City of San Diego
Jurisdictional Urban Runoff Management Program

Fiscal Year 2009
Annual Report

Submitted to the
Regional Water Quality Control Board
San Diego Region

September 30, 2009

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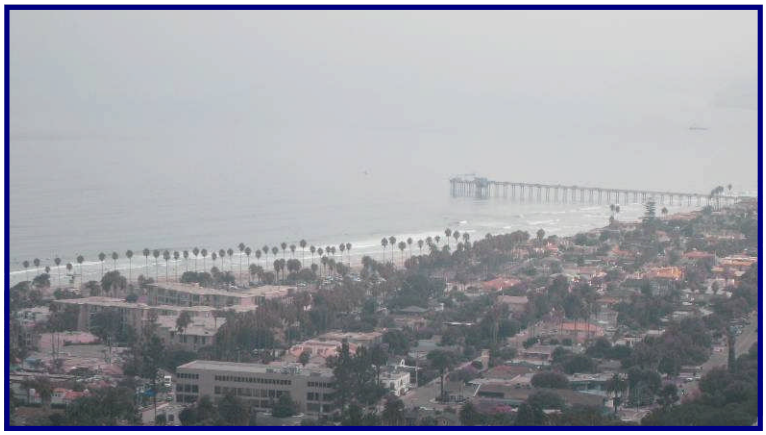
EXECUTIVE SUMMARY



San Diego is a beautiful city with a picturesque coastline and abundant aquatic resources and wildlife. San Diego also has many natural surface water resources—creeks, beaches and bays—providing miles of recreational opportunities for residents and serves as the centerpiece to San Diego's tourist industry. The potential pollution of these resources threatens the social and economic quality of life of the region. Preserving San Diego's natural water resources through the reduction of pollutants in storm water and urban runoff is one of the most important goals of the City of San Diego (City) and the Storm Water Department is designated as the lead City agency to achieve this goal.

Testifying to its commitment to clean beaches and bays, the City combined its Street Sweeping, Storm Drain Cleaning and Pollution Prevention functions to form a new Storm Water Department in Fiscal Year (FY) 2009. This consolidation has already improved inter-departmental coordination and brought greater emphasis to storm water quality within the City's organization.

The City's Jurisdictional Urban Runoff Management Plan (JURMP) is the blueprint for actions that the City implements to protect and improve the water quality of the creeks, beaches, and bays in the region, and for achieving compliance with San Diego Regional Water Quality Control Board (Regional Board) Order R9-2007-0001 (Municipal Permit). The JURMP was originally adopted by the City Council on January 28, 2002 under Order 2001-01 and again on January 22, 2008 after major revisions to reflect the requirements of Order R9-2007-0001. As with the previous six years, the City worked diligently during FY 2009 to implement the activities and requirements of the JURMP.

While the City is implementing the JURMP within the City's jurisdictional boundaries, implementation of several Watershed Urban Runoff Management Programs (WURMP) is also occurring in conjunction with other stakeholders and jurisdictions to improve water quality not only within the City's jurisdictional boundaries but also in its watersheds. The City must address several state- and federally-mandated storm water quality programs both presently and in the coming years. In addition to Municipal Permit requirements, the City must comply with State-mandated Areas of Special Biological Significance (ASBS) requirements in the La Jolla Shores area, and Total Maximum Daily Load (TMDL) programs.

PROGRAM ACCOMPLISHMENTS

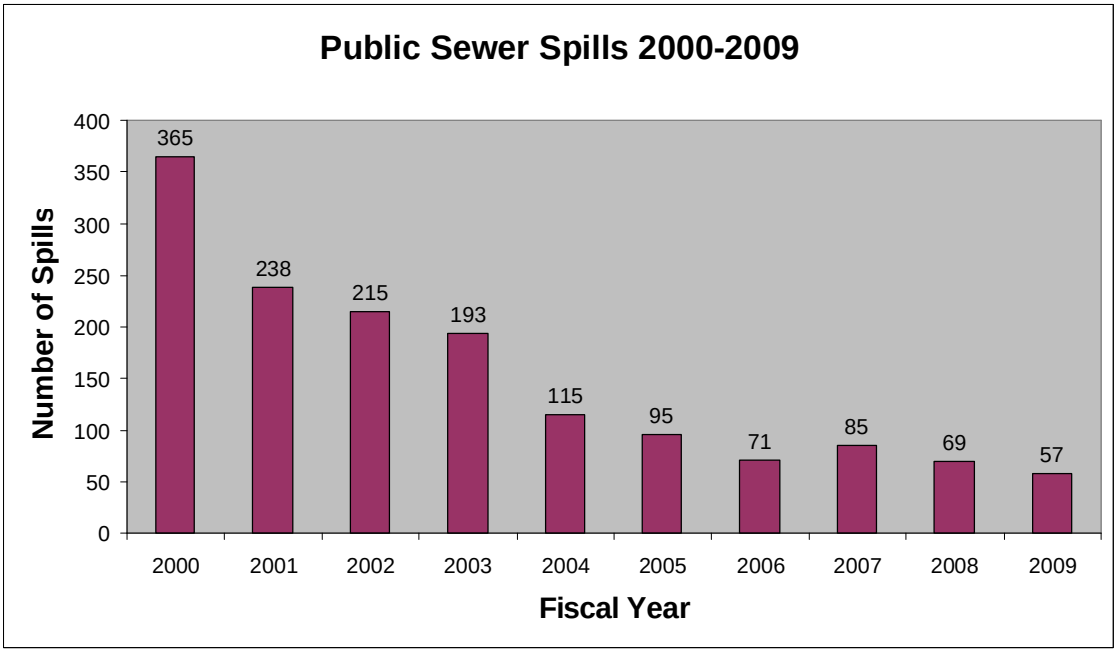
Development and Construction

During FY 2009 the City ensured that SUSMP priority development project requirements were applied to all priority development projects (105 private projects and 4 capital improvement projects). During FY 2009, 410 private development projects listed in the City's inventory were also visited for treatment control BMP inspections.

Municipal Activities

The City continued to place emphasis on storm water pollution prevention practices and awareness in regards to all field operations and activities at municipal facilities in FY 2009. Notable efforts in FY 2008 included:

- The Storm Water Operations and Maintenance Division collected 6,418 tons of debris by conducting street sweeping of 95,161 curb miles.
- The Storm Water Operations and Maintenance Division inspected every channel within the City twice and removed 5,198 tons of anthropogenic litter from 7.7 miles of channels.
- The Storm Water Operations and Maintenance Division inspected 42,685 inlets, catch basins and cleanouts,
- The Storm Water Operations and Maintenance Division cleaned 30,810 inlets, catch basins and cleanouts and 1.9 miles of pipeline which resulted in the removal of 516 tons of debris.
- The Environmental Services Department collected 483 tons of Household Hazardous Waste.
- Departmental storm drain system inspection and cleaning resulted in the removal of 5.03 tons of debris.
- Departmental parking lot sweeping resulted in the collection of 469.6 tons of debris.
- As another broad indicator of the overall effectiveness of the City's water quality protection efforts, the Metropolitan Wastewater reduced the number of public sewer spills from 365 spills in 2000 to 57 in 2009, an 84 percent reduction since 2000 (Figure 1). The City believes that its JURMP water quality protection efforts contributed to these reductions.



Industrial and Commercial Programs

The City continued to expand its industrial and commercial programs in order to institute effective measures to reduce pollutants and comply with Order R9-2007-0001. The city

currently has an inventory of approximately 21,367 stationary facilities and 1,397 mobile businesses. The City inspected 100% of all stationary sites determined to pose a high threat to water quality. Approximately 27% of the City's commercial and industrial inventory received site visits and/or inspections. The pollutant discharge potential assessment (PDPA) form was utilized during the inspection of industrial and commercial businesses to help refine the pollutant discharge potentials (PDP) assigned to various source types in the Copermittees' Baseline Long-Term Effectiveness Assessment (2005). The form is intended to be a semi-quantitative tool to identify which sites are major sources of the principal pollutants of concern for storm water.

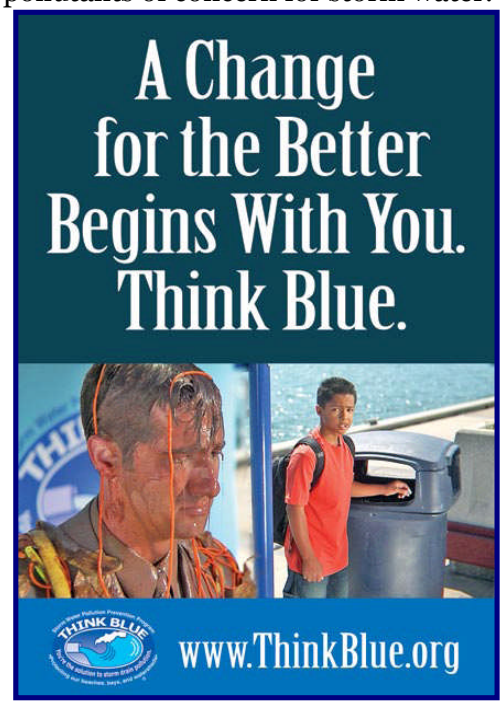


Figure 2: ***Think Blue Karma Advertisement***

Education and Outreach

June 30, 2009, concluded the ninth year of the *Think Blue* Media, Education, and Public Advocacy Campaign. The campaign was able to put forth a broad, multifaceted effort, which included targeting external audiences as identified in Order R9-2007-0001 (municipal departments and personnel, construction site owners and developers, industrial/commercial owners and operators, mobile businesses, and residential community, general public and school children), participating in grant education and outreach activities, and actively participating in regional outreach and education efforts with the Copermittees. In FY 2009 the City's *Think Blue* messages to the general public made approximately 77,778,729 impressions through PSA airtime, free placement on media websites, and PSAs in movie theaters (Figure 2). The *Think Blue* storm water education campaign also reached approximately 1,964,784 individuals through special events conducted by the City in FY 2009.

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 Department achieved significant benefits to water quality beyond its FY 2009 $42 million budget by leveraging approximately $6.8 million (this amount includes both grant and match funding) in special projects. In addition to these special projects, the Storm Water Pollution Prevention Division also participated in six TMDL programs and numerous special water quality monitoring investigations to determine the sources of various water quality problems and implement watershed activities targeting those problems.

FUTURE DIRECTIONS

Currently, the City is subject to multiple water quality regulatory programs, namely: the Municipal Permit, TMDLs, 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 necessary to avoid overlapping efforts, wasted resources, and loss of time. Therefore, the City is taking an integrated, "Strategic Approach" towards meeting the

requirements of these regulatory programs simultaneously. The Storm Water Pollution Prevention Division began planning for a "Strategic Approach" to program implementation in FY 2006 and has continued these efforts through FY 2009 (See the City's Strategic Plan for Watershed Activity Implementation at: http://www.sandiego.gov/thinkblue/programreports/index.shtml). Although initially the focus will be on the City's watershed-based programs and activities, implementation and assessment of these activities will ultimately help improve the City's jurisdictional activities as information and experience is gained from the watershed-based efforts.

The City will continue to ensure that the requirements under Order R9-2007-0001 and the City's JURMP are being properly implemented in all program areas. To provide focus for program improvements in FY 2010, the Storm Water Pollution Prevention Division will focus on the following areas:

- Continue strategic, integrated approach to planning program efforts;
- Refinement and/or expansion of the Storm Water Pollution Prevention Division's data management and tracking capabilities to ensure permit compliance;
- Identification of data gaps and collection procedures to be modified to assist in activity and program effectiveness assessment; and
- Standardization of data collection, greater departmental coordination, and refined management questions will enable the City to more effectively assess the significant activities during the FY 2010 reporting period. The assessment process and rationale for each significant activity will be expanded, with expected outcomes defined and data tracked throughout the fiscal year.

The City will continue to pursue alternative funding sources for urban runoff management and water quality protection to support the anticipated expansion of the programs over time. As part of these efforts, the City will 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 to clean and protect its creeks, beaches and bays for future generations.

THE CITY OF SAN DIEGO

September 30, 2009

Christina Arias
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Subject: City of San Diego Jurisdictional Urban Runoff Management Plan FY 2009 Annual Report

Dear Ms. Arias:

Attached please find paper and electronic copies of the City of San Diego's Jurisdictional Urban Runoff Management Plan Fiscal Year 2009 Annual Report, and associated Appendices, submitted as part of the County of San Diego's Unified Jurisdictional Urban Runoff Management Program Annual Report.

If you have any questions, please contact Clem Brown, Senior Planner, at (858) 541-4336.

I certify under penalty of law that this Jurisdictional Urban Runoff Management Plan Fiscal Year 2009 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,

Kris McFadden
Deputy Director

KM/cb

Attachments: 1. Fiscal Year 2009 Jurisdictional Urban Runoff Management Plan Annual Report (with Appendices)

1 INTRODUCTION

1.1 PROGRAM OVERVIEW FOR FISCAL YEAR 2009

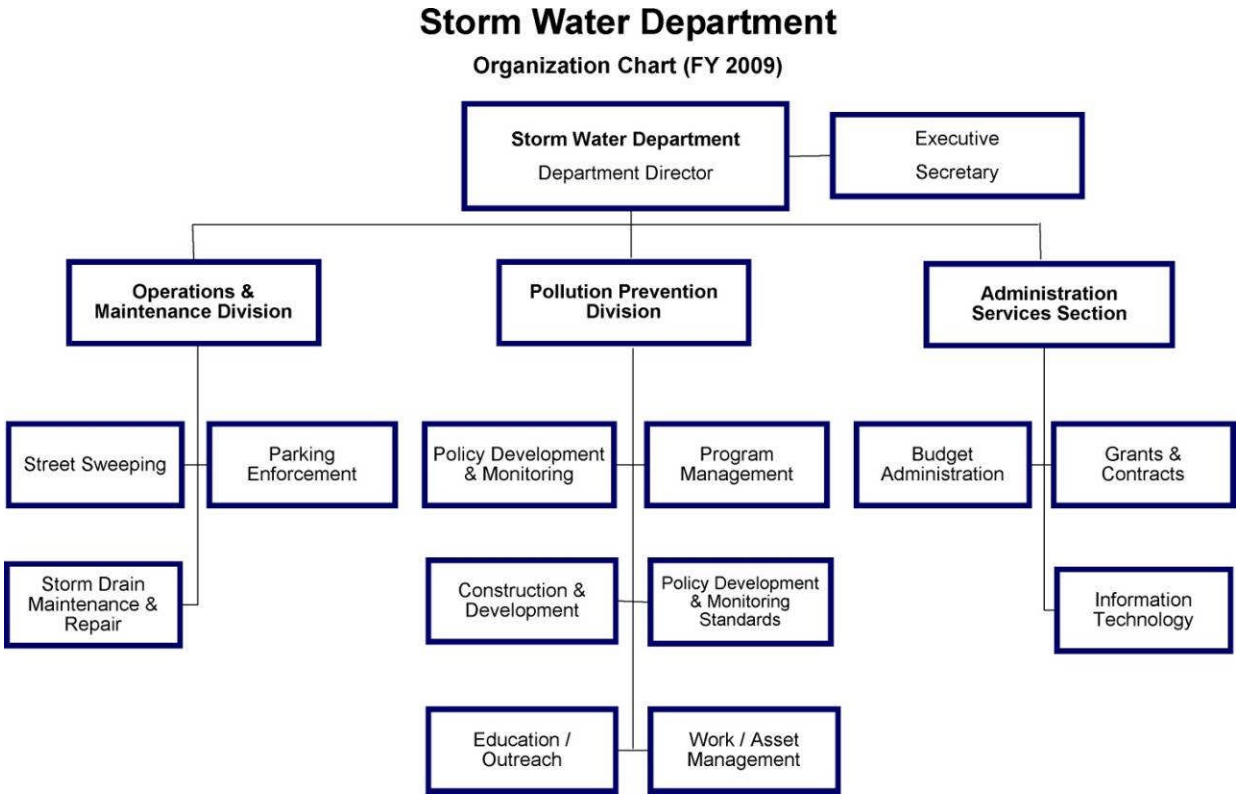
The City has prepared this JURMP Annual Report in compliance with the Municipal Permit. The purpose of the report is to provide an account of the programmatic activities conducted by the City to meet the requirements of the Municipal Permit and the City's JURMP.

The Storm Water 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 Municipal Permit.

The mission of the Storm Water Department is:

> "***To protect and improve water quality through efficient system maintenance and model storm water programs***."

In order to improve and protect the region's natural water resources and create a streamlined work focus, the City combined two divisions from two departments to create the Storm Water Department. Storm drain and street sweeping functions were removed from the General Services Department's Streets Division to the newly created Storm Water Department, Operation and Maintenance Division. The Storm Water Pollution Prevention Division was also removed from the General Services Department and placed into the new Storm Water Department. The reorganization became effective on July 1, 2008. An organization chart of the new department is shown below.



The reorganization creates more effective coordination between the Pollution Prevention Division and the Operations and Maintenance Division, two of the primary work groups responsible for storm water program implementation.

The Storm Water Department is actively engaged in a number of activities that will cumulatively result in protection of and improvements to storm water quality. The Citywide blueprint for protecting storm water quality is the JURMP, adopted by the City Council on January 22, 2008. The primary activities that the City continues to implement include, but are not limited to: public education; employee training; storm water quality monitoring; source identification; code enforcement; watershed management; and storm water best management practices (BMPs) development and implementation within the City's jurisdictional boundaries.

While the City is implementing the JURMP within its jurisdictional boundaries, implementation of the WURMP and TMDL programs are also occurring in conjunction with other stakeholders and jurisdictions to improve storm water quality not only within the City's jurisdictional boundaries but also in its watersheds.

The Storm Water Department represents the City on storm water and Municipal Permit issues in collaboration with the Principal Permittee (County of San Diego) and the Regional Board. Internally, the Storm Water Department provides technical expertise and guidance to all City departments to ensure implementation and compliance with the Municipal Permit. Furthermore, the Storm Water Department 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.

1.2 REPORT ORGANIZATION

This FY 2009 Annual Report has been organized into sections matching the table of contents agreed to and submitted by the Copermittees to the Regional Board. In an effort to present a comprehensive report, the City has included a Special Projects section which is not included in the regional standard reporting format.

Each section of the FY 2009 Annual Report is consistent with the components of the Municipal Permit; and where applicable, identifies priority pollutant sources, applicable requirements, and notable implementation efforts.

1.3 REPORTING PERIOD

This Annual Report provides information for FY 2009: July 1st, 2008 to June 30th, 2009.

2 DEVELOPMENT PLANNING

2.1 INTRODUCTION

The City continued to implement the Planning and Development Component of the JURMP to reduce the impacts of new development and redevelopment on storm water quality. Highlights of the City's Land Use Planning Component during FY 2009 include implementation of the previous and recently updated *Storm Water Standards Manual*, implementation of the *Source Water Protection Guidelines for New Development*, and continued integration of storm water protection policies in the City's Community Plans and General Plan. The City was compliant with all elements of Section D.1 of the Municipal Permit with the exceptions of the issues identified below.

2.2 LAND USE PLANNING

2.2.1 General Plan

The City completed its General Plan update in FY 2008.

2.2.2 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 storm water quality protection. They are a part of the City's General Plan, and the City is continuing to implement the Community Plans where applicable. Community plan activities that occurred during FY 2009 related to storm water include:

Barrio Logan Community Plan – The Barrio Logan Community Plan will incorporate recommendations concerning the reduction of urban runoff and storm water quality in a number of the plan elements. Updates to the plan are significant to storm water quality since a tributary of Chollas Creek flows through the community into the San Diego Bay. Furthermore, other storm drain inlets throughout the community output into the Bay. A primary recommendation that is currently being developed for the plan will be the inclusion of bioswales along major corridors (for example Harbor Drive) that will assist in reducing the pollution that enters the storm water system from trucks and autos detritus (such as copper from truck brakes). Another goal to be included in the plan will be to ensure a reliable system of water, storm water, and sewer facilities that will serve the existing and future needs of the community. During FY 2009, the Barrio Logan Plan Update Stakeholder Committee met on a monthly basis to develop a vision for the community. Over the next six months, the community will assist in developing policies and recommendations to improve the overall water quality of the community and the San Diego Bay.

Mission Valley Community Plan – The Mission Valley Community Plan makes broad recommendations concerning the protection of urban runoff and storm water quality. Updates to the plan are significant to storm water quality since the San Diego River flows through Mission Valley. The Plan will reference or incorporate recommendations contained in the San Diego River Master Plan. During FY 2009 internal City staff meetings were held to continue the process of updating the Community Plan. The Plan is currently in the EIR phase.

Ocean Beach Precise Plan Update – The Ocean Beach Precise Plan is currently undergoing an update and will become known as the Ocean Beach Community Plan. The

Ocean Beach Community Plan will have broad goals and recommendations relating to urban runoff and storm water quality. Goals will include: ensuring a reliable system of water, storm water, and sewer facilities to serve the existing and future needs of the community; preserving the natural amenities of Ocean Beach, such as its open space, coastal bluffs, beaches, tidepools, and coastal waters; and protecting coastal and waterway resources by promoting sensitive development and restoring and preserving natural habitat. During FY 2009, the Ocean Beach Precise Plan Update Subcommittee met and reviewed draft elements of the Plan and offered revisions to City staff. The Plan is currently in the EIR phase.

2.2.3 Drainage Design Manual

During the reporting period the Engineering and Capital Projects Department (ECP) continued efforts to develop a City supplement to the County of San Diego's *Drainage Design Manual* and *Hydrology Manual*. The original efforts began in FY 2006. As part of this effort, ECP coordinated with Storm Water Department staff to incorporate new requirements associated with storm water quality protection. During the reporting period, the City hired a consultant to develop the supplement and expects the efforts to be finalized in FY 2011. A review of City land development approval processes has found that modifications to this manual are not crucial for assuring effective implementation of BMPs for new development.

2.3 ENVIRONMENTAL REVIEW PROCESS

The Environmental Analysis Section (EAS) in the Development Services Department (DSD) is responsible for using the California Environmental Quality Act (CEQA) Initial Study checklist and consultation with other project review staff to identify projects that may result in storm water quality impacts during and/or after construction. EAS reviewed proposed projects subject to environmental review under CEQA, including City Capital Improvement Projects (CIPs), to independently determine proposed projects that have potentially significant impacts on the environment. To assist in identifying appropriate measures to mitigate potentially significant storm water quality impacts to below a level of significance, EAS staff consulted with DSD engineering staff to determine appropriate storm water BMPs to be required. DSD Engineering staff reviewed and approved the storm water BMPs that were proposed by project applicants.

2.4 DEVELOPMENT PROJECT APPROVAL AND VERIFICATION PROCESS

2.4.1 Source Characterization

Chapter III of the Storm Water Standards identifies the anticipated pollutants from different land use types and the categories of project types that are likely to generate significant pollutants. During the reporting period, the definition of Priority Projects was updated in Chapter III of the *Storm Water Standards Manual* to match the project types identified in the Municipal Permit. The Storm *Water Standards Manual* requires priority projects to identify the pollutants of concern in receiving waters and requires that priority projects identify conditions of concern such as topography, site soils, vegetation conditions, and percent impervious area among others.

2.4.2 Best Management Practice Requirements

The Storm Water BMP Performance Standards as described in Chapter III of the *Storm Water Standards Manual* were required and applied to projects including standard and Priority Development Projects within the City.

During the reporting period, there were no updates to the City's BMP requirements for Land Development activities as described in the City's 2008 JURMP. It is anticipated that during the course of the next two reporting periods there will be modifications to required BMPs as hydromodification and revised SUSMP requirements are developed, approved, and implemented.

2.4.3 Program Implementation

The Construction and Development Standards Section continued to coordinate closely with staff at DSD to improve the process for BMP verification prior to occupancy (Permit Section D.1.f.). Improvements included adding more rigorous controls in the Project Tracking System (PTS) and more precise definitions of roles and procedures for inspectors. To improve consistency, Landscape Planners were given the specific role of BMP verification for all projects that are not assigned to a Resident Engineer (RE).

The Construction and Development Standards Section also coordinates closely with staff at DSD to improve the process of updating the inventory of treatment control BMPs [Permit Section D.1.e(2)(a)]. Improvements included developing standards for attachment to Storm Water Discharge and Maintenance Agreements. The standardized attachments include a detailed site map showing BMP locations and BMP-specific maintenance requirements.

2.4.3.1 SUSMP

The City maintains listings of both private and public development projects that have been initiated and completed during the reporting period. A Storm Water Applicability Checklist is a required submittal during the project application process as a part of the urban runoff approval process. City project reviewers do not approve construction drawings until the recommendations of the Water Quality Technical Reports are incorporated onto the plans. This is the system in place to ensure that the projects incorporate all requirements of the urban runoff approval process.

Based on established plan review process that all review staff are trained to follow, DSD evaluated all private development projects for SUSMP requirements. All applicable SUSMP BMP requirements were applied to all development projects. Throughout the reporting period, the electronic tracking system used by DSD has reliably tracked all projects subject to Priority Development Project requirements. However, staff did not utilize the tracking system to distinguish Standard projects to which SUSMP requirements were applied. Since the system is designed to distinguish and report Standard projects and other non-Priority Development Projects that are exempt from permanent BMPs, the Development Services Department will implement changes to the review process to track the Standard development projects to which SUSMP requirements were applied.

During FY 2009, of all the private projects reviewed as a part of the urban runoff approval process, 105 were determined to be Priority Development Projects. Appropriate BMPs were required to be included as part of the project approval process.

The City had 147 CIP projects in the design process during the reporting period that were evaluated as a part of the urban runoff approval process. Of these, four were determined to be Priority Development Projects and appropriate BMPs were required to be designed into the project.

Appendix A contains a listing of the projects for which SUSMP Priority Development Project requirements were applied during FY 2009. The listing includes both private and

public projects. The City confirms that all applicable SUSMP BMP requirements were applied to all Priority Development Projects during the reporting period. The applicability and confirmation of these requirements is tracked through a combination of a project tracking database and Excel for private developments and Primavera for public projects. As noted above, the City did not have the ability to track standard projects (non-Priority Development Projects) in its system during the reporting period. This has been modified for FY 2010 project tracking.

Included in **Appendix B** are two synopses of Priority Development Projects. The first is a private development project that was conditioned to meet SUSMP priority development requirements. The second is a CIP that was required to meet SUSMP priority development requirements. Included in the synopses are project information and a description of the required BMPs for each project.

2.4.3.2 Treatment Control

A watershed-based database was implemented to track and inventory Treatment Control BMPs (TCBMPs) and their associated maintenance (see **Appendix C** for an updated Private Treatment Control BMP Inventory). DSD and ECP annually provide an updated inventory of approved TCBMPs for entry into the database. During the reporting period, the City continued its field verifications and inspections of the established inventory.

2.4.3.3 Private Development

A BMP maintenance verification form, FAQ sheet, and introductory letter were developed in 2007-2008 (see **Appendix D** for examples). Using the property owner names and addresses recorded in the City's BMP database, BMP maintenance verification forms were mailed to all the projects included in the City's BMP database in July 2008.

802 facilities were mailed routine annual operation and maintenance verification forms requesting the responsible party to provide documentation that adequate maintenance of their BMPs had been performed. Of these, 232 (29%) provided a response from the responsible party, 180 (22%) were returned to the City, and 390 (49%) provided no response. For the projects where the facility was said to be under new ownership or the letter was returned by the USPS, the City requested updated contact information from the County of San Diego based on the known APN for the site.

Using the updated owner information, an additional 199 routine letters were sent (these were the first letters sent to the address but the second sent for the project). Of these, 62 (32%) provided a response from the responsible party, 19 (10%) were returned to the City, and 115 (58%) provided no response. 270 sites received a follow-up letter for not responding to the first routine mailing in August 2008. Of these, 121 (45%) provided a response, 16 (5%) were returned to the City, and 133 (50%) provided no response. The City worked throughout the rest of FY 2009 to obtain accurate responsible party information by obtaining new APN data, internet searches, emails, phone calls, and site visits.

During FY 2009, 410 private development projects listed in the City's inventory were visited for TCBMP inspections. Full TCBMP inspections were performed at 312 of these private projects. Of the remaining 98 projects, some were still under construction and some could not be accessed for inspection due to a locked gate or absent resident.

A total of 685 TCBMPs at the 312 projects were inspected to evaluate maintenance effectiveness. 475 of the 685 TCBMPs inspected (70%) were drainage inserts. 43 percent of the total BMPs inspected were found to need maintenance. 81 percent of the treatment

controls requiring maintenance were drainage inserts. The City will be following up with sites that possess BMPs in need of maintenance as necessary.

During the reporting period, the City also conducted follow-up inspections on 135 TCBMPs that were determined to be inadequately maintained during TCBMP inspection in FY 2008. Of these follow-up inspections, 50% were still observed to be out of compliance with the City's requirements.

During the inspection process, it was identified that some BMPs did not physically exist, although they were identified in the corresponding plans and reports for these projects. More discussion on this issue is provided in Section 2.4.3.5 below.

2.4.3.4 Municipal Treatment Control BMPs

The Municipal Permit requires annual verification of operation and maintenance of municipal TCBMPs. Annual verification must be provided by the City department responsible for TCBMP maintenance and submitted to the Storm Water Department prior to the start of the rainy season (October 1st).

Through the annual verification and inspection process, the City determined that the municipal TCBMP inventory developed in the past two years was not accurate. More discussion on this issue is provided in Section 2.4.3.5 below.

The City conducted inspections for 29 TCBMPs in the municipal TCBMP inventory. Of the 29 TCBMP inspections, 20 were in adequate condition. For BMPs that were in need of maintenance, the City is in the process of examining the current inspection and cleaning schedules for these BMPs, and will make adjustments as necessary.

2.4.3.5 TCBMPs Inspection Results and Action Plan

During the inspection process it was determined that some TCBMPs could not be located in the field. The City investigated[1] these cases and identified several reasons for the situation. The investigation consisted of record searches from the plan check phase through the construction phase. The following are findings from the one-year process and the improvements that the City has already implemented to improve the overall TCBMP processes:

- Poor record keeping: Since the TCBMP Verification and Inspection Program was not required by the 2001 Municipal Permit, projects files that were completed prior to March 2008 remained at decentralized locations at DSD. Since 2008, the applicable plans and TCBMP agreements have been sent to the Storm Water Department on a monthly basis to provide consistent tracking.
- BMP discrepancies between project plans and agreement: The City's consultant investigated every project by reviewing the project's plans, plan check comments in PTS, water quality technical report (WQTR), and agreement to gather accurate information regarding the site's BMPs. Based on this review, the TCBMP database was corrected accordingly. Additionally, significant process improvements were made, including: the development of attachment standards for Storm Water Discharge and Maintenance Agreements, (the new standardized attachments include a detailed site map showing BMP locations and BMP-specific

[1] The process was research intensive and consumed 80% of one full time Assistant Engineer and a part-time intern. The City decided to hire a consultant to perform an in-depth investigation of all the missing TCBMP cases.

maintenance requirements); addition of a BMP table to the plans; and the development of a standardized WQTR template.

- Construction inspection deficiencies: A gap in BMP inspection during construction was discovered for private projects that have Building Permits only. Storm Water staff negotiated with DSD management to assign BMP inspection of Building Permits-only to Landscape Planners. The Construction and Development Standards Section developed the details of the inspection process, which included training the landscape planners on TCBMPs, visiting BMP sites for demonstration training, and implementing changes necessary to PTS to flag a BMP inspection.
- Private BMP owner awareness level: Lack of owner awareness of BMPs and poor understanding of maintenance responsibility were very evident by the high number of hotline phone calls received and the type of questions and reactions of the callers. The City created a BMP fact sheet and FAQ and mailed them to private owners along with the verification letters. This education material was also provided on City's website.

At the end of this extensive research effort it was determined that a number of the required private and public TCBMPs were not constructed. However, the process improvements mentioned above have been implemented to ensure that all required BMPs are constructed as required.

The following details the corrective action plan that the City will be implementing immediately to correct this issue:

- DSD will be sending out letters to property owners/responsible parties who have a BMP violation to install or correct the deficient BMP, and to fulfill their permit's conditions in accordance with City Land Development Code.
- Private owners will be sent three warning notices with 90 days to comply in each notice.
- The City will evaluate the compliance rate resulting from this process and reassess the corrective action plan as necessary. If the compliance rate is not acceptable, the City will propose an alternate corrective action plan.

The findings and results of this process will be provided in the next annual report.

2.4.3.6 Post-Construction BMP Verification

The City has two departments that provide verification that BMPs are constructed prior to occupancy as required in the Municipal Permit, DSD and ECP. As discussed above, the City did not have an effective method of verifying all BMPs were constructed for projects.

Each department currently has its own method of confirming the construction of the post-construction BMPs prior to giving building occupancy. DSD now has a checkbox on its project inspection forms to flag when post-construction BMPs are adequately constructed. ECP uses their standard method of inspection to ensure that what is shown and approved on the project plan set is what is constructed in the field, prior to approving the final project condition. Through close coordination and providing topic specific training to the inspector, the City anticipates that all post-construction BMPs will be verified prior to providing occupancy.

2.4.3.7 Hydromodification Management Plan

The City has been involved in the Hydromodification Management Plan (HMP) development and carried a significant workload during FY 2009. For example, City staff was involved in weekly coordination meetings with the regional consultant team and the two workgroups formed to develop the HMP. One workgroup is a Copermittee group whose responsibilities are to oversee the HMP development and guide the consultant team's work. The other workgroup is the Technical Advisory Committee whose responsibilities include providing technical guidance to the consultant team. The City is an active participant in both groups and in the review of all documents that are generated as a part of the HMP development.

Interim HMP requirements were effective for the entire reporting period and each submitted project was evaluated for HMP applicability. Since the HMP requirements took effect (March 2008), the City has not had any Priority Development Projects trigger HMP requirements, those that are greater than 50 acres.

2.4.3.8 Enforcement

During FY 2009, no enforcement actions were taken for land development projects or for TCBMP sites and facilities.

2.4.3.9 Education and Outreach to the Public

City-wide GIS maps were distributed to DSD Staff depicting "Water Quality Sensitive Areas" as well as "Watershed Management Areas". This was done in an effort to streamline the plan review process with regard to storm water permit regulations. Also, both Permanent BMP and Construction BMP tri-fold handouts were provided to Building Inspectors to be distributed to the responsible parties at project sites.

During FY 2009, the Storm Water Department presented and discussed the *Storm Water Standards Manual* and its requirements with the San Diego Association of Engineering Geologists.

The Storm Water Department also participated in two public meetings related to specific Storm Water projects. The first was with the Natural Resources & Culture Committee for the 43rd and Logan Avenue Biolfiltration Project. The second was with the Bay Council and San Diego Coastkeeper groups for the Maple Street Canyon Project. These two meetings provided mechanisms for the public to participate in the project process.

Table 2-1 below provides the identified outreach conducted for the Land-use Planning component.

Table 2-1: FY 2008 Land-Use Planning Education and Outreach to the Public

Activity	Target Audience	# of times	Estimated # of people targeted
Public Outreach through support of the TCBMP Maintenance Program	Industrial & Commercial and Residential Responsible Parties	Ongoing	200

2.4.3.10 Notable Activities

As part of the City's assessment of its program's effectiveness, it was determined that some additional efforts were needed with respect to the TCBMP verification and inspection program. The following is a list of the notable activities conducted to improve the program:

1. Continued to obtain up to date owner information for private projects in the City's TCBMP database.

2. Incorporated Photo documentation into the inspection process to improve documentation in the event that monetary enforcement is required for compliance.
3. Developed a Frequently Asked Questions (FAQ's) Sheet, and added BMP Type Definitions to the Maintenance Verification Form after evaluating the response from phone calls and the number of Maintenance Verification Forms returned to the City. This information was made available on the City's website and was mailed to all outstanding recipients within the program.
4. Developed notification letters, requiring action from responsible parties for those sites where BMP inspections found BMPs in need of maintenance.
5. Developed database generated follow-up inspection forms to be completed during follow-up inspections.
6. Provided training of the Code Enforcement staff to perform follow-up inspections to help ensure compliance.

3 CONSTRUCTION

3.1 INTRODUCTION

The City continued to implement the Construction Component of the JURMP to prevent and reduce pollutants in runoff from construction activities within the City. The City was compliant with all elements of Section D.2 of the Municipal Permit with the exceptions of the issues identified below.

3.2 SOURCE CHARACTERIZATION

During the entire reporting period, the City maintained a regularly updated construction site inventory. Throughout the reporting period, the City met the minimum JURMP requirement of making monthly updates to the inventory including additions and deletions of sites. There are two departments responsible for maintaining construction site inventories: ECP-Field Engineering is responsible for all of the City's CIP and grading projects; DSD is responsible for private development in the City.

The supervisors at the Field Engineering Division maintained a paper inventory that contained the most current information on when a site was last inspected and the current construction status including priority adjustments. This paper record was updated through weekly reports from the Resident Engineers and the information was routinely transferred into a reporting spreadsheet.

During the reporting period Field Engineering developed a Storm Water tracking database that is currently under final review. It is anticipated that the database will be used to track inspections and enforcement actions for projects under Field Engineering purview starting October 1, 2009.

DSD maintained an inventory of construction permits in PTS. The system was updated as new permits were issued or closed out. The building inspectors also provided updates to this inventory based on site inspections.

3.3 UPDATES TO ORDINANCES, BEST MANAGEMENT PRACTICE REQUIREMENTS AND APPROVAL PROCESSES

Construction sites are required by the Storm Water Ordinance to conform to the Construction Storm Water BMP Performance Standards described in Chapter IV of the City's Storm Water Standards.

There have been no modifications to the Storm Water Ordinance with respect to construction activities since the City's 2008 JURMP was developed and submitted. Refer to the City's 2008 JURMP and the Storm Water Standards for existing ordinance requirements.

3.4 PROGRAM IMPLEMENTATION

3.4.1 Construction Urban Runoff Approval Process

All construction sites within the City are required to undergo the City's construction urban runoff approval process to determine the appropriate construction requirements. There are two departments responsible for implementing the construction urban runoff approval processes: ECP is responsible for planning, design and construction of all of the City's CIP

projects; DSD is responsible for reviewing construction and development projects for private development in the City.

All ECP project managers of CIP projects were required to incorporate the construction requirements set forth in the *Storm Water Standards Manual*. The requirements were incorporated into the project specifications and plans prior to approval in order to fund the construction of the project. To assist project managers in assuring consistency, storm water language was included in the boilerplate CIP Standard Specifications. Standard drawings were used in conjunction with project specific drawings where appropriate. Drawings were routed internally (within the design sections) as a "peer plan check" to ensure adequate inclusion of construction BMP measures.

Private projects were reviewed by DSD staff to ensure conformance to Chapter IV of the *Storm Water Standards Manual* prior to issuance of any construction permits. All applicable projects were required to incorporate construction BMPs on the project plans.

3.4.2 BMP Implementation

Through the development approval and construction inspection processes, the City confirmed that all designated BMPs were required to be implemented throughout the reporting period for all construction sites. During the active construction phase of projects, if BMPs were not implemented or adequately implemented, the inspection program identified those deficiencies and required that implementation or adequate implementation would be completed. The inspections, resulting enforcement and site compliance are discussed in the sections below.

3.4.3 Maximum Disturbed Area for Grading

During the reporting period the City did not have any projects that met the maximum disturbed area for grading criteria established in the City's 2008 JURMP. Therefore, there are no project sites to report for this reporting period.

3.4.4 Advanced Treatment Sites

During the reporting period the City did not have any projects that met the advanced treatment criteria established in the City's 2008 JURMP. Therefore, there are no project sites to report for this reporting period.

3.4.5 Inspections

3.4.5.1 Field Engineering

Construction sites are required to be inspected based on the frequency schedule set forth in the City's 2008 JURMP. Resident Engineers (REs) in the Field Engineering Division inspect BMPs associated with grading permits and/or public improvements (private projects) and all City CIP projects with the exception of several that Metropolitan Wastewater Department (MWWD) manages directly.

In general, the REs inspected and issued Storm Water Notices as-needed in the dry season, and at least bi-weekly in the rainy season for high priority projects. In accordance with the City's JURMP, medium projects are inspected monthly during the rainy season and as-needed during the dry season. Low priority projects are inspected on an as-needed basis during both the rainy and dry seasons. The Field Engineering Division's Storm 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.

Appendix E lists all of the construction projects active during the reporting period and the following corresponding information on a project by project basis:

- City Work Order Number
- Project Location
- Storm Water Priority (Inspection Frequency)
- # of weeks active in the Rainy Season
- # of inspections in Rainy Season
- # inspections in Dry Season
- Total # of inspections for the site during the reporting period

During FY 2009, 172 Field Engineering construction sites were in the active construction phase: 46 high priority sites; 57 medium priority sites; and, 69 low priority sites. In total, the Field Engineering Division conducted over 2,645 inspections throughout the reporting period.

The following is a summary table of the number of high, medium and low priority projects and the inspections conducted at each type.

Table 3-1: FY 2009 Inspection Summary

Inspection Item	No. of Sites
High Priority Sites Receiving Required No. of Inspections	38
High Priority Sites not Receiving Required No. of Inspections	8
Medium Priority Sites Receiving Required No. of Inspections	47
Medium Priority Sites not Receiving Required No. of Inspections	10
Low Priority Sites Receiving Required No. of Inspections	69
Low Priority Sites not Receiving Required No. of Inspections	0

The City recognizes that a percentage of the required inspections were not conducted for the high and medium priority project sites during FY 2009 (in some cases, some of the inspections may have occurred, but were not tracked). Of 175 sites, eighteen (18) did not receive the full number of inspections required. The missing inspections at the eighteen sites constituted 46 of the over 770 inspections required to be conducted during FY 2009 rainy season, representing less than 6% of the required inspections. The City inspectors were on site during those weeks of the missing inspections and although not formally documenting storm water inspections, part of their inspection routine is to evaluate storm water BMPs for adequate implementation thereby ensuring that the sites are adequately protected against non-storm water and/or pollutant discharges.

To address this issue, DSD and ECP will be emphasizing inspection requirements and the importance of documentation at future trainings; and the Pollution Prevention Division will be meeting with these departments on a quarterly basis to ensure inspectors are kept current with baseline and seasonal storm water requirements.

In general, the FY 2009 inspections resulted in compliant construction sites. Due to the size of the City and the number of projects that are on-going in any given year, inspection results are widely variable. Common corrections needed after review by the City include:

- Maintaining Construction Exit/Entrances
- Dust Control

- Inadequate or poorly maintained silt fence
- Inadequate or poorly maintained erosion control

In order to ensure that all required inspection steps were performed to review for compliance, the City used a standardized process for all inspections. If compliance was not observed, enforcement actions ensued. As required by the JURMP, all inspections at a minimum included:

1. A check for coverage under the General Construction Permit (Notice of Intent (NOI) and/or Waste Discharge Identification No.) during initial inspections;
2. Assessment of compliance with the Construction Storm Water BMP Performance Standards located in Chapter IV of the *Storm Water Standards Manual* (and enforceable by San Diego Storm Water Management and Discharge Control Ordinance ("Storm Water Ordinance") Section 43.04, et seq.);
3. Assessment of BMP effectiveness;
4. Visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff;
5. Education and outreach on storm water pollution prevention, as needed; and
6. Creation of a written inspection report.

3.4.5.2 Inspection Services

Building Inspectors in DSD's Inspection Services Division inspect construction BMPs associated with projects performing construction under building permits. 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 to notify the contractor/owner 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.

During FY 2009, 33,725 building permits were active. (i.e., issued and/or with an open permit that has not been finalized). Based on the current database, the Inspection Services Division conducted inspections at 15,198 of these active building sites. In total, the Inspection Services Division conducted over 42,989 wet weather inspections and 31,364 dry weather inspections for a total of 74,451 inspections throughout the reporting period.

Upon development of the database report for annual reporting purposes, it was determined that there is an issue with the overall tracking system. The City is currently investigating the entire tracking process for documenting DSD-IS inspections in electronic format. The issue is that the database generated report does not reflect the accurate number of weeks the project was active in the rainy season.

Although some of the number of weeks a project was active may appear incorrect, **Appendix F** lists all of the building permit construction projects active during the reporting period and the following corresponding information on a project by project basis:

- City Permit Number
- Project Title
- Inspection Frequency Priority (where applicable)

- # of weeks active in the Rainy Season
- # of inspections in Rainy Season (inaccurate representation)
- # inspections in Dry Season (inaccurate representation)
- Total # of inspections for the site during the reporting period (inaccurate representation)

The City confirms that inspection frequencies were met with respect to inspections performed by DSD-IS. Most of the permits that are still active were initiated prior to the City assigning a priority to projects. The City has performed storm water inspections at these sites on a callout basis – i.e., when a regular building inspection is called for, the inspector performs a storm water inspection as well as the trade (plumbing, electrical, etc.) inspection.

In FY 2010, DSD-IS will re-evaluate its prioritization process for construction inspection frequencies. Based on the current inventory, it appears that a number of building permit projects have been incorrectly categorized as high priority projects.

3.4.5.3 Metropolitan Wastewater Department

MWWD conducts construction inspections of several of its capital improvement projects. During the reporting period, MWWD had six active high priority projects. The following is a summary of MWWD's construction projects:

Table 3-2: MWWD FY 2009 Construction Project Summary

Project Number/Name	Inspection Priority	# of weeks active during the rainy season	# of inspections during the rainy season	# of inspections during the dry season
165135; PS 79 FM	High	14	14	4
7055; Dakota Sewer	High	7	7	11
168409; Euclid&Menlo	High	1	5	5
Lexington Emergency	High	10	12	-
Rose Canyon Mitigation	High	-	-	2
San Clemente Mitigation	High	1	2	3

3.4.6 Construction Enforcement

Some departments conduct their own construction inspection and enforcement for construction projects that are managed by their departments. The Storm Water Department also conducts enforcement for some limited construction activities; generally if it is called in to the Storm Water Hotline or if it involves a private residence with no building or construction permits associated to the property. The construction activity enforcement for the reporting period is described below.

Departmental inspection staff coordinates corrective actions and other enforcement directly with the responsible parties, e.g., contractors, owners, etc. Below is a summary of the corrective notices and notices of violations issued by the inspection staff through their regular and follow-up inspections.

Table 3-3: FY 2009 Corrective Actions Summary by Department

Department	Number of Corrective Notices Issued	Number of Notices of Violation Issued
ECP Field Engineering Division	34	1
DSD Inspection Services Division	432	-

Department	Number of Corrective Notices Issued	Number of Notices of Violation Issued
MWWD	17	-

If issues are not resolved through corrective notices or notices of violation, enforcement actions are escalated to higher levels, including stop work orders (where work is halted until the site is brought into compliance with storm water regulations). In FY 2009, no stop work orders were issued by the Field Engineering Division; however, 19 were issued by Inspection Services Division at construction sites. The stop work orders are listed in the following table.

Table 3-4: Stop Work Orders Issued by DSD-IS Division

Project Name	Date Issued
18682 Lancashire Way	7/23/2008
13684 Old El Camino Real	10/13/2008
3039 Slayen Way	10/28/2008
4858 Yearing Glen	11/20/2008
11885 Tierra Del Sur	12/8/2008
6960 The Preserve Way	12/8/2008
10785 Cherry Hill Dr	12/10/2008
6902 The Preserve	12/22/2008
6007 Del Mar Mesa Dr	12/24/2008
6960 The Preserve Way	12/24/2008
12792 Kestrel St	12/26/2008
10850 Cloverhurst Way	1/21/2009
5750 Brittany Forest Lane	1/26/2009
6473 Mesa Norte Dr	2/5/2009
6007 Del Mar Mesa Dr	2/5/2009
10807 Heather Ridge Dr	2/19/2009
10821 Cherry Hill Dr	2/19/2009
6902 The Preserve	6/12/2009
5502 Calumet	6/25/2009

In addition to the enforcement actions taken by the MWWD, Field Engineering and Inspection Services divisions, the Storm Water Department operates the Storm Water Pollution Prevention Hotline (619-235-1000) as well as other means of communication (e.g., website, main office line, and fax) to encourage the reporting of illegal discharges to the storm water conveyance system from locations within the City, including construction sites. 64 investigations were conducted at sites of construction activities in FY 2009. As a result of the investigations conducted by the Pollution Prevention Division's Investigations and Enforcements Section, the following enforcement actions were taken.

Table 3-5: FY 2008 Summary of Code Compliance Enforcement Actions for Sites of Construction Activities

Construction Enforcement Actions Taken	Number Issued in FY 2009
Civil Penalty	11
NOV	38
Citation	9

The other construction site investigations conducted resulted in: educational information distribution at 3 sites; 6 where there was no evidence found; 6 where there was no action taken; and 1 that was found to be exempt from requirements.

3.4.7 Construction Education

DSD-IS staffed an informational booth at the 2009 Spring Home/Garden Show. The show was held over three days, February 27, 28 & March 1 at the Del Mar Fairgrounds. Six Inspectors provided 25 hours of public service at the DSD information booth over these three days. There were a total of 23,232 show attendees; however, the City does not know the number of impressions or contacts made over the three days. Over 150 tri-fold "Clean Construction" pamphlets were distributed to show attendees.

3.4.8 Notable Activities

During the reporting period, DSD-IS developed a new protocol for prompting stormwater inspections. DSD modified the inspection tables to have the inspectors enter a Storm Water Inspection result in addition to the trade inspections they perform. Furthermore, during the FY 2010 reporting period PTS tables will be changed to make this a mandatory attribute. DSD-IS inspectors will be required to enter a Storm Water Inspection result for every inspection they perform. This will ensure consistent and accurate reporting in the future.

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4 MUNICIPAL

4.1 INTRODUCTION

The City implemented and assessed its JURMP for municipal facilities and activities in FY 2009. This section identifies the actions the City took during the reporting period to meet program objectives and Municipal Permit requirements. The City was compliant with all elements of Section D.3.a of the Municipal Permit with the exceptions of the issues identified below.

Due to the City's organizational size and complexity, this section is organized into logical subsections according to City functions and services. Section 4.1 includes summaries of the activities conducted that are general in nature while the remainder of the chapter discusses specific activities conducted by various departments. **Table 4-1** provides a summary of the City Function and respective section number for ease of locating report information in this section of the Annual Report.

Table 4-1: City Function/Service by Municipal Section Number

City Function/Service	Section Number
Airports	4.2
Buildings/Parking/Landscaping	4.3
City-Owned Leased Properties	4.4
Household Hazardous Waste	4.5
Non-Emergency Fire-Rescue Activities	4.6
Non-Emergency Police Activities	4.7
Metropolitan Wastewater Collection	4.8
Metropolitan Wastewater Treatment and Disposal	4.9
Recreational Lands and Facilities	4.10
Solid Waste Management	4.11
Special Events	4.12
Stadium	4.13
Streets/Storm Drain Conveyance System	4.14
Vehicle Maintenance/Operations Yard	4.15
Water Systems	4.16

Source Characterization

The City submitted an inventory of municipal facilities with the 2008 JURMP in March 2008. The 2008 JURMP inventory was developed utilizing San Diego Geographic Information Source (SanGIS) information. Since the 2008 JURMP submittal, each Municipal Department/Division has submitted updated inventory information, which provides a more accurate account of the City's municipal inventory. The City will continue to update the watershed based inventory as more up-to-date information is provided. **Appendix H** of this report contains the updated inventory and prioritization for municipal facilities. The City's inventory for FY 2009 contains 744 municipal facilities.

Municipal Inspections

All municipal facility inspections conducted during FY 2009 addressed all of the required inspection steps to determine compliance by utilizing the City's municipal inspection form or a department specific inspection form. The inspection forms were completed at each inspection location as well as applicable special events in order to confirm that the designated BMPs were implemented. The Completed Departmental Municipal Inspection Forms are included as **Appendix I**. It is important to note that some departments submit inspection forms per location rather than site, and therefore, some inspection forms may cover several or many buildings.

The Municipal Permit requires that the City implement additional BMPs at municipal facilities that discharge to, or are tributary to, a 303(d) listed water body, lagoon, or water body on environmentally sensitive lands (all City facilities are subject to this requirement as written in the JURMP). To meet this additional BMP requirement, each City facility will conduct a second facility inspection. As shown in the table below, the first inspection is recommended to occur in September (before the beginning of the rainy season), and the second inspection is recommended to occur between January and April (during the rainy season).

Table 4-2: Municipal Facility Inspection Requirements

Inspection	Timeframe
First	September
Second	January - April

During FY 2009, the Library Department, Park and Recreation Department, Homeless Services Division, and the Facilities Division did not conduct the required inspections of some or all of their respective facilities. For more information on the actions the City is taking to correct the inspection deficiencies for FY 2010, please refer to each Departments/Division's section below.

As part of the City's ongoing effort to educate staff and ensure that inspections are conducted properly, a storm water expert from the Environmental Services Department (ESD) performed walk-along inspections with Stadium, Park and Recreation, Library, and MWWD staff during FY 2009. Walk along inspections will continue to be conducted with departments as necessary.

BMP Requirements

City staff was required to implement the appropriate combination of minimum BMPs and activity-specific BMPs in accordance with the City's JURMP to prevent pollutant discharges to the storm drain system during FY 2009. Furthermore, all designated BMPs for pesticides, herbicides, and fertilizers were required and implemented in applicable municipal areas and activities in FY 2009. Any additional department/division BMP information is included in the respective department/division's subsections below.

Pollutant Discharge Notification

The Pollution Prevention Division, Water Department, and MWWD were the only Departments/Divisions to report and submit significant discharges that required a pollutant discharge notification to the Regional Board during FY 2009. During the reporting period, MWWD responded to 57 public spills, Pollution Prevention Division responded to two spills, and the Water Department responded to 67 significant discharges from facilities.

Inspection and Maintenance of Municipal Treatment Control BMPs

The City's municipal TCBMP inventory includes 79 constructed projects (**Appendix C**). During this annual reporting process, it was determined that the TCBMP inventory is not a comprehensive listing of all of the City-owned and maintained TCBMPs. The City is currently working on compiling a more accurate and comprehensive inventory. The City department responsible for the maintenance of each municipal TCBMP performs inspections and cleanings of these BMPs on a routine basis. In addition to City conducted inspections, the Municipal Permit requires annual verification of operation and maintenance of all municipal TCBMPs. Please refer to Section 2 of this report for more information on the annual verification of municipal TCBMPs.

Education and Training

For information on the FY 2009 departmental trainings and various public education and outreach activities conducted by individual departments/divisions refer to Section 8, Education, of this report.

Special Events

Several City Departments issue special event permits and inspect special event venues for compliance with the Municipal Permit, as outlined in the City's JURMP. These Departments include the Park and Recreation Department, Water Department, Qualcomm Stadium, and the Office of Special Events. Each Department designates the categories of special event permits it issues and the venues it inspects, as shown in the following table

Table 4-3: Special Event Inspection Categories

Department	# of Categories	Type
Park & Recreation Dept.	2	Large Events[2], Small Events
Water Dept.	1	Land-Based Special Events
Qualcomm Stadium	1	Special Events
Office of Special Events	1	Special Events

Information on special event inspections is included in each department's respective section below.

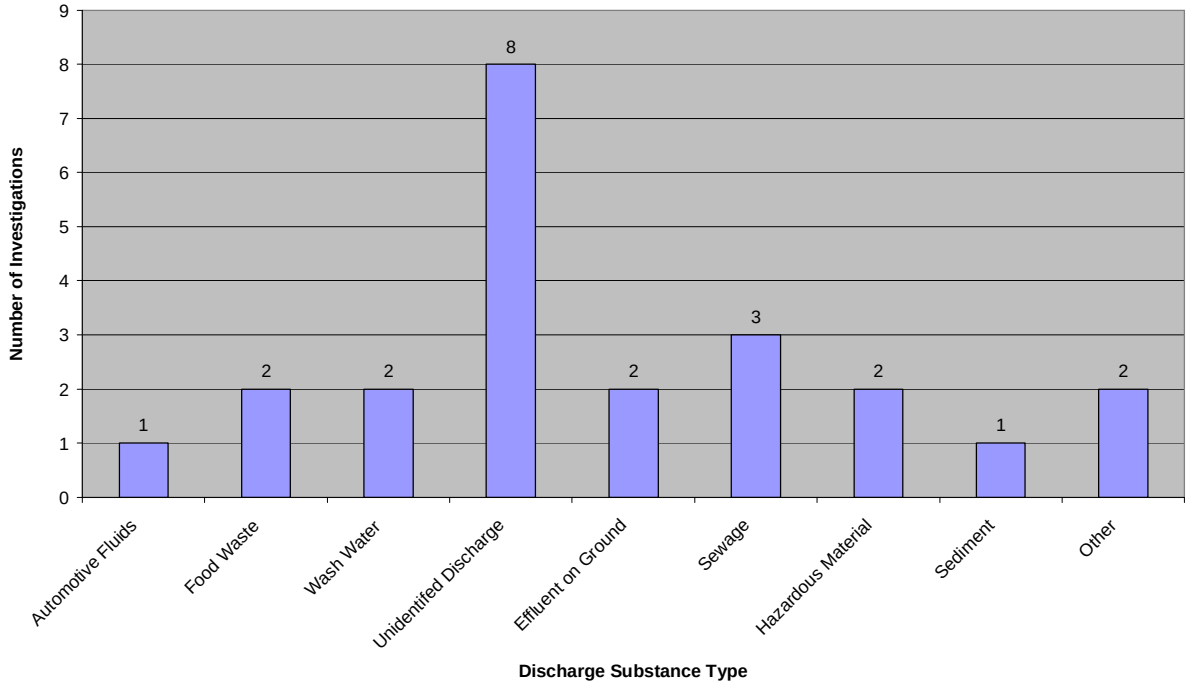
Enforcement

The Storm Water Department's Enforcement and Inspections Section enforces the City's *Storm Water Management and Discharge Control Ordinance* (§43.03 of the Municipal Code) citywide, including municipal facilities and activities. The Storm Water Department took measures to assist departments with the compliance of their facilities in regards to the requirements of the Municipal Permit, the City's municipal code, and JURMP during FY 2009.

In FY 2009, Pollution Prevention Division Code Compliance Officers conducted 42 investigations of potential discharges at municipal facilities or activities (**Appendix J**). Investigations are tracked by the substance(s) discharged, and **Figure 4-1** shows the FY 2009 municipal investigations by discharge type.

[2] >75 people

Figure 4-1
FY 2009 Municipal Facilities and Activities Code Compliance Investigations by Type



As a result of the investigations conducted by the Storm Water Department's Enforcement and Inspections Section, the enforcement actions listed in the **Table 4-4** were taken.

Table 4-4: FY 2009 Municipal Enforcement Actions Taken

Municipal Enforcement Action Taken	Number Issued in FY 2009
Notice of Violation	2
Educational Letters Distributed	3
Educational Materials Distributed	2
Referrals to Other Departments	1
No Evidence Found	1
No Action Taken	14

The Investigations where no responsible party could be identified after a thorough investigation resulted in a "no action taken" classification, and the discharge was most often abated and cleaned up by the City. Furthermore, code enforcement staff provided educational materials for all investigations where an enforcement action was taken

4.2 AIRPORTS

4.2.1 Background

This section is applicable to the Airports Division that operates Brown Field, Montgomery Field and leased non-aviation properties associated with these airfields. Responsibilities of

the Airport Division are outlined in Section 6.2 of the City's 2008 JURMP. Furthermore, operations at the two general aviation airports, Brown Field and Montgomery Field, are conducted in compliance with Statewide General Industrial Permit requirements and according to the storm water program described in the facilities' Storm Water Pollution Prevention Plans (SWPPPs), and Section 6.2, *Airports*, of the City's 2008 JURMP.

4.2.2 Best Management Practices Requirements

Numerous industrial tenants and activities comprise airport operations. In FY 2009, 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 ESD 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.

In FY 2009, Airports revised their Activity-specific BMP training requirements included in the City's JURMP for Montgomery Field by incorporating annual BMP training for employees including annual training and inspections of Spill Kits. Please refer to **Appendix K** for JURMP revisions.

4.2.3 Program Implementation

Facility Inspections and Improvements

During FY 2009, Montgomery Field and Brown Field airports were inspected and no deficiencies were noted during the inspections (**Appendix I**).

4.3 BUILDINGS/PARKING/LANDSCAPING

4.3.1 Background

This section is primarily applicable to the General Services Department's Facilities Division, Library Department, and Homeless Services Division of the City Planning and Community Investment Department. This section is secondarily applicable to all City departments that operate and maintain City buildings, parking lots, or landscaping. In an effort to consolidate information in one location of the report to facilitate program review, implementation efforts for storm drain cleaning and parking area sweeping conducted by City Departments/Divisions is included in Section 4.14 below for annual reporting purposes.

4.3.2 Program Implementation

Facility Inspections and Improvements

During FY 2009, all 37 Library facilities were inspected once, as opposed to twice per the Additional Controls for Municipal Areas and Activities requirement in the City's JURMP (see **Appendix I** for completed inspection forms). **Table 4-5** provides a summary of the general issues noted during the inspections along with the general follow-up practices. The first municipal inspections of the year, typically conducted in September, were not performed due to staffing and resource issues. The staff position responsible for conducting storm water inspections and handling storm water responsibilities for the Library Department was vacant until April 2009. As a result, the first set of annual storm water inspections was not conducted. Once the position was filled in April 2009, staff immediately conducted the storm water inspections. As a result of filling the position and having the appropriate staffing, the Library Department will be able to conduct inspections of the Library facilities as required per the City's JURMP.

Table 4-5: FY 2009 Library Department General Inspection Issues and Follow-up Practices

General Inspection Issue	General Follow-up Practice
Debris in parking lots	Following up with Storm Water Department's Operation and Maintenance Division to conduct parking lot sweeping
Storm drains inlets need cleaning	Work with contractor to conduct cleaning

The inspections for Homeless Services Division of the City Planning and Community Investment Department's two facilities were not conducted during the reporting period. As soon as Pollution Prevention Division staff was made aware of the situation a team was immediately sent out to conduct an inspection of the facilities in July 2009. As a result, Pollution Prevention Division staff is currently coordinating with the contract staff at the facilities to provide adequate training and make staff aware of the requirements for the facilities including inspection frequencies.

During FY 2009, a pre-rainy season inspection (fall of FY 2009) of all facilities in the 20th and B Operations Yard managed by the Facilities Division was performed; however, inspection forms were not filled out or cannot be located. Facilities management has been notified of this deficiency and measures have been put in place to ensure that all future inspections are documented on the appropriate checklist. The Facilities Division did conduct the second required inspections of all facilities in the 20th and B Operations Yard and the forms are included in **Appendix I**. No deficiencies were noted during the inspections

The Customer Services Department is no longer an existing City Department. Due to budget constraints the Customer Services Department was eliminated and the centers were closed in December 2008 and will no longer be included in Annual Reports. The City's JURMP and inventory have been revised accordingly (**Appendix H and K**). However, before the centers were closed the Customer Services Department did conduct the required facility inspections in September 2008 and the forms are included in **Appendix I**.

In addition to the steps individual departments are taking to ensure that inspections are conducted in accordance with the City's JURMP, the Storm Water Pollution Prevention Division will also send out a memorandum to all departments in September 2009 reminding staff of the inspection requirements for municipal facilities. Division staff will also conduct walk-along inspections with departments as necessary and will continue to send out reminders to the departments about permit responsibilities.

4.4 CITY-OWNED LEASED PROPERTIES

4.4.1 Background

This section is applicable to the Real Estate Assets Department (READ), which is responsible for leasing and/or managing more than 590 City-owned properties.

4.4.2 Best Management Practices Requirements

BMPs for Residential or Industrial/Commercial Leases

During residential or industrial/commercial lease establishment, renewal, or amendment, READ staff ensured that the required BMPs identified in JURMP sections 6.4.3.1.1 and

6.4.3.1.2 were included in the lease contracts or provided as an exhibit to the contracts during FY 2009.

4.4.3 Program Implementation

Facility Inspections and Improvements

READ manages an array of City-owned leased properties with commercial, industrial or residential uses operating onsite. Although READ manages these leases, they are classified as commercial, industrial, or residential land uses and are included in the Industrial/Commercial Inventory or high priority residential areas inventory, and are treated as such by the City. These leased properties are required to implement BMPs based on the land uses and are inspected under the requirements of the specific program component. Only agreements that are new, renewed or amended can be updated with new storm water requirements. During FY 2009, there were nine renewed leases, eight amended agreements, and 24 new permits that were executed with the updated BMP requirements language.

4.5 HOUSEHOLD HAZARDOUS WASTE

4.5.1 Background

This section is applicable to ESD, which oversees and runs the Household Hazardous Waste (HHW) Program.

4.5.2 Program Implementation

Facility Inspections and Improvements

ESD implements the HHW Program for the City and is responsible for the disposal of residential hazardous waste. ESD operates one permanent HHW Transfer Facility at the Miramar Landfill. The HHW Transfer Facility was inspected during FY 2009 and the completed inspection form can be found in **Appendix I**. There were no deficiencies noted during the inspection that required follow-up action(s).

Table 4-6: FY 2009 Environmental Services HHW Collection Data.

Event/Activity	HHW Collected (tons)
Load Check Program	21
Auto Product Recycling Events	26
HHW Transfer Facility	432
Door-to-Door Collection	4
Total HHW:	**483**

During FY 2009, ESD collected 483 tons of HHW as shown in **Table 4-6**. 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 identifies the City's hotline (1-858-694-7000) where more information can be obtained on proper HHW disposal methods.

4.6 NON-EMERGENCY FIRE-RESCUE ACTIVITIES

4.6.1 Background

This section is applicable to the Fire-Rescue Department's non-emergency fire-rescue activities. See Section 6.6 of the City's 2008 JURMP for more detailed information on the Fire Department's non-emergency fire-rescue activities.

4.6.2 Program Implementation

Facility Inspections and Improvements

The City's Fire-Rescue Department maintains 56 facilities and all of these facilities were inspected twice during FY 2009. For more information on the inspections refer to the Fire-Rescue Departments completed inspection forms provided in **Appendix I**. **Table 4-7** provides a summary of the general issues noted during inspections along with the general follow-up practices.

Table 4-7: FY 2009 Fire Department General Inspection Issues and General Follow-up Practices

General Inspection Issue	General Follow-up Practice
Required training not conducted	Training provided
Storm drains not stenciled	Drains stenciled
Observed small amount of wash water discharge which did not reach the storm drain.	Crews educated on proper wash water BMPs for respective facility
Order spill containment materials and clean-up kit	Materials and kits ordered
Drip pans not under leaks	Crews advised to clean up drips, move drip pans under the leaks, and repair any leaks
Parking lot and storm drain debris	Crews directed to clean-up debris

The Fire-Rescue Department began the process of developing site specific wash protocols for each fire facility in FY 2009. The protocol will identify facilities that are unable to wash onsite and appropriate alternate wash sites; more information will be provided when the protocol is completed.

4.7 NON-EMERGENCY POLICE ACTIVITIES

4.7.1 Background

This section is applicable to the Police Department's non-emergency activities. See Section 6.7 of the City's 2008 JURMP for more detailed information on the Police Department's non-emergency activities.

4.7.2 Program Implementation

Facility Inspections and Improvements

The City's Police Department maintains 14 facilities, which consist of a police headquarters, police stations and garages, a horse stable, pistol range, and a canine facility. All Police Department facilities were inspected twice during FY 2009. For more information on the inspections, refer to the Police Department's inspection forms provided in **Appendix I**. There were no deficiencies noted during the inspections that required follow-up action(s).

4.8 METROPOLITAN WASTEWATER COLLECTION

4.8.1 Background

This section is applicable to the MWWD Collection Division which, among other activities, provides ongoing preventive cleaning, maintenance, and repair of the Municipal Sewage Collection System, including emergency removal of sewer line stoppages, equipment overhaul and repair, on-site facility inspections, and maintenance of the structural integrity of sewer mains and manholes in the collection system. MWWD is responsible for the collection and conveyance of wastewater from residences and businesses in the City, serving a 330 square mile area with a population of 1.3 million people.

4.8.2 Program Implementation

Facility Inspections and Improvements

MWWD Wastewater Collection Division is responsible for seven facilities covered under the wastewater collection program component. During FY 2009, a new facility, SPS 18, was added to the MWWD Collection inventory and the municipal inventory has been updated accordingly (**Appendix H**). All existing facilities in MWWD's inventory were inspected at least twice during FY 2009 with the exception of SPS 18. SPS 18 was not active prior to September 2008 and therefore the September inspection could not be conducted. SPS 18 was inspected in February 2009. Most of the MWWD facilities are regulated by the state's industrial storm water permit and undergo quarterly dry weather inspections and monthly inspections during the rainy season. Annual reports (including all inspection forms) for the industrial facilities were submitted to the Regional Board on June 30, 2009.

Table 4-8 provides a summary of the general issues noted during inspections along with the general follow-up practices. For more information on the inspections, refer to MWWD's inspection forms in **Appendix I**.

Table 4-8: FY 2009 MWWD Collection General Inspection Issues and General Follow-up Practices

General Inspection Issue	General Follow-up Practice
Heavy sand and trash needed to be removed	Removed
Broken rock bags needed to be removed	Removed

MWWD Collection staff installed a new fence in April 2009 around a storm drain that was previously on the outside perimeter of the existing fence at SPS 18. The station is located on a bluff adjacent to the Pacific Ocean and the area around this drain was continuously littered (cigarette butts, bottles, cans, paper waste, etc.) by pedestrians that trespassed. This storm drain is now protected by the new fence which will assist in pollution prevention.

MWWD currently maintains over 3,000 miles of City sewer main line with over 250,000 connections. During FY 2009, the department conducted field inspections and televised sewer lines to monitor the condition of sewer lines, which can reveal blockages from debris to roots to grease and show pipeline cracks, breaks, or deterioration. Through proactive maintenance, spills or leaks to the storm drain system were minimized.

In FY 2009, MWWD helped to reduce the number of sewer spills and protect storm water quality by inspecting or televising 82 miles of sewer line, repairing or performing

maintenance on 12 miles of sewer line, and cleaning 1,546 miles of sewer lines. These efforts helped to prevent and eliminate sewer spills and the potential for sewer infiltration to the storm drain system in FY 2009. Further discussion on sewer spills will be included in the City's Illicit Discharge Detection and Elimination Section submitted December 15, 2009.

MWWD also 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 businesses on the proper disposal alternative for fats, oils and grease. Information on this program can be found in Section 5, Industrial and Commercial, of this report.

4.9 METROPOLITAN WASTEWATER TREATMENT AND DISPOSAL

4.9.1 Background

This section is applicable to the MWWD Treatment and Disposal Division, which is responsible for the conveyance, treatment and disposal of wastewater and its by-products.

4.9.2 Program Implementation

Facility Inspections and Improvements

MWWD Treatment and Disposal Division is responsible for fourteen facilities under the wastewater treatment and disposal program component, including wastewater treatment plants, office and laboratory buildings, and pump stations. During FY 2009, MWWD staff conducted the required inspections at each of the fourteen facilities. For more information on the inspections, refer to MWWD's inspection forms in **Appendix I. Table 4-9** provides a summary of the general issues noted during inspections along with the general follow-up practices.

Table 4-9: FY 2009 MWWD Treatment and Disposal General Inspection Issues and General Follow-up Practices

General Inspection Issue	General Follow-up Practice
Broken sprinkler heads	Sprinkler heads repaired
Dumpster/trash bin not properly covered	Dumpster/trash bin covered
Storm drains need to be stenciled	Storm drains stenciled
Storm drain inlets need screens	Issue work order to install screens at inlets
Need to implement good housekeeping BMPs	Parts/tools/equipment well organized; remove litter/debris/materials; maintain drip pans and clean as necessary; dispose of materials properly

4.10 RECREATIONAL LANDS AND FACILITIES

4.10.1 Background

This section is applicable to the City's Park and Recreation Department. See Section 6.10 of the City's 2008 JURMP for more detailed information on the Park and Recreation Department's activities.

4.10.2 Program Implementation

Facility Inspections and Improvements

The structure of the Park and Recreation Department inventory changed during FY 2009. Rather than listing each facility separately as was done in the past, the Park and Recreation Department now only lists main sites in its inventory. A main site may include several facilities or structures. This provides a more accurate inventory and also facilitates a more accurate accounting of facility inspections. Based on this new inventory, the Park and Recreation Department has 479 sites.

The Park and Recreation Department inspected 464 sites twice during FY 2009 (see **Appendix I** for inspection forms). However, second inspection forms for 27 of these sites cannot be located. As a result, all district managers have been requested to be responsible for ensuring that: all inspections for their facilities are conducted, all inspections are recorded on the appropriate forms, and copies of inspection forms are made for reporting purposes. Through the annual reporting process, it was also determined that there were 15 sites which were not inspected during the reporting period. With such a large inventory, most of these facilities were overlooked due to staff not realizing inspections were to be conducted, and in some cases the area manager who is responsible for the inspections being out on leave. Furthermore, with the inventory being completely revised in FY 2009, the Park and Recreation Department is reviewing the inventory for accuracy; in addition to making sure that Area Managers are aware of the facilities they are responsible for, and ensuring that storm water inspections are conducted. The Park and Recreation Department is working on addressing these issues so that the required inspections of all facilities will be conducted during FY 2010.

In addition to the steps individual departments are taking to ensure that inspections are conducted in accordance with the City's JURMP, the Storm Water Pollution Prevention Division will also send out a memorandum to all departments in September 2009 reminding staff of the inspection requirements for municipal facilities. Division staff will also conduct walk-along inspections with departments as necessary and will continue to send out reminders to the departments about permit responsibilities.

Table 4-10 provides a summary of the general issues noted during inspections along with the general follow-up practices.

Table 4-10: FY 2009 Park and Recreation General Inspection Issues and General Follow-up Practices

General Inspection Issue	General Follow-up Practice
Storm Drains Not Stenciled	Requested stencils from Storm Water Department and stenciled storm drains.
Parking Lot Debris	Crews swept debris from lots.
Storm Drain Debris	Crews directed to clean-up debris of inlets and within catch basins.
Trash Cans Uncovered	Trash cans covered; if no cover available, crews inspected cans daily and emptied trash when necessary.
Needed Spill-Containment Materials and Clean-up Kit	Materials and kits ordered.
Required Training Not Conducted	Training conducted
Contractors Not Adhering to Minimum BMPs	Applicable contractor provided with BMP requirements and meetings with area manager scheduled to go over requirements

During FY 2009, the Park and Recreation Department also issued approximately 5,120 special event permits. In accordance with the City's JURMP and as noted in **Table 4-3** in this section, the Park and Recreation Department conducted periodic inspections of two special events: Rock-n-Roll Marathon – De Anza Cove, and Cystic Fibrosis – Great Strides – De Anza Cove. Copies of the inspection information are included in **Appendix I**.

The Park and Recreation Department also collected 12,370 tons of debris from the parks, beaches, and bay, including collecting over 250 tons of debris during the 2008 July 4th holiday along the shoreline of Mission Bay and Shoreline/Beach Parks during the reporting period.

4.11 SOLID WASTE MANAGEMENT

4.11.1 Background

This section is applicable to ESD which operates and manages the collection, reduction, and disposal of solid waste within the City.

4.11.2 Program Implementation

Facility Inspections and Improvements

ESD's facilities include the "Green[3]" Ridgehaven building, one active landfill, inactive landfills, and an operations yard. During the reporting period, activities in compliance with Statewide General Industrial Permit requirements were performed at all active and inactive landfills. Additionally, all of the inventoried ESD facilities were inspected twice during FY 2009. Copies of the inspection forms can be found in **Appendix I** of this report. **Table 4-11** provides a summary of the general issues noted during inspections along with the general follow-up practices.

Table 4-11: FY 2009 ESD Solid Waste Management General Inspection Issues and General Follow-up Practices

General Inspection Issue	General Follow-up Practice
Gravel bags missing from site	Replaced
Erosion on site	Area was repaired to stop erosion
Sediment/silt in drainage structure or brow ditch	Sediment/silt removed by contractor

During FY 2009, ESD picked up 2.2 tons of debris during the yard clean-up at the Miramar Place Operations Yard. ESD also conducted a Christmas Tree Program which promoted the recycling of Christmas trees from December 26, 2008 through January 23, 2009. There were 17 different resident drop-off locations throughout the City and a total of 148,476 trees (1,262 tons) were collected through this program.

[3] Home to the Environmental Services Department, the Ridgehaven "Green Building" Demonstration Project is one of the nation's most energy efficient dwellings. In 1999, the building received the U.S. Department of Energy and the U.S. Environmental Protection Agency's first Energy Star Label for Buildings. Ridgehaven's energy consumption is 28 percent better than the California Energy Code (2005), and the building uses half the water of a comparable commercial facility. This translates to about $100,000 in annual estimated cost savings. In 2003, the building received photovoltaic panels that produce energy from sunlight.

ESD maintains the siltation basins at the active Miramar Landfill to ensure effectiveness. Material from the basins was collected when necessary and disposed of according to current regulations. During FY 2009, ESD pumped 1,830,000 gallons of silt laden runoff from the main silt basin at the active Miramar Landfill between storm events. Erosion and sediment control measures, including mulch, tackifier, and straw wattles were also put in place, where necessary. ESD controlled erosion by applying 47,910 cubic yards of mulch to the slopes at the active Miramar Landfill during the reporting period.

4.12 SPECIAL EVENTS

4.12.1 Background

This section is applicable to the Office of Special Events, which issues permits for special events as defined by the San Diego Storm Water Management and Discharge Control Ordinance ("Storm Water Ordinance") §22.4.

The Office of Special Events provides a number of event-related services. The primary function is to provide permits for events that occur on public property. Typical events for which the Office of Special Events provides permitting services include runs, walks, triathlons, festivals, and parades. In addition, the Park and Recreation Department, Water Department, and Qualcomm Stadium staff issue special event permits for activities taking place on land managed by these departments and are addressed in sections 4.10, 4.16, and 4.13 of this report. In general, any organized activity involving the use of, or having impact upon, public property, public facilities, parks, beaches, sidewalks, street areas, or the temporary use of private property in a manner that varies from its current land use, requires a special event permit.

Although special events permitted by the City occur on City property, the special event itself is not considered a "municipal facility" or "municipal area" in the municipal inventory under the Municipal Permit.

4.12.2 Best Management Practices Requirements

BMPs identified in section 6.12.3 of the City's 2008 JURMP are the BMPs that the Office of Special Events ensured were included in the special event permit application language during FY 2009.

4.12.3 Program Implementation

Facility Inspections and Improvements

As required by the City's JURMP, the Office of Special Events conducted periodic inspections (no less than once annually) of each category or type of special event (noted in **Table 4-3** above), to ensure that the Special Event Permit Requirements identified in Section 6.12.3.2 of the City's JURMP are effectively being implemented. During FY 2009, the Office of Special Events inspected the San Diego Science Festival Expo located in the Prado area of Balboa Park. There were no deficiencies noted during the inspection. The inspection form, along with pictures of some of the BMPs implemented, are included in **Appendix I.**

The Office of Special Events also provides informational messages to all special event organizers, providing notification of the BMP requirements for a Storm Water Pollution Prevention Plan and a Trash and Recycling Plan for each event. The Storm Water Pollution

Prevention Plan Message and Trash/Recycling Plan Message to Event Organizers are included in **Appendix L**.

4.13 STADIUM

4.13.1 Background

This section is applicable to the City's Qualcomm Stadium (Stadium) management and employees, and any lessees or vendors who operate at the Stadium.

4.13.2 Program Implementation

Facility Inspections and Improvements

During FY 2009, the Stadium was inspected twice and the inspection forms can be found in **Appendix I** of this report. **Table 4-12** provides a summary of the general issues noted during inspections along with the general follow-up practices.

Table 4-12: FY 2009 Stadium General Inspection Issues and General Follow-up Practices

General Inspection Issue	General Follow-up Practice
Storm drain needs cleaning	Storm drain cleaned

In November 2008, the Stadium purchased and installed over 1,600 linear feet of 6-foot high wind screen on the chain link fence that parallels Murphy Canyon Creek along the eastern most perimeter of the stadium complex. This was implemented in an effort to capture and hold any trash that is blown in that direction, preventing it from entering into the waterway. When an event is held at the Stadium, the trash along the fence line is collected and properly disposed of within 24 hours.

4.14 STREETS/STORM DRAIN CONVEYANCE SYSTEM

4.14.1 Background

This section is applicable to the General Services Department's Street Division and the Storm Water Department's Operations and Maintenance Division which own, operate, and maintain the streets and storm drain systems of San Diego.

As part of the BMP implementation efforts, City Departments/Divisions conducted storm drain inspections and cleaning of their respective facilities as required in Section 6.3, Buildings/Parking/Landscaping of the City's JURMP. In an effort to consolidate information in one location of this Annual Report, the reporting of departmental storm drain inspections and cleaning and departmental parking lot sweeping will be included in this sub-section.

4.14.2 Program Implementation

In FY 2009, storm drain and street sweeping functions were removed from the General Services Department, Streets Division, to the newly created Storm Water Department, Operation and Maintenance Division As a result, the City is currently reviewing the JURMP to revise it as necessary and will provide any updated language in the FY 2010 Annual Report.

Facility Inspections and Improvements

During FY 2009, the Street Division and the Operations and Maintenance Division conducted two inspections of all of their facilities (**Appendix I**). There were some issues noted during the inspection and a summary of the issues generally noted on the forms along with the status are included in **Table 4-13** below.

Table 4-13: FY 2009 Street Division and Operation and Maintenance Division General Inspection Issues and General Follow-up Practices

General Inspection Issue	General Follow-up Practice
Cover trash bin	Trash bin covered
Materials should be stored on pallet	Moved on top of pallet

Catch Basins, Inlets, and Cleanouts and the Municipal Separate Storm Sewer System (MS4)

The City has approximately 31,997 inlets and catch basins. During the reporting period the Storm Water Department Operations and Maintenance Division conducted 42,685 inspections of catch basins and inlets, and found and cleaned 30,810 catch basins and inlets with accumulated waste exceeding cleaning criteria[4]. The City's pipelines and inlets are not designed to contain debris and sediment. Therefore, any pipeline or inlet cleaned during the reporting period exceeded the cleaning criteria.

The City has approximately 901 miles of storm drain system. An updated map of the City's storm drain system is included as **Appendix M** of this report. The Storm Water Department Operations and Maintenance Division is responsible for the inspection, maintenance, and repair of the MS4 in the public right-of-way and in drainage easements. While the City's pipelines are designed not to catch any debris, storm drain pipes are visually inspected by looking from the cleanout/inlet. The distance viewed can vary and is, therefore, not formally tracked. During FY 2009, the Storm Water Department Operations and Maintenance Division found and cleaned approximately 1.9 miles of pipeline that had accumulated waste exceeding the cleaning criteria.

Approximately 516 tons of waste and litter were removed from catch basins, inlets, cleanouts, and the MS4 by the Storm Water Department Operations and Maintenance Division during the respective reporting period. The amount of material removed from catch basins, inlets, and cleanouts cannot be calculated separately from the MS4 because vactor truck loads contain material from both drain and pipe cleaning.

In addition to the City's Storm Water Department Operations and Maintenance Division, City Departments or Divisions that operate and maintain buildings are also responsible for inspecting and cleaning all associated storm drain facilities as noted in Table 6.3-2 of the City's JURMP. As part of this effort, there was a total of 14,166 lbs (7.08 tons) of debris removed from these storm drain facilities (**Table 4-14**) during FY 2009. It is worth noting that the Water Department was in the process of hiring a contractor to inspect and clean its storm drains during FY 2009. Therefore, the Water Department storm drains were not cleaned during FY 2009, but are scheduled to be inspected and cleaned if necessary by the new contractor in October 2009.

[4] Cleaning criteria – accumulated trash and debris greater than 33% of design capacity

Table 4-14: FY 2009 Storm Drain System Inspection and Cleaning by Department/Division

Department / Division	Amount removed (lbs)
Airports	0
ESD	7
Facilities	28
Fire	1,950
Libraries	4,725
MWWD	2,070
Park and Recreation	130
Parking Meters	30
Police	384
Stadium	4,400
Fleet Services	442
Total	**14,166**

Open Channels

The City has approximately 50 miles of channels. Every channel within the City was inspected twice during FY 2009. The channels were inspected in the fall before the rainy season and once in the spring. During FY 2009, approximately 10 miles of open channels were found with anthropogenic litter; 7.7 miles of channels were cleaned, and 5,198 tons of anthropogenic litter was removed.

Street Sweeping

There are approximately 1,384 curb-miles of improved roads, streets, and highways identified as consistently generating the highest volumes of trash and/or debris within the City and are swept weekly. There are also approximately 313 curb-miles of improved roads, streets, and highways identified as consistently generating moderate volumes of trash and/or debris within the City and are swept monthly. Finally, there are 3,540 curb-miles of improved roads, streets, and highways identified as consistently generating low volumes of trash and/or debris within the City and are swept every other month. The sweeping routes and frequencies for high, moderate, and low volumes of trash and/or debris for improved roads, streets, and highways are included as **Appendix N**. The map represents the scheduled and actual sweeping frequencies for FY 2009. If a street sweeping machine was broken or staff was unavailable the route was made up within the week in order to maintain the appropriate frequency. It is important to note that the City's sweeping frequencies for high and low volume trash and/or debris for improved roads, streets, and highways are greater than what is required by the Municipal Permit. Through the implementation of the City's street sweeping program 95,161 curb miles were swept and 6,418 tons of debris was removed within the City.

City Departments or Divisions that operate and maintain buildings and parking areas are responsible for sweeping the parking areas as noted in Table 6.3-2 of the City's JURMP. There are approximately 434 municipal parking lots within the City. The City is currently working on compiling a more accurate and comprehensive listing of municipal parking lots to determine the total number for reporting purposes and will be included in the FY 2010 Annual Report.

With the exception of municipal operation yards, which are considered to generate medium volumes of solid waste and are required to be swept once a month, all parking lots are considered to generate low volumes of solid waste and were required to be swept once a year. As part of the this effort, there was a total 939,224 lbs. (469.6 tons) of debris collected as a result of parking lot sweeping during the reporting period (**Table 4-15**).

During FY 2009, the Library Department's parking lots were not swept due to staffing and resource issues. The staff position responsible for handling storm water responsibilities for the Library Department was vacant until April 2009. As a result of the transition, the parking lot sweeping was not conducted. Once this issue was recognized, Library staff began working with the Pollution Prevention Division to get it resolved. Library staff is in the process of securing parking lot sweeping for FY 2010.

Table 4-15: FY 2009 Parking Lot Sweeping Information by Department/Division

Department/Division	Amount Removed (lbs.)
Airports	193,000
ESD	87,200
Fire	85
Library	0
Parking Meters	200
Police	270
Stadium	4,400
Park and Recreation	12,000
Pollution Prevention Operations and Maintenance	4,000
Fleet Services	1,500
Water	636,000
Total	**939,224**

4.15 VEHICLE MAINTENANCE/OPERATIONS YARD

4.15.1 Background

This section is applicable to the General Services Department, Fleet Services Division (Fleet Services) and all other departments and divisions which perform vehicle maintenance or operate at an operations yard.

4.15.2 Program Implementation

Facility Inspections and Improvements

Fleet Services added a new facility in FY 2009 and the municipal inventory has been updated accordingly (**Appendix H**). During FY 2009, Fleet Services conducted two inspections of each facility (**Appendix I**). **Table 4-16** provides a summary of the general issues noted during inspections along with the general follow-up practices. Other applicable departments, with the exception of the Facilities Division, with operation yards inspected each facility twice. Please refer to each Department or Divisions individual inspection forms for further information on the inspections.

Table 4-16: FY 2009 Fleet Services General Inspection Issues and Follow-up Practices

General Inspection Issue	General Follow-up Practices
Storm Drain needs re-stenciling	Contact Storm Water Department to obtain stencil and re-stencil the storm drain
Broken trash container lids	Repaired

4.16 WATER SYSTEMS

4.16.1 Background

This section is applicable to the Water Department which owns and operates the potable water supply and distribution systems for the citizens of the City.

4.16.2 Program Implementation

Facility Inspections and Improvements

In FY 2009, the Water Department inspected all of its facilities twice and the inspection forms can be found in **Appendix I**. **Table 4-17** provides a summary of the general issues noted during inspections along with the general follow-up practices.

Table 4-17: FY 2009 Water Department General Inspection Issues and General Follow-up Practices

General Inspection Issue	General Follow-up Practice
Storm drain inlets need BMPs and/or screen replaced.	Screens Replaced
Storm drain inlets need to be cleaned of debris and/or sediment.	Scheduled for cleaning
Brow ditches need to be cleaned of debris and/or sediment.	Scheduled for cleaning
Fiber rolls need to be replaced.	Replaced
Poor housekeeping in facility areas (ie trash needs to be cleaned up, weeds need to be removed, area needs to be swept).	General good housekeeping BMPs implemented
Poor/improper storage practices (ie leaks from and/or corrosion of storage containers).	Improved storage containers and storage practices to prevent leaks and corrosion
Trash cans need liners and/or lids.	Ordered liners and/or lids for trash containers

During FY 2009, the Water Department issued nine special event permits. In accordance with the City's JURMP and as noted in **Table 4-3** of this section, the Water Department is supposed to conduct one inspection of a special event. During the reporting period the Water Department conducted inspections of three special events: Turkey Tune-up Seminar at Sutherland Reservoir, National Hunting and Fishing Day Information Fair at the Earl Thomas Reservoir, and Legs for Literacy at the Miramar Reservoir. Copies of the inspection information and event permits are included in **Appendix I**.

5 INDUSTRIAL AND COMMERCIAL

5.1 INTRODUCTION

Principally, the Pollution Prevention Division staff carries out the industrial and commercial section of the City's JURMP. Other departments, such as MWWD, also conduct storm water inspections during their restaurant inspections to complement the Pollution Prevention Division's efforts. In addition to conducting industrial and commercial inspections, the Code Enforcement staff within the Pollution Prevention Division enforces the City's Storm Water Management and Discharge Control Ordinance ("Storm Water Ordinance") at industrial and commercial facilities. This section describes the FY 2009 accomplishments of the industrial and commercial program elements. The City was compliant with all elements of Section D.3.b of the Municipal Permit as described in the sections below and in the Permit Component Table (**Appendix G**).

5.2 STATIONARY SOURCES ELEMENT

5.2.1 Background

Each facility within the City's jurisdiction has been inventoried and categorized as either commercial or industrial. Based on the prioritized category, specific BMPs are required and inspections are conducted. The industrial and commercial facilities that violate the City's JURMP requirements are notified, documented, and enforcement applied as described in the City's JURMP.

5.2.2 Source Characterization

A watershed-based inventory and prioritization of known industrial and commercial facilities within the City's jurisdiction has been updated for FY 2009 (**Appendix O**). This inventory is based on multiple sources of information including the City's business tax license list, the Statewide General Industrial Storm Water database, the City's FEWD and Industrial IWCP databases, and other sources of information, as appropriate. Of the 22,764 currently inventoried industrial and commercial facilities within the City, 21,367 are stationary facilities (the other 1,397 are mobile businesses). **Table 5-1** provides a summary of the inventoried stationary businesses threat to water quality (TTWQ).

Table 5-1: Inventoried Stationary Businesses TTWQ

TTWQ	Number of Inventoried Stationary Businesses
High Industrial	96
Medium Industrial	3,205
Low Industrial	1,364
High Commercial	461
Medium Commercial	11,145
Low Commercial	5,096
Total	**21,367**

5.2.3 Best Management Practice Requirements

Minimum BMPs required for industrial and commercial facilities within the City based on the type of activity that is being conducted are identified in *Appendix X, "Minimum BMPs*

for Industrial and Commercial Sites/Sources", of the City's JURMP. City- identified BMPs to be used at facilities that have the potential to discharge directly to Clean Water Act section 303(d) impaired water bodies, coastal lagoons, or water bodies on environmentally sensitive lands have also been incorporated into the list of minimum BMPs included in the City's JURMP. There were no updates to these BMP requirements during FY 2009. For more details see Section 7.3.3 of the City's JURMP. To ensure facility compliance of these required BMPs and other storm water regulations, the City conducted inspections and investigations of facilities and implemented enforcement actions where appropriate.

5.2.4 Program Implementation

5.2.4.1 Inspection of Industrial and Commercial Facilities

The City completed industrial and commercial storm water compliance inspections using three methods: the City's IWCP inspection program, the City's FEWD program, and the City's Pollution Prevention Division's inspection program. The IWCP inspections focus on sites that have sanitary sewer pretreatment permits, while the FEWD inspections focus on food service establishments. The FEWD Program regulates restaurants' sewer grease traps to ensure proper function and also reviews disposal procedures for oil and cooking grease. The program aims to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system.

Prior to the start of the Pollution Prevention Division's FY 2009 inspections, the City's inventory was prioritized according to a process consistent with the requirements of Order No. R9-2007-0001. This process was designed to assign the highest TTWQ to businesses at which relatively significant BMP implementation deficiencies had been noted. All high TTWQ sites were selected for inspection in FY 2009. Other sites selected for inspection included medium priority sites with no previous inspection history. These businesses were mainly selected from business categories identified as potential problems such as auto repair shops, auto paint and body shops, building material suppliers, contractors deemed likely to have storage yards, and trucking or other transportation operations.

Through the three programs, approximately 27% of the City's commercial and industrial inventory received site visits and/or inspections. Furthermore, 100% of all inventoried stationary sites determined to pose a high TTWQ were inspected during FY 2009.

During FY 2009, MWWD IWCP staff performed 52 storm water inspections, while MWWD FEWD staff performed 3,141 storm water inspections. Complete lists of both IWCP and FEWD inspected facilities are included as **Appendix P**.

A total of 2,247 industrial and 6,096 commercial site visits were made in FY 2009. Of these, 539 industrial and 2,069 commercial resulted in full inspections; and 1,704 industrial and 3,438 commercial were found to have either moved, be duplicates of other businesses, incorrectly classified because the NAICS code on the business license was not accurate, or not in the City's jurisdiction. There were also 582 commercial facilities and four industrial facilities that were found to be mobile businesses. A complete inspection listing of commercial and industrial inspections for FY 2009 is included as **Appendix Q**. The inspection listing includes the facility name, address, TTWQ, inspection date, inspection result, and follow-up inspection priority.

All inspections conducted during FY 2009 addressed all of the required inspection steps to determine full compliance by utilizing the City's standard industrial/commercial inspection

form, which have been designed to directly mirror the City's minimum BMP requirements, as well as supplemental attachments to the form (**Appendix R**). An inspection form was completed at all sites that received a full inspection. As applicable, supplemental forms were used (industrial or restaurant) to collect information about Industrial Permit compliance status or restaurant management. The pollutant discharge potential assessment (PDPA) form and supplemental questionnaire were completed at each site that received a full inspection and the industrial attachment was completed at each industrial site that received a full inspection.

Table 5-2 below provides a summary of the full industrial and commercial inspections conducted by the Pollution Prevention Division.

Table 5-2: FY 2008 Summary of Commercial and Industrial Facility Inspections and Site Visits

Facility Type	Number of Full Inspections Conducted
High TTWQ Industrial	87
Medium TTWQ Industrial	253
Low TTWQ Industrial	199
High TTWQ Commercial	361
Medium TTWQ Commercial	878
Low TTWQ Commercial	830
Total	**2,608**

BMPs were required to be implemented at all industrial and commercial sites; and if BMPs were not implemented at facilities where inspections were conducted, then facility personnel were notified both verbally and by mail. Every business that received a full inspection was provided with inspection results by mail in the form of a database generated report. The results outlined the BMP deficiencies observed during the inspection and notified businesses of any Industrial Permit related violations. Inspection results were accompanied by a letter describing the City's storm water program and reason for inspection. The letter also directed facility personnel to the City's website where the minimum BMPs are posted (**Appendix S**).

Furthermore, the City utilized a priority rating system for follow-up inspections. **Table 5-3** provides a summary of the commercial and industrial facility follow-up inspection priority. A Priority 1 rating indicates that the facility was referred to the storm water hotline and was followed-up within 24 hours for the issue(s) noted at the time of the inspection. There were 28 Priority 1 follow-up investigations conducted by Code Enforcement staff during FY 2009. There was one Priority 1 follow-up that could not be located in the enforcement database to verify that the follow-up occurred. This may be due to a data entry error when the investigation was entered into the enforcement database. A Priority 2 follow-up rating indicates that there was a BMP implementation deficiency and a follow-up inspection is recommended. Although the City was unable to conduct follow-up inspections of Priority 2 facilities during the reporting period, the City is currently in the process of hiring additional staff to conduct follow-up inspections in a timelier manner. A Priority 3 follow-up rating indicates that there were minor BMP implementation deficiencies and that corrective actions should be reviewed at the next routine inspection of the facility. It is also important to note that whether or not an industrial facility was in violation of the Industrial Permit had no effect on the priority rating. The priority rating only takes into account whether a facility is in compliance with the City's Storm Water Ordinance (only BMP and IC/ID issues). A complete list of industrial facilities that were in violation of the Industrial Permit is included as **Appendix T**.

Table 5-3: FY 2008 Summary of Commercial and Industrial Facility Follow-up Inspection Priority Ratings

Facility Type	Priority 1	Priority 2	Priority 3
High TTWQ Industrial	2	59	26
Medium TTWQ Industrial	1	6	245
Low TTWQ Industrial	0	0	198
High TTWQ Commercial	24	293	42
Medium TTWQ Commercial	2	35	837
Low TTWQ Commercial	0	2	814
Totals	**29**	**395**	**2,162**

As previously mentioned, the PDPA form was utilized during inspections to collect information for effectiveness assessment and source identification. Ideally, completing the form will provide additional data to help refine the pollutant discharge potentials (PDP) assigned to various source types in the Copermittees' Baseline Long-Term Effectiveness Assessment (BLTEA) (2005). The form is intended to be a semi-quantitative tool to identify which sites are major sources of the principal pollutants of concern for storm water. Inspectors record scores for the following pollutants: sediments, nutrients, aluminum, iron, heavy metals, organic compounds, trash and debris, oxygen demanding, oil and grease, bacteria and viruses, pesticides, and acid/base. For each of several main categories of pollutants, a numeric PDP on a scale from 0 (not present) to 5 (severe) is assigned. Where applicable, the area(s) of the site requiring more BMPs and that are responsible for potential pollutant discharge (PDP) are identified via check boxes; and the type of BMP necessary is identified. **Figure 5-1**, on the following page, presents the frequency of scores for each pollutant.

5.2.4.2 Monitoring of Industrial Sites

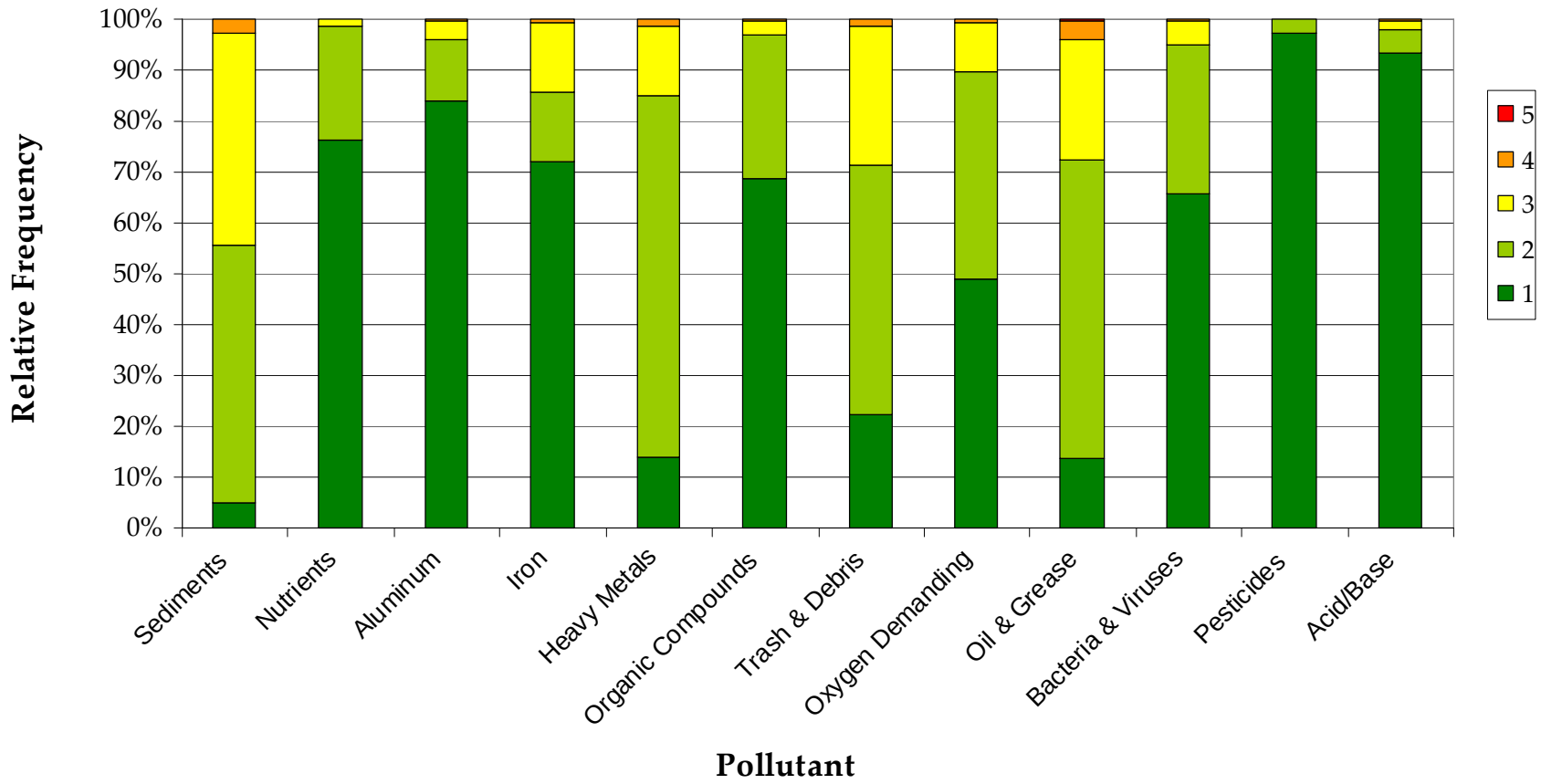
The City's JURMP requires that high TTWQ industrial facilities implement monitoring programs for runoff from their facilities. During FY 2009, there were 102 industrial facilities that were in violation of the Industrial Permit for their monitoring programs. Of the 102 industrial facilities, 46 were high TTWQ industrial facilities. All of the facilities were made aware of the requirement and the list was submitted to the Regional Board. A list of the facilities is included as **Appendix T.**

Furthermore, General Industrial Permit compliance status was assessed during full inspections. Inspectors evaluated the existing SIC code or assigned an SIC code as appropriate. The SIC code was then evaluated for subjectivity to the Industrial Permit. Facilities that were conditionally subject were provided Notice of Non-Applicability/No Exposure Certification (NONA/NEC) paperwork if the facility did not have any exposure. Conditionally subject facilities with exposure were provided Notice of Intent (NOI) paperwork. If a facility had some exposure at the time of inspection but could eliminate exposure feasibly, facility personnel were provided with both NOI and NONA/NEC paperwork and told to file an NOI and informed that eliminating exposure could potentially qualify the site for NONA/NEC. Unconditionally subject sites (mandatory) were directed to file an NOI. A list of non-filers is included in **Appendix T**. If the facility had active Industrial Permit coverage, compliance with Industrial Permit requirements was assessed, inspectors reviewed the SWPPP for all required components; and Inspectors also reviewed the storm water monitoring program to ensure that appropriate sampling had been conducted during the most recent wet season.

5.2.4.3 Enforcement of Regulations at Industrial and Commercial Facilities

Inspections or complaint investigations of industrial and commercial facilities may result in enforcement action. Enforcement of storm water regulations are conducted by City staff members with enforcement authority and, when necessary, by legal counsel. The inspectors, in accordance with the existing procedures for recording violations, properly document each observed violation.

Figure 5-1
PDPA Score Frequencies by Pollutant, Jurisdictional Industrial/Commercial Inspections



The City's process for inspection and enforcement of violations ensures that industrial and commercial facility violations are abated. Sites with storm water violations noted during inspections are referred to the Pollution Prevention Division's Investigations and Enforcements Section for follow-up investigation and enforcement. Refer to **Appendix J** for a table of investigations conducted in FY 2009.

The Pollution Prevention Division operates the Storm Water Pollution Prevention Hotline (619-235-1000) as well as other means of communication (e.g., website, main office line, and fax); thereby, encouraging the reporting of illegal discharges to the storm water conveyance system from locations within the City, including commercial facilities. As a result of the hotline, a total 452 investigations were conducted at commercial and industrial sites in FY 2009.

Investigations are tracked by substance discharged. Categories include: Construction Waste (i.e., cement-like material), Wash Water, Petroleum Hydrocarbons (i.e., transmission fluid, oil, and gasoline), Sewage, Sediment, Effluent on ground (i.e., pool water, water, and ground water), Latex Paint, Unidentified Discharge, and Other (i.e., grease, chemicals, trash, green waste, hazardous substance). **Figure 5-2**, on the following page, shows the FY 2009 industrial and commercial investigations by discharge type.

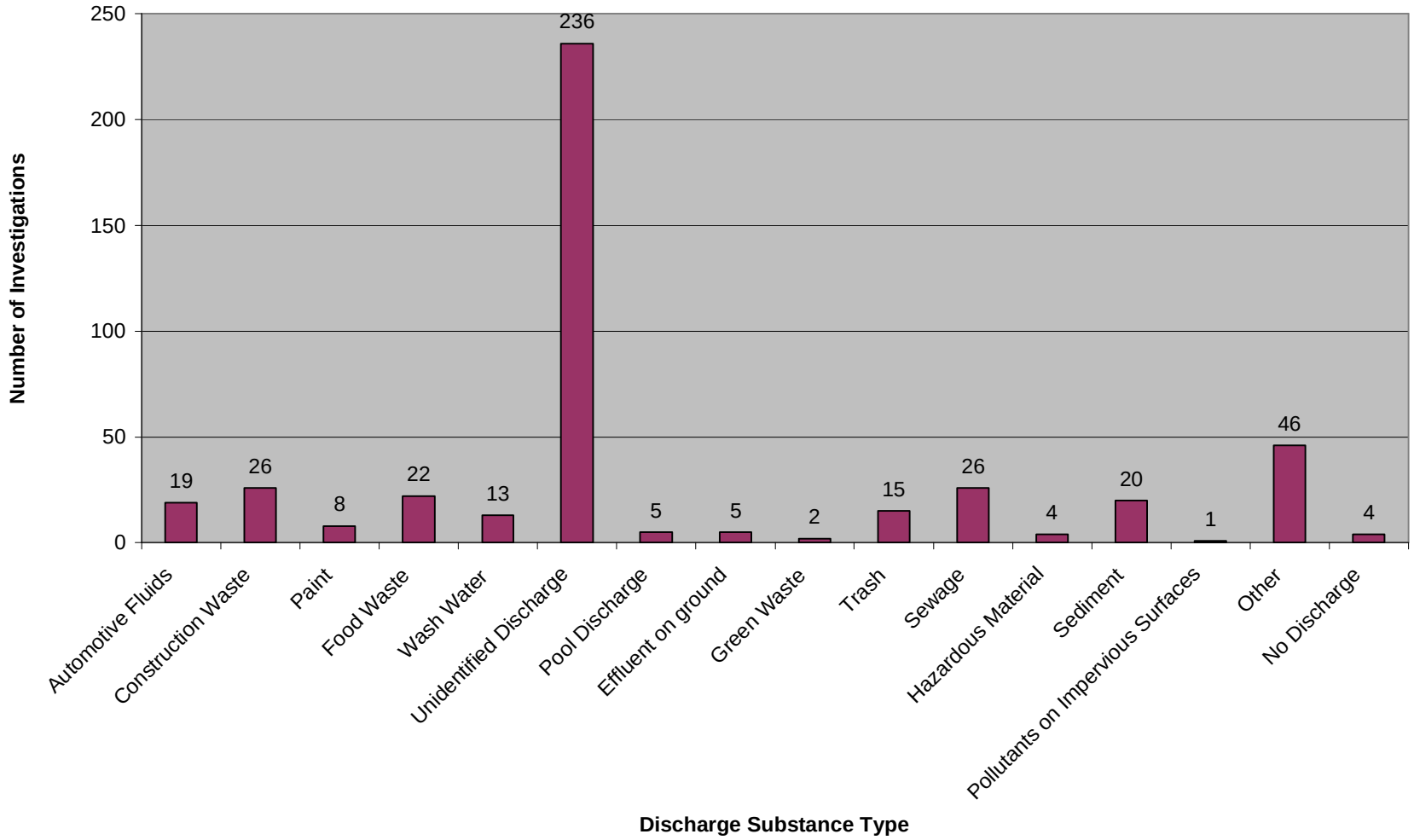
As a result of the investigations conducted by the Storm Water Pollution Prevention Division's Enforcement and Inspections Section, enforcement actions were taken and are summarized in **Table 5-4** below. It is important to note that Civil Penalties noted in the database were recommended and may have not necessarily been issued during the respective reporting period. The recommended Civil Penalties need to go through a review process before they are issued to a responsible party.

Table 5-4: FY 2009 Summary of Code Compliance Enforcement Actions for Industrial and Commercial Site Investigations

Commercial and Industrial Enforcement Actions Taken	Number Issued in FY 2009
Recommended Civil Penalty	24
NOV	181
Administrative Citation	96
Educational Letters Distributed	59 (11 of which focused on BMPs)
Educational Materials Distributed	34
Referrals to Other Departments	4
No Evidence Found	36
No Action Taken	32
Found to be exempt	3

In addition to the enforcement actions taken for industrial and commercial investigations noted in **Table 5-3**, there were also three investigations where a follow-up was scheduled and the enforcement action was to be determined. There were also 24 entries where the enforcement action was left blank in the database due to data entry errors. Investigations where no responsible party could be identified after a thorough investigation resulted in a "no action taken" classification, and the discharge was most often abated and cleaned up by the City. Furthermore, code enforcement staff provided educational materials for all investigations where an enforcement action was taken.

Figure 5-2 FY 2009 Industrial and Commercial Code Compliance Investigation by Type



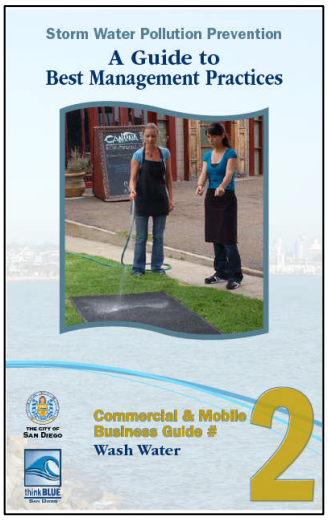
5.2.4.4 Education and Outreach to the Public

During the FY 2009, the Pollution Prevention Division targeted Industrial and Commercial Owners and Operators by distributing educational materials during facility inspections. A summary of the material distributed is included in **Table 5-5** below.

Table 5-5: FY 2009 Educational Material Distributed to Industrial and Commercial Sites/Sources

Material	# Distributed
NOI	102
NONA/NEC	355
Industrial Facilities Handout	1
Spills Handout (English)	825
Spills Handout (Spanish)	142
Impervious Surfaces Handout (English)	762
Impervious Surfaces Handout (Spanish)	129
Automotive Fluids Handout (English)	418
Automotive Fluids Handout (Spanish)	107
Industrial/Commercial Regulations Handout	594
Dumpsters and Loading Dock Areas Handout (English)	611
Dumpsters and Loading Dock Areas Handout (Spanish)	145
Car Washing Handout	51
Think Blue Poster (English)	22
Think Blue Poster (Spanish)	13
Authorization/Introduction Letter - English	2,289
Authorization/Introduction Letter - Spanish	35
Authorization/Introduction Letter - Vietnamese	1
TOTAL	**6,602**

The Pollution Prevention Division also targeted industrial and commercial businesses through the development of a new advertisement to be included in the San Diego Film & Video Resource Guide 2009. A copy of the advertisement is included as **Appendix U**. The Resource Guide is the San Diego region's premier entertainment industry publication produced by the San Diego Film Commission each year. It contains listings of film-related services such as directors, production assistants to local hotels, and equipment rental companies. The City's advertisement provides general educational information along with BMPs for production companies to implement. While the development of the advertisement occurred in FY 2009, the distribution of the Resource Guide occurred in FY 2010 and will be included in the FY 2010 JURMP Annual Report.



During FY 2009, *Think Blue* began the development of eight commercial and Mobile BMP Guide booklets which focus on the updates to the City's storm water ordinance that requires businesses to implement minimum BMPs to reduce pollution. The eight topics covered include: hazardous materials, wash water, commercial vehicles, landscaping, fire sprinkler discharges, trash storage and parking areas, employee storm water training, and outdoor activity (signage and storm drain protection). Drafts of the Commercial and Mobile BMP Guide booklets were completed and distributed for internal review in March 2009. The Commercial and Mobile BMP Guide booklets are anticipated to be finalized in September 2009 with distribution beginning in October 2009. Further information will be provided in the FY 2010 JURMP Annual Report.

The City's Airport Division also conducted outreach to the industrial target audience by sending informational material to tenants and lessees of the Airport policies regarding the Storm Water Pollution Prevention Plan (SWPPP) and the City's regulatory compliance expectations. This effort reached approximately 10 entities.

5.3 MOBILE SOURCES ELEMENT

5.3.1 Background

Mobile businesses have been identified as a significant potential source of non-storm water discharges. The very nature of mobile businesses makes the task of achieving compliance with storm water regulations difficult. The City has developed a program to identify mobile businesses that operate within the City, include these businesses in the industrial/commercial inventory, notify them of BMP requirements, inspect them on an as needed basis, and take enforcement actions when necessary.

5.3.2 Source Characterization

The mobile sources inventory is based on the same sources of information utilized for the industrial and commercial stationary inventory as noted above. Of the 22,764 currently inventoried industrial and commercial facilities within the City, 1,397 are mobile businesses (the other 21,367 are stationary facilities). When stationary business inspections were conducted, 586 businesses were determined to be mobile businesses which were then added to the mobile business inventory. There are no high TTWQ, 501 medium TTWQ, and 869 low TTWQ commercial mobile businesses. There are also no high or medium TTWQ, and 27 low TTWQ industrial mobile businesses. The FY 2009 updated inventory and prioritization is included in **Appendix O** of this report.

5.3.3 Best Management Practice Requirements

The City has identified minimum BMPs that are required for all mobile businesses based on the type of activity that is being conducted (see Appendix XI, "Minimum BMPs for Mobile Businesses", of the City's 2008 JURMP). There were no changes to the minimum BMPs required in the City's 2008 JURMP during the FY 2009 reporting period.

5.3.4 Program Implementation

During FY 2009, the City identified 586 mobile businesses which were then added to the mobile business inventory through the commercial and industrial stationary inspections (**Appendix Q**).

The City's JURMP indicated that mobile businesses would be notified by March 24, 2009 of the City's minimum BMP requirements through the distribution of materials. The City has been participating in the Regional Mobile Business workgroup and as a result the timeline for mobile business outreach and notification regarding BMP requirements has been delayed. The City has revised the JURMP accordingly (**Appendix K**).

Please refer to Section 5.2.4.4 for information on education and outreach conducted.

5.3.4.1 Enforcement

The Pollution Prevention Division operates the Storm Water Pollution Prevention Hotline (619-235-1000) as well as other means of communication (e.g., website, main office line, and fax); thereby, encouraging the reporting of illegal discharges to the storm water conveyance system from locations within the City, including commercial facilities. As a result of the hotline, a total 21 investigations were conducted for mobile businesses in FY 2009. **Figure 5-2**, on the following page, shows the FY 2009 industrial and commercial investigations by discharge type.

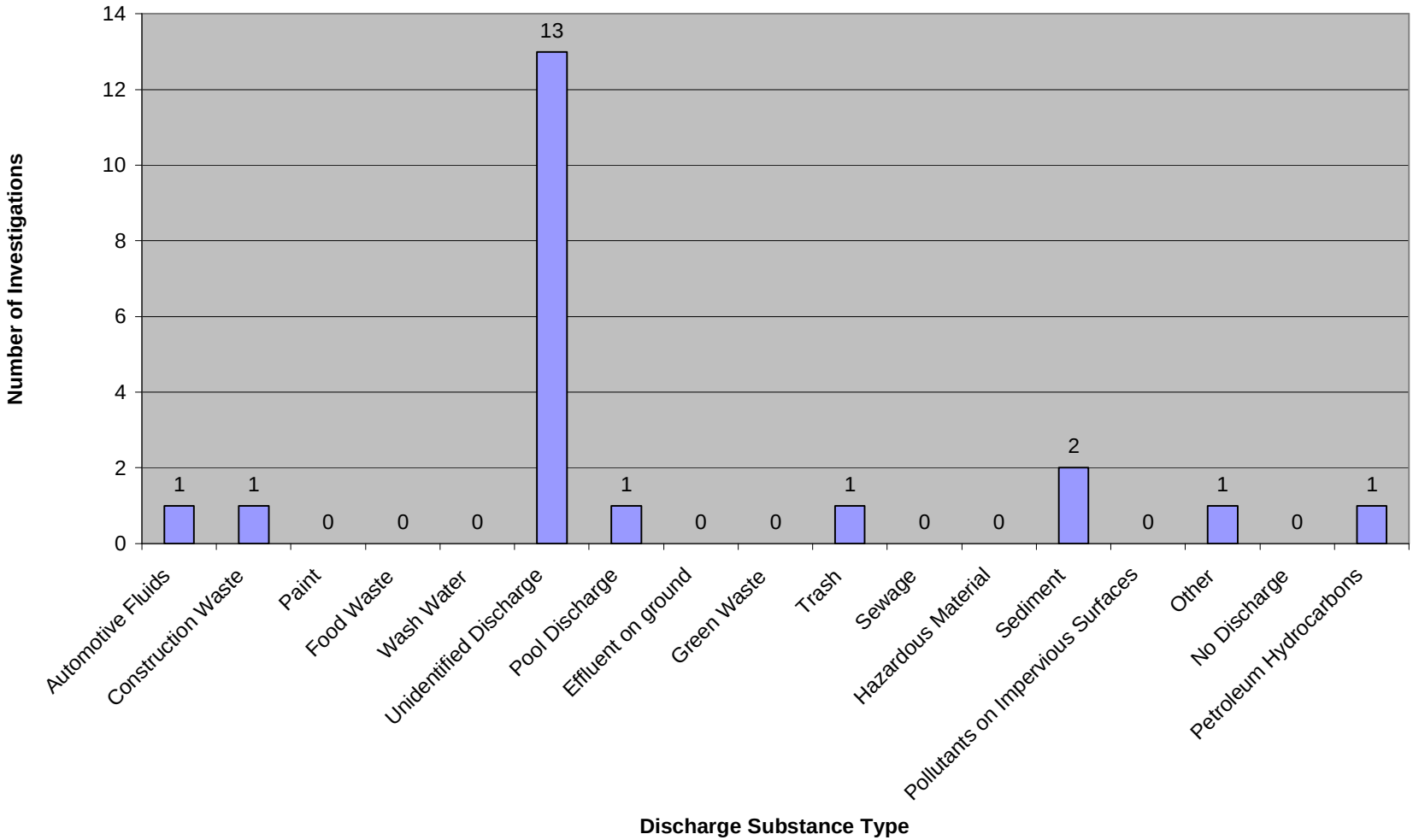
As a result of the investigations conducted by the Storm Water Pollution Prevention Division's Enforcement and Inspections Section, enforcement actions were taken and are summarized in **Table 5-6** below. It is important to note that Civil Penalties noted in the database were recommended and may have not necessarily been issued during the respective reporting period. The recommended Civil Penalties need to go through a review process before they are issued to a responsible party.

Table 5-6: FY 2009 Summary of Code Compliance Enforcement Actions for Mobile Business Investigations

Mobile Business Actions Taken	Number Issued in FY 2009
Recommended Civil Penalty	1
NOV	5
Administrative Citation	1
Educational Letters Distributed	4
Educational Materials Distributed	6
No Evidence Found	3
No Action Taken	1

In addition to the enforcement actions taken for mobile businesses noted in **Table 5-6**, there was also one entry where the enforcement action was left blank in the database due to data entry errors. Investigations where no responsible party could be identified after a thorough investigation resulted in a "no action taken" classification, and the discharge was most often abated and cleaned up by the City. Furthermore, code enforcement staff provided educational materials for all investigations where an enforcement action was taken.

Figure 5-3 FY 2009 Mobile Business Code Compliance Investigation by Type



6 RESIDENTIAL

6.1 INTRODUCTION

The City continued to implement the Residential component of its JURMP to prevent and reduce pollutants in runoff from residential areas within in the City. FY 2009 program accomplishments are described below and in Chapter 8 – Education of this report. *Think Blue*, the City's storm water education program managed by the Pollution Prevention Division's Education and Outreach section, is a multi-faceted effort which provides education and outreach to a variety of audiences, including general residents. Therefore, many of the activities reported in Section 8 of this report are also applicable to the residential component. The City was compliant with all elements of Section D.3.c of the Municipal Permit as described in the sections below and in the Permit Component Table (**Appendix G**).

6.2 SOURCE CHARACTERIZATION

The City considers all residences within City limits to be high threat to water quality residential areas and activities.

6.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

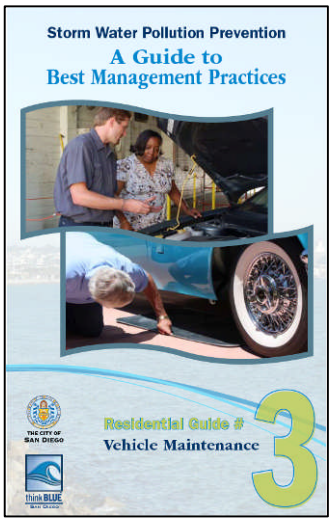
There were no modifications to BMPs during FY 2009. For more details on Residential BMPs see Appendix XII, "Minimum BMPs for Residential Areas and Activities" of the City's JURMP.

6.4 PROGRAM IMPLEMENTATION

This section describes the steps taken to encourage and verify the implementation of prescribed minimum BMPs for high priority residential areas and activities during the FY 2009.

6.4.1 Outreach for BMPs

Think Blue created a number of complementary educational elements to support outreach for Minimum BMPs to the residential community. As reported in Section 8.3.2.1 of this report, *Think Blue* introduced six new PSAs for television and one for radio during FY 2009. The new PSAs, entitled, "Pollution Prevention Requirements", were produced in both English and Spanish. These PSAs focus on the updates to the City's storm water ordinance that require residents and businesses to implement minimum BMPS to reduce pollution. The six topics cover residential wash water, commercial wash water, over irrigation, pet waste, automotive repair, and home construction/do-it-yourself projects. The PSAs inform the public of the ordinance changes and provide easy-to-adopt behavior changes that can help residents prevent storm water pollution and avoid potential citations. In an effort to maximize exposure across radio, television and on the web, *Think Blue* partnered with several media outlets to create the "*Think Blue* Thursday" concept. The concept was developed to increase exposure of *Think Blue* messages across multiple outlets on Thursdays. Several media outlets sponsored special promotions and contests to encourage listener participation. In particular, three pollutant-targeted two minute spots were produced by KGTV television, which featured interviews with *Think Blue* staff discussing ways the public can prevent storm water pollution around their home.



Example of Residential BMP Booklet – Residential Guide #3

Additionally, five residential BMP guide booklets were developed in English to draw attention to the updates to the City's storm water ordinance that requires residents to implement minimum BMPS to reduce storm water pollution. The five topics covered include vehicle maintenance, pet waste disposal, wash water and irrigation runoff, trash storage and disposal, and landscaping (**Appendix V**). *Think Blue* will also create Spanish versions of the booklets for distribution in FY 2010. The first set of Residential BMP guide booklets were completed in January 2009 and a pilot distribution of approximately 200 of each booklet were distributed. It was later determined that the booklets were a beneficial educational tool but needed some refinement. Therefore, the booklets were revised and reprinted in May 2009. The booklets are currently utilized by Code Enforcement Officers as an educational outreach mechanism and *Think Blue* staff to distribute at various community events.

Regional Residential Education Program

The City collaborated with regional Copermittees by attending both the 2008 and 2009 San Diego County Fairs and distributed Integrated Pest Management Pest Tip Cards and other garden related materials to attendees of the fairs. *Think Blue* also created pet and automotive-themed display booths and provided targeted information and giveaways to reach pet owners and auto enthusiasts in FY 2009. Additional information regarding the Regional Residential Education for FY 2009 will be included in the Regional Urban Runoff Management Plan (RURMP) Annual Report submitted to the Regional Board in January 2010.

The City also collaborated with regional Copermittees on a countywide "Movies in the Park" campaign. The campaign involved setting up booths to provide regional residential education of storm water issues to moviegoers at four "Movies in the Park" locations throughout the County. The City hosted the event on June 26, 2009, and the sponsorship included a broadcast of the PSA ("Ants in Your Plants") before the movie, banner and web site recognition, and an onsite presence at the event. Participation from other jurisdictions are scheduled to take place in FY 2010.

Management and Disposal of Used Oil and other HHW

ESD held seven auto product recycling events to provide City residents with opportunities to properly dispose of used oil, oil filters, and contaminated oil. ESD promoted the events via event flyers distributed to City facilities; Union Tribune and Pennysaver inserts; ethnic ads in Spanish, Tagalog, and Vietnamese; and Union Tribune - Wheels Calendar of events. Further information regarding the event promotional material can be found in Section 8.3.2.3 of this report. The City's Miramar HHW facility was open 47 Saturdays during the respective reporting period and accepted used oil, oil filters, and contaminated oil from City residents.

Household Hazardous Waste Collection

As reported in Section 4.5.5.1 of this report, ESD collected 483 tons of HHW as shown in **Table 6-1** below during FY 2009. 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 lists the City's hotline (1-858-694-7000) where more information can be obtained on proper HHW disposal methods. The City's Miramar HHW facility was

open 47 Saturdays during the respective reporting period and accepted all types of HHW from 8,840 participants.

Table 6-1: FY 2009 Environmental Services HHW Collection Data.

Event/Activity	HHW Collected (tons)
Load Check Program	21
Auto Product Recycling Events	26
HHW Transfer Facility	432
Door-to-Door Collection	4
Total	**483**

6.4.2 Verification of BMPs

Verification and enforcement of the Minimum BMPs for Residential Areas and Activities occurred at the jurisdictional level. During FY 2009, the Storm Water Hotline, (619) 235-1000, was a tool provided to the public so they could report violations of the Storm Water Ordinance. Violations were also recorded as observed by Code Enforcement staff in the field. During FY 2009, Code Enforcement staff conducted 878 investigations at residential locations.

Investigations are primarily tracked by type of substance discharged. Categories include: Construction Waste (i.e., cement-like material), Wash Water, Petroleum Hydrocarbons (i.e., transmission fluid, oil, and gasoline), Sewage, Sediment, Effluent on Ground (i.e., pool water, water, and ground water), Latex Paint, Unidentified Discharges, and Other (i.e., grease, chemicals, trash, green waste, hazardous substance). **Figure 6-1** on the following page shows the FY 2009 residential investigations by discharge type.

As a result of the investigations conducted by the Storm Water Pollution Prevention Division's Enforcement and Inspections Section, the enforcement actions in **Table 6-2** below were taken. It is important to note that Civil Penalties noted in the database were recommended and may have not necessarily been issued during the respective reporting period. The recommended Civil Penalties need to go through a review process before they are issued to a responsible party.

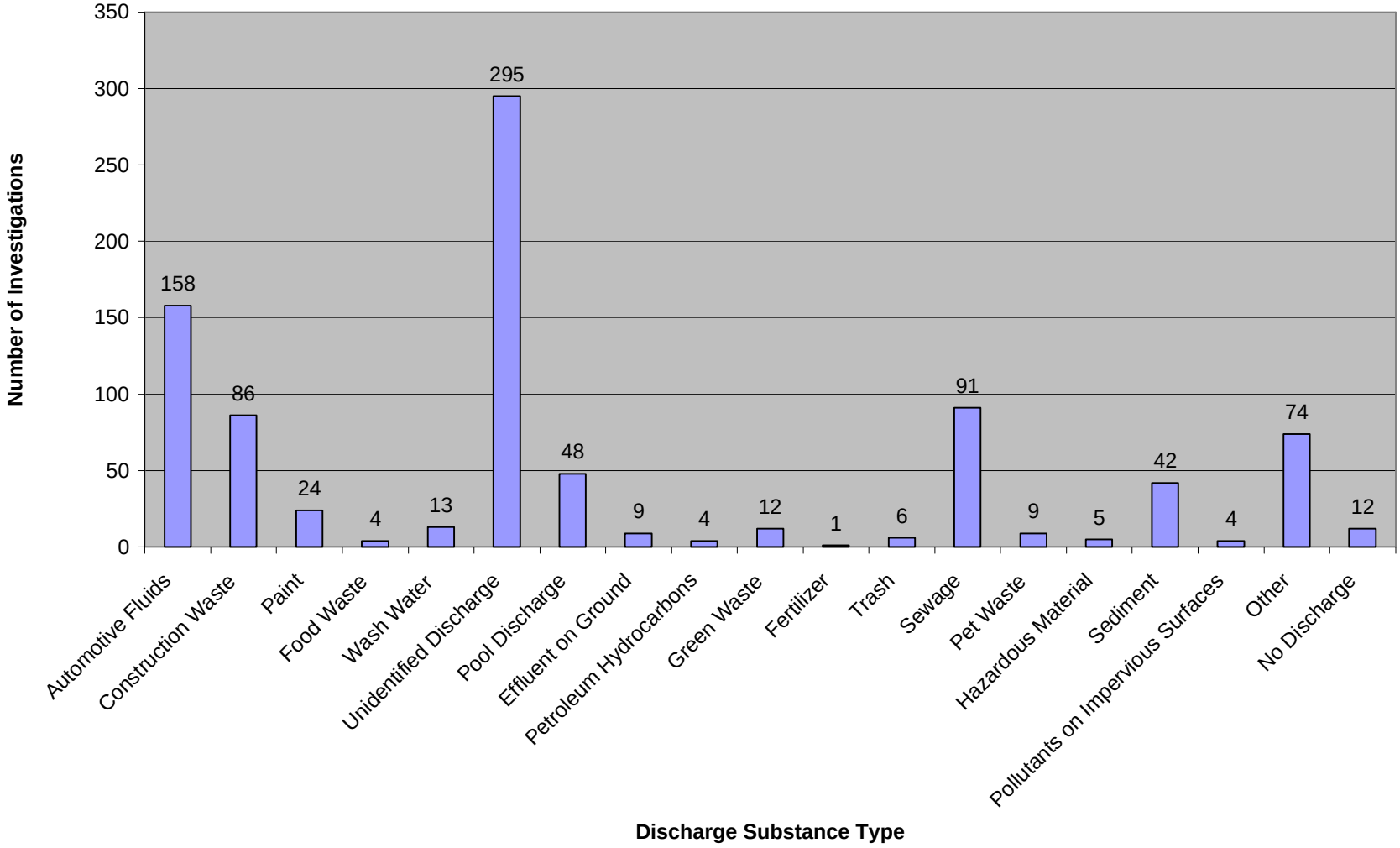
Table 6-2: FY 2009 Residential Enforcement Actions Taken

Residential Enforcement Action Taken	Number Issued In FY 2009
Notice of Violation	350
Administrative Citation	124
Recommended Civil Penalty	42
Educational Letters Distributed	107 (6 of which focused on BMPs)
Educational Materials Distributed	76
Referrals to Other Departments	9
No Evidence Found	97
No Action Taken	115
Found to be exempt	11

In addition to the enforcement actions in **Table 6-2**, there were also five investigations where a follow-up was scheduled and the enforcement action was to be determined. There were also 33 entries where the enforcement action was left blank in the database due to data entry errors. Investigations where no responsible party could be identified after a thorough

investigation resulted in a "no action taken" classification, and the discharge was most often abated and cleaned up by the City. Furthermore, code enforcement staff provided educational materials for all investigations where an enforcement action was taken.

Figure 6-1 FY 2009 Residential Code Compliance Investigation by Type



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7 ILLICIT DISCHARGE DETECTION AND ELIMINATION

7.1 INTRODUCTION

Per RWQCB Addendum No. 2 to Order R9-2007-0001, the City will submit this section in its entirety on December 15, 2009.

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8 EDUCATION

8.1 INTRODUCTION

Think Blue is the City's storm water education program for both external and internal audiences, and is managed by the Storm Water Department Pollution Prevention Division's Education and Outreach section. *Think Blue* is a multi-faceted effort which encompasses education and outreach to a variety of audiences including: general residents, school-aged children, Hispanic and underserved communities, commercial and industrial businesses, construction developers and municipal employees. The program utilizes a number of outlets to promote storm water pollution prevention advocacy including mass media, public relations, community events, and training for both businesses and municipal employees. This section identifies the actions the City undertook during the reporting period to meet program objectives and Municipal Permit requirements. The City was compliant with all elements of Section D.5 of the Municipal Permit.

8.2 STAFF TRAINING ELEMENT

Think Blue continued to spearhead the development and delivery of general storm water issue awareness to City employees whose primary job assignments may have little or no impact or relation to storm water. Individual departments, particularly those with field crews, which have more opportunities to cause potential discharges into the storm drain system, were responsible for training employees in storm water BMPs.

Training specifics include:

Municipal General Storm Water Training

New Employees

Think Blue conducted monthly trainings at the City's "New Employee Orientation" (NEO) workshops. Newly hired City staff who were in attendance received a basic introduction to storm water issues through the video "Storm Water and You," a training module created by *Think Blue*. In FY 2009, 327 new employees received training. All staff who attended were given a pre-test and a post-test containing questions related to storm water and the topics covered in the training. In FY 2009, the pre- and post-test questions were revised to better assess an increase in knowledge of storm water issues among new employees. Statistical analyses revealed that the participants achieved higher scores after receiving the storm water training. Assessment analysis determined the average score on the pre-test was 3.70 out of 5 (74%), and the average score on the post-test increased to 4.89 out of 5 (98%). Seasonal or temporary staff that did not attend the "New Employee Orientation" workshop received general storm water training as part of their employee orientation from their department. In late FY 2009, the Storm Water Department hired a production company to create and film an updated storm water training video, which revised outdated information and included new information regarding the new Municipal Permit and the newly adopted Storm Water Ordinance requirements.

Existing Employees

During FY 2009, the Pollution Prevention Division continued the process of developing a "refresher" storm water training for existing City employees. The training is intended to be given every two years to City staff with regular access to a computer. Research was initiated to determine the viability of implementing a training that contained a knowledge assessment component, and was administered through "e-tests" to City employees who were randomly selected to participate. To achieve this goal during the reporting period, the Division began

the development of a computer based, activity specific training module addressing storm water BMPs for common activities shared by multiple departments.

In an effort to keep members to the City Council informed and aware of local storm water issues, permit compliance, and state and local regulations, the Storm Water Department continued to schedule informational briefings with council members and staff throughout FY 2009. This fiscal year, emphasis was placed on educating recently elected Council members regarding the core functions of the Storm Water Department, and requirements imposed under various regulatory drivers. Storm Water staff provided informational briefings to individual Council members on March 16, April 2, May 27 and June 4. Additional briefings to Council members and staff have been scheduled for FY 2010. Storm Water staff also provided informational briefings for new senior staff including the City of San Diego Assistant Chief Operating Officer on April 9.

Activity-Specific Storm Water Training

Municipal Development Planning

City staff responsible for construction and grading review received training during FY 2009. The training information is summarized in **Table 8-1**. In addition to the training listed in **Table 8-1**, DSD Land Development conducted 5 in-house trainings for all applicable staff on Water Quality Technical Report (WQTR) review and the critical contents of a WQTR. DSD Land Development staff was also provided with "Construction Site Best Management Practices" educational posters and brochures during FY 2009. This material provided easy to follow graphic representations of steps that construction site managers and workers can reference to help them prevent debris, sediment and other pollutants from leaving construction sites and entering the storm drain system.

The Pollution Prevention Division's engineering staff are considered subject experts in regards to municipal storm water development planning requirements and, as such, assist other City Departments (such as ECP) with the training and implementation of these requirements. In order to stay informed regarding new development planning storm water information and policies, Division staff received training from a variety of sources. During FY 2009, Division staff attended the following trainings:

- Floodplain Management Association 2008 Annual Conference – Construction Permit (September 2-5, 2008)
- CASQA 2008 Conference (September 23-24, 2008)
- CASQA Quarterly Meeting (November 14, 2008)
- CASQA Quarterly Meetings – Webcast (5/15/2009)

Table 8-1: FY 2009 Municipal Development Planning Training Information

Training Module	Topics Covered				Date	Type of Staff Trained	# of Staff Trained
	Federal, state, and local water quality laws and regulations applicable to Development Projects	Connection between land use decisions and short and long term water quality impacts	How to integrate LID BMP requirements into the local regulatory program and requirements	Methods of minimizing impacts to receiving water quality resulting from development			
Storm Water Standards Training	X	X	X	X	10/14/08	ECP/AEP	26
Storm Water Standards Training	X	X	X	X	7/28/08	ECP/Planning	15
Storm Water Standards Training	X	X	X	X	8/12/08	ECP/PITS Env	9
Storm Water Standards Training	X	X	X	X	1/13/09	ECP/PITS Env	8
Storm Water Construction Standards	X	X	X	X	1/15/09	DSD/Bldg Inspectors	50
Code Compliance & Permanent BMPs	X	X	X	X	2/9/09	DSD/Bldg Inspectors	50
Storm Water Requirements for CIP	X	X	X	X	2/19/09	ECP/ROW	22
Storm Water Training for ROW Design	X	X	X	X	5/26/09	ECP/ROW	50
Storm Water Training for ROW Design	X	X	X	X	5/28/09	ECP/ROW	50

Municipal Construction Activities
All staff responsible for construction building, code enforcement, and grading review staffs, inspectors, and other responsible construction staff have received training during FY 2009. The training information is summarized in **Table 8-2**.

The Pollution Prevention Division also conducted activity-specific training for staff during FY 2009. The Pollution Prevention Engineering staff are responsible for assisting other City Departments with the implementation and training of municipal construction activity requirements. Therefore, staff are considered subject experts in this area and receive training from a variety of sources in order to stay informed of any new storm water construction information. During FY 2009 staff attended the following trainings:

- Floodplain Management Association 2008 Annual Conference – Low Impact Development (September 2-5, 2008)
- CASQA 2008 Conference (September 23-24, 2008)
- CASQA Quarterly Meeting (November 14, 2008)
- CASQA Quarterly Meeting – (Webcast 5/15/2009)

Municipal Industrial/Commercial Activities
Industrial and commercial staff responsible for conducting storm water compliance inspections and enforcement of industrial and commercial facilities received the required annual training as summarized in **Table 8-3**. The Industrial Waste Control Program (IWCP) and the Food Establishment Waste Discharge (FEWD) Program inspectors from MWWD that assist with storm water inspections at industrial and commercial facilities did not receive the required annual training during FY 2009. During FY 2010, MWWD will work with the Storm Water Department to determine the required training for the IWCP and FEWD Program inspectors and ensure that the applicable training is conducted.

Table 8-2: FY 2009 Municipal Construction Activity Training Information

Training Module	Topics Covered						Date	Type of Staff Trained	# of Staff Trained
	Federal, state, and local water quality laws and regulations applicable to construction and grading activities	Proper implementation of erosion and sediment control and other BMPs to minimize the impacts to receiving water quality resulting from construction activities	Connection between construction activities and water quality impacts	Copermittee's inspection, plan review, and enforcement policies and procedures to verify consistent application	Current advancements in BMP technologies	SUSMP requirements including treatment options, LID BMPs, source control, and applicable tracking mechanisms			
Storm Water Design Manual Review	X	X	X	X	X	X	10/7/08 – 3/10/09 (8 trainings conducted)	DSD-Land	13
LID Overview Training Session						X	10/7/08 – 3/10/09	DSD-Land	13
Bi-Weekly Coordination Meetings	X	X	X	X	X	X	Ongoing	DSD-Land	
Proposed State Stormwater General Construction Permit and San Diego Groundwater Permit Seminar	X	X	X	X	X	X	10/30/08	ECP Design Planners	8
Storm Water Training I&II	X	X	X	X	X	X	8/12/08, 12/11/08	ECP Design Planners	8
Construction Storm Water Training	X	X	X	X	X	X	1/13/09	ECP Design Planners	8
Wet Weather Training	X	X	X	X	X		10/14/08, 10/15/08, 10/16/08	ECP Field – Resident Engineers	77

Table 8-3: FY 2009 Industrial and Commercial Training Information

Training Module/Item	Topics Covered			Date(s)	# of trainings	# staff trained
	Inspection and enforcement procedures	BMP Implementation	Review of monitoring data			
General Inspection Training (Intro for new inspectors)	X	X		10/17/08, 1/5/09, 4/8/09	3	14
Inspection Training (Detailed - BMPs, Industrial Permit)	X	X	X	10/17/08, 1/6/09, 4/9/09	3	14
Friday Meeting - BMP Refresher	X	X		12/12/08, 1/16/09, 2/13/09, 3/13/09, 4/17/09, 5/15/09	6	12 at each training
General Industrial Permit Training			X	2/16/09, 4/20/09	2	12 at each training
Code Enforcement Staff Meeting - Private and Municipal SSO Reports	X	X		12/3/08	1	5
Code Enforcement Staff Meeting - Oil Discharge and Construction Sites	X	X		12/18/08	1	5
Code Enforcement Staff Meeting - Hazardous Substance Response	X	X		1/8/09	1	5
Code Enforcement Staff Meeting - Minimum BMPs		X		3/5/09	1	5
Code Enforcement Staff Meeting - Responding to Sewer Spills	X	X		3/19/09	1	4
Code Enforcement Hazmat Training	X	X		4/29/09	1	
Code Enforcement Staff Meeting - Ordinance and Enforcement Actions and Erosion Information	X	X		6/25/09	1	3

Other Municipal Activities
Departments that performed work activities specifically identified in the Municipal Permit and/or performed work that directly impacted storm water quality provided activity-specific training sessions for their employees. In general, the trainings introduced the required standard operating procedures (work processes, functions, and behaviors) that incorporate the storm water minimum BMPs in order for staff to prevent illegal discharges into the City's storm drain system. During FY 2009, City Departments/Divisions conducted 122 activity-specific trainings for staff (see **Appendix W** for more details).

In addition to the trainings noted in **Appendix W**, the Stadium and Streets Division also provided additional information to staff. During FY 2009, Stadium staff received informational newsletters and information pertaining to storm drain protection was posted on employee bulletin boards. The Street Division provided staff with pollution prevention specific tailgate meeting notes and handouts prepared by Public Works Supervisors.

8.3 EDUCATIONAL OUTREACH ELEMENT

This subsection describes the content, form, and frequency of education and outreach efforts for the residential community, general public, and school children target audiences. New development, construction, and industrial/commercial target audience outreach programs are discussed in detail in their individual sections of this report.

8.3.1 Tools for Special Targeted Groups

The Permit requires the City to provide storm water education to the following target audiences:

- Commercial and Industrial Sites/Sources
- Mobile Businesses
- Residential Areas and Activities
- New Development and Construction owners and operators
- Municipal personnel

Education and outreach goals include raising awareness and knowledge as well as changing behaviors in the key target audiences. A primary subject that was targeted for education in FY 2009 was the promotion of the new minimum BMPs required under the new Storm Water Ordinance adopted in FY 2008. These BMP requirements are included in Appendices X, XI, and XII, in Section 3.0, "Development Planning", in Section 4.0, "Construction", and in Sections 6.X of each municipal section of the City's 2008 JURMP. In accordance with the City's JURMP, BMPs were promoted and presented to the various target audiences listed above through a variety of outreach tools. For information on the education and outreach conducted for Commercial and Industrial Sites/Sources, Mobile Businesses, New Development, and Construction Owners and Operators please refer to Section 5.2.3.4, Section 5.3.4.1, Section 2.4.3.5, and Section 3.4.7 of this Annual Report respectively.

8.3.2 Outreach for the General Public

This subsection describes the venues and methods the Think Blue education and outreach program used to deliver its pollution prevention and storm water awareness messages to the general public, as well as a description of education and outreach activities employed by other City departments or divisions to augment Think Blue's activities. For example, Think Blue brochures and messages were distributed to the public by other city departments via City water bill inserts, newsletters, and public information racks in various City offices.

Underserved Communities

The Municipal Permit requires jurisdictions to conduct education efforts toward several audiences including underserved target audiences, high risk behaviors, and "allowable" behaviors and discharges. During FY 2009, the Think Blue program continued to formulate a comprehensive education and outreach program targeting underserved communities. The City formed partnerships with local non-profits including I Love A Clean San Diego, Groundworks San Diego-Chollas Creek in an effort to engage and educate the large Hispanic community within San Diego. Think Blue staffed a number of informational booths and handed out educational materials in Spanish at a number of community events as detailed in **Table 8-5**. Other efforts included providing bilingual staff to answer questions and distribute informational surveys to assess knowledge of storm water issues among Spanish-speaking residents. Think Blue continued to air public service announcement in Spanish on both Spanish language television and radio stations. Other departments in the City, such as ESD, also utilized print media when targeting underserved audiences to inform individuals about auto product recycling events as noted in **Table 8-6** below. The City anticipates creating a strategic Hispanic outreach plan in FY 2010 and continues to look for opportunities to reach other underserved target audiences including the Vietnamese and Filipino communities, among others.

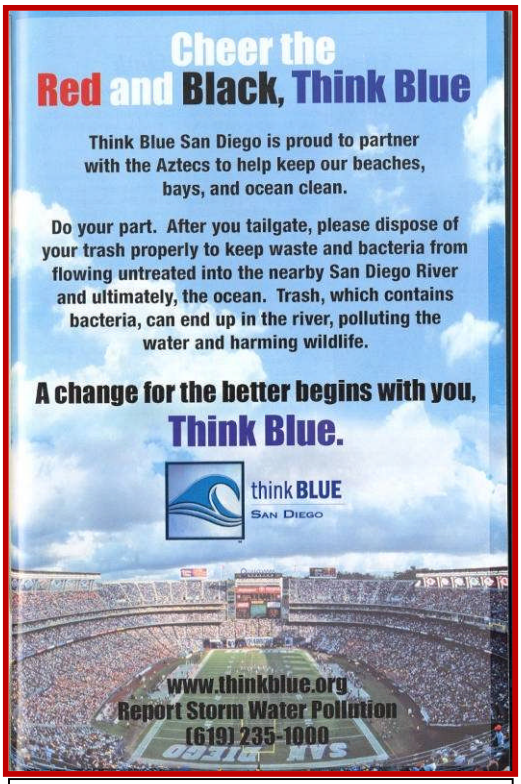
8.3.2.1 Advertising

In FY 2009, media advertising plans placed an emphasis on targeting a younger male audience. Research has shown that young men are more likely to engage in high risk behaviors, have less knowledge of storm water issues, and are more likely to pollute than other demographics. Therefore, the media mix focused on the male demographic, including sports and automotive programming on television and radio stations. A smaller percentage of the advertising targeted an older female demographic in order maintain consistency with the previous year's campaign, and to continue to build awareness of the *Think Blue* brand and storm water issues across both genders.

In addition to continuing with the popular "Karma"-themed public service announcements (PSAs) which aired during the first half of FY 2009, *Think Blue* introduced six new PSAs for television and one for radio. The new PSAs, entitled "Pollution Prevention Requirements", were produced in both English and Spanish and focus on the updates to the City's storm water ordinance that requires residents and businesses to implement minimum BMPS to reduce pollution. The six topics cover residential wash water, commercial wash water, over irrigation, pet waste, automotive repair, and home construction/do-it-yourself projects. The ads inform the public of the ordinance changes and provide easy-to-adopt behavior changes that can help residents prevent pollution and avoid potential citations. In an effort to maximize exposure across radio, television and on the web, *Think Blue* partnered with several media outlets to create the "*Think Blue* Thursday" concept. The concept was developed to increase exposure of *Think Blue* messages across multiple outlets on Thursdays. Several media outlets sponsored special promotions and contests to encourage listener participation. In particular, three pollutant-targeted two minute spots were produced by KGTV television, which featured interviews with *Think Blue* staff discussing ways the public can prevent pollution around their home.

Additionally, television and radio media opportunities included involvement in several community events including music festivals, car shows and live remotes to widen *Think Blue's* exposure to the target demographics. Other advertising elements included the incorporation of *Think Blue* tips and messaging on environmental-themed web pages of several media outlets. Local radio and TV personalities provided ad libs discussing pollution and storm water issues. *Think Blue* also leveraged partnerships with San Diego sports teams

including the San Diego Padres and the San Diego State Aztecs in order to reach the young male target audience via sporting events and venues. Specifics of these partnerships are included in **Appendix X** and are summarized below.



Think Blue advertisement in the Official Aztec Football Game Day Program distributed to fans, donors, alums and corporate partners

Think Blue also showed its popular Karma PSA in six movie theaters throughout San Diego. The spots ran prior to the feature movie and played intermittently on television screens located in the theater lobby. The spots began playing Labor Day weekend in FY 2009 and made an estimated 310,942 impressions during this reporting period.

Awards and Recognition

Think Blue's PSAs are a critical component of the Department's overall outreach and education efforts, and once again *Think Blue* was recognized for its excellence in this medium. In May 2009, *Think Blue* received top honors from the Environmental Protection Agency (EPA) with two "People's Choice Awards for Nonpoint Source and Storm Water Outreach." *Think Blue's*" Pollution Prevention Requirements: Automotive" TV spot won the award for "Best Television PSA for Vehicle Maintenance", and "Karma/Karma Second Chance" won the award for "Best Television PSA for General Storm Water Education."

In June of 2009, *Think Blue* was the recipient of two American Marketing Association AMY awards for San Diego Marketer of the Year. *Think Blue* received an award in the category of "Makeover Campaign" for launching a successful new branding campaign that included the new *Think Blue* logo and associated outreach materials. *Think Blue* also took the top honor in the category of "Advertising" for the television PSA entitled, "Karma".

Think Blue also received several Emmys from the National Academy of Television Arts and Sciences on Saturday, June 13, 2009. The Karma Tourist series was the top award winner in the category of "Best Public Service Announcement – Single Spot or Series". The Karma Tourist Series also received an Emmy for "Director - Individual Short Form (Spot)" and "Photography - Short Form". *Think Blue* also received nominations in the category of "Writer Short Form" for Karma Tourist, and in the category of "Advanced Media – Informational/Instructional" for the Pollution Prevention Requirements series.

More information on the City's PSAs and advertising efforts conducted in FY 2009 are described below.

8.3.2.2 Think Blue Media Purchase and PSA Airtime

During FY 2009, *Think Blue* aired PSAs on both local radio and television stations reaching the English- and Spanish-speaking communities. The bulk of the media buy in FY 2009 was devoted to the *Think Blue* Pollution Prevention Requirement PSAs, which covered the topics of pet waste, wash water from businesses, residential wash water, automotive pollution, over-irrigation, and do-it-yourself home improvement projects. All of the PSAs can be found

on the City's *Think Blue* website (http://www.sandiego.gov/thinkblue/videos/index.shtml). The television and radio PSAs aired a total of 5,210 times and made an estimated 56,772,719 impressions. Additionally, placement on media websites resulted in an estimated 20,695,068 impressions during the reporting period.

In an effort to maximize the value of its media buy, *Think Blue* also secured extensive in-kind contributions from its media partners. Radio and television partners provided $650,459 of in-kind contributions. Leveraged in-kind airings are provided when time is available in the advertiser's inventory, which is not evenly distributed through the 12 month reporting period. Additionally, *Think Blue* received an estimated $289,550 of in-kind contributions through free placement on the media outlets websites.

8.3.2.3 Print Media

Think Blue utilized a number of community newspapers for outreach in FY 2009, including the San Diego Daily Transcript, Downtown News, Beach and Bay Press, La Jolla Village News and La Jolla Light. Community papers are primarily used to notify the public about storm water public meetings, presentations and other project specific updates, such as changes to the City's commercial inspections program. Additionally, *Think Blue* wrote articles and provided editorial content regarding construction BMPs and general BMPs in the February 18th (Green Building & Design) and April 22nd (Living Green) editions of the San Diego Daily Transcript, as well as in the June 2009 edition of Emmy News.

ESD's HHW Program also utilized print media during FY 2009 to provide information to the general public in order to promote HHW auto product recycling events. A summary of the print media public outreach conducted by the HHW program is included in **Table 8-4** below.

Table 8-4: FY 2008 ESD HHW Program Education and Outreach to the Public

Outreach Material	Target Audience[5]	# of times	Estimated # of people targeted
Auto Product Recycling Event Flyer	4	14,057	14,057
Auto Product Recycling Event Pennysaver Inserts	4,5 (all mailing addresses in selected zip codes)	6	573,858
Auto Product Recycling Event San Diego Union Tribune Inserts	4,5 (all mailing addresses in selected zip codes)	6	113,915
Auto Product Recycling Event Ads	4,5	30	195,500
Total Estimated Number of People Targeted			**897,330**

[5] 1. Construction Site Owners and Developers; 2. Industrial Owners and Operators; 3. Commercial Owners and Operators; 4. Residential Community, General Public, and School Children; 5. Under-represented audiences in 1-4.

8.3.2.4 Special Events

Special events offer a variety of opportunities for the Think Blue program to educate the public about storm water pollution prevention. The table below summarizes the special events that Think Blue implemented and/or participated in during FY 2009 to educate both the general public and key target audiences in order to promote the Think Blue program. A summary of the larger events attended by Think Blue is provided in **Table 8-5** More detailed summaries of some of the events are included below and in **Appendix Y**.

In order to assess the effectiveness of event attendance, Think Blue implemented a program by which it solicited participation in a brief survey about Think Blue and storm water issues. The survey cards consist of six questions designed to measure knowledge, awareness, and behavioral intentions (see sample event survey card in **Appendix Z**). The cards also include an option for participants to provide contact information to be added to a mailing list. The mailing list provides opportunities for the program to provide ongoing outreach (e.g., newsletters, emails) and to recruit from a willing pool for assessment activities (focus groups, longitudinal panels). Results of the Think Blue event survey efforts are below:

- During the reporting period, a total of 6,259 surveys were completed by Think Blue booth visitors.
- In March 2009, a Spanish version of the event survey was developed to accommodate the growing number of Spanish-speaking visitors to the Think Blue booth. Approximately 3% of all of the surveys completed were completed in Spanish.
- More than half of all survey participants provided a mailing address for future follow-up, and one-third provided an email address. Nearly half (49%) of the people who completed a survey during FY 2009 provided at least some form of contact information to join an interest list. This equates to a total of 3,049 people who were interested in hearing more about Think Blue activities. Of the surveys collected during FY 2009, 2,894 included a mailing address (46%) and 1,523 (24%) included an email address. This growing database of citizens will be leveraged for future outreach and research.
- Half of all visitors to the Think Blue booth had heard of the program prior to attending the event. Fifty percent (50%) of the individuals who completed an event survey had heard the phrase Think Blue San Diego prior to attending the event where a Think Blue booth was present.
- 78% of Think Blue booth visitors who completed the surveys and provided at least a zip code residing within San Diego County limits. Of these, the vast majority were from the City of San Diego (>60%).
- Between July 1, 2008 and June 30, 2009, Think Blue event survey cards were distributed to booth visitors at a variety of venues including: the 2008 San Diego County Fair, several events at Petco Park, the FilAm Festival, the Adams Ave Street Fair, the San Diego Film Festival, December Nights, the San Diego Auto Show, the Pacific Life Holiday Bowl, the Heritage Day Parade and Festival, SDSU sporting events, the Cesar Chavez Festival, the San Diego Crew Classic, the San Diego Science Festival, Earth Day at Balboa Park, the City College Earth Fair, Fiesta de los Peñasquitos, San Ysidro Festival, Gaslamp Jazz Festival, and Creek to Bay. Across these events, a total of 4,269 visitors completed the surveys. The majority of the surveys were collected at the County Fair (22%), the Auto Show (22%), the Science Festival (11%), December Nights (11%) and the Jazz Festival (6%).

While the City conducted jurisdictional outreach, it is important to note that many of the City's outreach events were watershed focused and as such will be included in the WURMP Annual Reports, in which the City is a participating Copermittee. This will be a continuing trend as the City's outreach events become more audience, pollutant, and watershed specific. Event participation by the education program has become more sophisticated and via the surveys is now better able to gauge the efficiency of attended community events. As the data above indicates, larger general audiences tend to be reached more effectively at larger events. Conversely, attending smaller community and neighborhood events reached far fewer people, but may be more effective for reaching specific target audiences or for focusing on specific pollutants. While the Think Blue intends to continue to staff community events, each event, target audience, and outreach topic will be examined in order to best reach the specific demographic based on budget and return on investment.

Table 8-5: FY 2009 General Public Special Events

Date	Event Name	Organization	Type of Event	Location	Demographic	Attendance
8/26/2008	Petco's Dog Days of Summer	Petco and San Diego Padres	Education/Outreach	Petco Park, San Diego	Pet Owners	40,000
8/31/2008	Chihuahua National Race	Petco and San Diego Padres	Education/Outreach	Petco Park, San Diego	Pet Owners	40,000
9/14/2008	Carmel Mountain Ranch Fall Festival	The San Diego North Chamber of Commerce	Community Festival	Carmel Mtn. Ranch	General Public	5,000
9/2-9/27/2008	San Diego Film Festival	San Diego Film Foundation	Education/Outreach	Gaslamp Quarter, San Diego	General public and Business owners	18,000
9/26/2008	San Diego Padres Calendar Giveaway	San Diego Padres	Baseball Game, Padres vs. Pirates	PetCo Park	General Public	67,544
9/27/2008	Red and Black Go GREEN!	San Diego State University	SDSU Football Game/Public Outreach	Qualcomm Stadium	College age adults, male skew	15,000
10/4/2008	Filipino American Festival	Kalusugan Community Services	Community Festival	National City	Underserved, Filipino skew	8,000
11/5/2008	Ocean Gala	Environmental Event	Environmental Networking Event	Hotel Del Coronado	Local Stakeholders	200
12/10/2008	Food and Beverage Association Meeting	San Diego Restaurant Industry	Education/Outreach	Pacific Beach	Commercial Restaurant Owners and Staff	250
12/7/2008	December Nights	Office of Special Events	Community Festival	Balboa Park	General Public	300,000
12/30/2009	Holiday Bowl Football Game	San Diego Bowl Game Association	College Football Game	Qualcomm Stadium	College students, male skew	60,000
12/29/2009	Holiday Bowl Big Balloon Parade	Pacific Life Holiday Bowl	Parade	Harbor Dr., San Diego	General Public	100,000
12/29 - 1/3/2009	San Diego Auto Show	National Car Dealers Association of America	Education/Outreach	San Diego Convention Center	Auto Enthusiasts, male skewed	100,000
2/9/2009	Cox Conserves Heroes	Cox Communications – Cox Conserves	Public Awareness Event	Water Conservation Garden	General Public and Local Environmental Stakeholders	200
2/28/2009	Heritage Day Festival & Parade	Operation BUILD	Community Festival	Market Creek Plaza	Underserved	10,000
3/11/2009	SDSA High Tech Fair	San Diego Science Alliance	Education/Outreach	Del Mar Fairgrounds	School Aged Children	200
3/18/2009	Cesar Chavez Day	Cesar Chavez Commemoration Committee	Public Awareness/Education	Cesar Chavez Elementary	Underserved, Hispanic skew	1,000
3/20/2009	Cesar Chavez Day	Cesar Chavez Commemoration Committee	Public Awareness/Education	Logan Ave.	Underserved, Hispanic skew	5,000

Date	Event Name	Organization	Type of Event	Location	Demographic	Attendance
4/6/2009	San Diego Science Festival	UCSD Bio-Bridge	Children's Science Fair	Balboa Park	School Aged Children	100,000
4/4/2009	Chollas Creek Walk the Watershed	San Diego Coastkeeper and Groundworks Chollas	Public Awareness Event	Chollas Creek Watershed	General Public	100
4/19/2009	Earth Fair, 2009	San Diego Earthworks	Environmental Fair	Balboa Park	General Public	80,000
4/25/2009	Creek to Bay Clean-up	I Love a Clean San Diego	Public Awareness/Clean-up	Chollas Creek	Underserved	4,090
5/25/2009	Jazz Festival	98.1 FM Smooth Jazz	Jazz Festival	San Diego Gaslamp Quarter	General Public, female skew	10,000
6/12/09-6/14/09	San Diego County Fair	22nd Agricultural District	Regional Fair	Del Mar Fairgrounds	General Public	1,000,000
Total Reached						**1,964,784**

San Diego Jazz Festival: *Think Blue* sponsored the Gaslamp Quarter Jazz Festival event in downtown San Diego on May 24, 2009. Sponsorship included: onsite signage, advertisements, an onsite booth to distribute educational materials, *Think Blue* logo branded recycling containers and storm drains covers, and radio spots promoting the event. Details of the sponsorship are included as **Appendix Y**.

San Diego Jazz Festival: *Think Blue* Zone Banner

2009 Earth Fair Event: Earth Fair in Balboa Park is the largest free annual environmental fair in the world. It draws around 70,000 people each year. Produced by 400 volunteers, EarthFair features more than 400 exhibitors, special theme areas, a Food Pavilion, a special Kids' Activity Area, three entertainment venues, the Children's Earth Parade, the Earth Gallery art show, and the Cleaner Car Concourse. The EarthFair allowed *Think Blue* to promote targeted outreach and pollution prevention instruction to people from all over the San Diego area. This year, *Think Blue* set up a booth in the children's area of the festival, and demonstrated the watershed model. The watershed model is very popular with school age children and is an effective tool for providing education on pollution prevention practices to children of all ages

2009 Earth Fair Event: *Think Blue* booth

2009 Earth Fair Event: Children learning about pollution prevention with watershed model at booth

Padres Go Green and *Think Blue*: *Think Blue* sponsored the San Diego Padres baseball team Go Green/*Think Blue* environmental education video scoreboard feature. Fans could view popular Padres pitcher, Chris Young, encouraging all fans to utilize the recycling bins located throughout Petco Park. After the segment, the *Think Blue* logo and tips related to BMP outreach were shown on the screen. As of this reporting period, the spot has been shown 53 times in 41 games, reaching an estimated 938,805 people.

December Nights: *Think Blue* lawn marker

December Nights: *Think Blue* participated in San Diego's favorite kick-off to the holiday season, and the largest free community festival in San Diego, December Nights attracted more than 400,000 visitors over two days. The purpose of attending December Nights was to promote the *Think Blue* message by educating a diverse audience through the distribution of information regarding storm drain pollution and prevention. The *Think Blue* logos was also predominately displayed on all storm drain covers, as well as on all

December Nights: *Think Blue* sidewalk sticker

recycle bins throughout the park during the December Nights event.

FilAm Fest: Booth visitors receiving information about pollution prevention

FilAmFest Filipino American Arts and Culture Festival 2008 (FilAm Fest): The FilAm Fest is a Filipino-American arts and culture festival for San Diego citizens. It is a free, one-day music and cultural festival in the heart of San Diego. Many young adults and their families attended this event. The event offered informational, retail and business outreach booths as well as food vendors and activities. *Think Blue* staffed a booth at the event and provided educational materials to attendees along with educating booth visitors on general pollution prevention information and residential BMPs. Many booth visitors also participated in the *Think Blue* six question event survey cards.

FilAm Fest: Booth visitor taking the *Think Blue* event survey card

San Diego Coastkeeper's Ocean Gala: The Pollution Prevention Division of the Storm Water Department has participated in and attended San Diego Coastkeeper's Ocean Gala event since 1999. FY 2009 was the third year *Think Blue* served as a sponsor with a donation of $5,000. The Ocean Gala serves as Coastkeepers primary fundraising and environmental networking event, and is attended by over 300 supporters and stakeholders. At the Gala, Coastkeeper presents their annual Coastal Champion Awards to one business and one community member who have been environmental leaders for storm water quality protection is San Diego.

During FY 2009, special event organizers were encouraged to promote the *Think Blue* Program and storm water pollution prevention strategies to the approximately 10,000,000 attendees at public events (festivals, parades, sporting events, etc.) occurring on City streets or parks. Many event organizers promoted a variety of storm water pollution prevention strategies at their events during the reporting period. The Office of Special Events, provided stormwater related information to 600 special event permit applicants during FY 2009.

Qualcomm Stadium also reached approximately 50,000 individuals by displaying the *Think Blue* message on the marquee at the stadium 20 times during the reporting period. Qualcomm Stadium also had signage to promote the proper disposal of trash and recycling during events at the Stadium and all inlet grates are painted with the "No dumping drains to Ocean" message. There were approximately 900,000 individuals at the Stadium during FY 2009 who may have been influenced by this signage. Furthermore, Stadium patrons were given a handout on storm drain protection at the stadium entrance on a Charger football game day. An estimated 10,000 patrons received the handout, and there were also storm water information cards available in the Stadium Security Office.

8.3.2.5 Web Page

www.ThinkBlue.org provides a wide variety of storm water related information for residents and businesses. The site provides a number of resources including: program updates, downloadable program brochures, fact sheets, and various reports. Other information is

available about Project SWELL, TMDLs and ASBS. As previously mentioned, both audio and video versions of *Think Blue* PSAs can be found on the website. BMP information and minimum BMP Fact Sheets are available for businesses and industries located within the City. In addition, the "Resources and Links" page provides users with links to storm water and watershed education resources available from other organizations and institutions. The *Think Blue* website had 110,204 visits during FY 2009, averaging 9,183 visits a month; an increase in nearly 1,000 visitors a month from last year. A visit is a series of actions that begins when a visitor views their first page from the server and ends when the visitor leaves the site or remains idle beyond thirty minutes.

The Storm Water Department also maintains its own departmental website at www.sandiego.gov/stormwater. This site provides technical information about the department and provides links to the online storm water violations page and www.thinkblue.org. In this reporting period the website received 2,285 visits. In FY 2009, an online storm drain violation reporting form was added to the City's Storm Water Department web page to allow the public an additional method for reporting storm water violations (in addition to the Hotline).

The Storm Water Department is in the process of overhauling both the www.thinkblue.org and www.sandiego.gov/stormwater websites to provide improved access and navigational ability for both sides. Completion of the project is estimated for late FY 2010. More information regarding both websites is available in Section 9 – Public Participation of this report.

Additionally, both MWWD and the Water Department provided a wide variety of information, including storm water, on their respective websites during FY 2009. MWWD provided informational videos on the website that could be accessed by the public, and the website was visited by an estimated 300,000 individuals. The Water Department's Public Utilities – Water Branch website had 696,491 visits during FY 2009.

8.3.2.6 Speakers Bureau

During FY 2008 and 2009, Think Blue updated the Pollution Prevention Division's presentation materials in response to the multiple new regulations and the Division's variety of planned programs. Division staff participated in four speaking engagements during the respective reporting period and is summarized in **Table 8-6**. In addition, many staff speaking engagements in FY 2009 were focused on watershed specific issues or projects (such as the ASBS in La Jolla) and are recorded in the FY 2009 WURMP Annual Reports.

Table 8-6: FY 2009 Speakers Bureau Events

Date	Event Type	Topic Covered	Audience	Estimated # of Attendees
8/20/2008	Meeting	Storm Water Standards Overview	San Diego Association of Geologists	35
9/27/2008	Festival – Panel Discussion	Implementing BMPs to prevent pollution while filming in San Diego	San Diego Film Festival Attendees	20
9/27/2008	Festival – Introductory address prior to screening films	Implementing BMPs to prevent pollution while filming in San Diego	San Diego Film Festival Attendees	36
2/26/2009	Conference	Storm Water Training Workshop	American Public Works	56
3/9/2009	Meeting	Storm Water General Presentation	San Diego Taxpayer's Association	8
3/4/2009	Conference	San Diego Storm Water Department Program Overview	P3S Conference	35
Total Number of Attendees				**190**

8.3.2.7 Collateral Materials

Table 8-7 below identifies the Think Blue collateral materials available and distributed in FY 2009 to both general and targeted audiences. The italicized entries were new items for FY 2009. During FY 2009, the Pollution Prevention Division distributed a total of 79,544 materials, 66,989 of which were in English and 12,555 of which were in Spanish.

Table 8-7: FY 2009 *Think Blue* Collateral Materials by Target Audience

Category Title	English	Spanish	Municipal	Residential	Commercial	Industrial	Construction	Children	Quantity Distributed in FY 2009
Informational Material									
Think Blue Brochures	4,966	1,018	X	X	X	X	X	X	5,984
Think Blue 3Cs Cards	1,825	909	X	X	X	X	X		2,734
IPM Pest Tip card sets	1,854	651	X	X					2,505
Think Blue Laminated Tip Cards	4,253	50	X	X	X	X	X	X	4,303
Mission Bay Postcard- Boater	1,356	753		X					2,109
Mission Bay Postcard- RV	969	705		X					1,674
Mission Bay Postcard- Welcome	659	3		X					662
Mission Bay Postcard- Dump Station Map	222	210		X					432
Kids Sheets	1,460	0	X	X				X	1,460
Door Hanger	36	0	X	X					36
Mobile Businesses/Impervious Surfaces	36	0			X	X			36
Fact Sheet -Residential Car Washing	760	180	X	X					940
Fact Sheet- Concrete Washout	205	100	X	X	X	X	X		305
Fact Sheet- Construction Area	5	0	X	X	X	X	X		5
Fact Sheet- Dumpsters and Loading Docks	30	6	X	X	X	X	X		36
Fact Sheet- Impervious Surfaces	30	6	X	X	X	X	X		36
Fact Sheet- Restaurants	0	0			X	X			0
Fact Sheet- Sewer Overflows	0	0	X	X	X	X	X		0
Fact Sheet- Spills	5	0	X	X	X	X	X		5
Fact Sheet- Best Management Practices Websites	81	0			X	X			81
Fact Sheet- Automotive Fluids	231	100	X	X					331
Residential Guide #1 Wash Water	*0*	*0*	*X*	*X*					*0*
Residential Guide #2 Landscaping	*75*	*0*	*X*	*X*					*75*
Residential Guide #3 Vehicle Maintenance	*0*	*0*	*X*	*X*					*0*
Residential Guide #4 Trash Storage and Disposal	*0*	*0*	*X*	*X*					*0*
Residential Guide #5 Pet Waste Disposal	*117*	*0*	*X*	*X*					*117*
Green Wrench Guide	144	0			X	X			144
What's Cooking	268	0			X	X			268

Category Title	English	Spanish	Municipal	Residential	Commercial	Industrial	Construction	Children	Quantity Distributed in FY 2009
Clean Construction Brochure	885	0	X	X			X		885
Incentive Items									
Brooms	350	0	X	X	X	X	X		350
Dustpans	2,400	1,298	X	X	X	X	X		3,698
Magnetic Notepads	5,329	100	X	X	X	X	X	X	5,429
Think Blue Stickers	5,405	860	X	X				X	6,265
Pencils	4,750	2,504	X	X	X	X	X	X	7,254
Pet Trash Bag Containers	8,059	0	X	X				X	8,059
Pet Trash Bag Refills	3,982	0	X	X				X	3,982
Floating Key Chains	*68*	*0*	*X*	*X*					*68*
Eco-Friendly Pen	3,590	50	X	X				X	3,640
Frisbees (large)	1,740	1,021	X	X				X	2,761
Frisbees (Small)	50	0	X	X				X	50
Backpack	4,297	100	X	X				X	4,397
Surfboard Key chains	154	1,931	X	X				X	2,085
Pet ID Tag	555	0	X	X					555
Kitty Litter Scoop	682	0	X	X					682
Dog Bowl	435	0	X	X					435
Calendar	2,188	0	X	X				X	2,188
Rally Towels	2,074	0	X	X				X	2,074
Pet Leash	495	0	X	X					495
Fog Scraper	7	0			X				7
Recycled Visor	*500*	*0*	*X*	*X*				*X*	*500*
Plant-A-Shape Bookmark	*260*	*0*	*X*	*X*					*260*
Garden Knee Pad/Stadium Cushion	*558*	*0*	*X*	*X*				*X*	*558*
Mission Bay Poster 11"x17"	*35*	*0*			*X*	*X*			*35*
Pocket Ashtray	*3*	*0*	*X*	*X*					*3*
Reusable Grocery Bag (Chico Bag)	*11*	*0*	*X*	*X*					*11*
Total Distributed	**66,989**	**12,555**							**79,544**

Other City Departments/Division also distributed additional collateral materials to target audiences in FY 2009 and the information is summarized in the following table.

Table 8-8: FY 2009 City Department/Division Collateral Materials Distribution by Target Audience

Department /Division	Collateral Material	Target Audience	Estimated # of people targeted
City Treasurer's Office	*Think Blue* handout available in lobby information rack	1-5	208
ESD's HHW Program	HHW Transfer Facility Brochures distributed to citizens calling HHW hotline	1-5	1,330
MWWD	MWWD Brochure	2,3,4,5	Varies
MWWD	Water/Sewer Bill Inserts	2,3,4,5	520,000
MWWD	MWWD Energy Fact Sheet	2,3,4,5	Varies
MWWD	City Hall Elevator Posters	3, 4	Varies
MWWD	Metro Biosolids Brochure	1,2,3,4,5	Varies
MWWD	North City Water Reclamation Plant Brochure	1,2,3,4,5	Varies

Department /Division	Collateral Material	Target Audience	Estimated # of people targeted
MWWD	Point Loma Wastewater Treatment Plant Brochure	2,3,4	Varies
MWWD	South Bay Water Reclamation Plant Brochure	2,3,4	Varies
MWWD	Industrial Wastewater Control Program Brochure	1,2,3,4,5	Varies
MWWD	Food Establishment Wastewater Discharge Program (FEWD) brochure	3	3,800
MWWD	The FOG Program Brochures, magnets, grease scrapers, pencils, etc.	3,4,5	Varies
Office of Special Events	Special Event Permit Application	1-5	600
Parks and Recreation	BMP Information handouts – distributed with permits issued by the Department	4	7,395
Parks and Recreation	BMP Information handouts – distributed to contractors performing work within City Parks	1-4	146
Parks and Recreation	Distributing outreach materials developed by the Pollution Prevention Division to recreation centers and permit centers for counters bulletin boards or literature racks	4	23,573
Stadium	Provided handouts to Stadium patrons re: Storm Drain Protection	4	10,000
Street Division	Door-hangers with storm water message	3,4	30
Water Department	Annual Drinking Water Quality Report	1,2,3,4,5	575,000
Water Department	Lakes Brochure and Insert	4	50,000

8.3.3 Tools for Student-Age Groups

Student-age directed outreach and education will continue to be a long-term commitment for the City's Storm Water Department. Through the "Project SWELL" elementary school curricula, the City will continue to educate school children about the importance of our recreational waterways and human-water interaction through a well-balanced, comprehensive and hands-on water quality and pollution prevention curricula.

Project SWELL balances environmental and scientific studies as a comprehensive and hands-on K-12 water quality and pollution prevention curricula. The San Diego Unified School District, the City, and San Diego Coastkeeper have united to enhance the existing science curriculum used with inquiry-based FOSS (Full Option Science System) hands-on science kits. The lessons align with the State Science Content Standards for California Public Schools, Science Framework for California and meet the State's environmental education requirement. SWELL teaches children about the importance of our recreational waterways and human-water interaction from both environmental-conservation and environmental-science standpoints.

This unique San Diego-based education program supports progressive change by educating our children about pollution prevention and how their participation can help to improve the health of our ocean and waterways. Through these lessons, students learn how they can

minimize impacts to this sensitive coastal environment and address environmental issues pertaining specifically to our region.

During FY 2009, Project SWELL successfully reached more than 40,000 students in 2nd, 4th, 5th, and 6th grade in 130 schools in the San Diego Unified School District (SDUSD). The SWELL 5th grade lesson was also taught in 18 schools in the Oceanside Unified School District (OUSD).

The Project SWELL Kindergarten curriculum has been developed and is in the final editing stage. It was piloted in May 2009 and will be launched in SDUSD in the 2009-2010 school year. In addition, OUSD will implement the 6th grade curriculum in the 2009-2010 school year. The implementation of these curricula will expand the reach of Project SWELL by approximately 10,000 students per year, or roughly 25 %

In San Diego, Project SWELL reaches a particularly diverse and often underrepresented group of students, almost 40% of whom are Latino, one-third of whom are in the process of learning English and 62% of whom qualify for free or reduced-price meals. With the current overall state budget crisis added to other socio-economic factors, the schools these children attend are frequently under resourced and without access to innovative and engaging hands-on science education curricula. Project SWELL offers them a unique opportunity to explore their local ecosystems, learn how changes to daily behavior have a significant impact on the health and sustainability of their community, and become inspired as environmental stewards. Coastkeeper staff conducted several community education/outreach events based on Project SWELL lessons to ensure that students without access to hands-on science kits in their classroom are able to experience the benefit of Project SWELL's unique learning system, reaching more than 1,000 additional students.

The impact of this education program depends upon the engagement of individual students and the experience of the teachers who deliver the lessons. To assess and improve teachers' experiences with Project SWELL, the program partners introduced teacher feedback forms in late FY 2009. In addition, student evaluation forms were tested in 4th grade classrooms in order to better understand students' experiences with the lessons and how to improve their education through Project SWELL. Student evaluations will be implemented in FY 2010 in 2nd, 5th, 6th and Kindergarten classrooms, as well. The results will be shared when data becomes available.

During the 2009-2010 school year, Project SWELL curricula will be taught to approximately 50,000 students in five grades in SDUSD including the implementation of the Kindergarten curriculum and in two grade levels in OUSD. Each year, the curricula is reviewed and updated to ensure that it meets state and district standards and remains relevant to the current on-the-ground ecological situation. The development of the 1st grade curriculum is planned to begin in late 2009 with implementation targeted for the 2010-2011 school year. This will add approximately 10,000 students to the program resulting in a 50% program growth in two years: from 40,000 in 2008-2009 to 60,000 in 2010-2011.

Table 8-9 below identifies the Think Blue collateral materials available and distributed in FY 2009 to student age groups by Think Blue.

Table 8-9: FY 2009 *Think Blue* Collateral Materials for Student Age Groups

Category Title	Children	Quantity Distributed in FY 2009
Kids Sheets	X	1,460
San Diego Unified School District SWELL:2nd grade "Pebbles, Sand, and Silt" Kit	X	9,925
San Diego Unified School District SWELL: Investigation 4th Grade "Ecosystems" Kit	X	9,662
San Diego Unified School District SWELL: Investigation 5th Grade "Water" Kit	X	9,663
San Diego Unified School District SWELL: Investigation 6th Grade "Landforms" Kit	X	9,082
Oceanside Unified School District SWELL: 5th Grade Kit	X	1,581
Total		**41,373**

9 PUBLIC PARTICIPATION

9.1 INTRODUCTION

This section describes the steps taken primarily by the Storm Water Pollution Prevention Division to facilitate public participation during FY 2009. While closely linked to public education efforts (see Section 8, "Education"), public participation involves interacting and assessing the public's willingness to participate and ability to retain storm water messages. The City was compliant with all elements of Section D.6 of the Municipal Permit as described in the sections below and in the Permit Component Table (**Appendix G**).

9.2 PROGRAM IMPLEMENTATION

The Storm Water Department's *Think Blue* education and outreach program has engaged and embraced the critical role public participation plays in the ability to assess the success of pollution prevention efforts. Specific public participation goals and objectives were identified in the City's JURMP. The following storm water pollution prevention public participation efforts were implemented by the City of San Diego during FY 2009.

Telephone Survey

The Storm Water Pollution Prevention Division conducted a telephone survey of adult residents in the City of San Diego between March 1 and March 8, 2009. The purposes of the survey included:

- To explore attitudes about storm water pollution;
- To explore barriers to behavioral change that might reduce storm water pollution; and
- To assess different potential motivations for change including those that address barriers.

Approximately 800 telephone interviews were conducted with adult residents using a random-digit dial methodology, in which active residential and wireless telephone numbers served as the sample. Of these interviews, 20% were completed with residents with wireless telephone numbers, and 3% were completed in Spanish. The margin of error for Citywide results is plus or minus 3.4% at a 95% confidence level. Interviews were conducted in both English and Spanish.

A few questions in this survey were asked in similar studies conducted in previous years. Where appropriate, the results were compared from this survey with those from previous surveys. The report presents results broken out by subgroups of adult residents (i.e., by men versus women or by zip code) only if the differences are both statistically significant and are of relevance. Where statistically significant and relevant, the results are broken out by watershed. The survey findings are included as **Appendix AA**.

Survey

Additionally, the *Think Blue* program received feedback on storm water issues and its program via a short survey that the public were encouraged to fill out at various community events. 6,259 event surveys were collected during the reporting period. The survey cards consisted of six questions designed to measure knowledge, awareness, and behavioral intent as related to storm water pollution prevention and the *Think Blue* program. The cards also included an option for participants to provide contact information to be added to a mailing list. The mailing list will provide additional public participation opportunities for ongoing

outreach, including newsletters, emails and for assessment activities such as focus groups. Additional information regarding the surveys can be found in the Chapter 8 – Education portion of this report.

Public Reporting of Storm Water Violations

The (619) 235-1000 Storm Water Hotline provided the public the opportunity to contact the Storm Water Department in the event potential water nuisances or illegal discharges entering the storm drain system were observed. During FY 2009, an online reporting web page component was implemented at www.sandiego.gov/stormwater to provide the public with additional resources to report storm water violations. Both the hotline and webpage were useful mechanisms in the identification of residents and businesses that were potentially violating the City's Storm Water Ordinance. In FY 2009, the Enforcement and Inspection Section conducted 1,483 investigations as a result of hotline calls and online reporting.

Web Site

As a comprehensive information repositories, the City's two storm water related web sites (www.thinkblue.org and www.sandiego.gov/stormwater) continued to encourage public involvement by informing the residents about the important issues associated with the Storm Water Department. During the reporting period, the *Think Blue* website was visited 110,284 times (**Table 9-1**), while the Storm Water Department site was visited 31,812 times (**Table 9-2**). A "visit" is considered a series of actions that begins when a visitor views the first page they are taken to in the site (from a search engine or other source) and ends when the visitor leaves the site or remains idle beyond thirty minutes.

Table 9-1: FY 2009 *Think Blue* Website Visits

Month	Number of Visits
July 2008	9,368
August 2008	7,965
September 2008	7,875
October 2008	7,115
November 2008	6,341
December 2008	5,715
January 2009	7,646
February 2009	7,154
March 2009	8,170
April 2009	8,317
May 2009	15,753
June 2009	18,865
Total	**110,284**

Table 9-2: FY 2009 Storm Water Website Visits

Month	Number of Visits
July 2008	2,216
August 2008	1,962
September 2008	2,252
October 2008	2,665
November 2008	2,515
December 2008	2,285
January 2009	2,460
February 2009	2,635
March 2009	3,010
April 2009	2,881
May 2009	3,672
June 2009	3,259
Total	**31,812**

Speakers Bureau

The Storm Water Department placed an increased emphasis on its Speakers Bureau engagements, which help to educate the public about storm water issues and leave ample time and opportunity for audience questions. Questions were recorded and logged as appropriate to ensure the public issues are understood, and will be potentially useful in helping to guide future outreach efforts. Please refer to Section 8.3.2.6 of this report for information on the Speakers Bureau engagements conducted by the Storm Water Department in FY 2009.

Door-to-Door Notification

The Storm Water Department continued to utilize doorhangers when necessary to ensure residents in a particular community are receiving critical storm water related information. The Storm Water department is in the process of reformatting its general storm water door hanger to provide Code Enforcement staff with an educational tool they can leave behind for those residents who are not at home. During FY 2009, the Streets Division distributed door hangers with a storm water message to approximately 30 residents.

Meetings, Hearings, Open Houses, and Workshops

The City continued to host public meetings in an effort to provide the public the opportunity to have questions answered and concerns acknowledged. The City continued to properly notify the public of these meetings, and provided times and locations that are convenient for the public to attend.

On May 27, 2009, the City Planning and Community Investment Department (Planning Department) conducted a meeting with five attendees on the San Diego River Master Plan. The water quality of the San Diego River and associated wetland buffers were discussed at the meeting.

MWWD participated in two community events and educational tours of treatment plants in FY 2009. MWWD staff participated in the San Diego County Apartment Owners Convention (approximately 3,000 attendees) on May 9, 2009, and the Earth Fair in Balboa Park (approximately 20,000 attendees) on April 1, 2009. By participating in these events, staff were available to discuss issues regarding grease in sewers and answer questions from the public. MWWD also conducted 28 educational school tours of treatment plants, reaching approximately 400 school children in FY 2009.

MWWD also participates in the Canyon Watchers program. The Canyon Watchers program is a cooperative effort between MWWD and the San Diego Oceans Foundation. The program relies on volunteers who regularly walk in San Diego's urban canyons and inspect the sewer manholes for signs of leaks or deterioration of any kind. Instead of regular meetings, the canyon watchers submit online reports of their observations to either the MWWD website or the Oceans Foundation website. If the volunteers see a sewage spill, they are directed to immediately call the sewer emergency line, (619) 515-3525, and report the problem and MWWD crews respond.

The Water Department is a founding member and represented the City of San Diego to the San Dieguito Watershed Council during FY 2009. Water Department staff attended two meetings of the Council during the reporting period (9/9/08 and 4/27/09).

The Water Department also represented the City of San Diego to the San Diego Integrated Regional Water Management Plan (IRWM Plan). The County Water Authority, City of San Diego, and County of San Diego formed the Regional Water Management Group (RWMG), which has funded, guided, and managed the development of the IRWM Plan to date. The RWMG met weekly to research, review, discuss and formulate ideas and concepts for the Plan. The City of San Diego also participates in the Regional Advisory Committee (RAC). The RAC has twenty-five members providing expertise in the areas of water supply, wastewater, recycled water, storm water and urban runoff, natural resources, and environmental stewardship. Participants have been chosen to represent these general topic areas, rather than the interests of their specific agencies or organizations. During FY 2009, Water Department staff participated in five public meetings of the RAC. The IRWM Plan aims to integrate source water production, source water protection, watershed management,

water quality monitoring, and storm water management across multiple jurisdictions and stakeholders.

Partnerships

The City continued to seek out and coordinate initiatives and activities with well-established organizations in an effort to engage the public and encourage their support and participation. During FY 2009, the Storm Water Department continued to work with local stakeholder groups including San Diego River Foundation, San Diego Coastkeeper, and I Love A Clean San Diego; and established new partnerships with San Diego Groundworks-Chollas Creek, Tijuana River Estuary, and San Dieguito River Park among others to educate the public about storm water issues in each community. The Storm Water Department also maintained partnerships with San Diego Unified School District and San Diego Coastkeeper to continue and expand the Project SWELL curriculum. Further information about this program is detailed in Section 8 – Education of this report.

10 FISCAL ANALYSIS

10.1 INTRODUCTION

The Pollution Prevention Division is responsible for annually reporting on the JURMP's fiscal analysis to the Regional Board. The Pollution Prevention Division collected and analyzed financial information from City departments through the "Annual Report Form Questions", as well as financial information from within the Division. A summary of the findings is included below.

10.2 FUNDING SOURCES

City-wide 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.

10.2.1 General Fund

The General Fund is the main fund for the City that is supported by major revenue sources that include property tax, sales tax, transient occupancy tax and franchise fees. Departments funded by the General Fund provide core community services.

10.2.2 Special Revenue Funds

Special Revenue Funds account for revenues received for specifically identified purposes. Some of the larger funds that fall under this category include Transnet, Gas Tax and Special Promotion programs.

10.2.3 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 City-wide JURMP 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

10.2.4 Internal Service Funds

Internal Service Funds are comprised of fees for services provided by one City department to another City department or division. For implementation of City-wide JURMP activities, activities are funded through the following internal service funds:

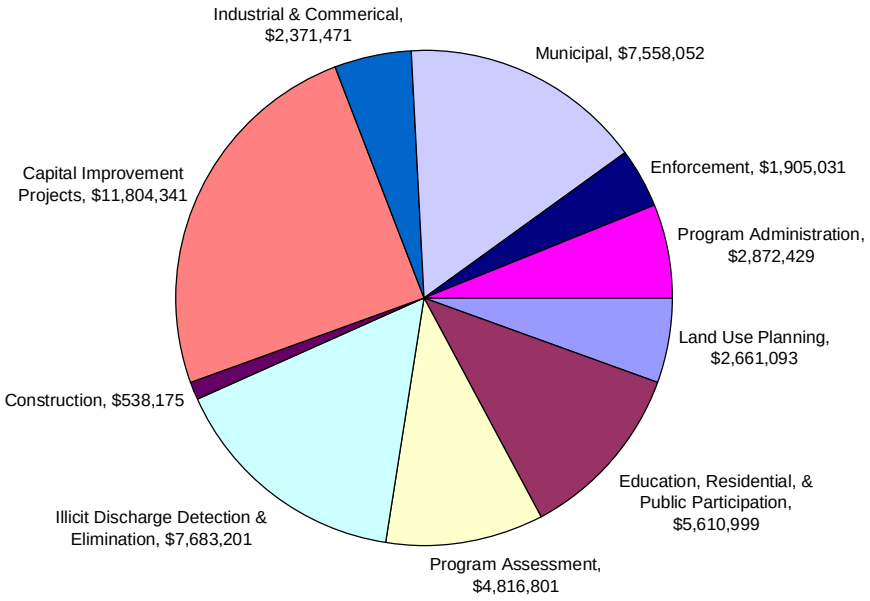
- Engineering and Capital Projects Fund
- Equipment Division Funds

10.3 FISCAL EXPENDITURES

The City's actual FY 2009 City-wide expenditures for the implementation of Municipal Permit requirements are depicted in **Figure 10-1** below. **Figure 10-1** categorizes FY 2009

City-wide expenditures by Municipal Permit component with the exception of two categories, Capital Improvement Projects and Program Administration. These two major categories do not align themselves with a specific Municipal Permit components.

Figure 10-1: FY 2009 City-wide Expenditures by Permit Area



A total of $47,821,511 was expended in FY 2009 for the implementation of City-wide JURMP 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.

Development Planning ($2,661,093)

Activities identified in the Land Use Planning for 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 ($538,175)

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.

Capital Improvement Projects ($11,804,341)

Activities identified in this section represent expenses for public improvement projects, TCBMPs, and special projects associated with TMDLs or watershed activities.

Municipal ($7,558,052)

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 dry cleanup methods).

Industrial and Commercial ($2,371,471)

Activities identified in this section represent personnel and non-personnel expenses for inspection of industrial and commercial facilities. This also includes personnel and non-personnel expenses for FEWD inspections.

Enforcement ($1,905,031)

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.

Education, Residential, and Public Participation ($5,610,999)

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

Illicit Discharge Detection and Elimination ($7,683,201)

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

Program Assessment ($4,816,801)

Activities identified in this section represent personnel and non-personnel expenses for City-wide management, reporting, and assessment of the Municipal Permit.

Program Administration ($2,872,429)

Activities identified in this section represent personnel and non-personnel expenses for administration and contracts and grant management.

10.4 GRANTS AND OTHER FUNDING FOR SPECIAL STUDIES

In addition to resources identified for Municipal Permit requirements, the City actively seeks grants and other funding sources for special studies and CIPs. 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 2009. The City managed a total of $6.8 million in special projects during FY 2009.

Table 10-1: Funding for Special Projects.

Funding Source	Project	Amount ($)	Matching Fund Amount ($)
FY 2009 Federal Appropriations	La Jolla ASBS Storm Drain/LID Project	900,000	714,273
California Proposition 50 Consolidated Grants	La Jolla Dry Weather Low Flow Diversions	700,000	175,000
California Proposition 50 IRWM	San Diego Green Mall Porous Pavement	257,500	334,258
Proposition 84, Areas of Special Biological Significance	Agenda Del La Playa Storm Drain Project	950,000	50,000
Policy Development Budget	Aerial Deposition Study, Phase II	257,726	N/A

Funding Source	Project	Amount ($)	Matching Fund Amount ($)
Policy Development Budget	Chollas Creek Diazinon TMDL Compliance Monitoring and Reporting	136,264	N/A
Policy Development Budget	Proposition 84 Support & Groundwater Paper	152,735	N/A
Policy Development Budget	Los Peñasquitos Lagoon TMDL - Watershed Phase I Sediment Source Identification Study	64,182	N/A
Policy Development Budget	Aerial Deposition Study, Phase III	197,720	N/A
Policy Development Budget	Tecolote Creek Microbial Source Tracking Study, Phase II	274,202	N/A
Policy Development Budget	La Jolla Area of Special Biological Significance Compliance Monitoring and Reporting	310,000	N/A
Policy Development Budget	Dry Weather Bacterial Source Identification Study in the Mouth of Chollas Creek and Pollutographs	138,980	N/A
Policy Development Budget	Shelter Island Copper TMDL Study	96,096	N/A
Policy Development Budget	Coastal Watersheds - San Diego River Bacterial Source Tracking Investigation, Phase I	357,669	N/A
Policy Development Budget	Famosa Slough TMDL Compliance Monitoring and Reporting	476,079	N/A
Policy Development Budget	La Jolla Shores coastal Watershed Sediment Characterization Study	186,937	N/A
Policy Development Budget	Characterization and Assessment of Storm Drain Sediments from Switzer Creek	78,431	N/A
Total Grant Funding		**5.5 million**	**1.3 million**

10.5 FUTURE PROJECTIONS

As mentioned above, City-wide 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 CIPs, and efforts to reduce pollutants in the storm water. Annual revenue projections remain at approximately $6 million.

In light of increasing program requirements, City-wide JURMP expenditures are projected to rise. The estimated Pollution Prevention Division budget for FY 2010 is approximately $36.6 million.

11 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 storm water quality or habitat conditions in the San Diego region.

In addition to its JURMP activities, the City also participates in the implementation of six WURMPs in cooperation with other stakeholders and jurisdictions to improve storm water quality not only within the City's jurisdiction but also in its watersheds. Below is a summary of the City's special projects that will be reported by the Watershed Copermittees in the City's FY 2009 WURMP Annual Reports. The special projects discussed in the WURMP Annual Reports also include projects implemented under other regulatory programs such as ASBS, TMDLs, CAOs.

Special Projects to be Included in the San Dieguito WURMP Annual Report:

- ILACSD Creek to Bay Cleanup Sponsorship
- SDCK Coastal Cleanup Day Sponsorship
- Municipal Rain Barrel Installation Project
- Targeted Business Inspections
- Trash segregation device installation
- Restaurant Outreach regarding New Codes
- Street Sweeping Route Posting and Median Sweeping
- Bernardo Center Drive Trash segregation device installation
- Pet Waste Bag Dispenser Installation
- Green Roof Pilot Project

Special Projects to be Included in the Los Peñasquitos WURMP Annual Report:

- ILACSD Creek to Bay Cleanup Sponsorship
- SDCK Coastal Cleanup Day Sponsorship
- Municipal Rain Barrel Installation Project
- Targeted Business Inspections
- Mission Bay Focused Outreach
- Carroll Canyon Sediment Source Study
- Mira Mesa Library Bioretention and Filtration Project
- Marindustry Drive Hydrodynamic Separator
- Municipal Artificial Turf Pilot Project
- Street Sweeping Route Posting and Median Sweeping
- Phased Green Mall and Underground Vault Pilot
- Pet Waste Dispenser Installation

Special Projects to be Included in the Mission Bay and La Jolla WURMP Annual Report:

- Targeted Aggressive Street Sweeping Program
- Beach Area Low Flow Diversions Phase III
- ILACSD Creek to Bay Cleanup Sponsorship
- SDCK Coastal Cleanup Day Sponsorship
- Municipal Rain Barrel Installation Project
- La Jolla Shores CBSM Outreach Pilot (business and residential)
- Tecolote Bacterial Source ID Study, Phase 2
- La Jolla Shores Sediment Source Study

- La Jolla Design Storm Study
- Tecolote Creek Design Storm/Pollutagraph Study
- Aerial Deposition Study
- La Jolla ASBS Compliance Monitoring
- Mission Bay Sewer Interceptor System Upgrades
- Kellogg Park Green Lot Retrofit Project
- Mount Abernathy "Green Street" Retrofit Project
- Osler Street Hydrodynamic Separator
- La Jolla ASBS Low Flow Diversions Installation
- Bannock Avenue Streetscape Enhancements
- Avenida de la Playa Low Flow Diversion
- Osler Street Hydrodynamic Separator
- Tecolote Green Street Infiltration Pilot

Special Projects to be Included in the San Diego River WURMP Annual Report:

- ILACSD Creek to Bay Cleanup Sponsorship
- SDCK Coastal Cleanup Day Sponsorship
- San Diego River Foundation Sponsorship
- Targeted Business Inspections
- San Diego River Foundation Sponsorship
- Municipal Rain Barrel Installation Project
- San Diego River Bacteria Source Investigation Tracking Study
- Coastal Watershed TMDL Monitoring
- Famosa Slough TMDL Monitoring
- Municipal Artificial Turf/ Water Efficiency Project
- Street Sweeping Route Posting and Median Sweeping
- Cabrillo Heights Park Rain Garden Installation
- Park Ridge Blvd Bacteria Treatment BMP
- Robb Field Water Treatment and Reuse
- Qualcomm Stadium Trash Segregation BMP

Special Projects to be Included in the San Diego Bay WURMP Annual Report:

- ILACSD Creek to Bay Cleanup Sponsorship
- SDCK Coastal Cleanup Day Sponsorship
- Targeted Business Inspections
- Targeted aggressive street sweeping
- Municipal Rain Barrel Installation Project
- Chollas Creek Diazinon TMDL Monitoring
- Chollas Creek Dissolved Metals TMDL Monitoring
- Dry Weather Aerial Deposition Study
- Chollas, Paleta, and Switzer Creek mouths TMDL
- Mobile Trash Collection and Assessment, part of Groundwork San Diego Chollas Creek's Family Stream Team Project
- Community Based Social Marketing Pilot
- Shelter Island Yacht Basin Copper TMDL Monitoring
- Switzer Creek Pesticide Source Identification Monitoring
- Chollas Creek Bacteria Study
- Southcrest Park "Green Lot" Infiltration Project

- El Cajon Boulevard Drain Filter Insert Project
- Dalbergia Street "Green Mall" Infiltration Project
- Memorial Park "Green Lot" Infiltration Project
- 43rd and Logan Biofiltration Project
- Maple Canyon Water Quality Improvement Pilot

Special Projects to be Included in the Tijuana River WURMP Annual Report:

- ILACSD Creek to Bay Cleanup Sponsorship
- SDCK Coastal Cleanup Day Sponsorship
- Targeted Business Inspections
- Municipal Rain Barrel Installation Project
- Beyer Blvd Trash Segregation Device Installation
- Municipal Artificial Turf Pilot
- Pet Waste Bag Dispenser Installation

Also reported in each of the WURMP Annual Reports are education activities including Mobile Advertising, PSAs, billboard advertisements, transit shelter advertisements, and brochures and posters.

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12 EFFECTIVENESS ASSESSMENT

12.1 INTRODUCTION

The requirements of the Municipal Permit specify that the City assess, both annually and in the long term (five-year intervals), the effectiveness of its JURMP at three levels: programmatic, component, and activity-specific. The City uses these effectiveness assessments as part of an iterative feedback loop that incorporates planning, implementation and assessment of its overall Storm Water Program.

This section outlines an integrated effectiveness assessment process that includes compliance assessment results for FY 2009, and presents the BMP[6] Efficiency Assessments and Storm Water Program recommendations for FY 2010. For the FY 2009 reporting period, the City successfully met a majority of its targeted outcomes for demonstrating compliance with the Municipal Permit. Although some targeted outcomes were not achieved, the City has identified areas for future improvement, such as enhanced data collection and information sharing and more frequent departmental coordination. These efforts will help to ensure that the City meets all targeted outcomes for compliance with the Municipal Permit during future reporting periods.

In addition to assessing compliance with the Municipal Permit, the City conducts special studies and BMP Efficiency Assessments for a select group of pilot activities to generate recommendations for optimizing its Storm Water Program. This section provides an update on those assessments.

12.2 EFFECTIVENESS ASSESSMENT PROCESS

The 2008 JURMP describes the City's overall process for assessing and optimizing its Storm Water Program. An abridged version of this process is presented below.

The City's Effectiveness Assessment process is driven by the following goal:

Optimization of the "means & methods" of implementing its Storm Water Program

- Optimization meaning the most cost-effective allocation of resources to affect pollutant load reductions and improvements to storm water quality
- "Means & methods" meaning the processes, materials, treatment controls, equipment, etc. that are used to achieve pollutant load reductions and improvements to storm water quality

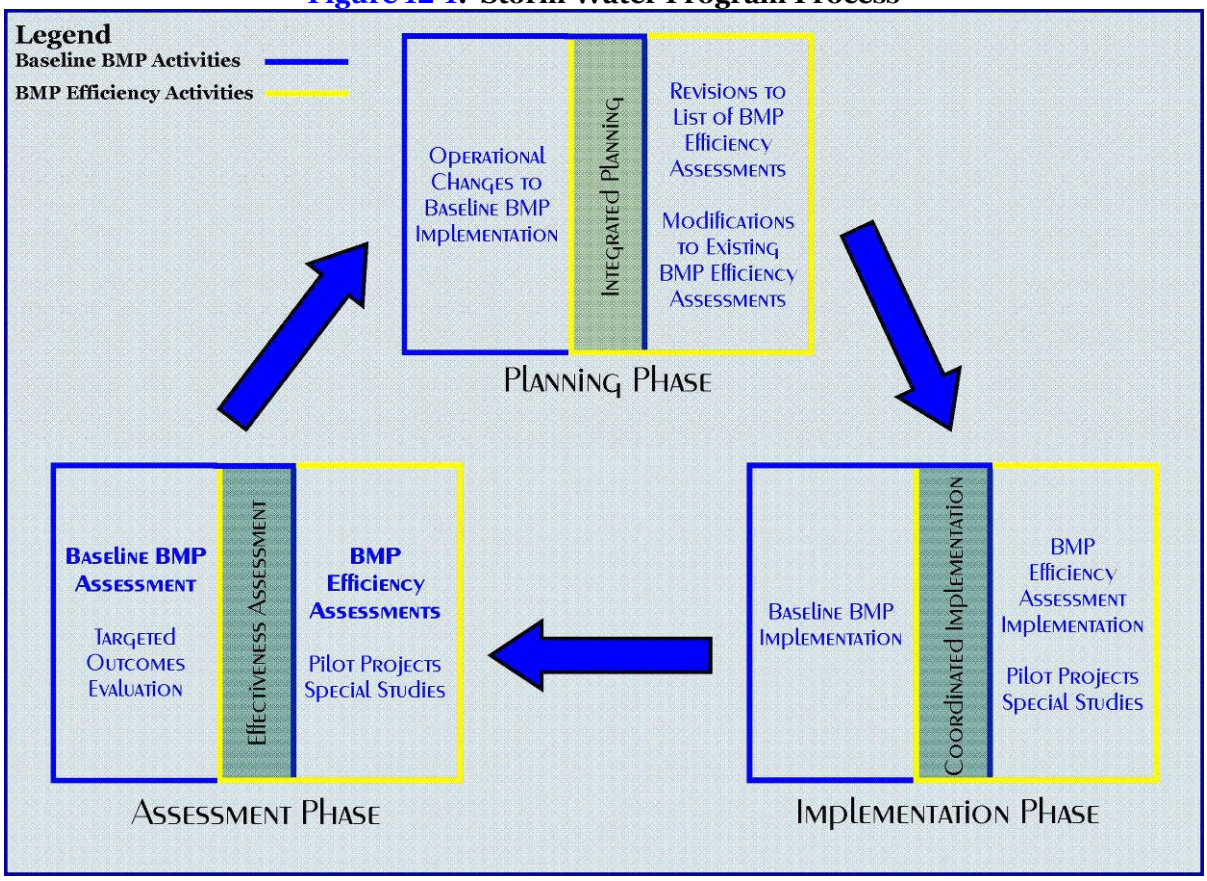
The City uses a simplified approach to assessing the effectiveness of its Storm Water Program. Assessment is one phase of the Storm Water Program "Process", which also includes Planning and Implementation phases (**Figure 12-1**).

As shown in **Figure 12-1**, the Assessment phase includes an integration of the Baseline BMPs and BMP Efficiency Assessments. By using what is learned about effectiveness and the

[6] Defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the case of municipal storm water permits, BMPs are typically used in place of numeric effluent limits (RWQCB Order R9-2007-0001, 2007)

resources necessary to implement BMPs, the City can use the information to refine its Baseline BMPs to maximize resources. The following subsections include descriptions of the two integral pieces of the Assessment phase of the Storm Water Program Process.

Figure 12-1: Storm Water Program Process



Baseline BMPs

Baseline BMPs include specific Storm Water Program activities as identified in the Municipal Permit and the City's 2008 JURMP. The majority of these BMPs are implemented at the jurisdictional level (i.e., citywide). The City uses the Effectiveness Assessment Levels (1-4) defined in the Municipal Permit to evaluate its Baseline BMPs to determine compliance. If targeted outcomes are met, compliance is achieved. If targeted outcomes are not met, the Baseline BMP Assessment will generate recommendations for improvements to the Planning and/or Implementation phases of the City's Storm Water Program Process (**Figure 12-1**). These improvements will ultimately result in the City meeting its targeted outcomes for compliance with the Municipal Permit.

The Baseline BMP Assessment for FY 2009 is located in Section 12-3.

BMP Efficiency Assessments

BMP Efficiency Assessments are defined as pilot projects and special studies or evaluations. The purpose of the BMP Efficiency Assessments is to obtain data and information that may be used to evaluate both the effectiveness and efficiency of certain BMPs. By implementing and assessing these pilot projects and special studies, the City can make more informed decisions about the appropriate allocation of limited storm water resources to maximize pollutant load reductions and improvements to storm water quality. Furthermore, the

results of the BMP Efficiency Assessments will be used to generate recommendations for improvements to the Planning and Implementation phases of the City's Storm Water Program Process.

The City maintains a list of conceptual BMP Efficiency Assessments for program planning purposes. When applicable, each assessment is designed to answer specific management questions for optimizing current Baseline BMPs. Priority for implementation of BMP Efficiency Assessments is based on several factors, including: results of Baseline BMP Assessments, availability of mechanisms to implement the assessments, and availability of resources.

A list of conceptual BMP Efficiency Assessments and the FY 2009 Efficiency Assessment updates can be found in Section 12.3.

Integrated Program Assessment

The City integrates its Baseline BMP Assessment and BMP Efficiency Assessments to develop recommendations for optimizing its Storm Water Program.

These recommendations typically fall in one of the three following categories:

1) Revisions to the list of conceptual BMP Efficiency Assessments (additions, deletions or reprioritization)
2) Revisions to implementation of specific BMP Efficiency Assessments
3) Modifications to Baseline BMP implementation (processes, materials, equipment, etc.)

It is this iterative feedback loop that drives the City's Storm Water Program toward optimization.

The integrated assessment for FY 2009 is located in Section 12-5.

Long-Term Assessment

The City participates in efforts of the WURMPs and the Regional Copermittees to develop and implement long-term effectiveness assessments of the programs. These long-term efforts include long-term effectiveness assessments as well evaluation of Outcome Levels 5 & 6 at a watershed scale.

12.3 EFFECTIVENESS ASSESSMENT RESULTS

12.3.1 Baseline BMP Assessment

The City assesses the effectiveness of its specific activities, program components and overall JURMP by evaluating at the following outcome levels.

Table 12-1: Effectiveness Assessment Outcome Levels 1-4

Outcome Level	Description	Assessment
1	Program Compliance	Measured by comparison to targeted outcomes, and the City's effectiveness at implementing the Municipal Permit
2	Changes in Attitudes, Awareness and Knowledge	Measured by pre- & post-surveys and questioning of specific regulated communities
3	Behavioral Changes and BMP Implementation	Measured by analysis of inspection findings
4	Load Reductions	Measured by direct method – how much waste material is collected and disposed

Level 1 – Compliance Assessment—Activity, Components and Program

Overall program compliance is based on the summation of the individual Municipal Permit component compliance evaluations. Municipal permit component compliance is determined by comparing data collected from departments citywide to the targeted outcomes for specific activities. For FY 2009, the targeted outcomes for each permit activity are defined as fulfilling the baseline Municipal Permit requirements of Order R9-2007-0001. These evaluations are summarized by Municipal Permit component in **Table 12-2** below. For assessment results at the activity level, details are provided in tables as **Appendix G**.

Some highlights from the City's Baseline BMP activities include the following:

- Estimated 1,964,784 people reached through special events
- Estimated 56,772,719 Public Services Announcement (PSA) impressions – the television and radio PSAs aired a total of 5,210 times
- Estimated 20,695,068 impressions from placement of PSAs on media websites
- Estimated 310,942 movie theater impressions from "Karma" advertisement
- ESD collected approximately 483 tons of HHW
- Approximately 516 tons of debris from stormwater operations and maintenance
- Approximately 7.08 tons from departmental cleaning of their facility storm drains
- Street sweeping - swept approximately 95,161 curb miles and removed approximately 6,418 tons of debris
- Departmental parking lot sweeping resulted in the removal of approximately 469.6 tons of debris from department facility parking lots
- Field Engineering and the Inspection Services Division conducted approximately 77,096 construction site inspections.

Level 2 – Changes in Knowledge, Awareness and Attitudes Assessment

During FY 2009, the City continued its efforts to collect data and information regarding changes in attitude, awareness and knowledge. Methods of data collection included commercial/industrial business inspections, surveys and assessments of training.

BMP Knowledge Assessments

As in previous years, part of the commercial and industrial business inspection process was to assign each facility inspected a rating to reflect the level of BMP implementation noted at the site (Level 3 Assessment **Figure 12-2**), and a separate rating to reflect the facility manager/responsible party's level of storm water knowledge. The assessment ratings were designed to gauge knowledge of storm water pollution prevention measures and implementation of effective BMPs. The ratings were assigned based on how many of the following questions were answered correctly:

- What is storm water?
- What is the difference between the storm drain system and the sanitary sewer system?
- Where does storm water flow?
- Is storm water treated prior to discharge?
- What are examples of pollutants?
- Is sediment a pollutant?
- Do you know what good house keeping or best management practices are?
- Do you know what NPDES is or means?

Table 12-2: Municipal Permit Component Targeted Outcome Assessment Results Annual Summary

Municipal Permit Component	Targeted Outcome Assessment Result	Compliance Issues
D.1 Development Planning	**Met all targeted outcomes with the exception of the following items:**	
	Treatment Control BMPs Inventory and Verifications Program	During the inspection process it was determined that some TCBMPs could not be located in the field. The City investigated[7] these cases and identified several reasons for the situation. The investigation consisted of record searches from the plan check phase through the construction phase. At the end of this extensive research effort it was determined that a number of the required private and public TCBMPs were not constructed. However, the process improvements described in Section 2.4.3.5 have been implemented to ensure that all required BMPs are constructed as required. Furthermore, a corrective action plan for missing BMPs is also in place for immediate implementation as described in Section 2.3.4.5.
	The City cannot readily provide a list of all of the Standard Projects (non Priority Development Projects) to which SUSMP requirements were applied	Although the City evaluates all development projects for SUSMP requirements and confirms that all applicable SUSMP BMP requirements are required of all development projects, the City has not tracked the Standard (i.e., non Priority Development Projects) that are required to design, construct and implement LID Site Design and Source Control BMPs. These Standard projects have been required to incorporate the LID Site Design and Source Control BMPs, however the tracking system was not used to track those projects for reporting purposes. Upon discovery of this issue, the City Development Services Department will implement changes to the review process to track Standard development projects to which SUSMP requirements were applied to be presented in future annual reports It is important to note that the City can research through all of its evaluated projects to locate the Standard projects, however it is not a feasible task.
D.2 Construction	**Met all targeted outcomes with the exception of the following items:**	
	Not all required inspections were completed	FIELD ENGINEERING DIVISION – The City recognizes that a percentage of the required inspections were not conducted for the high and medium priority project sites during FY 2009 (in some cases, some of the inspections may have occurred, but were not tracked). Of 175 sites, eighteen (18) did not receive the full number of inspections required. The missing inspections at the eighteen sites constituted 46 of the over 770 inspections required to be conducted during FY 2009 rainy season, representing less than 6% of total required inspections. The City inspectors were on site during those weeks of the missing inspections and although not formally documenting storm water inspections, part of their inspection routine is to evaluate storm water BMPs for adequate implementation thereby ensuring that the sites are adequately protected against non-storm water and/or pollutant discharges. To address these issues, inspection departments (Development Services and Engineering & Capital Projects) will be emphasizing inspection requirements and the importance of documentation at future trainings, and the Pollution Prevention Division will be meeting with these departments on a frequent basis to ensure inspectors are kept current with baseline and seasonal storm water requirements. Additionally, electronic tracking systems will be re-evaluated to ensure they are capturing the correct information and data for appropriate reporting of inspections.
	The City cannot provide an accurate listing of all of the inspection information for approximately 33,725 building permits issued in FY 2009	INSPECTION SERVICES DIVISION – Upon development of the database report for annual reporting purposes, it was determined that there is an issue with the overall tracking system. The City is currently investigating the entire tracking process for documenting DSD-IS inspections in electronic format. The issue is that the database generated report does not reflect the accurate number of weeks the project was active in the raining season.

[7] The process was research intensive and consumed 80% of one full time Assistant Engineer and a part-time intern. The City decided to hire a consultant to perform an in-depth investigation of all the missing TCBMP cases.

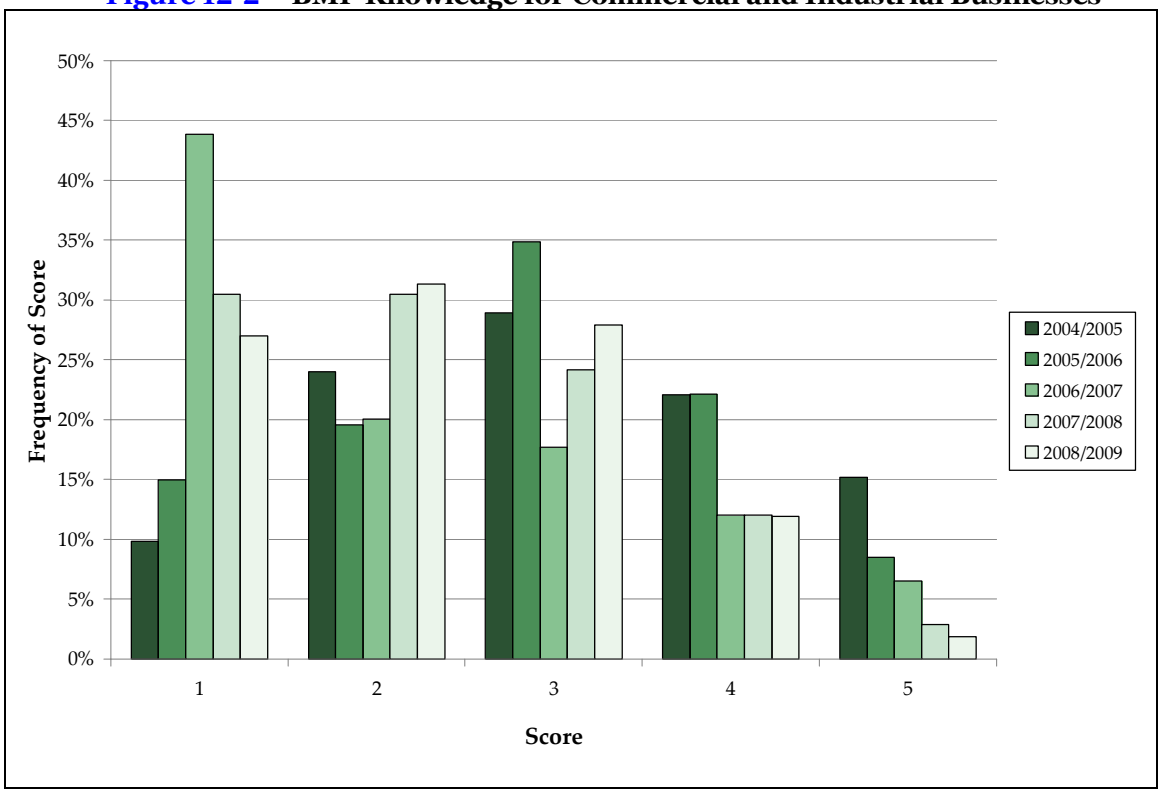
Municipal Permit Component	Targeted Outcome Assessment Result	Compliance Issues
D.3.a Municipal	**Met all targeted component outcomes; with the exception of:**	
	The City does not have an accurate inventory of all municipal treatment control BMPs	As described in Section 2.3.4.5 of this annual report, the City determined that there are a number of missing BMPs that could not be located in the field; therefore, an accurate inventory is not available at this time. However, these BMPs are currently being addressed through the corrective action plan described in Section 2.3.4.5.
	The City does not have all routine inspection and maintenance information for all municipal treatment control BMPs	For the known municipal TCBMPs, the City performed all required inspections and maintenance. As described in Section 2.3.4.5 of this annual report, the City determined that there are a number of missing BMPs that could not be located in the field. Since an accurate inventory is not available at this time, the City cannot confirm that all required inspections and maintenance were performed for FY 2009. However, these BMPs are currently being addressed through the corrective action plan described in Section 2.3.4.5.
	The City has a lack of documentation for required pre-rainy season inspection for Facility Division buildings at the 20th & B St. Operations Yard	During FY 2009, a pre-rainy season inspection (fall of FY 2009) of all facilities in the 20th and B Operations Yard managed by the Facilities Division was performed; however, inspection forms were not filled out or cannot be located. Facilities management has been notified of this deficiency and measures have been put in place to ensure that all future inspections are documented on the appropriate checklist. The Facilities Division did conduct the second required inspections of all facilities in the 20th and B Operations Yard and the forms are included in **Appendix I**
D.3.a Municipal	Not all required municipal inspections were conducted	During FY 2009, all 37 Library facilities were inspected one time, as opposed to twice per the Additional Controls for Municipal Areas and Activities requirement in the City's JURMP (see **Appendix I** for completed inspection forms). The first municipal inspections of the year, typically conducted in September, were not performed due to staffing and resource issues. The staff position responsible for conducting storm water inspections and handling storm water responsibilities for the Library Department was vacant until April 2009. As a result, the first set of annual storm water inspections was not conducted. Once the position was filled in April 2009 staff immediately conducted the storm water inspections. As a result of filling the position and having the appropriate staffing, the Library Department will be able to conduct inspections of the Library facilities as required per the City's JURMP.
		The inspections for Homeless Services Division of the City Planning and Community Investment Department's two facilities were not conducted during the reporting period. As soon as Pollution Prevention Division staff was made aware of the situation a team was immediately sent out to conduct an inspection of the facilities in July 2009. As a result Pollution Prevention Division staff is currently coordinating with the contract staff at the facilities to provide adequate training and make staff aware of the requirements for the facilities including inspection frequencies.
		The Park and Recreation Department inspected 464 sites twice during FY 2009 (see **Appendix I** for inspection forms). However, second inspection forms for 27 of these sites cannot be located. As a result all district managers have been requested to be responsible for ensuring that all inspections for their facilities are conducted, inspections are recorded on the appropriate forms, and copies of inspection forms are made for reporting purposes. Through the annual reporting process it was also determined that there were 15 sites which were not inspected during the reporting period. With such a large inventory, most of these facilities were overlooked due to staff not realizing inspections were to be conducted and in some cases the area manager who is responsible for the inspections being out on leave. Furthermore, with the inventory being completely revised in FY 2009, the Park and Recreation Department is reviewing the inventory for accuracy and making sure that Area Managers are aware of the facilities they are responsible for ensuring that stormwater inspections are conducted. The Park and Recreation Department is working on addressing these issues so that the required inspections of all facilities will be conducted during FY 2010.

Municipal Permit Component	Targeted Outcome Assessment Result	Compliance Issues
D.3.a Municipal	Parking lot sweeping not conducted at libraries	During FY 2009, the Library Department's parking lots were not swept due to staffing and resource issues. The staff position responsible for handling storm water responsibilities for the Library Department was vacant until April 2009. As a result of the transition, the parking lot sweeping was not conducted. Once this issue was recognized, Library staff began working with Pollution Prevention Division staff to get it resolved. Library staff is currently in the process of submitting a work order form to the Storm Water Operations and Maintenance Division requesting parking lot sweeping for FY 2010.
	Water Department did not conduct storm drain inspection and cleaning during FY 2009 – the Water Department has a total of 114 storm drains at their facilities	The Water Department was in the process of hiring a contractor to inspect and clean its storm drains during FY 2009. Therefore, the Water Department storm drains were not cleaned during FY 2009, but are scheduled to be inspected and cleaned if necessary by the new contractor in October 2009
D.3.b Industrial and Commercial	**Met all targeted outcomes**	Municipal Permit Component met targeted outcomes, no changes to implementation of the Permit Component are recommended
D.3.c Residential	**Met all targeted outcomes**	Municipal Permit Component met targeted outcomes, no changes to implementation of the Permit Component are recommended
D.4 Illicit Discharge Detection and Elimination	Will be reported in December 2009	
D.5 Education	Met all targeted component outcomes; with the exception of:	
	The permit requires that all staff responsible for conducting storm water compliance inspections and enforcement of industrial and commercial facilities receive training each year. Inspectors responsible for conducting Industrial and Commercial inspections for MWWD did not receive the required training in FY 2009	The Industrial Waste Control Program (IWCP) and the Food Establishment Waste Discharge (FEWD) Program inspectors from MWWD that assist with storm water inspections at industrial and commercial facilities did not receive the required annual training during FY 2009. During FY 2010, MWWD will work with the Storm Water Department to determine the required training for the IWCP and FEWD Program inspectors and ensure that the applicable training is conducted.
D.6 Public Participation	**Met all targeted outcomes**	Municipal Permit Component met targeted outcomes, no changes to implementation of the Permit Component are recommended

Individuals who answered all of the aforementioned questions correctly and demonstrated an in-depth knowledge of storm water pollution prevention measures and NPDES were rated "Level 5". Individuals who answered four or more questions correctly, and had a basic understanding of storm water pollution prevention measures but did not know or understand what the NPDES Storm Water Program was received a "Level 4" rating. A "Level 3" rating indicated an individual who answered three questions correctly, "Level 2" indicated one or two correctly answered questions, and a "Level 1" rating indicated that the individual was not able to answer any of the questions correctly.

Figure 12-2 shows the BMP knowledge assessments obtained through the business inspections conducted over the past five years. Since the number of inspections varied over the five years, the chart is based on the relative score frequencies so that the data can be more directly compared. According to the figure, there has been a decline in the higher knowledge of BMP related information amongst businesses. When compared to the rates of BMP implementation over the past five years, there is no corresponding relationship between the BMP knowledge and implementation.

Figure 12-2 – BMP Knowledge for Commercial and Industrial Businesses



Event Surveys

In order to assess the effectiveness of event attendance, *Think Blue* implemented a program by which it solicited participation in a brief survey about storm water issues. The survey cards consist of six questions designed to measure storm water knowledge, awareness and behavioral intentions (Please see sample event survey card in **Appendix Z**). Data from the *Think Blue* event surveys include:

- During the reporting period, a total of 6,259 surveys were completed by *Think Blue* booth visitors.

- In March 2009, a Spanish version of the event survey was developed to accommodate the growing number of Spanish-speaking visitors to the *Think Blue* booth. Approximately 3% of all of the surveys completed were completed in Spanish.
- Nearly half (49%) of the people who completed a survey during FY 2009 provided at least some form of contact information to join an interest list. This equates to a total of 3,049 people who were interested in hearing more about *Think Blue* activities. Of the surveys collected during FY 2009, 2,894 included a mailing address (46%) and 1,523 (24%) included an email address. This growing database of citizens will be leveraged for future outreach and research.
- Half of all visitors to the *Think Blue* booth had heard of the program prior to attending the event. Fifty percent (50%) of the individuals who completed an event survey had heard the phrase *Think Blue* San Diego prior to attending the event where a *Think Blue* booth was present.
- 78% of *Think Blue* booth visitors who completed the surveys and provided at least a zip code resided within San Diego County limits. Of these, the vast majority were from the City of San Diego (>60%).

The data presented above represent a positive response to the *Think Blue* San Diego campaign efforts, including attendance at special events. The fact that nearly half of those completing a survey card provided contact information is a strong indication that the City's efforts are putting them in contact with people who are interested in improving storm water quality and the messages that *Think Blue* generates.

While the City conducted jurisdictional outreach, it is important to note that many of the City's outreach events were watershed-focused, and as such, will be included in the WURMP Annual Reports, in which the City is a participating Copermittee. This will be a continuing trend as the City's outreach events become more audience, pollutant and watershed-specific. Event participation by *Think Blue* staff has become more sophisticated and via the surveys is now better able to gauge the efficiency of attended community events. Larger general audiences tend to be reached more effectively at larger events. Conversely, attending smaller community and neighborhood events reach far fewer people, but may be more effective for reaching specific target audiences or focusing on specific pollutants. While *Think Blue* intends to continue to staff community events; each event, target audience and outreach topic will be examined in order to best reach the specific demographic based on budget and return on investment.

New Employee Training

Think Blue conducted monthly trainings at the City's "New Employee Orientation" (NEO) workshops. Newly hired City staff who were in attendance received a basic introduction to storm water issues through the video, "Storm Water and You", a training module created by *Think Blue*. In FY 2009, 327 new employees received the training. All staff who attended were given a pre-test and a post-test containing questions relating to storm water topics covered in the training. In FY 2009, the pre- and post-test questions were revised to better assess an increase in knowledge of storm water issues among new employees. Statistical analyses revealed that the participants achieved higher scores after receiving the storm water training. Assessment analysis determined the average score on the pre-test was 3.70 out of 5 (74%), and the average score on the post-test increased to 4.89 out of 5 (98%). Seasonal or temporary staff that did not attend the "New Employee Orientation" workshop received general storm water training as part of their employee orientation from their department

Level 3 – Behavioral Changes and BMP Implementation Assessment

During FY 2009, the City continued its efforts to collect data and information for assessing behavioral changes and BMP implementation. The primary method of data collection was inspections of various sites/facilities to determine BMP implementation. Currently, there are only confirmations of BMP implementation available for the majority of the site/facility types with the exception of the commercial/industrial businesses.

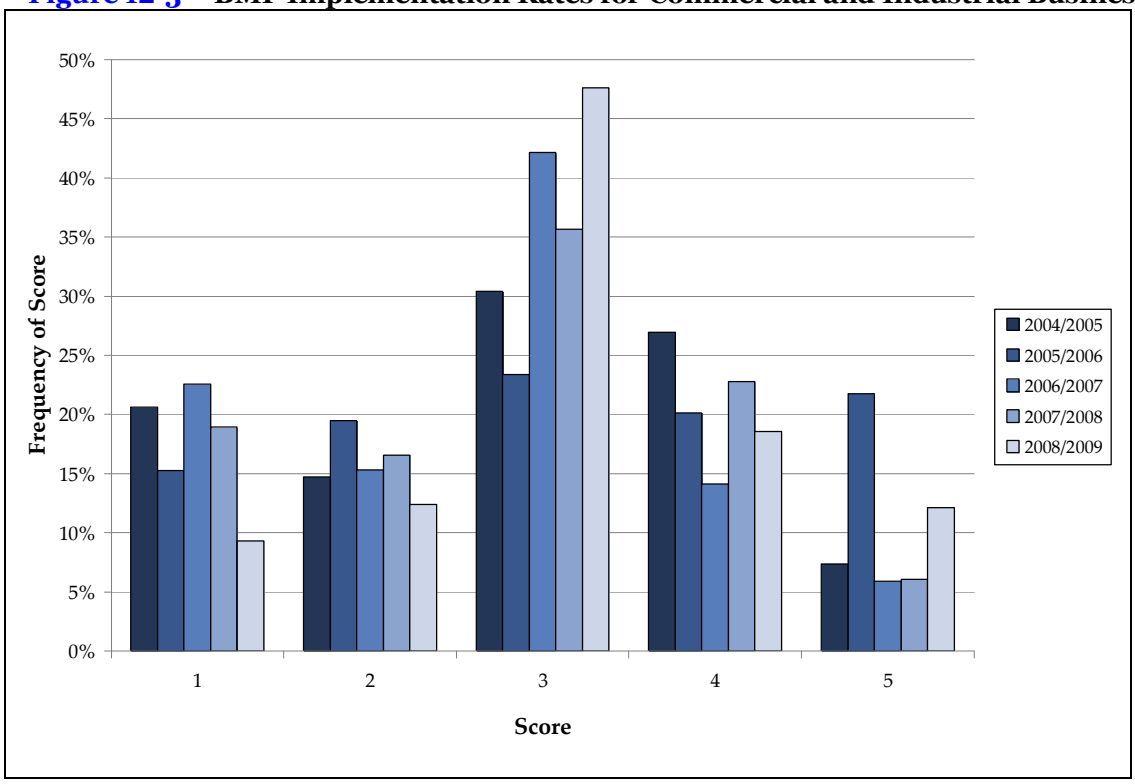
As in previous years, part of the commercial and industrial business inspection process was to assign each facility inspected a rating to reflect the level of BMP implementation noted at the site. At the conclusion of each inspection, the inspector evaluated his or her notes and corrective actions and assigned each facility a BMP assessment rating. The following provides a breakdown of how BMP assessment ratings were designated at inspected facilities:

- "Rating 5": means all required general and activity specific BMPs had been implemented effectively. If available, monitoring results indicated that all constituents sampled were below established benchmarks.
- "Rating 4": means BMPs had been implemented effectively but a dumpster lid was observed open and/or oil stains were noted in the parking lot (but were not associated with the business' activities). If available, the monitoring data indicated that one or two constituents were slightly above the established benchmarks.
- "Rating 3": means BMPs had been implemented with the less than two corrective actions identified during the inspection, with the exception of dumpster lids being open or oil stains in the parking lot. If available, monitoring data indicated that one constituent consistently exceeded the established benchmarks.
- "Rating 2": Minimal BMP implementation was in place. Three or more corrective actions were noted, with the exception of dumpster lids being open or oil stains in the general parking lot. No illegal discharge or illicit connection was noted. If available, monitoring data showed concentrations of two or more constituents well above the established benchmarks.
- "Rating 1": A violation of one or more of the City's Storm Water Ordinances (illegal discharge, illicit connection, failure to properly implement required BMPs, and/or significant littering) was noted. BMP implementation was poor.

The commercial/industrial BMP implementation ratings for the past five years are presented in **Figure 12-3**. Since the number of inspections varied over the five years, the figure reflects the relative score frequencies so that the data can be more directly compared.

As shown in **Figure 12-3**, there has been a general increase in the moderate implementation of BMPs amongst businesses. It appears that the increase in the middle rate of implementation draws equally from the higher and lower rates of implementation (i.e., the BMP implementation rates are decreasing in both the lower and higher rates of implementation).

Figure 12-3 – BMP Implementation Rates for Commercial and Industrial Businesses



The remaining inspections conducted to determine BMP implementation are performed at Treatment Control BMPs, construction activities and municipal facilities. Through these inspections, the City can confirm that the minimum BMPs are implemented, unless otherwise noted on inspection documentation.

Level 4 – Load Reduction Assessment

During FY 2009, the City continued its efforts to collect data and information for assessing pollutant load reductions. The primary method for determining pollutant load reductions was to collect data from departments on specific storm water activities; such as storm drain cleanings, parking lot sweeping, and municipal inspections. Until more data and information becomes available to accurately estimate pollutant load reductions from non-cleaning activities, the City will rely on these activities as the primary quantifiable pollutant load reduction activities.

Below is a summary of the quantifiable pollutant load reduction activities that the City conducted during the FY 2009 reporting period.

- ESD collected 483 tons of HHW
- The Park and Recreation Department collected 12,370 tons of debris from the parks, beaches, and bay, including over 250 tons of debris collected during the 2008 July 4th holiday along the shoreline of Mission Bay and Shoreline/Beach Parks
- ESD picked up 2.2 tons of debris at the Miramar Place Operations Yard cleanup
- ESD also conducted a Christmas Tree Program which promoted the recycling of Christmas trees from December 26, 2008 through January 23, 2009. There were 17 different resident drop-off locations throughout the City and a total of 148,476 trees (1,262 tons) were collected through this program

- Storm Water Operations and Maintenance Division conducted 42,685 inspections of catch basins and inlets, and found and cleaned 30,810 catch basins and inlets
- Storm Water Operations and Maintenance Division found and cleaned approximately 1.9 miles of storm water pipeline
- Total debris removed from catch basins, inlets, cleanouts, and the MS4 was 516 tons of waste and litter
- Departments removed 7.08 tons of debris through storm drain cleaning at municipal facilities
- The City has approximately 50 miles of channels. Every channel within the City was inspected twice during FY 2009. The channels were inspected in the fall before the rainy season and once in the spring. Approximately 10 miles of open channels were found with anthropogenic litter, 7.7 miles of channels were cleaned, and 5,198 tons of anthropogenic litter was removed
- Through the implementation of the City's street sweeping program, 95,161 curb miles were swept and 6,418 tons of debris was removed within the City
- Departmental parking lot sweeping resulted in the removal of 469.6 tons of debris

12.3.2 BMP Efficiency Assessments

The City has identified BMP Efficiency Assessments[8] to collect data for its programmatic optimization strategy as described in the 2008 JURMP. **Table 12-3** lists BMP Efficiency Assessments for program planning purposes. As previously stated, the City will use several factors to prioritize the implementation of these assessments.

Table 12-3 BMP Efficiency Assessments Summary

BMP Efficiency Assessment	Status	Management Question(s)	Comment
Special Study: Municipal Parking Lot Sweeping	Ceased	What is the optimal frequency of parking lot sweeping?	After re-evaluating this assessment, it was determined that the activity should be reprioritized as a low priority activity because: 1) An assumption was made that the optimal frequency for parking lot sweeping will be similar to that of streets. The City's Targeted Aggressive Street Sweeping Pilot Study will be able provide information regarding parking lot sweeping procedures if necessary. 2) The method by which the Storm Water Department's Operation and Maintenance Division sweeps parking lots is to perform lot sweeping during street sweeping activities. It is most effective to run street sweepers into parking lots at the same time adjacent streets are swept rather than special routes where sweepers would only go directly to parking lots. Therefore, it is not feasible to track total debris removed for individual municipal parking lots.
Municipal Storm Drain Inspections and Cleaning	On-going	1) What is the optimal frequency of storm drain system inspections? 2) What is the optimal frequency of storm drain system cleaning?	The City will consider implementing this activity during future reporting periods

[8] BMP Efficiency Assessments are assessments of activities that are above and beyond the Baseline BMPs required by the Jurisdictional portion of Order R9-2007-0001, and may include Pilot Studies and Special Projects or Evaluations.

BMP Efficiency Assessment	Status	Management Question(s)	Comment
Inspection of Construction Site BMPs	On-going	1) What is the optimal frequency and method of inspection of construction sites? 2) What is the optimal frequency and method of enforcement of construction sites?	The City will consider implementing this activity during future reporting periods
Inspection of Industrial and Commercial BMPs	On-going	1) What is the optimal frequency and method of inspection of commercial and industrial facilities? 2) What is the optimal frequency and method of enforcement commercial and industrial facilities?	At this time, the project is in active implementation and will be assessed at the end of Fiscal Year 2010. More information is provided in Section 12.3.3 below
IDDE Sampling	On-going	What is the optimal frequency and location of sampling events?	The City will consider implementing this activity during future reporting periods
Enforcement Inspections and Follow-ups	On-going	1) What is the most efficient enforcement method for the different source types? 2) Is it more efficient to respond to reported discharges or patrol for discharges?	The City will consider implementing this activity during future reporting periods
Public Outreach	On-going	1) Which public outreach method results in the most reported discharges per dollar? 2) Which outreach method results in most abated discharges per dollar?	The City will consider implementing this activity during future reporting periods

As a part of the BMP Efficiency Assessments, the City has initiated multiple pilot projects within its WURMPs. These projects include the collection of targeted data for calculating pollutant load reductions, and activity-specific costs for determining project efficiencies (see project list below). These projects are designed to answer specific management questions and generate recommendations that will feed into the City's overall Integrated Assessment Program. This will ultimately result in greater Storm Water Program optimization.

A list of the WURMP pilot projects and special studies that will be implemented to provide additional data for BMP Efficiency Assessments is provided below:

- Targeted Business Inspections
- Municipal Rain Barrel Installation Project
- Trash segregation device installation
- Street Sweeping Route Posting and Median Sweeping
- Bernardo Center Drive Trash segregation device installation
- Pet Waste Bag Dispenser Installation
- Green Roof Pilot Project
- Marindustry Drive Hydrodynamic Separator
- Municipal Artificial Turf Pilot Project
- Phased Green Mall and Underground Vault Pilot
- Targeted Aggressive Street Sweeping Program
- La Jolla Shores CBSM Outreach Pilot (business and residential)
- Aerial Deposition Study

- Kellogg Park Green Lot Retrofit Project
- Mount Abernathy "Green Street" Retrofit Project
- Bannock Avenue Streetscape Enhancements
- Osler Street Hydrodynamic Separator
- Tecolote Green Street Infiltration Pilot
- Cabrillo Heights Park Rain Garden Installation
- Park Ridge Blvd Bacteria Treatment BMP
- Robb Field Water Treatment and Reuse
- Qualcomm Stadium Trash Segregation BMP
- Dry Weather Aerial Deposition Study
- Southcrest Park "Green Lot" Infiltration Project
- El Cajon Boulevard Drain Filter Insert Project
- Dalbergia Street "Green Mall" Infiltration Project
- Memorial Park "Green Lot" Infiltration Project
- 43rd and Logan Biofiltration Project
- Maple Canyon Water Quality Improvement Pilot
- Beyer Blvd Trash Segregation Device Installation

Several of the BMP Efficiency Assessments have been completed and others have completed initial planning phases. Since the above list includes activities implemented as WURMP Watershed Water Quality Activities, the implementation updates will be reported in the respective WURMP Annual Reports. In the FY 2010 JURMP Annual Report, the City will present more findings from the above list for discussion in the Integrated Program Assessment.

12.3.3 Integrated Program Assessment

Baseline BMP Assessment

The City recognizes that in order to have an efficient Storm Water Program, it is important to maintain compliance with the Municipal Permit. During the first quarter of FY 2010, the City has already begun the process of addressing each of the missed targeted outcomes as identified in **Table 12-2**. The first and foremost action is for the Storm Water Department to provide support to other City departments to complete their specific requirements.

The City of San Diego is one of the largest and most complex municipalities in the region. Having a large and complex organization poses many challenges, such as varying data tracking and reporting systems and multiple lines of communication for educating staff. However, the City is committed to instituting the necessary changes to current processes, protocols and systems to ensure that program requirements are implemented, tracked and reported adequately to the Regional Board. **Table 12-4** lists areas identified for improvement in FY 2009 and provides the status of the corrective actions planned to address these issues.

Table 12-4 Programmatic Corrective Actions

General Issue	Corrective Actions	Current Status
Treatment Control BMPs	DSD sends Storm Water Department plans and TCBMP agreements on a monthly basis to provide consistent tracking of projects with Treatment Control BMPs	DSD currently performs this action
	DSD-Inspection Services has developed a checkbox system on their electronic inspection forms for confirming that post-construction BMPs have been constructed per plan	DSD-IS currently performs this action
	• DSD will be sending out letters to property owners/responsible parties who have a BMP violation to install or correct the deficient BMP, and to fulfill their permit's conditions in accordance with City Land Development Code. • Private owners will be sent three warning notices with 90 days to comply in each notice. • The City will evaluate the compliance rate resulting from this process and reassess the corrective action plan as necessary. If the compliance rate is not acceptable, the City will propose an alternate corrective action plan	These actions will be implemented in FY 2010
Tracking Development Projects for Reporting	Development Services Department (DSD) will begin using their database to track all development projects that are subject to SUSMP requirements. During FY 2009, DSD tracked the Priority Development Projects, but during FY 2010 will also have tracked Standard (non-Priority Development) projects. Although all of the SUSMP projects were required to implement all appropriate BMPs, it is not feasible to extract the data from the hard copy records at this time. For FY 2010, the electronic tracking systems will make it feasible to report in the Annual Reports.	DSD has begun using their tracking database to identify all Standard and Priority Development Projects
Construction Inspections Not Completed	Engineering & Capital Projects/Field Engineering Division will continue to stress the importance of conducting, documenting and tracking storm water inspections for active construction sites to its inspectors	The Storm Water department has been meeting periodically with ECP to communicate the permit requirements and stress the importance of conducting and documenting storm water inspections
Tracking Inspections for Reporting	DSD-Inspection Services Division will be investigating and making corrections to its tracking database so that it can accurately report on the permit required information, including: Project priority, number of weeks the project was active in the rainy season, number of rainy season inspections conducted, the number of dry weather inspections conducted and a total number of inspections conducted at the site.	DSD-IS is currently investigating the database to identify the issue.
Municipal Inspections Not Completed	Departments that did not conduct the appropriate municipal facility inspections or did not have documentation need to ensure that inspections are conducted and documented properly.	The Storm Water Department has sent and will send regular reminders to all of the departments to conduct the appropriate municipal facility inspections and that all inspections must be documented.
Departmental Parking Lot Sweeping	Departments that did not conduct sweeping of their municipal parking lots need to ensure that sweeping is conducting in future fiscal years.	The Storm Water Department has sent and will send regular reminders to all of the departments to conduct the appropriate municipal areas sweeping. Departments were also made aware of the availability of assistance from the Storm Water Department's Operation and Maintenance Division in conducting municipal area sweeping.

General Issue	Corrective Actions	Current Status
Departmental Storm Drain Inspections	Departments that did not conduct inspections and applicable cleaning of their municipal facility storm drains need to ensure that inspections and cleanings are conducted in future fiscal years.	The Storm Water Department has sent and will send regular reminders to all of the departments to conduct the appropriate inspection and cleaning of municipal facility storm drains. To facilitate this requirement, the Storm Water Department's Operation and Maintenance Division currently manages a storm drain cleaning contract that is available to other departments.
Missing Activity-Specific Training	All inspectors and code enforcement officers responsible for commercial and industrial storm water inspections and enforcement need to receive annual training.	The Storm Water Department will work with MWWD to ensure that the applicable training is conducted.

In addition to the specific corrective actions identified in **Table 12-4**, the City is planning to conduct post-annual report meetings with City departments. These meetings will focus on revising procedures and developing corrective action plans to address the issues identified above. In the event that there are modifications to the JURMP as a result of the post-annual report debrief process, those modifications will be reflected in next year's annual report.

BMP Efficiency Assessments

The City implemented several BMP Efficiency Assessments (pilot studies and special investigations) during the FY 2009 reporting period. As previously stated, the majority of these will be presented and assessed as individual WURMP Activities. One example of a BMP Efficiency Assessment conducted during the reporting period has the following recommendations:

Targeted Business Inspections

Although not completed and assessed for its primary objectives, the targeted business inspections WURMP activity generated adjunct recommendations for consideration by the City for modifications to the planning and implementation of Baseline BMPs and for revisions to the WURMP activity itself. **Table 12-5** as follows:

Table 12-5: Targeted Business Inspections BMP Efficiency Assessment Recommendations

Recommendation	Status
Modifications to the BMP Efficiency Assessment for FY 2010	The City has made modifications to the implementation of the activity and will conduct the activity in FY 2010
Review of the Storm Water Standards Manual to determine if BMPs required for trash enclosures, loading and unloading areas and irrigation systems are adequately described	The City will evaluate the Storm Water Standards Manual and will consider revisions based on the recommendations in FY 2010
Review of Minimum BMPs Requirements for possible revisions	This will be further evaluated in FY 2010
Education and Outreach to focus on specific groups, e.g., commercial landscape companies and property managers	This will be further evaluated in FY 2010 for implementation in future years

As the City develops more data and information from the BMP Efficiency Assessments, the Integrated Program Assessments will become more robust in depth and breadth. In future annual reports, the City will include these assessments.

13 JURMP REVISIONS

In order to improve the efficiency and effectiveness of the City's efforts in protecting and improving storm water quality, the City updated its JURMP in March 2008. The changes not only ensure compliance with Order R9-2007-0001, but in many cases exceed the minimum requirements in the Municipal Permit as the City continues its efforts to protect the beneficial uses of its receiving waters and reduce the pollutant loads from its known sources. The revisions to the City's 2008 JURMP are summarized in **Table 13-1** below and specific language changes are in **Appendix K**.

Table 13-1: FY 2009 Summary of JURMP Revisions

JURMP Annual Report Section	JURMP Revisions
Municipal	– Removed Customer Services Department from Section 6.3
Municipal	– Revised Activity-specific BMP training requirements for Montgomery Field Airport in Section 6.2
Industrial and Commercial	– Revised timeline for Mobile Business notifications regarding minimum BMP requirements in Section 7.0

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14 CONCLUSIONS AND RECOMMENDATIONS

14.1 SUCCESSES AND CHALLENGES

14.1.1 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. During FY 2009, the Pollution Prevention Division participated in six TMDL programs and numerous special water quality monitoring investigations to determine the sources of various storm water quality problems. In addition, the Storm Water Department implemented various special storm water quality projects designed to optimize and determine the efficiency of jurisdictional programs and activities, such as street sweeping (details will be included in the FY 2009 WURMP Annual Reports associated with those watersheds). The findings of these special projects will be used to improve the effectiveness of the City's JURMP programs.

In addition, the City's Pollution Prevention Division achieved significant benefits to storm water quality beyond its budget by leveraging special projects. Specifically, the City received approximately $5.5 in grant funds, supplemented by approximately $1.3 million in City and partner agency matching funds. The grants helped further the City's clean water efforts in San Diego Bay, San Diego River, Chollas Creek, and Mission Bay.

The Pollution Prevention Division achieved many other successes in implementing the JURMP in FY 2009.

- Revised and completed new annual reporting forms to assist in data collection for the City's JURMP Annual Report.
- Continued its efforts to seek out and abate illegal discharges; and was responsible for issuing 533 notices of violation, 231 citations, and recommended that 79 civil penalties be issued for FY 2009.
- The Think Blue messaging effort provided nearly seven impressions for every San Diego resident.
- The Think Blue storm water education campaign made contact with approximately 1,964,784 individuals through special events.

Through the efforts of the Pollution Prevention Division and other City staff, there has been a reduction in the percentage of beach advisories and closures per total beach mile days possible over the last eight years (see **Figure 14-1**). This data is based on calendar year, and 2008 recorded the lowest percentage of advisories and closures of the total beach mile days possible. In addition to reducing beach postings, the City has also reduced the number of sewage spills between 2000 and 2009 (see **Figure 14-2**).

Figure 14-1: Beach Posting and Closures in the City between 2000 and 2008.

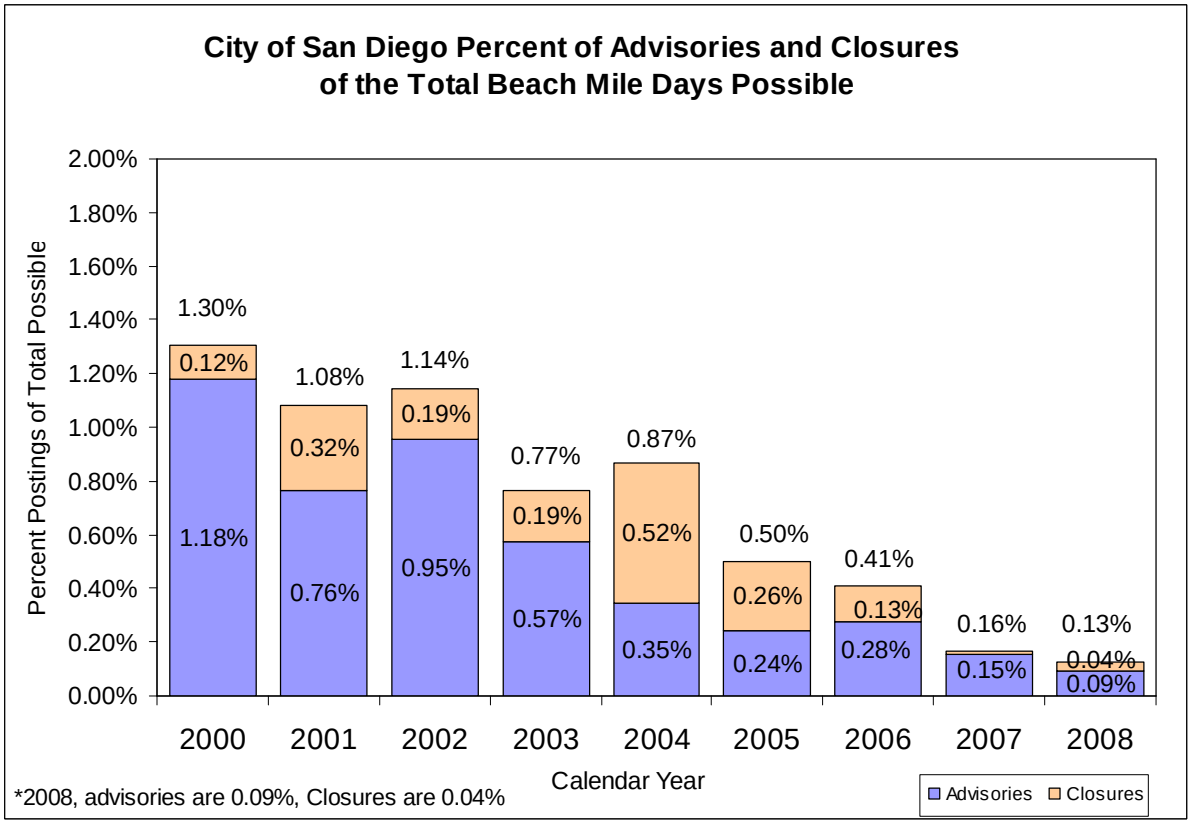
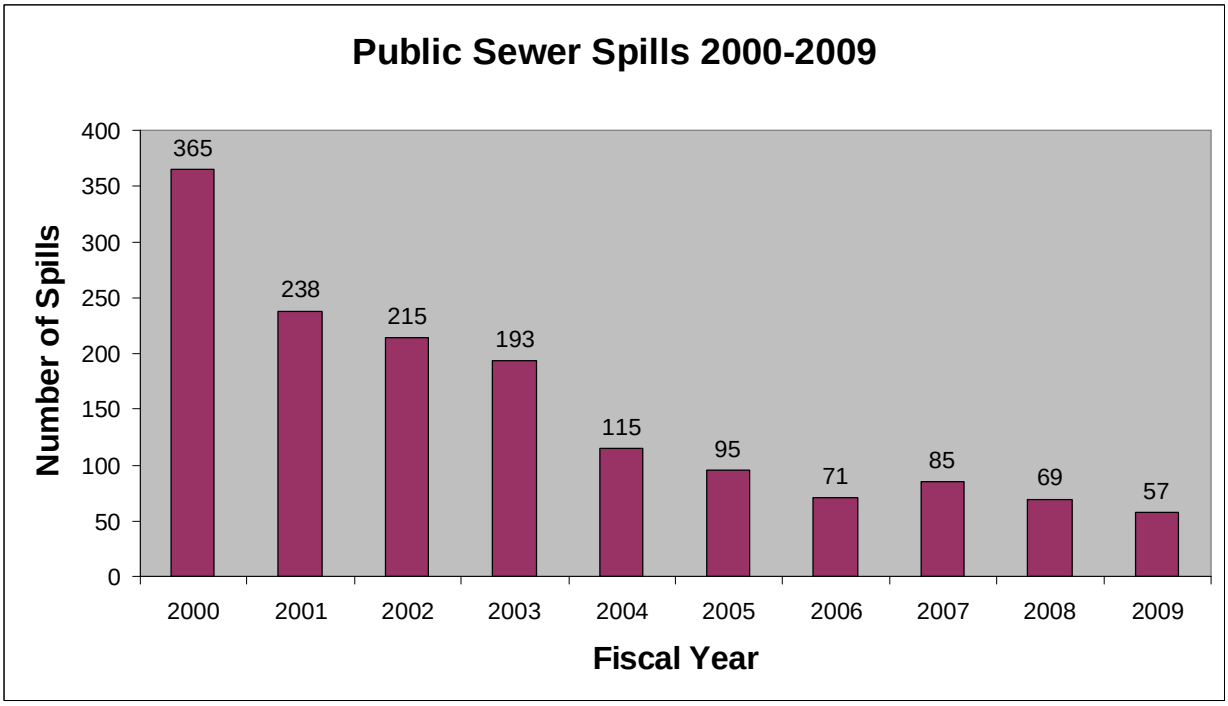


Figure 14-2: Number of Public Sewer Spills in the City between 2000 and 2009.



14.1.2 Challenges

In addition to the Municipal Permit, the City must also simultaneously comply with the requirements of other regulatory programs, such as ASBS, TMDLs, and 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 nurture even stronger bonds and partnerships with other stakeholders in the region to achieve its goal of improved storm water quality. A discussion of the City's advance planning efforts is provided in Section 14.2, Future Recommendations.

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 larger than other incorporated jurisdictions in the region. The enormity of the data management challenge is something the Pollution Prevention Division and other departments are continually working to improve. For example, DSD must manage data from approximately 80,000 inspections per year. To address the need for effective data management capabilities, the Pollution Prevention Division completed a division-wide data needs assessment and began developing an integrated database and software system in FY 2008. The system was designed to manage storm water data and pilot projects City-wide. The database (SAP) went live in November 2008 for many City departments. As a result of moving to the new integrated database there were issues that arose during the reporting period which resulted in the identification of areas where data collection procedures needed to be refined. In specific cases, the SAP database needs to be revised or training provided to staff on data entry. The City will continue to focus on these modifications and the standardization of data collection in order to assist in annual reporting and activity and program effectiveness assessments.

FY 2009 was the first full year of implementation in which each municipal facility was to be inspected twice. 89% of facilities received two inspections during the reporting period. In order to ensure that inspections are conducted in accordance with the City's JURMP during the next reporting period, the Pollution Prevention Division sent out a memorandum in September to all departments reminding staff of the inspection requirements for municipal facilities and rainy season requirements. The Pollution Prevention Division plans to send out this memorandum annually.

14.2 FUTURE RECOMMENDATIONS

To continue to improve program efforts, the Pollution Prevention Division has identified four major program goals, as detailed below.

1. *Continue integrated strategic approach to program planning and implementation (Municipal Permit, ASBS, and TMDLs).* 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., CIPs) 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 Pollution Prevention Division began planning for an integrated approach to

implementation called the "Strategic Plan for Watershed Activity Implementation" in FY 2006 and continued to employ this approach in FY 2009. The initial focus of the approach is on the City's watershed-based programs and activities (particularly in the Chollas Creek, Tecolote, and Rose subwatersheds). However, as knowledge is gained from the implementation and assessment of the watershed-based activities, it can be applied citywide to ultimately help improve the City's jurisdictional activities. The City will continue efforts to maximize efficiencies of programs and activities through assessment of pilot project efforts.

2. *Improve data management, reporting and assessment.* 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. The refined standards will lead to a more regionally-integrated approach to storm water quality improvement efforts. In addition to continued inter-jurisdictional cooperation, the Pollution Prevention Division will continue to increase coordination with other City departments to ensure permit compliance and data collection. The Pollution Prevention Division will also look for methods to modify and improve data gaps and collection procedures to assist in activity and program effectiveness assessment.

3. *Refine municipal inspection program.* The Pollution Prevention Division will continue to work with departments to ensure that the City meets its inspection requirements as outlined in the City's JURMP. Specifically, the Pollution Prevention Division will send out reminders citywide about Municipal Permit responsibilities in FY 2010.

4. *Improve Post-Construction BMPs programs:* The City will coordinate internally to ensure that all required post-construction BMPs are constructed and to complete the TCBMP inventory in order to best facilitate the TCBMP inspection and verification program.