	72	Active Construction Site
04/18/05	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	47	Active Construction Site
05/16/06	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	52	Active Construction Site
05/23/06	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	65	Active Construction Site

12.1.10 Think Blue Collateral Material Development and Distribution

Table 12-5 below identifies the campaign's collateral materials available and distributed in FY 2006 by target audiences (**Comment No. 22, SWU:10-5015.02:hammp**). The italicized entries were new items for FY 2006.

Table 12-5. *Think Blue* Collateral Materials by Target Audience.

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children	Quantity Distributed in FY 2006
Brochures/Training							
<i>Business License Storm Water Compliance Mailer</i>			X				45,000
<i>Post-Fire Best Management Practices (BMPs) for Runoff, Erosion and Sediment Control</i>	X	X	X		X		0
Recommended Do's and Don't's for Post-Fire Mitigation	X	X	X		X		0
IPM Pest Tip Cards		X	X				TBD
Water Bill Flyer (May '06)		X	X	X			275,000
SWELL: Investigation 4th Grade Curricula-Teaching Binders						X	10,661
SWELL: Investigation 5 th Grade Curriculum Teaching Binders						X	Existing
SWELL: Investigation 6th Grade Curriculum Teaching Binders						X	10,019
Pressure Wash Operators and Impervious Surface Cleaning	X	X	X	X	X		128
Construction BMP Poster	X	X			X		228
Special Events Storm Water BMPs	X	X	X			X	75
Door Hanger- Help! Pollutants were found in your neighborhood storm drain.	X	X	X	X			234
Clean Water Leader Card-	X	X	X	X	X	X	1,076
Municipal Code	X	X	X	X	X	X	800
Clean Water Leader Recognition Slip	X						75
Storm Water Warrior Recognition Slip		X	X	X	X	X	102
Storm Water and You Training Video	X	X	X	X		X	3
Storm Water and You Training Workbook	X						3
Think Blue: Easy Solutions...	X	X	X	X	X	X	2,452
Wally & Rufus Coloring Book						X	0
Trio- Storm Water Activity Sheets						X	795
Fact Sheets							
<i>Useful Tips For Cleaning-up Ash</i>	X	X	X	X	X		0
Automotive Fluids	X	X	X	X	X		1,050

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children	Quantity Distributed in FY 2006
Car Washing	X	X	X	X	X		500
Concrete Washout	X	X	X	X	X		310
Construction Area Practices	X	X	X	X	X		250
Dumpsters & Loading Dock Areas	X	X	X	X	X		1,008
Industrial Facilities				X			0
Industrial Regulations				X			0
<i>Landscape & Irrigation Links</i>		X			X		15
Impervious Surfaces	X	X	X	X	X		630
Restaurants'			X				975
Sewer Overflows	X	X	X	X	X		250
Spills	X	X	X	X	X		250
SUSMP	X	X	X	X	X		250
Swimming Pools	X	X	X				375
Water Discharges	X	X	X	X	X		250
BMP Websites	X		X	X	X		200
Other Materials							
Storm Drain Stencil	X	X	X	X	X	X	24 Referrals to ILACSD
Incentive Items (used existing stock from FY 2002 for distribution)							
Dust Pans	X	X	X	X	X	X	471
Flyers	X	X				X	0
Key Chains	X	X	X	X	X	X	1,056
Pencils	X	X	X	X	X	X	2,758
Think Blue Stickers	X	X	X	X	X	X	4,097
TOTAL DISTRIBUTED							316,346
Water Bill Text Message Notice (June 2006)		X	X	X			275,000

The cumulative total of printed materials and water bill text messages distributed in FY 2006 to target audiences in the City was **591,346**.

12.2 GENERAL EDUCATION INFO FROM OTHER CITY DEPARTMENTS

In addition to the education and outreach activities spearheaded by the Storm Water Division, other departments and divisions in the City also conducted their own activities in FY 2006. Highlights of these efforts are presented below. For more information regarding the education and outreach activities done by City departments and divisions, refer to the *Activity Reporting Forms* in Appendix B and to Section 13, *Public Participation*.

12.2.1 Water Department

Elevator Posters: This poster highlighted quality water and community fun at the City's drinking water reservoirs and recreational areas. In addition, the *Think Blue* logo was featured in this poster. Four posters were on display.

Lakes Brochure and Insert: This brochure featured operation, location, and recreation information for each of the City's nine water supply reservoirs located throughout San Diego County. Additionally, this brochure reminded patrons about their responsibility to protect water quality by disposing their trash in appropriate bins. The insert included more ways to protect water quality and had information about the Multiple Species Conservation Program. Both materials featured the *Think Blue* logo. Brochures were available at all City reservoirs and on the Water Department website. Approximately two thousand of the brochure and insert were distributed.

CityScope: Watershed Source Water Protection Segment: This video segment educates and introduces the importance of protecting our water resources and watersheds. Protecting our watersheds is important to the whole community of San Diego for many reasons: it replenishes our drinking water supply, provides recreation destinations such as the reservoirs, and helps maintain the landscapes that make our city beautiful. In addition, it also will include information about how the City protects our watersheds and reservoirs and what individual viewers can do to help protect the quality of our water. Production of the video occurred in FY 2006.

Watershed Source Water Protection Display Board: This board provided information about the City's water system of nine water supply reservoirs throughout San Diego County. It contained photos and information reflecting the importance of watersheds and reservoirs and why their protection is vital to providing healthy and safe drinking water to our communities. This board was displayed at various community events, one of which included the 2005 Clean Water Summit. The annual summit provided a focal point for stakeholder participation and provided an important opportunity to validate and fine tune the priorities and directions of Project Clean Water working bodies.

2005 Annual Drinking Water Quality Report: This report was mailed to 570,204 residential and commercial customers in the City. The report included special sections on the Drinking Water Source Assessment and Protection (DWSAP) Program and Watershed and Source Water Protection. The *Think Blue* logo, website, and phone number were also featured in the report. Additionally, a Watershed Newsletter was included in the report with information on the City's efforts to maintain and protect our reservoirs and watersheds, and features a list of community resources that one can access to learn more about participating in local water quality protection efforts.

A message in Spanish was included on the outside of the English-language report; directing customers to call the Public Information Office if they wished to receive a Spanish language version of the report. The Public Information Office received over 50 requests for the Spanish report. The report also contained the Water Operations Public Information Office phone number and an e-mail address where customers can write for more information or comment on the report. The department received many complimentary phone calls and e-mail messages in response to the report. Reports in English and Spanish were also distributed to libraries, community service centers and other key community locations.

12.2.2 Qualcomm Stadium

In FY 2006, stadium representatives and a City storm drain liaison met with parking lot vendors and clients on site and discussed storm drain issues and proper storm drain management and protection methods. All parking lot contracts and agreements issued to clients and vendors included enforceable verbiage on proper storm drain protection.

12.2.3 Park and Recreation Department

In FY 2006, over 30 free educational programs were conducted by Park and Recreation Department staff and volunteers. These education programs included storm water awareness. Over 100,000 brochures were printed or reprinted for storm water education, and approximately 20 signs, kiosks, or displays were created or updated involving storm water awareness. The park use permits issued to the public by the department (approximately 3,800 annually) included education and language on storm water pollution prevention.

12.2.4 Development Services Department

In FY 2006, large color posters promoting proper storm water pollution prevention practices at construction sites were posted throughout the Development Services Department offices to familiarize the public with these practices. Approximately 1,000 posters were provided to the construction industry To post on site. All of the pertinent storm water information was included in the department's website. A new section of the website on grading was created and included visual examples of BMPs and a frequently-asked-questions section.

12.3 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will continue to expand its education and outreach programs to more effectively reach target audiences and affect behavioral change. Specific areas for improvement include:

- Reestablishing annual residential behavior data gathering and assessment activities;
- Reestablishing a mass media campaign;
- Focusing all jurisdictional education and outreach activities around the pollutants of concern identified for each watershed within the City's jurisdiction;
- Implementing an outreach and education methodology that uses a social psychology approach that will maximize the City's efforts to achieve sustainable behavioral changes in all target audiences as identified in the Municipal Permit and to perform Level 3 assessment;
- Strengthening the municipal training program; and
- Working collaboratively with other jurisdictions to address mobile businesses as a high priority pollution source.

13 PUBLIC PARTICIPATION

13.1 PUBLIC PARTICIPATION

The following is a summary of activities that various City departments conducted that facilitated public participation on water quality issues in FY 2006.

13.1.1 *Airports: Brown and Montgomery*

In FY 2006, the Airports Advisory Committee held meetings, which involved staff from both Brown Field and Montgomery Field as well as representatives of airport users, tenants, and community planning groups directly affected by the two airports. The forum provided opportunities for public input on airport issues, including storm water. The Airports Advisory Committee met once a month for a total of 12 meetings in FY 2006.

13.1.2 *Development Services Department (DSD)*

In FY 2006, the public was provided a myriad of opportunities (approximately 350/year) to participate in water quality issues via environmental document reviews, City Council hearings, Planning Commission hearings, and Hearing Officer meetings during the project review process. In addition, DSD provided individualized training to staff on storm water pollution prevention for construction sites.

13.1.3 *Engineering & Capital Projects – Field Engineering Division*

The following public participation opportunities (and the number of opportunities) were open to the industry and/or general public in FY 2006:

- Construction Management Academy (open to industry attendance) (3)
- Building Industry Association Storm Water Training Sessions (City-cosponsored) (6)
- APWA Storm Water Training Session (1)
- Minor Contracts Outreach (1)
- Youth and College Student Outreach (3)
- Contractor-Specific Training (1)
- Meetings with the Construction Industry (several throughout the year)

13.1.4 *Metropolitan Wastewater Department*

Metropolitan Wastewater Department (MWWWD), through the Storm Water Division, participated in numerous outreach activities to involve the public in storm water-related issues and provided the opportunity for comment and involvement. Two public workshops were held to involve the public in the restoration of Chollas Creek. Finally, staff from MWWWD and numerous other City departments, including the Storm Water Division, participated in bi-monthly meetings with various stakeholders for the Open Space Canyons Advisory Committee (OSCAC); five OSCAC meetings were held. In total, MWWWD held or participated in approximately seven meetings with the public.

13.1.5 Planning Department

The City Planning and Community Investment Department (Planning Department) provided staff at many public meetings, workshops, and hearings where water quality issues were discussed. Major public outreach activities in FY 2006 included:

13.1.5.1 General Plan Update

The Planning Department has built up an e-mail database with over 1,200 contacts of individuals and organizations interested in the General Plan Update. Over 350 of these contacts have elected to receive updates on Conservation Element issues and events.

The new General Plan is intended to proactively address the challenges of growth and development through seeking solutions to infrastructure challenges, establishing better linkages between transit and land use planning, preserving important open spaces, strengthening the City's existing communities, and creating new neighborhood centers. The July 2005 version of the Draft General Plan represented the results of five years of public input and staff work to prepare the Strategic Framework Element of the Draft General Plan and then to update the balance of the 1979 General Plan. Because of active participation from the Storm Water Division, the Draft General Plan incorporated significant language regarding storm water and urban runoff pollution prevention in the following elements: Conservation; Mobility; Urban Design; Public Facilities, Services, and Safety; and Recreation. A revised Draft General Plan was posted on the Planning Department's website on May 2006. A public review version was released in October 2006 with an anticipated March 2007 City Council hearing date.

The complete draft General Plan is available online at <http://www.sandiego.gov/cityofvillages>.

13.1.5.2 Community Planning Activities

- Mission Valley Community Plan Update/San Diego River Master Plan. Planning staff regularly attended San Diego River Coalition, San Diego River Conservancy, and Mission Valley Planning Committee meetings where water quality/river issues were discussed. In FY 2006, a total of eight San Diego River Coalition meetings were attended.
- Ocean Beach Community Plan Update. In FY 2006, approximately 10 Ocean Beach Community Planning Group meetings were held to develop, draft and discuss issues. A significant amount of time was spent at each meeting on water quality, San Diego River, urban runoff, and beach cleanup issues.
- Chollas Creek Enhancement Plan. In FY 2006, public meetings included three community workshops, quarterly briefings with the Southeastern and Encanto planning committees, and regular updates to the Mayor's Wetlands Advisory Board and other environmental organizations.
- Central Police Garage Project. This project falls within the purview of the Chollas Creek Enhancement Plan. In FY 2006, two planning group, two Planning Commission, and two City Council hearing meetings were held.
- Auburn Park Apartments Project. In FY 2006, one local planning group, one Planning Commission, and one City Council meetings were held.
- Fox Canyon Neighborhood Park Project. In FY 2006, one local planning group, one Hearing Officer, one Planning Commission, and one City Council meetings were held.

- San Pasqual Vision Plan. This vision plan was discussed at the San Pasqual and Rancho Bernardo Planning Group meetings and then presented to the City Council's Land Use and Housing Committee in May 2006.

13.1.5.3 *Watershed Management Plans*

Public meetings and outreach opportunities held in FY 2006 included meetings held for the San Dieguito River Management Plan (see Item H of "Program Assessment" of the Planning Department's FY 2006 *Activity Reporting Form*).

13.1.6 **Police Department**

In FY 2006, the Police Department continued working with other City departments and community groups on the construction of the Northwestern Area Station where community input would be incorporated into the design. The department also worked with the community to gain input on its canine and shooting range projects. Two community meetings were held to discuss these projects in FY 2006.

13.1.7 **Water Department**

The 2005 Annual Drinking Water Quality Report was mailed to 570,204 residential and commercial customers in the City. The report included special sections on the Drinking Water Source Assessment and Protection (DWSAP) Program and Watershed and Source Water Protection. The *Think Blue* logo, website, and phone number were also featured in the report. Additionally, a Watershed Newsletter was included in the report with information on the City's efforts to maintain and protect our reservoirs and watersheds, and features a list of community resources that one can access to learn more about participating in local water quality protection efforts.

A message in Spanish was included on the outside of the English-language report; directing customers to call the Public Information Office if they wished to receive a Spanish language version of the report. The Public Information Office received over 50 requests for the Spanish report. The report also contained the Water Operations Public Information Office phone number and an e-mail address where customers can write for more information or comment on the report. The department received many complimentary phone calls and e-mail messages in response to the report. Reports in English and Spanish were also distributed to libraries, community service centers and other key community locations.

Staff from various sections of the Water Department attended numerous events such as: Council District meetings, community planning group meetings, community fairs and festivals, town council meetings, and construction meetings. Members of the public were given the opportunity to provide feedback to the department regarding its water quality activities via meetings and also via the department's website. In addition, CIP and the Water Conservation Program had the following educational/informational materials and brochures:

Water Conservation Calendar was distributed to 10,000 residents Citywide. Created by using student posters, the calendar also included water conservation tips and storm water messages. The *Think Blue* logo was featured in the calendar. Calendars were distributed at various locations, such as: Recycled Water Overview Class for Water and Wastewater Employees, Lake Miramar Public Improvement Ceremony, Recycled Water Overview Class for Water and Wastewater Employees, Media Event to launch 6th Grade Curriculum for Project SWELL,

"Behind-the-Scenes" Tour of the North City Water Reclamation Plant for current and future recycled water customers, Science, Connections and Technology Showcase, Kearny High Educational Complex, Recycled Water Overview Class for Water and Wastewater Employees, and other community events.

La Jolla/Pacific Beach Water Main Replacement project newsletter containing the *Think Blue* logo was distributed to 3,568 residents and businesses in fall 2005. Additional fifty La Jolla/Pacific Beach newsletters sent to Pacific Beach library in fall 2005. The newsletter also contained the storm water pollution prevention phone number in our list of useful phone numbers.

AWTP WaterLines, the construction update newsletter for the Alvarado Water Treatment Plant Upgrade and Expansion Project, was distributed to 7,000 residents, businesses, and community facilities. The newsletter included an article describing the BMPs for use of pesticides and herbicides and cites where BMP brochures could be obtained.

Staff also continued to develop partnerships and collaborations with other related local and regional organizations to promote the importance water quality protection. Following is a list of other public participation opportunities that the Water Department was actively a part of in FY 2006:

- Eight public meetings for the San Dieguito Watershed Management Plan
- Five meetings to present and discuss the *Source Water Protection Guidelines for New Development* with City of Escondido, County of San Diego, City of San Diego Planning Department Citizen Advisory Group [twice], and Building Industry Association of San Diego
- Participation in Project Clean Water Watershed Technical Advisory Committee
- Participation in *Integrated Regional Water Management Plan*, part of Prop 50, seeking funds for water supply, water quality, and watershed projects

13.2 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

Because of the importance of public acceptance and understanding of water quality issues in order for pollution prevention efforts to be successful, the City will continue to actively pursue public participation activities to allow public input in storm water issues. To maximize efforts, the City will continue to weave opportunities for public involvement into ongoing public with similar or parallel issues, such as the City's Open Space Canyons Advisory Committee. The City will pursue "stand along" public participation opportunities for storm water issues, such as staffing booths at Earth Day fair or other large events, holding industry training/participation workshops, etc.

14 ASSESSMENT OF URMP EFFECTIVENESS

14.1 METHODOLOGY

The primary responsibility for the assessment of the overall program lies with the Storm Water Division. However, other departments and divisions subject to requirements within the URMP are responsible for self-evaluation and reporting to the Storm Water Division. As part of the reporting process, departments quantified activities relevant to each component of the URMP and provided a qualitative account of specific component activities. Each department also provided financial information on storm water expenditures for FY 2006 (refer to Section 15, *Fiscal Analysis*). Completed department FY 2006 *Annual Reporting Forms* are provided in Appendix B.

This Section assesses the City's efforts at two scales. First, at a broad scale, this Section provides an assessment of the City's overall storm water quality protection efforts. Because this assessment covers efforts City-wide, the assessment relies on correspondingly broad sets of data and analyses. Second, at a program-specific scale, this Section provides a quantitative and qualitative assessment of each URMP program area. As in past years, the City relies predominantly on qualitative assessments of program activities in this year's assessment, and, where possible, direct quantitative measures are used to assess the effectiveness of program areas. The program-specific assessment also includes analysis of each program's strengths and weaknesses.

This assessment has been conducted using the assessment approach and data categorization methodology developed by the Copermittees. The levels of data are listed below.

- Level 1: Compliance with Activity-Based Permit Requirements
- Level 2: Changes in Knowledge or Awareness
- Level 3: Behavioral Change/BMP Implementation
- Level 4: Load Reductions
- Level 5: Changes in Discharge Quality (no analysis at this level)
- Level 6: Changes in Receiving Water Quality

In addition, please note that in addition to relying on activity-based permit requirements as Level 1 data, the Storm Water Division uses non-Permit requirement targets that the City has identified as internal measures to assist in evaluating the effectiveness of program efforts.

14.2 OVERALL PROGRAM ASSESSMENT

Although the City has very few data sets that span several years, it is working to collect this information and improve the process. In addition, the City will continue to collaborate with its Copermittees in the periodic updating of the *San Diego Storm Water Copermittees Jurisdictional Urban Runoff Management Program Baseline Long-Term Effectiveness Assessment*, or BLTEA, which will provide Levels 5 and 6 data for use in analysis. Through the BLTEA, the City will be able to draw stronger conclusions regarding the trends in the quality of our receiving waters and effectiveness of our water quality protection efforts.

In the interim, however, it should be noted that the percentage of beach advisories and closures as compared to total beach mile days possible has continued to trend downward from calendar years 2000 through 2006 (see Figure 14-1). This Level 6 data is an indicator of continued

improvement in receiving water quality within the City, which is the ultimate management goal of the Storm Water Division. Although it is premature to draw conclusive linkages between program efforts and receiving water quality, it can be inferred from this data that **the City's, and specifically the Storm Water Division's efforts have, to some degree, positively contributed to protection of surface water quality in the region.**

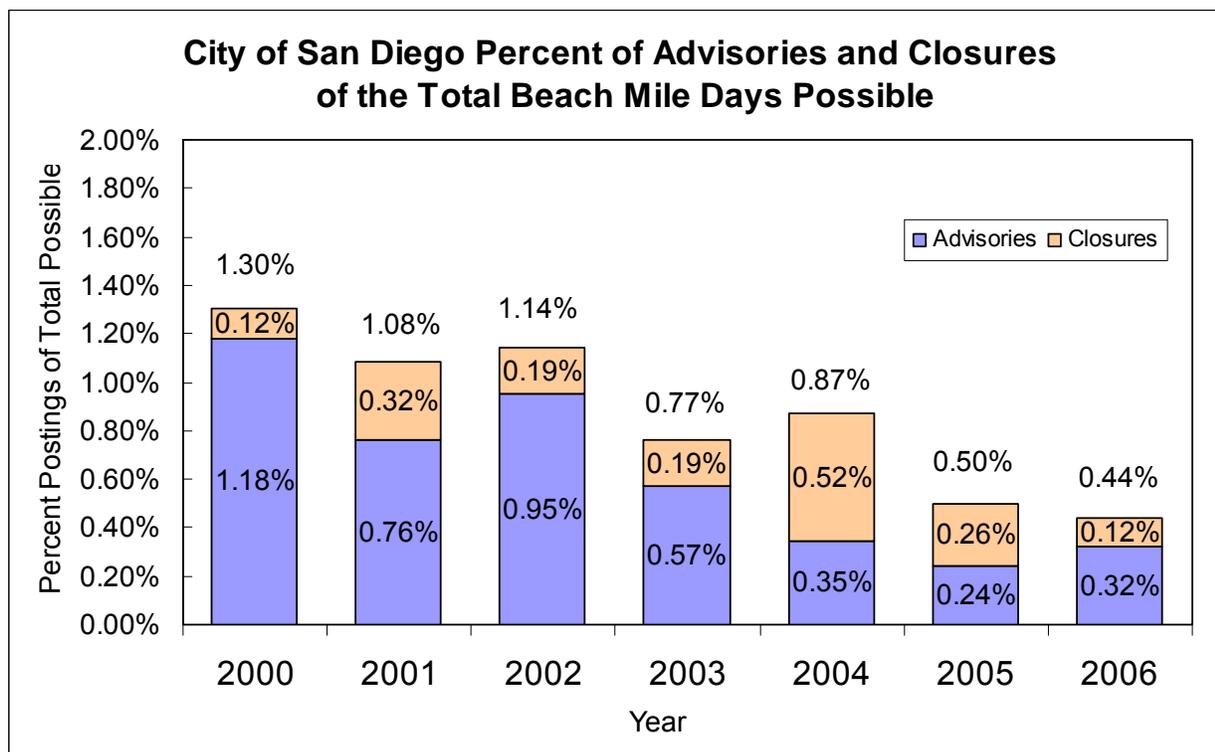


Figure 14-1. Percent of Beach Advisories and Closures as Compared to Total Beach Mile Days Possible.

The high variability of contributing factors to urban runoff monitoring, (e.g., geography, vegetation, duration and intensity of storm events, ambient environmental conditions, existing conditions of receiving waters, and wildlife, such as birds) makes it difficult to define typical storm water discharges, let alone develop standardized means of assessing their impacts. This variability in storm water monitoring data necessitates greater temporal and spatial breadth in data sets before they can be considered statistically significant. However, in some cases, it is possible to identify quantities of pollutants removed from the storm drain system, changes in public awareness of storm water issues, and identify behavioral change by the public—all of which may be used to draw inferences regarding effective program implementation. Therefore, as with previous program assessments, the Storm Water Division cannot make strong conclusions regarding the program's effectiveness on improving receiving water quality in FY 2006. However, the continued trend in reduced beach mile closures and advisories shown in Figure 14-1 is an indication that the City's efforts are likely having a positive impact on water quality in the region.

As another broad indicator of the overall effectiveness of the City's water quality protection efforts, especially the Metropolitan Wastewater Department, the City continues to reduce the number of sewer spills from 365 spills in 2000 to 71 in 2006 (see Figure 14-2). It can be assumed that the reduction in sewer spills throughout the years has resulted in reductions to the

amount of sewage loaded into the region's waterbodies and that discharge quality has improved.

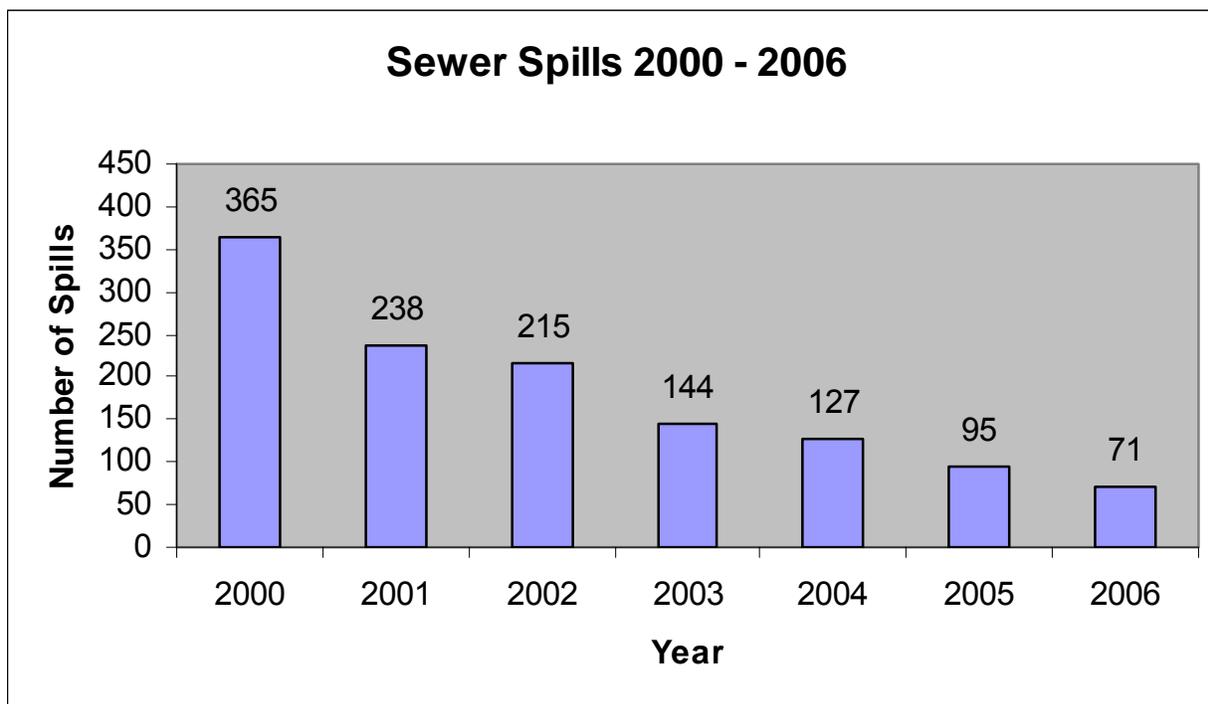


Figure 14-2. City of San Diego Sewer Spills from 2000 - 2006.

This program assessment concludes that the City is effectively implementing numerous activities that likely positively affect water quality in the San Diego region. Specific examples include:

- ✓ *The City's Think Blue education and outreach campaign continues to increase awareness of storm water pollution with residents and businesses. During the past couple of years, grant-funded efforts have focused on the San Diego Bay Watershed, particularly along Chollas Creek, a major tributary to San Diego Bay.*
- ✓ *The City continues to expand and maintain the low-flow diversion system to direct urban runoff during dry weather away from Mission Bay and other coastal areas to the wastewater treatment system.*
- ✓ *The City's pollution abatement efforts continue to identify and abate sources of pollution, as evidenced by the reductions in beach postings and closures over the last six years.*
- ✓ *The Storm Water Division has completed construction of two structural best management practices that will directly improve water quality in Mission Bay: the Mission Bay Central Computerized Irrigation System and the Tecolote Creek Water Quality Improvement Project in the Tecolote Watershed.*
- ✓ *The City's special monitoring studies have identified and characterized water quality issues, such as bacteria in Mission Bay, so that program efforts can be most effectively applied to sources of pollution.*

- ✓ *The City has obtained approximately \$12 million in grants and has contributed City funding to implement monitoring projects, special studies, habitat and wetlands improvement projects, cleanup events, and other BMPs all focused on protecting and improving water quality.*
- ✓ *The Development Services Department and the Engineering and Capital Projects Department continue to work collectively to oversee the development industry and ensure the City maintains storm water compliance at construction sites.*

14.3 ASSESSMENT OF PROGRAM COMPONENTS

14.3.1 Municipal

Table 14-1. Level 1: Compliance with Activity-Based Permit Requirements – Municipal.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.3.a.(5)	Inspect Storm Drain Structures	% Completion	100% (≈ 75,000)	21.6% (16,230)	17.3% (12,971)	21.4% (16,069)
F.3.a.(5)	Clean Storm Drains	% Completion	100% (≈ 1,050 Miles)	0.2% (2.21 miles)	0.5% (4.9 miles)	0.6% (6.3 miles)
F.3.a.(7)	Inspect Municipal Facilities	% Completion	100% (540*)	162% (876)	114% (615)	100% (540)

*Excludes City-owned leased properties.

Table 14-2. Levels 1 and 4: Achievement of In-House Targets – Debris Removed Due to Storm Drain Inspections and Cleanings.

Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
Inspect & Clean Storm Drain	FY 2004 level	31,925 tons (100% of FY 2004 total)	6,736.7 tons (21.1%)	26,635 tons (82.6%)	31,925 tons

Table 14-3. Level 1: Achievement of In-House Targets – Municipal Facilities with Water Quality Plans.

Municipal Facility	Type of Plan Implemented	Target	Number of Facilities
Municipal Yards/Operation Stations	SWPPP or WQMP	5	5
Airfields	SWPPP	2	2
Park & Recreation Facilities	BMP Manual for Storm Water Pollution	700*	700*
Landfills	SWPPP	7	7
Fire Department Facilities	SWPPP or WQMP	47	47
Wastewater Pump Stations and Reclamation Plants	SWPPP	11	11
Police Facilities	WQMP	13	13
Stadium	SWPPP	1	1
Water Treatment Plants	SWPPP	3	3
Reservoirs	SWPPP	9	9
Other Water Reservoirs and Pump Stations	Quarterly Storm Water Inspection Program	78	78

*Although each park and recreational facility is maintained and inspected by staff, storm water issues at these facilities are managed collectively by the Park & Recreation BMP Manual for Storm Water Pollution.

Program Strengths

All high priority municipal sites as listed in the above table are inspected at least annually and often times more frequently. Additionally, most high priority facilities, including all operations yards, operate under a Storm Water Pollution Prevention Plan or a Water Quality Management Plan. Table 14-3 lists these facilities.

Municipal employees continue to be aware of the importance of storm water pollution prevention and the implementation of BMPs. They continue to implement BMPs throughout the course of their work as evidenced in the *Annual Reporting Forms* in Appendix B (**Comment No. 26, SWU:10-5015.02:hammp**). For example, the Park and Recreation Department reduced trash loads by 19,785 tons through staff collection and contract programs in FY 2006; by maintaining the City's park and recreational facilities free from trash in a timely manner, especially after events, there is less chance for the trash to end up in the region's waterbodies. Also, the Environmental Services Department's Field Operations Division provided service to other departments/divisions, which resulted in 108.13 tons of trash and debris being diverted from the storm drain system and not loaded into local waterbodies. The services that were provided included bin service for sweepers, cleaning drains, cleaning right of ways, clearing transient camps, clearing unwanted vegetation, and clearing illegal dumps (**Comment No. 27, SWU:10-5015.02:hammp**). Reducing trash and debris loads into the MS4 has contributed to protecting water quality.

The Street Division's procedures for cleaning the City's MS4 in FY 2006 resulted in approximately 6,736.7 tons of debris collected from storm drain structures and channels and 4,122.09 tons of debris collected through street sweeping for a total of 10,858.79 tons. The debris was collected prior to reaching the region's beaches and bays. The City also participated in cleanup events, gathered recyclables, and conducted other activities to remove trash and debris before reaching the MS4.

Program Improvement Areas

The City will continue to study alternative funding sources, including an increase of the existing storm drain fee, to enhance its storm drain structure inspection and cleaning efforts in future fiscal years. Per the Mayor's 5-year financial outlook for the City, funds allocated towards water quality protection and improvement activities, including storm drain inspection and cleaning, are anticipated to increase (approximately an additional \$10 million is being included in the FY 2008 budget for storm water-related activities per the Mayor's direction). In the meantime, the City will continue to make the most of its current resources through prioritization, focusing on structures most in need of attention as identified.

14.3.2 Industrial

Table 14-4. Level 1: Compliance with Activity-Based Permit Requirements – Industrial.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.3.b.6	Inspect Industrial Facilities	% Inspected	100% (315)	100% (315)	100% (243)	100% (381)

Program Strengths

The Storm Water Division continues to use an environmental consultant/contractor to perform industrial inspections. In addition to the environmental consultant, inspections are performed by well-trained pretreatment inspectors within the City’s own Metropolitan Wastewater Department. The inspections are very thorough and include documentation on a field inspection sheet. In addition, the consultant/contractor continues to use a relational database to track inspections. This database should allow Storm Water Division staff to evaluate inspections using GIS and to be able to relate abnormalities in dry weather monitoring data to industrial activity and industrial activity with code compliance enforcement activity. While this system is still under development and being improved, the database allows staff to inventory, prioritize, and manage the data needed to implement the Industrial Program and evaluate its effectiveness.

The Storm Water Division continues to improve its number of industrial site inspections. The number may vary from year to year due to industrial sites, for example, going out of business, moving to a different locale, or changing the manner that they conduct their activities in a way that alters their status as industrial facilities. In addition, the Storm Water Division and its consultant began to target sites for inspection suspected of being high priority sites but not subject to the State Industrial Permit. This activity has not only contributed to improving the City’s inspection efforts of industrial sites (from 243 sites in FY 2005 to 315 in FY 2006) but also to enhancing its complete list of prioritized industrial sites, which can be found in Appendix C-1 (**Comment Nos. 23 and 24, SWU:10-5015.02:hammp**).

Program Improvement Areas

The Storm Water Division will continue to work to identify those businesses that require coverage under the Industrial Program. It is anticipated that there will be an improvement in the tracking of enforcement and follow-up actions conducted at industrial facilities as database improvements are made to facilitate enforcement.

14.3.3 Commercial

Table 14-5. Level 1: Achievement of Activity-Based In-House Targets – Commercial.**

Applicable Permit Section	Activity	Measure of Success	Target*	FY 2006 Actual	FY 2005 Actual	FY 2005 Actual
F.3.c	Notify commercial business of storm water regulations	% completion	100% (100,000 business licensees)	45% (45,000)	11% (11,000)	11% (11,000)

*The City currently maintains a database of over 14,000 restaurants and over 2,500 other high priority businesses. Some of these businesses however may be considered industrial facilities.

**Tracking of this data was listed in previous Annual Reports as a Permit requirement.

Table 14-6. Level 1: Compliance with Activity-Based Permit Requirements - Commercial.

Activity	Measure of Success	Target*	FY 2006 Actual	FY 2005 Actual	FY 2005 Actual
Inspect Commercial Facilities	% Completion	100% (3,000)	149.1% (4,473)	149% (4,469)	123% (3,703)

*The City currently maintains a database of over 14,000 restaurants and over 2,500 other high priority businesses. Some of these businesses however may be considered industrial facilities.

Program Strengths

The Food Establishment Waste Discharge (FEWD) Program within the Metropolitan Wastewater Department continues to be the backbone of the Commercial Program of the City. This program is staffed by inspectors formally trained to conduct storm water inspections in and around eating and drinking establishments. During the course of their inspections, they educate owners, managers, and workers on relevant storm water pollution prevention principles and distribute appropriate educational materials. FEWD is able to reach approximately 4,500 establishments annually (4,473 in FY 2006), which is approximately 32.1% of the eating and drinking establishments within the City (around 14,000).

FEWD also coordinates with the Storm Water Division in abating illegal discharges from such facilities. Code Compliance Officers from the Storm Water Division investigate referrals by FEWD (16 in FY 2006), and many of these investigations result in enforcement actions.

In addition to FEWD, the City's Commercial Program continues to be strong in the area of reports through the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax). The Storm Water Division receives many reports through these means regarding commercial facilities illegally discharging into the storm water conveyance system, which are investigated and abated through the issuance of Notices of Violation, Administrative Citations, Civil Penalties, and, in extreme cases, criminal prosecution by the Office of the City Attorney. The City holds that such actions contribute significantly to the enforcement of the Storm Water Ordinance and the education of commercial facility operators regarding storm water pollution prevention.

Furthermore, the City has been successful in taking steps to improve its tracking of enforcement actions by Permit section (i.e., residential, commercial, industrial, and construction). An interim database has been set up to record the illegal discharge reports received by the Storm Water Division and the enforcement action taken to address those reports. The database requires Code Compliance Officers to indicate the type of facility where the illegal discharge occurred, which will allow the Storm Water Division, in future fiscal years, to track enforcement actions at commercial facilities and perform better analysis of its Commercial Program.

Program Improvement Areas

While these inspections address the primary potential commercial source of storm water pollution, in future years, the Storm Water Division will continue efforts to expand the commercial inspection inventory. In FY 2007, Storm Water Division staff will coordinate with a consultant to design and implement an action plan to expand the City's commercial inspection inventory.

The Storm Water Division will also continue to improve its enforcement database in light of the re-issuance of the Municipal Permit and anticipated coordination with the other Copermittees to establish regional effectiveness assessment standards to allow for cross-jurisdictional and cross-programmatic (e.g., JURMP, WURMP, and RURMP) analyses. Finally, similar to the Industrial Program, the City anticipates updating its fact sheets relating to commercial activities and educating operators with these new fact sheets in future years.

14.3.4 Residential

Table 14-7. Levels 1 and 4: Achievement of Activity-Based In-House Targets – Residential.*

Activity	Measure of Success	Target*	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
HHW Collection	% completion	100% of FY 03 total (1,043 tons)	533.9% (5,569 tons)	1,093 tons* (105%)	1,071 tons (103%)

*Tracking of this data was listed in previous Annual Reports as a Permit requirement.

Program Strengths

The Environmental Services Department’s Household Hazardous Waste (HHW) Program continues to do well in the investigation, maintenance, collection, and remediation of hazardous substances, including HHW from facilities, residents, vacant land, and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill. The Environmental Services Department also collects HHW from certified collection centers within the City. Aside from the benefit of reducing loads by collecting over 5,569 tons of hazardous waste in FY 2006 (**Comment No. 27, SWU:10-5015.02:hammp**), this program helps protect water quality because a large component of the HHW Program is conducting education and outreach to educate residents on the proper use and disposal of hazardous materials. One inference that can be made regarding the rise in the number of tons of HHW collected over the years is that residents are changing their behavior to be more environmentally/storm water-friendly based on their heightened awareness as a result of City efforts (**Comment Nos. 25 and 26, SWU:10-5015.02:hammp**).

Also in FY 2006, City Code Compliance Officers investigated reports of illegal discharge into the storm water conveyance system in residential areas. Many of these investigations resulted in enforcement actions and also provided opportunities to educate members of the public.

The City continues to successfully reach out to residents and educating them (e.g., through water/sewer bill mailings) about the importance of implementing storm water pollution prevention principles to protect the region’s beaches, bays, rivers, and lagoons. Particularly notable is the City’s effort to effect behavioral changes among Chollas Creek Watershed residents through the implementation of an Integrated Pest Management campaign.

Furthermore, the City has been successful in taking steps to improve its tracking of enforcement actions by Permit section (i.e., residential, commercial, industrial, and construction). An interim database has been set up to record the illegal discharge reports received by the Storm Water Division and the enforcement action taken to address those reports. The database requires Code Compliance Officers to indicate the type of facility where the illegal discharge occurred, which will allow the Storm Water Division, in future fiscal years, to track enforcement actions at residential sites and perform better analysis of its Residential Program.

Program Improvement Areas

The City will continue to work to improve the tracking of enforcement actions at residential sites. The Storm Water Division will also continue to improve its enforcement database in light of the re-issuance of the Municipal Permit and anticipated coordination with the other Copermittees to establish regional effectiveness assessment standards to allow for cross-jurisdictional and cross-programmatic (e.g., JURMP, WURMP, and RURMP) analyses.

14.3.5 Land Use Planning

Table 14-8. Level 1: Compliance with Activity-Based Permit Requirements – Land Use Planning.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.1.b	Apply SUSMP requirements to applicable development	% completed	100% (266 projects)	100% (266 projects)*	100% (302 projects)	100% (378 projects)

*This number is assumed to be consistent with the number of projects that were reviewed for SUSMP requirements since all applicable projects must be reviewed for compliance prior to permit approval.

Program Strengths

The Community Planning and Investment Department continues to refine the General Plan Update document for anticipated adoption by the City Council in 2007. The Conservation; Mobility; Urban Design; Public Facilities, Service, and Safety; and Recreation elements of the draft General Plan Update include language on water quality and watershed protection principles to help guide the City and development community in protecting the region’s water resources.

In addition, as community plans are updated throughout the City, water quality and watershed protection principles continue to be incorporated into them, as exhibited by the updates to the Ocean Beach and Mission Valley community plans currently underway.

The City’s *Storm Water Standards Manual*, which requires permanent (SUSMP) BMPs and construction BMPs on all applicable development projects, continues to be applied to all public and private development projects. In FY 2006, 251 private and 15 CIP projects were considered Priority Projects under the Model SUSMP, and were required to incorporate treatment control BMPs, as required by the *Storm Water Standards Manual*. Each of these projects implemented permanent BMPs in their project design to address receiving water quality (**Comment No. 26, SWU:10-5015.02:hammp**). Assuming that these BMPs performed with some degree of effectiveness, it can also be inferred that the City’s requirement to implement development-related BMPs is having some positive effect on the discharge and receiving water quality in the region in FY 2006 (**Comment No. 28, SWU:10-5015.02:hammp**).

Development Services Department staff performing review of permanent BMPs on private projects also continues to undergo periodic training and are involved in biweekly discussions involving storm water requirements for development. An educated City force aware of storm water issues and pollution prevention issues helps ensure that development proposal take into consideration water quality.

In addition, it is reasonable to infer that the City’s continued efforts to educate its labor force and the public on storm water pollution prevention principles and enforce its Storm Water Ordinance have resulted in a higher level of awareness of storm water pollution, which, in turn, have led to increased BMP implementation throughout its jurisdiction and beyond, whether that be a resident choosing to deposit used motor oil at a designated collection center instead of into a storm drain or a commercial establishment using covered bins to store its trash.

Program Improvement Areas

The Storm Water Division will work to continue training of City staff responsible for implement SUSMP requirements on both public and private projects. It is anticipated that work on updating

the City's *Storm Water Standards Manual* will commence in FY 2007 in light of the re-issuance of the Municipal Permit and in coordination with the other Copermittees.

14.3.6 Construction

Table 14-9. Level 1: Compliance with Activity-Based Permit Requirements – Construction.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.2.g	Inspect high priority construction sites	% completion	100% (180)	100% (180)	100% (129)	100% (69)
F.2.g	Inspect medium/low priority construction sites	% completion	100% (919)	100% (919)	100% (800)	100% (759)

Program Strengths

The City continues to be successful in tracking and inspecting all private and CIP construction projects with a high, medium, or low construction priority rating. BMPs are required and being enforced for all construction projects consistent with the requirements of the City's *Storm Water Standards Manual*. The Field Engineering Division, through its Construction Storm Water Management Section, continues to be able to inspect and ensure effective implementation of BMPs on grading sites. The section includes one Senior and three Associate Civil Engineers to provide in-house expertise on storm water requirements to resident engineers, as well as serve as training coordinators and liaisons to other departments and divisions on storm water issues. The fact that inspections are occurring signifies that BMP implementation is happening, and awareness of storm water pollution prevention principles is being promoted as a top value.

Program Improvement Areas

Trainings and meetings focusing on site erosion and sediment controls will continue to be conducted for Inspection Services Division staff in the Development Services Department and Field Engineering Division staff in the Engineering & Capital Projects Department.

Although the Inspection Services Division and Field Engineering Division have effective programs in place to ensure all job sites are inspected and tracked, the City generally lacks software and data management tools designed to capture data for reporting purposes. Staff members from Inspection Services Division are currently coordinating to determine the processes and procedures necessary to assign, track, and report on the priority level of each building permit issued. Staff will then modify the City's Project Tracking System to enable the active tracking and scheduling of inspections (both routine ones and follow-ups) based on priority level and the rainy/dry seasons. The Development Services Department anticipates implementing these actions within the next 12 months (**Comment No. 17, SWU:10-5015.02:hammp**). This will be an area for continued improvement in future years, and, in light of the re-issuance of the Municipal Permit, the City anticipates coordinating with the other Copermittees to formulate regional data standards to allow for cross-jurisdictional and cross-programmatic analyses and effectiveness assessment.

14.3.7 Monitoring

Table 14-10. Level 1: Compliance with Activity-Based Permit Requirements – Monitoring.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
Attachment B(c)	Monitor Coastal sites	% Completed	100% (357)	100% (357)	100% (357)	100 (323)
Attachment E(4)	Monitor dry weather sites	% Completed	100% (308)	100% (306*)	100% (311)	98% (293)
Attachment E(4)	Conduct follow-ups on DWM exceedances	% Completed	100% (113)	100% (113)	100% (113)	data unavailable

*Number of sites can vary each year as new sites are identified or old ones are abandoned.

Program Strengths

In FY 2006, Storm Water Division staff visited 306 sites (308 sites minus two sites lost to construction) and performed monitoring at 306 sites within the storm water conveyance system as part of the Dry Weather Monitoring Program. This program provides thorough coverage of the six watershed areas within the jurisdiction of the City. Dry weather monitoring data is stored in a spreadsheet, which allows for limited GIS mapping. This data storage method has allowed Storm Water Division staff to perform limited statistical analysis in order to refine investigational triggers and identify areas that need further investigation.

The Storm Water Division's monitoring staff continues to implement the Coastal Storm Drain Monitoring Program as scheduled.

Program Improvement Areas

The Storm Water Division will continue to work on being able to collect and provide its monitoring data in a format that would allow for greater GIS mapping and analysis and statistical capabilities.

14.3.8 Enforcement

Table 14-11. Level 1: Compliance with Activity-Based Permit Requirements – Enforcement.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.5.c	Investigate identified illicit discharges	% Completed	100%	100% (1,531)	100% (1,659)	100% (1,694)

Program Strengths

The Investigations and Enforcements Section of the Storm Water Division continues to be efficient in conducting investigations and issuing the appropriate enforcement actions. Appendix F provides a record of the investigations performed by the Code Compliance Officers in FY 2006. Note that every single reported discharge reported to the Storm Water Division was investigated. In FY 2006, 729 notices of violations, 234 administrative citations, 149 civil penalties were issued, and almost \$160,000 in fines were assessed. Two storm water-related prosecutions by the City Attorney's Office closed in FY 2006 as well. Code Compliance Officers also continue to do well in educating violators about the importance of storm water pollution prevention through the educational materials (*Think Blue* fact sheets) that they hand out and the

numerous interactions (both face to face and via the telephone) that they have with the public throughout the course of their duties.

Program Improvement Areas

The Investigations and Enforcements Section will continue to make enhancements to its database to further facilitate the tracking and analysis of investigations and enforcement actions. In addition, the Division will continue to strive to reduce response times to investigations.

14.3.9 Illicit Discharge Detection and Elimination

Table 14-12. Level 1: Compliance with Activity-Based Permit Requirements – Monitoring.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.5.c	Investigate potential illicit discharges	% Completed	100% (214)	100% (214)	35% (48)	45% (47)
F.5.d	Eliminate discharges	% Completed	100% (94)	89% (84)	25% (33)	45% (47)

Program Strengths

Storm Water Division staff worked successfully in FY 2006 to increase the rate of investigations successfully completed. In this fiscal year, staff improved its tracking of investigations and was able to document not only an increase in the number of discharges investigated, but also a significant increase in the number of discharges eliminated. Of the 94 instances in which an illicit discharge was detected, only ten cases resulted in no responsible party identified. The majority of the 94 illicit discharges resulted in appropriate enforcement action, ranging from the distribution of educational materials to the levying of civil penalties. It can be inferred that, because progress is being made towards the identification and elimination of illicit discharges, discharge water quality is improving in the City (**Comment No. 28, SWU:10-5015.02:hammp**).

Program Improvement Areas

In FY 2006, the Storm Water Division was unable to complete follow-up investigations in a timely manner due to budgetary and staffing challenges. As a result, the Storm Water Program was issued a Notice of Violation for not completing follow-ups associated with dry weather monitoring. To remedy this, the City contracted with Weston Solutions to conduct dry weather follow-up investigations. Weston completed follow-up sampling and investigations for the 2003, 2004, 2005, and the current 2006 (FY 2007) seasons (**Comment No. 18, SWU:10-5015.02:hammp**).

In light of the expanded Dry Weather Monitoring program outlined in the recently-adopted Municipal Permit (Order No. R9-2007-0001), the Storm Water Division will seek sufficient resources to meet the expanded Dry Weather Monitoring Program (approximately an additional \$10 million is being included in the FY 2008 budget for storm water-related activities per the Mayor’s direction).

14.3.10 Education

Table 14-13. Level 1: Compliance with Activity-Based Permit Requirements – Education.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.4	Conduct outreach	% completion	100% of 2003 number of 89	26.7% (24)	Unknown. Outreach tracking was disrupted in FY 2005 on into FY 2006	55% (49)

Table 14-14. Level 1: Achievement of Activity-Based In-House Targets – Education.*

Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
Distribute educational materials	% completion	100% of 2003 amount of 48,725	1,213.6% (591,346)	Unknown. Materials distribution was not tracked in FY 2005.	316.% (154,390)

*Tracking of this data was listed in previous Annual Reports as a Permit requirement.

Program Strengths

The Storm Water Division continues to implement an education and outreach program targeted for both City staff and external target audiences, including residents, business, industry, construction and children. The City's *Think Blue* campaign consists of commercials, public service announcement development and airing, a website, training, and educational material development and distribution to educate the public about storm water and urban runoff pollution prevention.

Other departments and divisions continue to conduct education and outreach to employees and target audiences. Departments continue to provide staff with general and activity-specific storm water training. Additionally, many departments have created and distributed a large number of storm water educational materials and advertisements and have conducted workshops and outreach programs as both internal and external education measures. These activities demonstrate the level of storm water awareness achieved by the City among its employees, which inevitably translate into greater education and outreach efforts towards the public.

The Storm Water Division was unable to conduct its annual residential storm water survey in FY 2006. However, it is anticipated that the survey will be once again conducted in FY 2007. While recent data is not available, it can be inferred from the FY 2004 and previous surveys that behavioral change continues to progress in a positive direction as a result of the City's efforts to educate the public and its labor force on storm water pollution prevention principles and enforce its Storm Water Ordinance vigorously. To review, per the results of the *Storm Water Pollution Prevention Program 2004 Follow-up Survey of City Residents*, six behaviors changed in a positive and statistically significant direction.

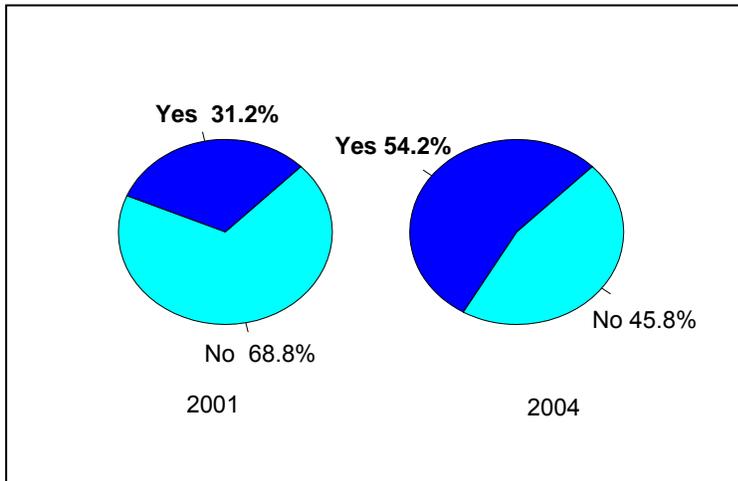


Figure 14-3. Awareness of the Slogan *Think Blue*.

Insofar as the *Think Blue* slogan is concerned, the increase in awareness over time has been quite dramatic. Awareness of the slogan has steadily increased over time and now extends to over half of the city’s population. In 2001, some 31.2 percent of the City population registered awareness of the slogan. The change/increase is also statistically significant (see Figure 14-3).

In FY 2006, the City completed the process of moving the site from an external, private web management company and server to a City-managed site and web server. The transfer of the site disrupted the City’s tracking of web visitors. The City has data to report for only the last month of FY 2006, which was around 6,000 hits. Because the site was still available on the outside provider host site until mid June 2006, it is reasonable to assume that the site continued to attract the same volume of visitors as in years past. The number of web site visits in FY 2006 is estimated to have been 400,000.

The site includes all of the campaign’s informational fact sheets, brochures, the City’s Urban Runoff Management Plan, the Storm Water Ordinance (Section 43.03 of the San Diego City Municipal Code), information on the Chollas Creek Environmental Improvement and Awareness Programs, a calendar of upcoming storm water events and outreach activities, the PSAs, and other educational videos. A large portion of the site is available to browsers in both the English and Spanish languages.

Program Improvement Areas

As a result of the decreased broadcast media campaign, in FY 2006, the Storm Water Division realized a decrease in contacts (see Table 14-15). The declining contact volume coincides with two consecutive years of decreased advertising for *Think Blue*.

Table 14-15. Level 2: FY 2002 through FY 2006 Contacts Received*.

Fiscal Year	Total Contacts	Water Quality Contacts	Other (e.g., Information, Wrong Number, etc.)
2002	2,904		
2003	4,206		
2004	4,695		

Fiscal Year	Total Contacts	Water Quality Contacts	Other (e.g., Information, Wrong Number, etc.)
2005	3,818	1,659	2,159
2006	1,902	1,531	371

*This table was presented in previous Annual Reports as only including contacts made through the Storm Water Pollution Prevention Hotline.

The City will continue to expand its education and outreach programs to more effectively reach target audiences and affect behavioral change. Specific areas for improvement include:

- Reestablishing annual residential behavior data gathering and assessment activities;
- Reestablishing a mass media campaign;
- Focusing all jurisdictional education and outreach activities around the pollutants of concern identified for each watershed within the City's jurisdiction;
- Implement an outreach and education methodology that uses a social psychology approach that will maximize the City's efforts to achieve sustainable behavior changes in all target audiences as identified in the Municipal Permit and to perform Level 3 assessment;
- Strengthening the municipal training program; and
- Working collaboratively with other jurisdictions to address mobile businesses as a high priority pollution source (**Comment No. 25, SWU:10-5015.02:hammp**).

14.3.11 Public Participation

Table 14-16. Level 1: Achievement of Activity-Based In-House Targets – Public Participation.*

Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
Events allowing the public to participate	# Conducted	500	423 (85%)	488 (98%)	629 (129%)

*Tracking of this data was listed in previous Annual Reports as a Permit requirement.

Program Strengths

The City's efforts to promote public participation continue to be notable. Departments and divisions throughout the City have provided opportunities for public involvement and have implemented measures to solicit public input related to storm water issues. Some of these efforts include, but are not limited to, workgroup meetings, several Citywide hotlines to take public comments and questions, volunteer programs and events, community and council meetings, fairs, presentations, and workshops.

Non-governmental organizations continue to be actively engaged in implementing the City's storm water program. For example, San Diego Coastkeeper continues to be a key partner in developing Project SWELL, the City's storm water education program for grade-school students, and providing valuable input on its conceptual BMP projects in the City's watersheds and along the La Jolla Shores Area of Special Biological Significance (ASBS).

Program Improvement Areas

The City will continue to actively pursue public participation activities to allow public input on and participation in storm water issues and policies. The City will also continue to involve non-profit organizations, such as San Diego Coastkeeper, in the development of water quality activities.

15 FISCAL ANALYSIS

The Fiscal Analysis component was developed to identify costs associated with the Urban Runoff Management Program (URMP) for the entire City. Implementation of the Municipal Storm Water Permit requirements on a Citywide basis were projected (in FY 2001) to cost as follows:

Table 15-1. City's 2001 estimate of implementation costs for Order No. 2001-01.

<i>Permit Year/Budget Permit</i>	<i>Cost*</i>
1. July 1, 2001 – June 30, 2002	\$27,254,833
2. July 1, 2002 – June 30, 2003	\$55,828,016
3. July 1, 2003 – June 30, 2004	\$49,421,368
4. July 1, 2004 – June 30, 2005	\$50,678,255
5. July 1, 2005 – June 30, 2006	\$52,928,582
Total Five-Year Cost	\$236,111,054

*Estimated costs only. Actual yearly expenditures .

15.1 FISCAL ASSESSMENT

For Fiscal Year 2006, the City's actual citywide expenditures for implementation of the Municipal Storm Water Permit requirements consisted of the following components:

- Land Use Planning
- Construction
- Municipal
- Industrial
- Enforcement
- Commercial
- Residential (including public participation)
- Education (including public participation)
- Illicit Discharge Detection and Elimination
- Program Assessment

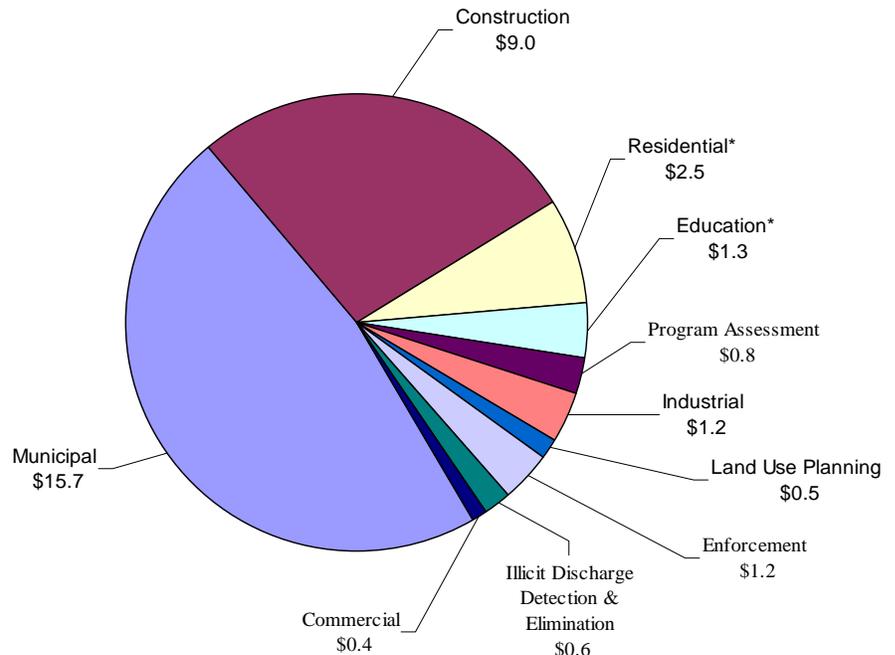


Figure 15-1. FY 2006 Citywide Expenditures by Permit Area.

A total of \$33,526,843 was actually expended in FY 2006 for the implementation of Citywide URMP activities. This amount includes costs paid by sewer and water rate payers and costs reimbursed by project applicants. An overview of the expenditures reflected in these components is described below. Also, the attached table details expenditures by component throughout the City.

Land Use Planning

Activities identified in the Land Use Planning and New Development Section represent personnel and non-personnel expenses for plan check reviews, project design and SUSMP implementation, General Plan updates, and development and management of watershed plans.

Construction

Activities identified in this section represent personnel and non-personnel expenses for plan check review services, field inspections related to grading permits, public improvements, and building activities.

Municipal

Activities identified in this section represent personnel and non-personnel expenses for street sweeping, storm drain and channel maintenance, BMP implementation, and housekeeping (i.e., debris disposal and landscaping).

Industrial

Activities identified in this section represent personnel and non-personnel expenses for inspection of industrial facilities.

Commercial

Activities identified in this section represent personnel and non-personnel expenses for FEWD inspections.

Enforcement

Activities identified in this section represent personnel and non-personnel expenses for enforcing the City's storm water ordinance and implementation of the administrative civil penalties and citation process.

Residential

Activities identified in this section represent community clean up activities and educational activities.

Education and Public Participation

Activities identified in this section represent personnel and non-personnel expenses for training, educational materials, outreach events, and public service announcements.

Illicit Discharge Detection and Elimination

Activities identified in this section represent personnel and non-personnel expenses for the identification and elimination of illicit discharges.

Program Assessment

Activities identified in this section represent personnel and non-personnel expenses for citywide management of the municipal permit.

15.2 GRANT AND OTHER FUNDING FOR SPECIAL STUDIES

In addition to resources identified for Municipal Permit requirements, the City actively seeks grant and other funding sources for special studies and capital projects. Funding for these projects are limited to the projects specified and cannot be reallocated to other projects. Therefore, these resources are currently not used in calculations for total expenditures. The

following table lists projects that were initiated and/or in-progress during FY 2006. The City managed a total of approximately \$8.2 million in special projects during FY 2006.

Table 15-2. Funding for Special Projects.

Funding Source	Project	Amount
Proposition 13, Clean Beaches Initiative Grant	San Diego River–Ocean Beach Water Quality Improvement	\$1.5 million
Proposition 13, Clean Beaches Initiative Grant	Mission Bay Computerized Central Irrigation System	\$1.1 million
Proposition 13	San Diego Watershed Common Ground Project	\$0.9 million
Proposition 13	Chollas Creek Water Quality Protection and Habitat Enhancement Project	\$2.2 million
California State Appropriations	Rose and Tecolote Creeks Water Quality Improvement	\$2.0 million
Proposition 50	Areas of Special Biological Significance Project Planning	\$0.5 million
Total Grant Funding		\$8.2 million

15.3 FUNDING SOURCES

Citywide implementation of Municipal Permit requirements is funded through four main types of governmental funds: the General Fund, Special Revenue Funds, Enterprise Funds, and Internal Service Funds.

15.3.1 General Fund

The General Fund is the general operating fund for the City.

15.3.2 Enterprise Funds

Enterprise Funds are initiated for specific purposes and funded through fees for services. This funding type is designated for the operations, management, maintenance, and development of the department providing the service. For implementation of Citywide URMP activities, activities are funded through the following enterprise funds:

- Airports Fund
- Development Services Enterprise Fund
- Recycling Fund
- Refuse Disposal Fund
- Sewer Revenue Funds
- Water Utility Fund
- Storm Water Fee

15.3.3 Internal Service Funds

Internal Service Funds are similar to Enterprise funds, in which fees are paid for services, but customers are usually other City departments. For implementation of Citywide URMP activities, activities are funded through the following internal service funds:

- Engineering and Capital Projects Fund
- Equipment Division Funds

15.4 FUTURE PROJECTIONS

As mentioned before, Citywide expenditures are primarily funded through the General and non-General funds. One source of enterprise fund revenue is the Storm Water fee, which funds a portion of the City's storm drain maintenance activities, drainage capital projects, and efforts to reduce pollutants in the storm water. Annual revenue projections remain at approximately \$6 million. To supplement this revenue, other funding options are being explored, including a possible increase of the existing storm drain fee discussed below.

Over future fiscal years, including FY 2007, and in light of new Municipal Permit requirements, Citywide URMP expenditures are projected to rise. Departments will continue to work diligently to prioritize and stretch the dollars that they have to effectively implement their components of the URMP.

15.4.1 *Alternative Storm Water Funding Study*

In FY 2006, the City continued to study alternative sources of funding, including a possible increase of the existing storm drain fee, to support activities pursuant to the City's Municipal Permit as well as other regulatory programs (Total Maximum Daily Loads, Areas of Special Biological Significance, and Cleanup and Abatement Orders). The City is studying the implications of such alternative funding sources and the benefits and challenges of implementation.

It is anticipated that such funding would enable the City to take a more integrated approach in addressing the requirements of the various water quality regulatory programs through comprehensive watershed-based planning and monitoring/data tracking, significant investments in the City's infrastructure (e.g., storm drains) and urban runoff-related programs (e.g., street sweeping), updates to the City's development regulations, enhanced enforcement, and greater education and outreach efforts.

16 SPECIAL PROJECTS

This section identifies and describes the City's completed, ongoing, and planned special projects and grants that are designed to examine and/or improve water quality or habitat conditions in the San Diego region.

16.1 BACTERIA IMPAIRED WATERS TMDL PROJECT 1 FOR BEACHES AND CREEKS

In 1998, numerous coastal beaches were placed on the 303(d) as impaired for bacteria indicators. As a result of this action, the Regional Board coordinated with Tetra Tech, Inc. to develop a technical report of the bacteria impaired beaches and creeks in the boundaries of San Diego Regional Water Quality Control Board 9. The City was designated as the Stakeholder Advisory Group (SAG) representative.

In FY 2006, the City reviewed the December 2005 draft technical report and submitted comments by the February 2006 submission date. During the review and comment period, the SAG held several meetings to discuss the draft technical report. Activities will continue during the next reporting period.

16.2 DRAFT INVESTIGATION ORDER No. R9-2005-0216 FOR THE DISCHARGE OF BACTERIA, NUTRIENTS AND SEDIMENTS INTO IMPAIRED LAGOONS AND ADJACENT BEACHES AND CREEKS

On June 27, 2005, the Regional Board held the first public workshop regarding the TMDL for Impaired Lagoons and Adjacent Beaches and Creeks in the San Diego Region. Within the City of San Diego, Famosa Slough and Los Penasquitos Lagoon were identified for the development of TMDLs.

In July 2005, the City provided written comments to the Regional Board regarding the tentative Investigation Order No. R9-2005-0216. In November 2005, the City reviewed and submitted comments on the draft technical report prepared by the Regional Board. In January 2006, the Regional Board re-issued the tentative investigation order to the inland MS4 municipalities because of their potential contribution of pollutants impacting the identified lagoons' water quality. During this reporting period, several SAG meetings were held to discuss the investigation order and the draft technical report. Activities will continue during the next reporting period.

16.3 CLEANUP & ABATEMENT ORDER No. R9-2005-0126 FOR THE SAN DIEGO BAY SHIPYARDS CONTAMINATED SEDIMENTS

On April 29, 2005, the City and other organizations received a Tentative Cleanup and Abatement Order (CAO) from the Regional Board with regards to contaminated marine sediments in San Diego Bay at the Shipyard Sediment Site. The CAO states that the City has caused or permitted the discharge of urban storm water pollutants through the municipal separate storm water sewer system (MS4) and Chollas Creek. Storm water is discharged from the MS4 at SW4 (Southwest Marine, Inc., leasehold), SW9 (NASSCO leasehold) and Chollas Creek and may contribute to accumulation of pollutants in the marine sediments at the Shipyard Sediment Site. The CAO requires the City and other organizations to eliminate the effects of sediment contamination (metals, total suspended solids, petroleum products, and synthetic organics) to aquatic life in San Diego Bay.

In fall 2005, the City initiated an investigation in the storm drain system at the end of Sampson Street. This storm drain adjacent to the BNSF Railroad tracks had an accumulation of sediment in the catch basin. Three samples were collected and analyzed for PCBs and PAHs. The analytical results indicated that these chemicals were present. Based upon this information the City issued Notices of Violation to BAE Systems and SDG&E. Both parties submitted reports indicating that the sources of these chemicals were most likely not from their facilities. SDG&E cleaned the storm drain system and stated they implemented BMPs to protect the storm drain system during the Silver Gate Power Plant demolition. There is concern that the degraded bay sediments are transported up into the storm drain system during high tides due to tidal intrusion. Information regarding this issue was forwarded to Craig Carlisle with the Regional Board on November 22, 2005.

The City is awaiting the release of the draft Technical Report supporting the Cleanup and Abatement Order recommendations to provide comments.

16.4 MISSION BAY BACTERIA TMDL

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.5 MISSION BAY CLEAN BEACHES PROJECT – MISSION BAY CENTRAL COMPUTERIZED IRRIGATION SYSTEM

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.6 ROSE AND TECOLOTE CREEKS WATER QUALITY IMPROVEMENT PROJECT

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.7 PACIFIC BEACH POINT STUDY

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.8 MOUTHS OF CHOLLAS AND PALETA CREEKS TMDL FOR TOXICITY AND DEGRADED BENTHIC COMMUNITY

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.9 SWITZER CREEK, DOWNTOWN ANCHORAGE AND B STREET/BROADWAY PIERS TMDL FOR TOXICITY AND DEGRADED BENTHIC COMMUNITY

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report

16.10 DIAZINON MONITORING IN THE CHOLLAS CREEK WATERSHED

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.11 CHOLLAS CREEK DISSOLVED METALS TMDL

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.12 INTEGRATED PEST MANAGEMENT (IPM) EDUCATION AND OUTREACH PROJECT

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.13 CHOLLAS CREEK WATER QUALITY PROTECTION & HABITAT ENHANCEMENT PROJECT

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.14 SAN DIEGO WATERSHEDS COMMON GROUND PROJECT

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.15 REGIONAL HARBOR MONITORING PROGRAM

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.16 SAN DIEGO BAY HARBOR BACTERIA TMDL

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.17 SAN DIEGO RIVER – OCEAN BEACH WATER QUALITY IMPROVEMENT PROJECT

This project is discussed in the San Diego River Watershed Urban Runoff Management Program Annual Report.

16.18 SAN DIEGO RIVER RESTORATION PROJECT

This project is discussed in the San Diego River Watershed Urban Runoff Management Program Annual Report.

16.19 SAN DIEGO RIVER PARK MASTER PLAN

This project is discussed in the San Diego River Watershed Urban Runoff Management Program Annual Report.

16.20 SAN DIEGO MARINE LIFE REFUGE AREA OF SPECIAL BIOLOGICAL SIGNIFICANCE

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.21 BEACH AREA LOW FLOW STORM DRAIN DIVERSION PROJECT, PHASE III

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.22 MISSION BAY SEWAGE INTERCEPTOR SYSTEM UPGRADES

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

17 CONCLUSIONS AND PROGRAM AMENDMENTS

17.1 SUCCESSES AND CHALLENGES

Urban runoff discharged from municipal storm water conveyance systems has been identified by local, regional, and national research programs as one of the principal causes of water quality problems in most urban areas. The City's storm water conveyance system, which collects runoff from streets, rooftops, driveways, parking lots, and other impervious areas, flows directly to beaches and bays without receiving treatment. Through the hard work of the Storm Water Division and other City staff, there has been a reduction in the percentage of beach advisories and closures as compared to total beach mile days possible over the last six years (see Figure 17-1). In addition to reducing beach postings, the City has also reduced the number of sewage spills between 2000 and 2006 (see Figure 17-2).

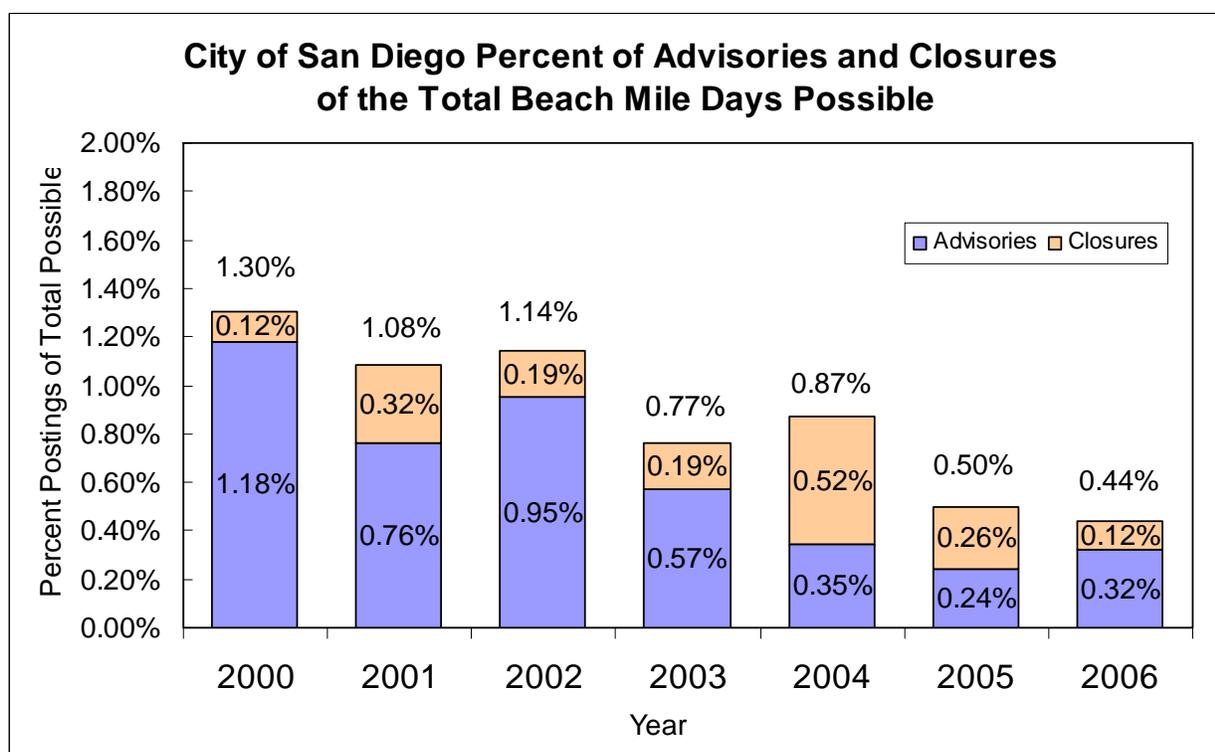


Figure 17-1. Beach Posting and Closures in City of San Diego Between 2000 and 2006.

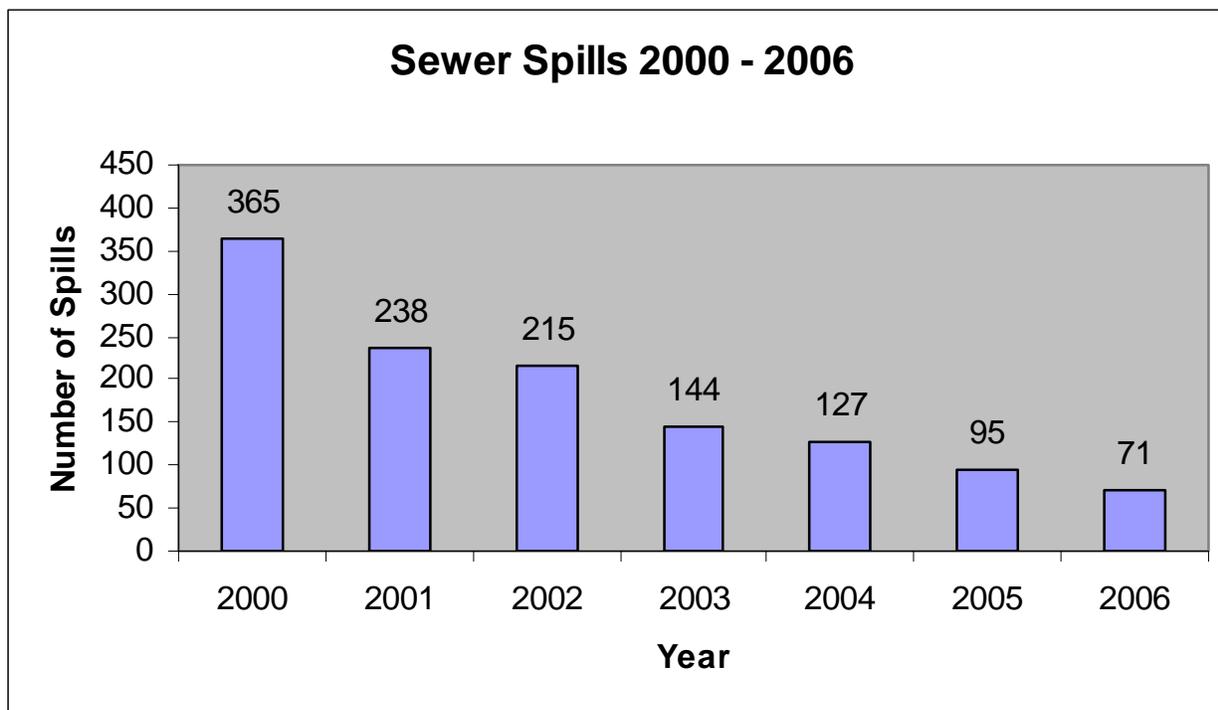


Figure 17-2. Number of Sewer Spills in City of San Diego Between 2000 and 2006.

17.1.1 Successes

Special projects are an integral tool in the City’s effort to leverage limited resources with grant dollars and partnerships with environmental organizations and agencies. The City’s Storm Water Division achieved significant benefits to water quality beyond its \$2.3 million budget by leveraging \$18,683,300 in special projects. Specifically, the City received \$12,086,000 in grant funds, supplemented by over \$6.4 million in City and partner agency matching funds. The grants are helping further the City’s clean water efforts in San Diego Bay, San Diego River, Chollas Creek, and Mission Bay. Special studies at Mission Bay Park and the mouth of the San Diego River have resulted in the implementation of bacteria source abatement projects. In addition to these water quality improvement projects, the Storm Water Division also participated in six Total Maximum Daily Load (TMDL) programs and numerous special water quality monitoring investigations to determine the sources of various water quality problems.

In addition to the above mentioned special projects, the Storm Water Division achieved many other successes in implementing the URMP in FY 2006.

- Completed construction of the Mission Bay Central Computerized Irrigation System.
- Completed construction of the Rose and Tecolote Creeks Water Quality Improvement Project (a baffle box/trash separator in the Tecolote Watershed).
- Eliminated 20 illicit discharges in FY 2006.
- Continued its efforts in seeking out and abating illegal discharges and was responsible for issuing 632 notices of violation, 233 citations, 130 civil penalties, and successfully prosecuting two cases.
- The City continued implementing the *Storm Water Standards Manual* in FY 2006.

- Approximately 45,000 mailing inserts accompanying business license renewals and business tax certificate mailings were distributed to industrial and commercial businesses. It served to educate businesses of the City's storm water best management practices requirements and ordinance.

17.1.2 Challenges

The City faces significant challenges in effectively gathering and managing storm water program data. With a growing population of over 1.2 million residents and 237 square miles of urbanized development, the City is huge relative to other jurisdictions in the region. The enormity of the data management challenge is something the Storm Water Division is continually working to overcome. To address the need for effective data management capabilities, the Storm Water Division continued discussions in FY 2006 to design and build an integrated, Internet-based database and software system. The system will be designed to manage data Citywide, with a web-based interface so that City departments can easily submit URMP data to the Storm Water Division. As of the writing of this report, the Storm Water Division has begun efforts to expand and improve its industrial program database, and has embarked on a division-wide database needs assessment. These efforts will form the foundation for future improvements, especially in light of the recently adopted Municipal Permit (Order No. R9-2007-0001).

In addition to the Municipal Permit, the City must also simultaneously comply with the requirements of other regulatory programs, such as Areas of Special Biological Significance (ASBS), Total Maximum Daily Loads (TMDLs), and Cleanup and Abatement Orders (CAOs). Although these regulatory programs are separate from the Municipal Permit, their ultimate goal is the same: the improvement and protection of the region's water quality. The convergence of these regulatory programs mandates that the City devote resources to advance planning efforts and nurturing even stronger bonds and partnerships with other stakeholders in the region to achieve its goal of improved water quality.

17.2 FUTURE RECOMMENDATIONS

To continue to improve program efforts, the Storm Water Division has identified three major program goals, as detailed below.

- *Employ an integrated approach to program implementation.* The City is subject to multiple water quality regulatory programs, namely: the Municipal Permit, TMDLs, ASBS, and CAOs. By setting stringent water quality standards that the City must meet, these regulatory programs in effect mandate the implementation of structural (e.g., capital improvement projects) and non-structural (e.g., education and outreach, street sweeping) activities. Given that these regulatory programs essentially require similar, parallel efforts, careful program coordination is needed to avoid unnecessary overlapping efforts, wasted resources, and loss of time. Therefore, the City is employing an integrated approach towards meeting the requirements of these regulatory programs simultaneously. The Storm Water Division began planning for an integrated approach to implementation in FY 2006 and continues to employ this strategy in FY 2007. Although initially the focus will be on the City's watershed-based programs and activities (particularly in the Chollas Creek, Tecolote, and Rose watersheds), implementation and assessment of these activities will ultimately help improve the City's jurisdictional activities as knowledge is gained from the watershed-based efforts.

- Improve data management, reporting & assessment. Also important, the City will be working with the other Copermittees in refining their reporting and effectiveness assessment standards to facilitate cross-jurisdictional and cross-programmatic comparisons and evaluations. It is hoped that the refined standards would lead to a more regionally integrated approach to water quality improvement efforts. In addition to continued inter-jurisdictional cooperation, the Storm Water Division will be using the program updates that will be required by the next Municipal Permit as an opportunity to coordinate with its various departments and further increase City employee awareness of storm water pollution prevention principles as they go about their daily business. The anticipated commencement in the latter half of FY 2007 of the process to update the JURMPs and WURMPs and develop the RURMP will provide the context for achieving these City objectives.
- Study needs & options for storm water-dedicated funding sources. Staff continued to study long-term, dedicated funding mechanisms in FY 2006, including an increase in the current storm drain fee, to support the anticipated ramping up in the City's storm drain and water quality protection programs over the long run. This effort included analysis of projected program needs. However, over the near term, the City will continue to pursue short-term alternative funding sources for urban runoff management and water quality protection. Currently, the City is benefiting from a number of grant-funded projects that will reduce pollutants. Meaningful special studies to identify the pollutant sources are also being conducted. The City will also continue to partner with other stakeholders to develop water quality projects in order to compete for grant funds and leverage outside sources of funding. Staff will continue to work closely with the other storm water program managers in the region to collaborate on program implementation strategies. It is the City's objective to institute the most effective and efficient strategies in the San Diego region to clean and protect its creeks, beaches and bays for future generations.

To provide focus for program improvements in FY 2007, the Storm Water Division has identified the following specific objectives:

- Continue strategic, integrated approach to planning program efforts (especially in light of the program updates required by the recently-adopted Municipal Permit [Order No. R9-2007-0001]);
- Refinement and/or expansion of the Division's data management and tracking capabilities;
- Improvements in monitoring to aide in program and activity effectiveness assessment;
- Refinement/increase in municipal training;
- Refinement of the City's industrial and commercial inventories;
- Improvements in industrial and commercial inspection programs.

17.3 PROPOSED PROGRAM AMENDMENTS

The Storm Water Division is amending two URMP components as part of the FY 2006 Annual Report: *Water Systems*, Component 2.1.14, and *Development Review and Permitting*, Component 3.2. A copy of the amended components is provided in Appendix A.