

CITY OF SAN DIEGO
URBAN RUNOFF MANAGEMENT PLAN

– FISCAL YEAR 2005 ANNUAL REPORT –

TABLE OF CONTENTS

1	Executive Summary	1
1.1	Storm Water Fee Study	2
1.2	Program Accomplishments	3
1.2.1	Special Projects	3
1.2.2	Education and Outreach	5
1.2.3	Enforcement	5
1.2.4	Water Quality Monitoring	5
1.2.5	Development & Construction	5
1.2.6	Industrial & Commercial Programs	5
1.2.7	Municipal Activities	5
1.2.8	Focused Water Quality Efforts – Watershed Programs	6
1.3	Future Directions	6
2	Introduction	8
2.1	Program Overview for Fiscal Year 2005	8
2.2	Report Organization	8
2.3	Reporting Period	9
3	Municipal	10
3.1	Priority Sources	10
3.2	BMP Requirements	10
3.3	BMP Implementation	10
3.3.1	Municipal Areas/Activities	10
3.3.2	Training of Municipal Employees	25
3.4	Management of Pesticides, Herbicides, and Fertilizers	25
3.5	Municipal Facility Inspections	25
3.6	Enforcement and Compliance	26
3.6.1	Hotline Complaint Investigations	26
3.6.2	Enforcement Actions	26
3.7	Future Activities and Program Amendments	27
4	Industrial	30
4.1	Priority Sources	30
4.2	BMP Requirements	32
4.3	BMP Implementation	32
4.3.1	Education and Outreach	32
4.4	Enforcement and Compliance	33
4.4.1	Industrial Facility Inspections	33
4.4.2	Complaint Investigations	34
4.4.3	Reporting of Non-Compliant Sites	34
4.4.4	Enforcement Actions	34
4.5	Future Activities and Program Amendments	34
5	Commercial	36
5.1	Priority Sources	36
5.2	BMP Requirements	36
5.3	Commercial BMP Implementation	36
5.3.1	Education and Outreach	36
5.4	Compliance and Enforcement	38
5.4.1	Commercial Facility Inspections	38
5.4.2	Complaint Investigations	38
5.4.3	Reporting of Non-Compliant Sites	38
5.4.4	Enforcement Actions	38

**CITY OF SAN DIEGO
 URBAN RUNOFF MANAGEMENT PLAN
 FISCAL YEAR 2005 ANNUAL REPORT**

5.5	Future Activities and Program Amendments	39
6	Residential	41
6.1	Priority Sources	41
6.2	BMP Requirements	41
6.3	Residential BMP Implementation	41
6.3.1	Education and Outreach	41
6.3.2	Household Hazardous Waste Program	42
6.3.3	Grease Disposal Program	42
6.4	Enforcement and Compliance	43
6.4.1	Residential Investigations	43
6.4.2	Enforcement Actions	43
6.5	Future Activities and Program Amendments	43
7	Land Use Planning for New Development	44
7.1	Long-Range Planning	44
7.1.1	General Plan	44
7.1.2	Community Plans	45
7.1.3	Street Design Manual	46
7.1.4	Source Water Protection Guidelines	46
7.1.5	Watershed & Resource Management Plans	47
7.2	Project Planning and Design	49
7.2.1	Storm Water Development Regulations	49
7.3	Education and Outreach	51
7.3.1	Fact Sheets	51
7.3.2	Websites	51
7.3.3	Training	51
7.4	Future Activities and Program Amendments	51
8	Construction	53
8.1	Priority Sources	53
8.2	BMP Requirements	53
8.3	BMP Implementation	53
8.3.1	Construction and Grading Approval Process	53
8.4	Enforcement and Compliance	57
8.4.1	Construction Site Inspections	57
8.4.2	Hotline Complaint Investigations	58
8.4.3	Enforcement Actions	59
8.4.4	Reporting of Non-Compliant Sites	59
8.5	Future Activities and Program Amendments	60
9	Enforcement	61
9.1	Legal Authority	61
9.2	Enforcement Actions	61
9.3	Findings	63
9.4	Future Activities	64
10	Monitoring	65
10.1	Urban Stream Bioassessment Monitoring	65
10.2	Long-Term Mass Loading Monitoring	65
10.3	Coastal Storm Drain Outfall Monitoring	65
10.4	Ambient Bay, Lagoon, and Coastal Receiving Water Monitoring	66
10.5	Toxic Hot Spots Monitoring in San Diego Bay	66
11	Illicit Discharge Detection and Elimination	67
11.1	Detection of Illicit Discharges and Connections	67

**CITY OF SAN DIEGO
 URBAN RUNOFF MANAGEMENT PLAN
 FISCAL YEAR 2005 ANNUAL REPORT**

11.1.1	Dry Weather Monitoring for Illicit Discharges	67
11.1.2	MS4 Inspection.....	69
11.1.3	Sanitary Sewer Canyon Program.....	69
11.1.4	Hotline Calls/Referrals.....	69
11.2	Elimination of Illicit Discharges and Connections.....	70
11.2.1	Education.....	70
11.2.2	Complaint/Referral Investigations.....	70
11.2.3	Spill Prevention and Response	70
11.2.4	Enforcement	72
11.3	Facilitate Disposal of Hazardous Materials	73
11.3.1	Collection Facilities and Events.....	73
11.3.2	Education.....	73
12	Education	74
12.1	Storm Water Pollution Prevention Division Training of Municipal Employees..	74
12.1.1	General Storm Water Training.....	74
12.1.2	Activity-Specific Storm Water Training	74
12.2	Storm Water Pollution Prevention Division External Education and Outreach.	74
12.2.1	Think Blue Program- FY 2005	75
12.2.2	Print Media	78
12.2.3	School Age Education – San Diego City Schools	78
12.2.4	Website.....	78
12.2.5	Hotline	79
12.2.6	Speaker’s Bureau and Community Events.....	79
12.3	Think Blue Collateral Material Development And Distribution	81
12.4	Overview of Grant Projects Education & Outreach	83
12.5	Regional Education Efforts with Co-permittees.....	86
12.5.1	Other Regional Activities	86
12.5.2	Print Materials Provided on Behalf of the Regional Copermittees:.....	87
12.6	General Storm Water Education info from other City Departments.....	87
12.6.1	Water Department	87
12.6.2	Metropolitan Wastewater Department	89
13	Public Participation.....	90
13.1	Public Participation.....	90
13.1.1	Airports-Brown & Montgomery	90
13.1.2	Development Services Department (DSD).....	90
13.1.3	Engineering & Capital Projects – Field Engineering Division	90
13.1.4	Metropolitan Wastewater Department	90
13.1.5	Planning Department.....	90
13.1.6	Police Department.....	92
13.1.7	General Services – Streets Division	92
13.1.8	Water Department	92
13.2	Future Activities and Program Amendments.....	93
14	Assessment of URMP Effectiveness.....	94
14.1	Methodology.....	95
14.2	Level 1: Compliance with activity-based permit requirements	96
14.2.1	Municipal	96
14.2.2	Industrial.....	98
14.2.3	Commercial	98
14.2.4	Residential.....	99
14.2.5	Land Use Planning	100

**CITY OF SAN DIEGO
 URBAN RUNOFF MANAGEMENT PLAN
 FISCAL YEAR 2005 ANNUAL REPORT**

14.2.6	Construction	101
14.2.7	Monitoring.....	102
14.2.8	Enforcement	103
14.2.9	Illicit Discharge Detection and Elimination.....	103
14.2.10	Education.....	104
14.2.11	Public Participation	105
14.3	Level 2: Changes in Knowledge/Awareness	105
14.3.1	Hotline Activity	105
14.3.2	Complaints.....	106
14.3.3	Residential Survey Results.....	106
14.4	Level 3: Behavioral Change/BMP Implementation.....	107
14.4.1	Residential Survey Results – (Behavioral Change).....	107
14.4.2	Storm Water Standards Manual Implementation–(BMP Implementation) 107	
14.5	Level 4: Load Reductions.....	107
14.6	Level 6: Changes in Receiving Water Quality	108
15	Fiscal Analysis	109
15.1	Fiscal Assessment	109
15.2	Grant and Other Funding for Special Studies	110
15.3	Funding Sources	111
15.3.1	General Fund.....	111
15.3.2	Enterprise Funds	111
15.3.3	Internal Service Funds.....	111
15.4	Future Projections	112
15.4.1	Storm Drain Fee	112
16	Special Projects	113
16.1	Bacteria Impaired Waters TMDL Project 1 for Beaches and Creeks	113
16.2	Draft Investigation Order No. R9-2005-0216 for the Discharge of Bacteria, Nutrients and Sediments into Impaired Lagoons and Adjacent Beaches and Creeks	113
16.3	Cleanup & Abatement Order No. R9-2005-0126 for the San Diego Bay Shipyards Contaminated Sediments	113
16.4	Mission Bay Bacteria TMDL	114
16.5	Mission Bay Clean Beaches Project -- Mission Bay Central Computerized Irrigation System.....	114
16.6	Rose Creek Watershed Opportunities Grant.....	114
16.7	Rose and Tecolote Creeks Water Quality Improvement Project.....	114
16.8	Pacific Beach Point Study	114
16.9	Mouths of Chollas and Paleta Creeks TMDL for Toxicity and Degraded Benthic Community.....	114
16.10	Switzer Creek, Downtown Anchorage and B Street/Broadway Piers TMDL for Toxicity and Degraded Benthic Community.....	114
16.11	Diazinon Monitoring in the Chollas Creek Watershed.....	114
16.12	Chollas Creek Dissolved Metals TMDL.....	114
16.13	Integrated Pest Management (IPM) Education and Outreach Project	115
16.14	Chollas Creek Water Quality Protection & Habitat Enhancement Project.....	115
16.15	San Diego Watersheds Common Ground Project.....	115
16.16	Regional Harbor Monitoring Program.....	115
16.17	San Diego Bay Harbor Bacteria TMDL	115
16.18	San Diego River – Ocean Beach Water Quality Improvement Project.....	115

**CITY OF SAN DIEGO
 URBAN RUNOFF MANAGEMENT PLAN
 FISCAL YEAR 2005 ANNUAL REPORT**

16.19 San Diego River Restoration Project.....	115
16.20 San Diego River Park Master Plan.....	115
17 Conclusions and Program Amendments.....	116
17.1 Successes and Challenges	116
17.1.1 Successes	117
17.1.2 Challenges.....	118
17.2 Future Recommendations	119
17.2.1 Continue to Leverage Limited Resources	119
17.2.2 Obtain Secure Funding Source	119
17.3 Proposed Program Amendments	120

TABLES

Table 1-1 Summary of special project accomplishments in FY 05.	3
Table 3-1 General Street Sweeping Schedule.....	11
Table 3-2 Environmental Services Clean Up Data.....	12
Table 3-3 Environmental Services Household Hazardous Waste (HHW) Collection Data.	13
Table 3-4 Example Issues Identified During Inspections of Municipal Facilities	25
Table 4-1 Industrial inspections completed by agency	33
Table 5-1 Number of storm water-related investigations by discharge type	39
Table 8-1 Stop Work Orders Issued by ECP Field Engineering Division.....	59
Table 9-1 FY 05 Enforcement Actions	61
Table 9-2 FY 05 Prosecutions.....	61
Table 11-1 Dry Weather Monitoring Sites Per Watershed.....	68
Table 12-1 Think Blue FISCAL YEAR 2004 Media Buy Year End Summary	76
Table 12-2 Media leveraging.....	77
Table 12-3 Hotline Calls.....	79
Table 12-4 FY 2005 Think Blue collateral materials by target audience.....	81
Table 12-5 IPM Grant Timeline	83
Table 12-6 Regional Outreach to Construction-Related Audiences (FY 2004-05)	86
Table 14-1 Level 1: Compliance with activity-based permit requirements – Municipal..	96
Table 14-2 Municipal Facilities with Water Quality Plans.....	97
Table 14-3 Level 1: Compliance with activity-based permit requirements – Industrial ..	98
Table 14-4 Level 1: Compliance with activity-based permit requirements – Commercial	98
Table 14-5 Level 1: Compliance with activity-based permit requirements – Residential	100
Table 14-6 Level 1: Compliance with activity-based permit requirements – Land Use Planning.....	100
Table 14-7 Level 1: Compliance with activity-based permit requirements – Construction	101
Table 14-8 Level 1: Compliance with activity-based permit requirements – Monitoring	102
Table 14-9 Level 1: Compliance with activity-based permit requirements – Enforcement	103
Table 14-10 Level 1: Compliance with activity-based permit requirements – Monitoring	103
Table 14-11 Level 1: Compliance with activity-based permit requirements – Education	104

Table 14-12 Level 1: Compliance with activity-based permit requirements – Public Participation	105
Table 14-13 FY 02, through FY 05 Hotline Calls Received	105
Table 14-14 Changes in Knowledge or awareness – Residential Survey	106
Table 14-15 Storm Drain Inspections and Cleanings.....	107
Table 14-16 Level 6: Changes in Receiving Water Quality.....	108
Table 15-1 Projected Implementation Costs	109
Table 15-2 Funding for Special Projects	111

FIGURES

Figure 1-1. Percent of beach advisories and closures as compared to the total beach-mile-days possible.....	1
Figure 1-2. Number of sewer spills in the City of San Diego between 2000 and 2005.	2
Figure 3-1 Storm Drain Inlet Stencil.....	13
Figure 3-2 Application of Storm Drain Inlet Stencil at one of the municipal yards.	14
Figure 3-3 Grass Swale at Municipal Yard.....	21
Figure 3-4. Municipal Inspection Form.....	28
Figure 4-1. Industrial facilities water quality threat prioritization flow chart.	31
Figure 9-1. FY 05 Investigations by discharge substance type.....	63
Figure 11-1. FY 05 Investigations by discharge substance type.....	71
Figure 12-1. FY 2004 Awareness Of The Slogan “Think Blue.”.....	76
Figure 14-1. Percent of beach advisories and closures as compared to the total beach-mile-days possible.	94
Figure 14-2. Awareness of the Slogan “Think Blue”.	106
Figure 14-3. Beach posting and closures in the City of San Diego between 2000 and 2005.....	108
Figure 15-1 Citywide Expenditures by Permit Area	109
Figure 17-1. Beach posting and closures in the City of San Diego between 2000 and 2004.....	116
Figure 17-2. Number of sewer spills in the City of San Diego between 2000 and 2005.	117

APPENDICES

Appendix A	Proposed Amendments to the Urban Runoff Management Plan
Appendix B	Department URMP Reporting Forms
Appendix C	FY 05 Industrial Inspections
Appendix D	FY 05 Commercial Inspections
Appendix E	Dry Weather Exceedances and Follow Up
Appendix F	FY 05 24-Hour Discharge Reports
Appendix G	Grant Related Educational Information

1 EXECUTIVE SUMMARY

San Diego is a beautiful city with its picturesque coastline and bountiful aquatic resources. In addition to supporting an abundance of wildlife, San Diego's natural surface water resources—our creeks, beaches and bays—provide miles of recreational opportunities for our residents and serves as the centerpiece to San Diego's tourist industry. Pollution in urban runoff has the potential to harm our creeks, beaches, and bays, and threatens our social and economic quality of life. Preserving San Diego's natural water resources is one of the City's most important goals. The Storm Water Pollution Prevention Division was designated as the lead City agency to achieve this goal. For the past five years, there has been a downward trend in the number of beach postings and closures (see Figure 1-1). In addition, the City achieved an 85 percent reduction in sewer spills since 2000 (see Figure 1-2). The City's water quality protection efforts contributed to these gains.

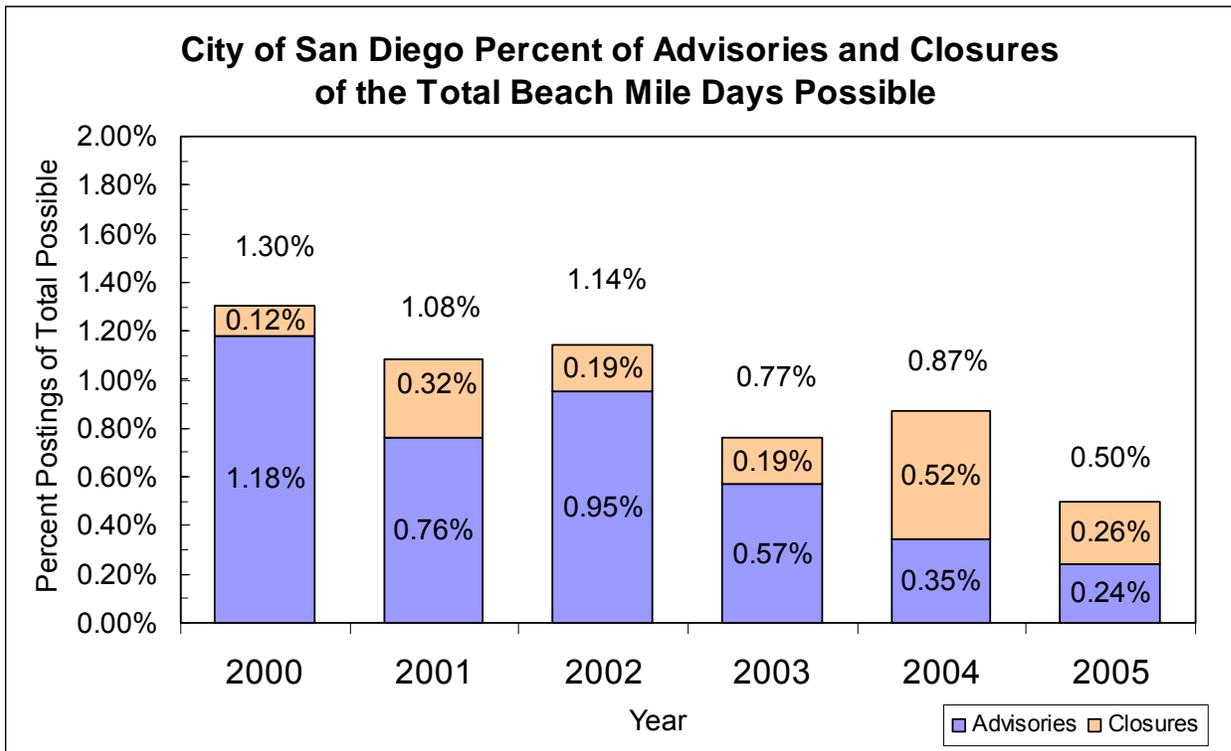


Figure 1-1. Percent of beach advisories and closures as compared to the total beach-mile-days possible.

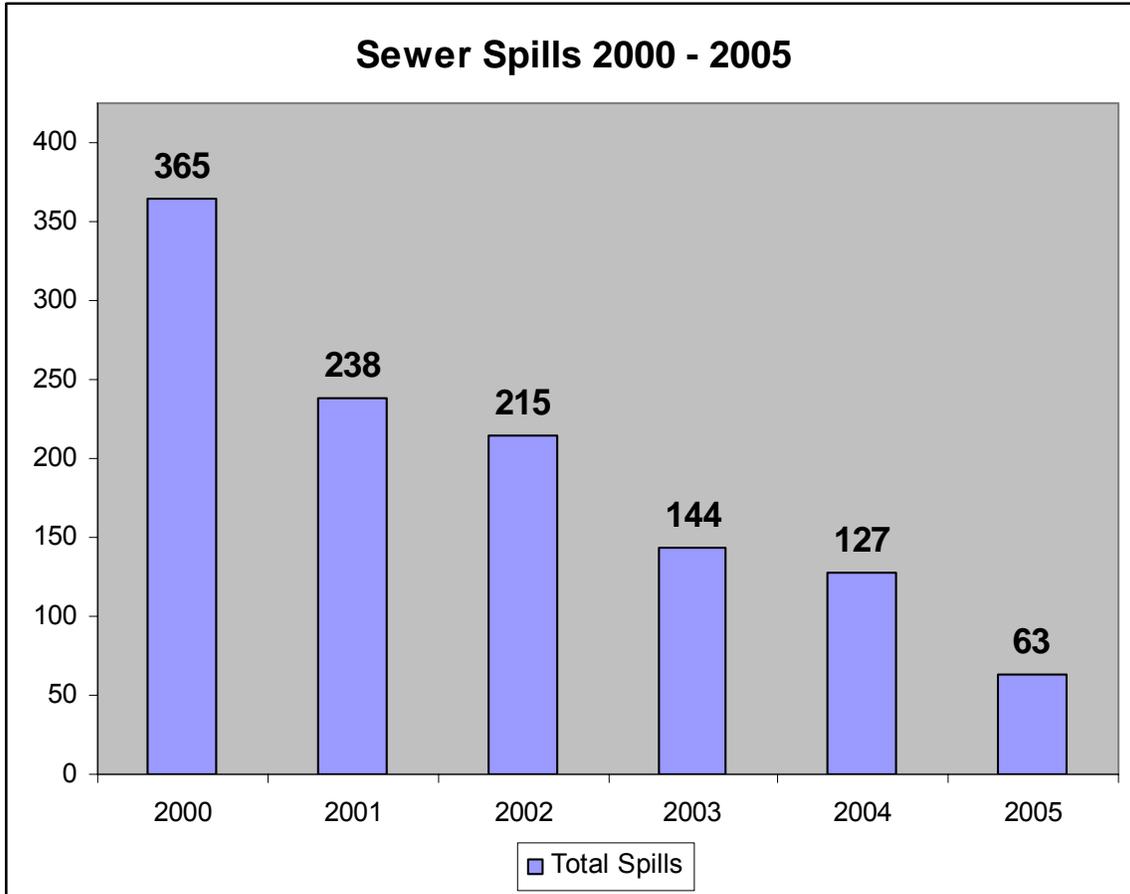


Figure 1-2. Number of sewer spills in the City of San Diego between 2000 and 2005.

The City's Urban Runoff Management Plan (Plan) creates the blueprint for actions the City would take to protect and improve water quality of the creeks, beaches and bays in the region and achieve Municipal Storm Water Permit compliance. The Plan, adopted by City Council in January 2002, outlines a phased implementation approach that would allow increased activities as additional funding was identified.

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

1.1 STORM WATER FEE STUDY

In 1990, the City of San Diego began collecting a storm drain fee via the City's water and sewer residential utility customers to reimburse the General Fund for storm drain maintenance and storm water quality costs. The Fund is used for the operations, maintenance capital projects and management of the storm drain system. The most recent fee increase occurred August 1, 1996, when it was set at \$0.95 cents per month per residential customer, and \$0.0647 per 100 cubic feet of metered water use for all

other utility accounts. There is a maximum monthly fee of \$575, and a minimum of \$0.95. Beyond the total storm drain fee revenues of \$14.4 million, the City's General Fund contributed \$8.45 million toward outstanding Storm Water-related expenses.

To obtain additional funding, City staff began working with a subcommittee to the City's Public Utilities Advisory Committee (PUAC), to prepare a Storm Water Management Fee/Cost of Services Study that would outline the City's comprehensive storm water program needs; outline fee approval options, such as a general election measure or property owner vote; and identify an avenue of fee collection, revenue management and financial oversight. The subcommittee is scheduled to present its recommendations in March, 2006, to the PUAC. The PUAC will then be presenting formal recommendations to City Council for consideration.

1.2 PROGRAM ACCOMPLISHMENTS

1.2.1 Special Projects

Special projects are an integral tool in the City's effort to leverage resources with grant dollars and partnerships with environmental organizations and agencies. The City's Storm Water Pollution Prevention Division achieved significant benefits to water quality beyond its \$2.3 million budget by leveraging \$14,183,300 in special projects, as summarized below. In addition to these water quality improvement projects, the Storm Water Pollution Prevention Division also participated in six Total Maximum Daily Load (TMDL) programs, and numerous special water quality monitoring investigations to determine the sources of various water quality problems.

Table 1-1. Summary of special project accomplishments in FY 05.

Project	Accomplishments in FY05	Project Budget (Grant & Match Funding)
<i>Areas of Special Biological Significance (ASBS) Project Planning</i>	The City of San Diego partnered with the Scripps Institution of Oceanography, University of California at San Diego, to apply for Prop 50 grant funding to develop an implementation plan for removing pollutants from runoff entering the ASBS preserve areas near La Jolla Shores and La Jolla Cove.	\$500,000
<i>Low Flow Storm Drain Diversion Program, Phase III (Beach Areas)</i>	Phased project to divert low dry weather flows from storm drains to the sewer system for treatment at locations in Mission Bay, Ocean Beach, Pacific Beach, and La Jolla. Phase III includes 5 La Jolla sites, 5 Pacific Beach sites, and 1 Ocean Beach site. Project managed by the City's Engineering & Capital Project's Department. Majority of system completed and in operation. Remaining components in final design/construction in FY 05.	\$2,452,800

Project	Accomplishments in FY05	Project Budget (Grant & Match Funding)
<i>San Diego Region Integrated Pest Management (IPM) Education Project</i>	Education program directed primarily towards residential pesticide users. Includes focused outreach and monitoring activities within the Chollas Creek watershed. In FY 05, the City conducted five focus group surveys to assess the general knowledge and attitude of residents, business owners, and community-based groups concerning storm water pollution and integrated pest management.	\$1,352,500
<i>San Diego Watersheds Common Ground Project: San Diego Bay Watershed Demonstration</i>	Project will establish a Regional Water Monitoring and Resource Center, implement monitoring activities in support of TMDL programs addressing benthic community degradation and sediment toxicity, develop a Geographic Information System (GIS) database for water resources, and create an interactive web-based outreach, education, and decision-making tool. In FY 05, a preparation of the Quality Assurance Plan for the Center began, storm water and sediment sampling and analysis and bioassessment studies were completed, layers were added into the GIS database, and design of a prototype web-based GIS tool continued.	\$1,362,000
<i>Mission Bay Computerized Irrigation Control System Project</i>	Project to install irrigation control system to reduce irrigation runoff that carries bacteria to Mission Bay. In FY 05, the project was open for bidding; construction is expected to start in FY 06.	\$1,300,000
<i>Chollas Creek Water Quality Protection And Habitat Enhancement Project</i>	Project will remove concrete & restore the natural habitat along the creek at a site southeast of Euclid Avenue and Market Street. The project also includes a component to develop & implement education program within watershed. In FY 05, the City completed the 90% plans for the creek restoration work, and held several public workshops to educate members of the community and gather input/support in the project design.	\$2,987,000
<i>Rose & Tecolote Creeks Water Quality Improvement Projects</i>	The purpose of the project is to construct structural controls (storm water BMPs) and evaluate their effectiveness. In FY 05, final engineering plans were completed for two structural treatment control devices located near storm drain outfall locations draining into Tecolote Canyon. Construction contracts for the projects were publicly bid in December 2004. Construction began in early FY06.	\$2,000,000
<i>Ocean Beach – San Diego River Water Quality Improvements</i>	Identified bacteria sources along the San Diego River that would likely reach the beaches. In FY 05, designed storm drain system improvements in Ocean Beach to eliminate bacteria from entering the San Diego River Channel during dry weather.	\$2,229,000
Total value of special projects:		\$14,183,300

1.2.2 Education and Outreach

The City of San Diego's Storm Water Pollution Prevention Division goals for its Fiscal Year 2005 public information campaign are the same as those the Program started with. These goals are as follows:

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

June 30, 2005 concluded the fourth year of the "Think Blue" Media, Education and Public Advocacy Campaign. In Fiscal Year 2005, the Campaign focused its resources on meeting the requirements of existing State Proposition 13 and PRISM grants.

1.2.3 Enforcement

In FY 05, City residents made 3,818 calls to the storm water hotline, (619) 235-1000. The increased public awareness and activism contributed to 1,659 investigations, 170 administrative citations, 801 notices of violation, and 153 administrative civil penalties being issued to polluters for violating San Diego Municipal Code §43.03. The remainder of the calls were not related to potential -storm water enforcement issues. In addition, the Consumer and Environmental Protection Unit of the City Attorney's Office successfully prosecuted 35 water pollution cases. Through the City's enforcement efforts, numerous sources of storm water pollution were identified and abated.

1.2.4 Water Quality Monitoring

The City's Storm Water Pollution Prevention Division staff conducted routine water quality monitoring at 12 coastal beach and 5 lagoon stations bi-weekly from April through October and monthly from November to March, and analyzed over 2,700 constituents at 311 Dry Weather Monitoring Sites to help the City identify and characterize sources of pollution.

1.2.5 Development & Construction

The City continued to refine and improve its implementation of permanent storm water controls in new public and private development projects with continued internal staff training in FY 05. In addition, in spring 2005, Storm Water Pollution Prevention Division staff began preparing training materials and checklists for plan review staff to be distributed during City-wide training sessions beginning in FY 06.

1.2.6 Industrial & Commercial Programs

The City recognizes the need to continue to developing its industrial and commercial programs in order to institute effective measures to reduce pollutants. This year's efforts included the inspection of 243 industrial facilities and 4,469 commercial facilities. Beginning in April 2004, a mailing insert has accompanied business license renewals and business tax certificate mailings to inform businesses of storm water best management practices requirements and ordinances. This information reached some 90,000 businesses in FY 05.

1.2.7 Municipal Activities

The City continued to place emphasis on storm water pollution prevention practices and awareness integrated into all field operations and activities at municipal yards in FY 05. Notable efforts in FY05 include:

- Street Division conducted street sweeping of nearly 90,632 curb miles and collected approximately 23,425 tons of debris.
- Street Division cleaned 9,077 storm drain structures, 25,718 feet (4.9 miles) of drainage pipe, and 7 miles of drainage channels, removing 26,635 tons of debris from the storm drain system.
- In total, Street Division's street sweeping & storm drain system cleaning activities removed 50,060 tons of debris from the City's storm drain system in FY 05.
- Through continued sewer cleaning, maintenance and tracking efforts by the Metropolitan Wastewater Department, the number of sewer spills in the City dropped from 193 in FY 03 to 115 in FY 04 to 95 in FY 05.

1.2.8 Focused Water Quality Efforts – Watershed Programs

The City is a part of six watersheds as defined by the Municipal Storm Water Permit. However, in actuality, watershed scale is relative. For example, all areas within the City are also part of the San Diego Basin, a larger watershed draining Western San Diego County into the Pacific Ocean. It's at this larger watershed scale that watershed implementation of many programs, such as inspection or enforcement programs, are most efficiently implemented City-wide due to administrative and bureaucratic realities.

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

1.3 FUTURE DIRECTIONS

The City initiated a Storm Water Management Fee/Cost of Services Study in FY 05, and will continue this effort in future years. Although an option, establishing a separate user fee for urban runoff management is a lengthy process which includes completion of the cost of services study, City Council approval, public notices, and voter approval to conform to Proposition 218 requirements.

Other challenges include compliance with Total Maximum Daily Load (TMDL) numeric limits adopted for impaired water bodies, the California Ocean Plan prohibition of waste discharges to areas of special biological significance (ASBS), and implementation of the Regional Harbor Monitoring Program. The Regional Board will also be issuing a new, more challenging Municipal Storm Water Permit sometime in 2006.

New regulatory requirements pose a huge challenge for the City's storm water quality protection efforts. Over the near term, the City will continue to pursue alternative funding sources to leverage urban runoff management and water quality protection projects. The City is benefiting from a number of grant-funded projects that will reduce pollutants. Meaningful special studies to identify the pollutant sources are also being conducted. The City will also partner with other stakeholders to develop water quality projects in order to compete for grant funds and leverage outside sources of funding. We'll

continue to work closely with the other Storm Water Program Managers in the region to collaborate on program implementation strategies. It is our objective to institute the most effective and efficient strategies in the San Diego region to clean and protect our creeks, beaches and bays for future generations.

2 INTRODUCTION

2.1 PROGRAM OVERVIEW FOR FISCAL YEAR 2005

The Storm Water Pollution Prevention Division's mission is to:

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

The Storm Water Pollution Prevention Division in the Metropolitan Wastewater Department is the lead office for the City's efforts to reduce pollutants in urban runoff and storm water to the maximum extent practicable, and to achieve compliance with the Municipal Storm Water Permit (Municipal Permit). The effectiveness of the City and the Storm Water Pollution Prevention Division's efforts are clearly demonstrated in the continued reduction in beach postings and closures since 2000.

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

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

2.2 REPORT ORGANIZATION

This 2005 fiscal year (FY 05) annual report has been organized into sections matching the table of contents agreed to and submitted by the Copermittees to the Regional Board. Like the FY 04 report, we've continued to include several sections not identified in the table of contents submitted by the Copermittees: Enforcement, Monitoring, and Special Projects.

Each section of the FY 05 annual report is consistent with components of the Municipal Permit and, where applicable, identifies priority pollutant sources, applicable requirements, and notable implementation efforts. Each section also addresses future activities that the City intends to implement or has begun implementing in FY 05. Where future activities identify changes that conflict with what is represented in the URMP, this sub-section also discusses proposed amendments. Copies of the amended URMP components are included in Appendix B.

2.3 REPORTING PERIOD

This annual report provides information for FY 05: July 1, 2004, to June 30, 2005.

3 MUNICIPAL

During the fourth year of Program implementation, the City of San Diego continued to strengthen and implement its Urban Runoff Management Program for municipal facilities and activities. After working with representatives in FY 02, FY 03, and FY 04 to assess department activities and identify appropriate BMPs, the Storm Water Pollution Prevention Division worked closely with various City departments in FY 05 to ensure program objectives and municipal permit requirements were met. The Storm Water Pollution Prevention Division continued to hold periodic URMP management meetings in FY 05 with key personnel in various City departments to address municipal issues. The majority of the City's efforts in strengthening municipal-related storm water activities focused on activity-specific training. In addition, the City focused on assessing and improving municipal activities at municipal yards. This section identifies the actions the City took during the reporting period to meet these objectives and requirements.

3.1 PRIORITY SOURCES

There have not been any updates to the prioritized municipal inventory submitted in the previous annual report.

3.2 BMP REQUIREMENTS

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

3.3 BMP IMPLEMENTATION

The City implemented BMPs, including pollution prevention measures to prevent and reduce pollutants in runoff from municipal areas and activities. BMPs that were implemented during FY 05 are summarized below according to municipal facility.

3.3.1 *Municipal Areas/Activities*

3.3.1.1 *Roadways*

The City currently maintains over 2,800 miles of roadways and alleys. The Street Division is responsible for inventorying, inspecting, maintaining, and repairing all roadway structures.

For a detailed description of the BMPs implemented by the Street Division for Roadway operations, refer to the Street Division FY 05 Reporting Form in Appendix B.

Street Sweeping

The targeted street sweeping schedule performed by the Street Division based on generalized location is summarized in the following table. Actual street sweeping frequencies may be more or less frequent in specific areas of the City, depending on available budget, identification and sweeping of new or known problem areas, and unique events (e.g., fires). It should be noted

that the Street Division’s staff was reduced by approximately 25 percent at the end of FY 05 as a result of City-wide budget cutbacks.

Table 3-1 General Street Sweeping Schedule.

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

Areas surrounding Chollas Creek in the Pueblo San Diego Watershed are considered priority areas. Sixty-six (66) curb miles were swept twice a month on residential routes, and sixty-eight (68) curb miles were swept on commercial routes four times a month to prevent pollutants from entering watercourses. In addition, where possible, sub-watershed areas with water bodies identified on the 303(d) List as impaired for sediment receive additional sweeping as part of commercial and residential sweeping routes. In total, the Street Division conducted street sweeping of nearly **90,632 curb miles and collected approximately 23,425 tons of debris** in FY 05.

Field Operations

The Street Division continued to implement site-specific BMP plans during field operations in FY 05. Examples of these field operations include painting and asphalt or concrete repair activities.

Material Disposal

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

Street Sweeper Maintenance

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

Daily washing of the sweepers and the vactors occurred at municipal yards in designated wash areas provided by the Division. These wash areas collect all run off in a sump. The water is then vacuumed by a vactor truck weekly and deposited into the wastewater collection system. Any solid material is removed from the sump and dried at the materials decanting location discussed above and then deposited at the accepted landfill. Each vactor or sweeper operator is required to properly complete a vehicle operator’s daily inspection report that is kept on file for two (2) years.

3.3.1.2 Municipal Separate Storm Sewer System (MS4)

The City of San Diego has over 75,000 storm drain structures and 889 miles of drainage pipe. The Street Division is responsible for inspection, maintenance, and repair of the MS4 in the public right-of-way and in drainage easements. The Street Division regularly inspected the City’s MS4 and surrounding areas and removed and properly disposed of sediment, debris, and trash from the storm conveyance channels, storm drains, and catch basins through hand cleaning, mechanical removal, and street sweeping. The Street Division also identified problem

areas and conducted additional cleaning, where necessary, recorded information about cleaning frequencies and material removed, and continued efforts to create and maintain an updated GIS inventory of the City's MS4. In addition, the Street Division operated a daily, round-the-clock telephone hotline and online service request program to address citizen's request for services.

MS4 Debris Removal

Storm drain inlets and channels were cleaned as necessary. Drainage structures that empty into or border on a body of water were identified, inspected, and cleaned before the wet season. Drains that are designated as problem areas based on field observations were identified, inspected, and cleaned twice a year. Material collected from cleaning operations was properly transported to the appropriate disposal site. Absorbent material was used during transport to prevent liquids from leaking during transport. Material that was removed by machine cleaning (the vacuumed gunk removed from the storm drain system by vactor trucks) was dumped at the materials decanting site (discussed in Section 3.3.1.1, above), and all water was vacuumed by a vactor truck and disposed of into the wastewater collection system.

During FY 2005, Street Division inspected 12,971 storm drain structures (17.3% of the 75,000 structures in the City), and cleaned **9,077 storm drain structures** (12.1%), and **cleaned 25,718 feet (4.9 miles) of drainage pipe**, and **7 miles of drainage channels**. A total of **26,635 tons of debris** was removed directly from the storm water conveyance system, including open channels. In combination with the Street Division's street sweeping activities discussed in Section 3.3.1.1 above, **the Street Division cleaned 50,060 tons of debris from the City's storm drain system in FY 05.**

Cleanup Activities

Additional measures and operations were conducted to help reduce pollutants from the City's MS4, as summarized below.

- Staff from the Storm Water Pollution Prevention Division and other City departments led a cleanup effort of 53 people in Chollas Creek at the newly-restored creek segment west of 38th Street and north of Alpha Street on April 9, 2005. The cleanup effort removed over one ton of trash, including 30 shopping carts, a water heater, and a sofa bed.
- The Environmental Services Department collected trash and debris during cleanup activities and events throughout the year that had the potential to be transported to the City's MS4 or directly to drainages and water bodies, as summarized in the table below.

Table 3-2 Environmental Services Clean Up Data.

Event/Activity	Trash/Debris Collected (tons)
Public Calls for clean up (12,219 calls) from illegal dumps, litter, transient encampments, etc.	2,005
Debris clearing at Ridgehaven building	1
Public Calls regarding dead animals (3,670 calls)	41
Community Clean Up Events (76)	1,557
Total Trash/Debris*:	114,437
*Note: Total excludes municipal trash collection services, which collected and properly disposed of 383,362 tons of trash, and 73,831 tons of curbside recyclables in FY 05.	

In addition, the Environmental Services Department collected **517 tons of household hazardous wastes in FY 05**, as shown in the table below.

Table 3-3 Environmental Services Household Hazardous Waste (HHW) Collection Data.

Event/Activity	HHW Collected (tons)
Load Check Program	17
Auto Product Recycling Events	64
HHW Transfer Facility	419
Door-to-Door Collection	17
Total HHW*:	517
*Note: Total excludes municipal trash collection services, which collected and properly disposed of 383,362 tons of trash, and 73,831 tons of curbside recyclables in FY 05.	

Although Household Hazardous Waste collection is a service provided by Environmental Services for reasons beyond those of storm water pollution prevention it is reasonable to conclude that additional hazardous waste is not being dumped into the storm drain system and is instead being properly collected due to the Storm Water Pollution Prevention Division's educational efforts.

Low Flow Diversion System

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

Stencils

Stencils with the storm water message and picture as shown here were created in FY 03 to be used at storm drain inlets at municipal facilities. Stenciling is an effective way to educate the public and discourage illegal dumping into the storm drain. Before the end of FY 03, a trial run of one of the stencils was conducted at the 20th and B municipal yard to ensure that the message was legible.



Figure 3-1 Storm Drain Inlet Stencil.

After a final design was selected, in FY 04 the Storm Water Pollution Prevention Division made 15 mylar copies of the stencil to use at the City's municipal yards and other appropriate municipal facilities. During the first part of FY 04, all municipal yards were stenciled with the message. In addition, Qualcomm Stadium, all major Environmental Services Department facilities, and some Water Department facilities were stenciled in FY 04. The Storm Water

Pollution Prevention Division continued to work with other City departments to identify existing and new storm drain inlets on municipal properties to be stenciled.

In addition, the City distributed copies of the mylar stencil and specifications for creating the stencil to the non-profit organization, I Love A Clean San Diego (ILACSD). ILACSD used the stencil for all volunteer stenciling activities the organization conducts in the City of San Diego. During FY 05, over 500 volunteers stenciled 457 storm drains.

To ensure that new storm drains are stenciled during construction of both private and public development projects, the Storm Water Pollution Prevention Division coordinated with the Development Services Department and Field Engineering Division to write standard development permit language requiring contractors to stencil all new storm drains.

To make the stencil available to the public and private contractors, the Storm Water Pollution Prevention Division posted the specifications for creating a stencil on the City of San Diego's Think Blue website (ThinkBluesd.org).

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

The Metropolitan Wastewater Department (MWWD) is responsible for the collection and conveyance of wastewater from residences and businesses in the City of San Diego, serving a 330 square mile area with a population of 1.3 million people. MWWD currently maintains nearly 3,000 miles of City sewer line with over 250,000 city connections. MWWD also maintains a GIS inventory of wastewater structures. During FY 05, the Department conducted field inspections and televised sewer lines to monitor the condition of sewer lines. Televising sewer lines has been an invaluable way of assessing the condition of a sewer line in real time. It can reveal blockages from debris to roots to grease and show pipeline cracks, breaks, or deterioration.

With the passage of four annual Sewer Rate increases by the Mayor and City Council in October 2001, MWWD embarked on an aggressive Sewer Spill Reduction Program. The key elements of this program include the cleaning of all 3,000 miles of the municipal sewer system by March 2004; the televising of more than 1,000 miles of the oldest and most problematic sewer lines in the system; and an increase in the number of miles of sewer lines replaced or rehabilitated from 15 miles per year to 60 miles per year by calendar year 2004. The results of this program are readily apparent in a sharp decrease in the number of sewer spills and beach closures due to sewer spills in the City. **The number of sewer spills in the City dropped from 193 in FY 03 to 115 in FY 04 to 95 in FY 05.**

The notable accomplishments MWWD completed in FY 05 to help reduce the number of sewer spills and protect water quality include:

- Replacement of 26.30 miles of sewer line
- Rehabilitation of 5.11 miles of sewer line
- Televising of 108.1 miles of sewer line
- Cleaning of 1,973 miles of sewer line
- Food Establishment Wastewater Discharge (FEWD) performed:
 - o 9,503 facility inspections
 - o 3,556 permit inspections
 - o 7,695 grease reduction evaluation maintenance inspections
 - o Issued 3,651 permits

- Continuation of BMP implementation at treatment facilities and pump stations as part of Storm Water Pollution Prevention Plans prepared in accordance with the State General Industrial NPDES Permit
- Quarterly inspections by Safety & Training personnel of all MWWWD facilities
- Implementation of emergency BMPs at sewer spills to quickly contain spills and minimize discharges.
- Development and implementation of standard operating procedures called IMAPs (interim maintenance access plans) for field crews working in the right of way
- Strategic installation of canyon access paths to minimize impacts to wetlands and water quality

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

While monitoring storm drain runoff at dry weather monitoring stations, in FY 05, the City's Storm Water Pollution Prevention Division also continued to investigate other possible sources of pollutants, including leaking or broken sewer lines. Monitoring staff tested water samples and documented odors of suspect flows. If tests or observations indicated a possible sewer spill, staff used maps to identify locations of sewer lines and investigate the spill location. When potential spills were found, monitoring staff immediately notified MWWWD to take appropriate action.

Staff Training The Wastewater Collections Division of Metropolitan Wastewater Department had all its crews attend a Power Point presentation on Storm Water Pollution Prevention designed around job specific tasks associated with their field work.

3.3.1.4 *Water System*

The City's Water Department owns and operates the potable water supply and distribution system for the residents of San Diego. The water system for the City of San Diego includes 3,000 miles of pipeline, 49 pump stations, 3 treatment plants, 32 potable water reservoirs, 9 raw water reservoirs and 8 groundwater basins. Some of the City's water resources (raw water reservoirs and ground water basins) are located outside the City limits. This system serves 1.3 million City customers and provides water and water storage to other municipalities and water districts in San Diego County.

In FY 05 the Water Department received ISO 14001 Certification after the Water Operations Division successfully implemented a new program called the ISO 14001 Environmental Management System (ISO 14001 EMS). The program establishes annual objectives and targets for improvements in "environmental performance". The workforce performs their daily activities with an increased awareness and commitment to protecting water quality and pollution prevention.

The Water Department's Water Operations Division maintains a Watershed/Storm Water Program that strives to meet the objectives set forth in the City's Urban Runoff Management Plan. With the end of FY 05, the Watershed/Storm Water Program completed most items in Year 4 of the 5-year plan to improve the quality of water that flows from the Water Department's

facilities. A few external educational and outreach items were postponed to FY 06. As part of the Year 4 objectives, the Watershed/Storm Water Program continues to enforce existing BMPs, conduct storm water site inspections at Department facilities, conduct Storm Water training with Department staff with the help of the training section. The Watersheds/Storm Water Program is also experimenting with new storm water protection products. A listing of the Department's accomplishments is provided below.

Storm Water Pollution Prevention Plans. The Water Department's Storm Water Section has produced a SWPPP for each of the five largest facilities within the Water Department: the Alvarado, Miramar, and Otay water treatment plants and the maintenance and equipment facilities known as Chollas Yard and San Vicente Yard. Construction projects are underway at all three water treatment facilities to meet the future water demands of the City of San Diego. Each facility is undergoing an expansion to provide increased treatment capacity, and the SWPPP for each facility will be updated to reflect these changes.

Currently, the Water Department maintains 32 potable water distribution reservoirs and 49 pump stations as part of the overall water distribution system. Providing a SWPPP for each of these facilities was considered unnecessary since most pump stations occupy a small area and therefore contribute very little runoff. The distribution reservoirs occupy a much larger area but are surrounded by landscaped buffer zones that serve to collect most of the runoff produced on site. A pollution prevention matrix has been developed as an alternative SWPPP. It lists each facility and the main storm water issues related to the facility. As stated previously, every pump station and reservoir is inspected at least once per quarter; those facilities that are known to accumulate significant amounts of leaves, pine needles, and other debris are inspected more frequently.

Facility Inspections. All high priority facilities, namely the treatment plants and the corporate yards, had frequent inspections throughout the year. Monthly site inspections, which included a visual walk-thru inspection, were performed by facility maintenance employees. A thorough inspection and assessment of each high priority site was performed in September of 2004 as part of the annual pre-wet season inspections. Structural BMPs were repaired or replaced as necessary (and as funding allowed), and all comments and suggestions noted on the monthly inspection were reviewed, and corrective actions were taken for each site. The Storm Water Pollution Prevention Plans (SWPPPs) for each high priority site were maintained by the Watersheds/Storm Water Section and updated as necessary.

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

Staff Training. With the help of the training section, the Watersheds/Storm Water Program conducted a Stormwater refresher training session consisting of a comprehensive training program that included instruction on proper BMP selection and installation, spill containment,

good housekeeping practices, and overall water quality protection to employees at the Water Department's yearly Spring Training session.

Approximately 70 employees attended a Three C's Tailgate to inform and remind staff to Control, Capture, and Contain pollutants in runoff water.

The Water Department presented an Emergency Video and Brochure to inform approximately 80 staff members about these new resources that provide information on the steps to responding to a water emergency, such as a water main break. An environmental assessment and installation of storm water protection measures aimed to protect environmentally sensitive areas near a main break are mentioned in this emergency process.

The Water Department designed, produced, and displayed reservoir posters at all nine City reservoirs to remind patrons of their responsibility to preserve and protect these drinking water sources by recycling and disposing their trash in properly marked containers.

The Water Department produced and displayed posters throughout various work areas of each section to celebrate employee commitment to working in an environmentally sensitive manner. Photos feature employees integrating environmental awareness into their jobs, such as carefully handling hazardous waste materials, cleaning up at the jobsite, and recycling paper. They also serve as reminders that we are protecting the environment and value customer service, while complying with ISO 14001:2004 EMS standards.

The Water Department's efforts in water quality protection go beyond the urban setting; at the City's reservoirs, new low pollution outboard boat motors for rental boats have been provided as well as wash-down areas for private recreational watercraft.

3.3.1.5 Airports

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

Numerous industrial tenants and activities comprise airport operations; therefore, the City relied 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 to ensure that hazardous materials, such as fuel/oil, batteries, and cleaning solvents, were stored and used appropriately and that hazardous wastes were disposed of properly.

Facility Inspections. The facilities, including tenant space, were inspected as part of the facility SWPPPs in FY 05. No deficiencies were noted at Brown Field. Deficiencies noted during the 2005 Annual SWPPP Inspections at Montgomery Field were corrected the same day for all industrial activities, and the Annual Report was submitted to the consultant firm, Environmental Compliance Options (ECO). Where issues had been identified, City staff conducted follow-up inspections to ensure that issues had been addressed.

For a description of the BMPs implemented by the City and its tenants at Airport facilities, refer to the Airport's FY 05 Reporting Form in Appendix B.

3.3.1.6 *Solid Waste Facilities*

The City of San Diego currently operates and maintains one (1) active landfill and six (6) inactive landfills. During the reporting period, activities in compliance with State General Industrial Permit requirements were performed at all active and inactive landfills, and the BMPs established in each facility SWPPP were implemented. A summary of the BMPs implemented at City-operated landfills is provided below:

Active Landfill (Miramar Landfill)

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

During the reporting period, the ESD removed **5,000 tons of silt** from the main siltation basin and pumped 2,000,000 gallons of silt-laden runoff at the active Miramar Landfill. In addition, 30,700 cubic yards of mulch was applied to slopes, 1,300 linear feet of silt fence was installed, 5,500 gallons of tackifier was sprayed to stabilize slopes, and additional energy dissipation was installed downstream of a 36 inch corrugated metal pipe.

Inactive Landfills

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

For detailed information about the BMPs implemented at City landfills, refer to the ESD FY 05 Reporting Form in Appendix B.

3.3.1.7 *Solid Waste Services*

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

In addition, additional BMPs were implemented in trash collection activities. Sand was stored on each trash truck and additional sand was stored in containers at the Miramar operations yard to be used in the event of hydraulic/fluid spills. Vehicle operators were trained to cover an oil spill with sand and to protect the storm drain.

3.3.1.8 *Household Hazardous Waste Transfer Facilities*

The Environmental Services Department implements the Household Hazardous Waste (HHW) Program for the City and is responsible for the investigation, maintenance, collection and remediation of hazardous substances including HHW from facilities, residents, vacant land and

other City departments. The Department operates one (1) permanent HHW Transfer Facility at Miramar Landfill as well as several temporary collection facilities throughout the City. A summary of the BMPs implemented during the reporting period at these facilities is provided below.

Permanent Facilities

Parking Lots/Landscaped Areas

Erosion and sediment control measures, such as mulch, woodchips, and silt fences were implemented and maintained, where necessary. Eighty cubic yards of additional mulch was applied around the permanent facility at Miramar Landfill to increase water retention and reduce runoff. Additional rocks were placed around the front parking lot to further reduce runoff velocity and disperse energy. Asphalted areas were street swept monthly and hand sweeping is done, as needed. Absorbent materials were used to clean up any fluids leaking from vehicles, which were sent to Equipment Division for repairs.

Trash Bins/Roll-offs

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

HHW Operations Area

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

Temporary Facilities

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

For more detailed information on BMPs conducted at HHW facilities, refer to the Environmental Services Department FY 05 Reporting Form provided Appendix B.

3.3.1.9 Qualcomm Stadium

The City owns and operates Qualcomm Stadium, a multi-purpose facility built to accommodate a wide variety of activities, including field events such as baseball, football, concerts, soccer matches, and parking lot activities such as new and used car sales, drag racing, community service events, and RV Shows. Qualcomm Stadium's water quality protection activities are included in a Storm Water Pollution Prevention Plan (SWPPP) for the 166-acre site. A summary of the BMPs implemented at Qualcomm Stadium during the reporting period is provided below.

- All storm drains located inside the Stadium were re-painted in blue lettering on a white background with the message that reads: "Think Blue – No Dumping – Goes To Ocean *No Tire Nada – Llega al Mar*".
- The dirt pile stored on site (6,000 cubic yards of soil) used for the annual Dirt Show events was sprayed with a non-erosion stabilizer hydro-mulch to prevent soil migration to storm drains. In addition, sandbags (three stacks high) were placed around the dirt pile to further prevent soil migration.
- Sandbags were set around storm drains located at the loading docks and field perimeter storm drains.
- During stadium wash-downs that followed events, street sweepers were operated to capture and disperse any water that might have migrated across the parking lots before it reached the storm drains.

For more detailed information about BMPs implemented at Qualcomm Stadium, refer to the Stadium FY 05 Reporting Form provided Appendix B.

3.3.1.10 Municipal Yards and Operation Stations

City departments perform a variety of activities at the three municipal yards (Chollas Operations Yard, Rose Canyon Operations Yard, and the Central Operations Station, also called "20th & B") and other operation areas. During FY 05, City departments operating at the three municipal yards implemented Storm Water Pollution Prevention Plans. A summary of BMPs implemented at municipal yards is provided below.

Sweeping

Parking lots and operation areas were swept at all municipal yards either by hand or by street sweeping vehicles. Some areas, such as the sand storage area, were swept based on a schedule while other lower priority areas were swept as needed. For example, the Facilities Maintenance Division's areas at the 20th & B Operations Yard are swept quarterly. Two street sweepers purchased by the Environmental Services Department and the Water Department in FY 03 were used to facilitate routine maintenance and cleanup at municipal facilities. An additional small street sweeper was purchased by the Equipment Division and used at the Rose Canyon Operations Yard.

Trash

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

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

Materials Storage

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

Vehicle Maintenance/Operations



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

Drip pans were used for vehicles with potential leaks to capture any automotive fluids. Vehicle repairs were performed inside, when possible, with

Figure 3-2 Grass Swale at Municipal Yard.

the exception of minor repairs that did not involve fluids. Absorbent materials were used to clean up any fluids leaking from a vehicle.

Structural BMPs installed in FY 03 at the 20th and B vehicle wash area continued to be used to reduce and prevent excess water from discharging to the MS4 (See Figure 3-2 Grass Swale at Municipal Yard.). In addition, berms constructed in FY 03 to contain runoff in other areas where vehicles are washed also continued to prevent excess water from discharging to the MS4.

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

At the Chollas Operations Yard, construction of a major remodel of the fuel island began in February 2004. The remodel, completed in FY 05, includes grade and elevation changes to control runoff, installation of a storm water sump with filtering system, and installation of a canopy.

Spill Prevention and Cleanup

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

were commonly used to capture leaks. Materials such as fiber rolls were used around selected storage bins and drain inlets.

Erosion and Sediment Control

Erosion and sediment control measures, such as silt fences were implemented at municipal facilities, as needed to prevent sediment from being transported to the MS4. At the Chollas Operations Yard, the Street Division installed an asphalt berm along the south fence line of the materials storage area and installed gravel bags and fiber rolls at the gate of the materials storage area.

Other BMPs

- Replacement of standard gravel bags with new longer lasting orange Caltrans gravel bags at the secondary silt filtration area within the Chollas Yard materials storage area.
- Purchased wood pallets to place all Electrical Section stored material off the ground.
- Sumps were created to contain runoff from washrack areas. These sumps were maintained and cleaned out as needed.
- Measures such as gravel bags straw wattles and grass swales were used to protect storm drain inlets.
- No garden hoses were connected to outside spigots.
- Activities were performed inside, where possible.
- Operations conducted outside were contained, when possible and areas were cleaned up when activities were completed.
- All debris, such as paint, concrete, plaster, etc. occurring as a result of operations were disposed of properly.
- Soilfloc was dispensed in the main silt basin at the West Miramar Landfill to enhance the settling of silt and clay (small particles) before discharging to San Clemente Creek.
- The basin was pumped down between storm events and the water was reapplied to the landfill area.
- Sediment was removed from basins as needed.
- Mulch was applied to slopes at the West Miramar Landfill as needed.
- Tackifier was applied to selected landfill slopes as needed.
- Straw wattles were added to landfill slopes where necessary.
- Silt fence was installed on landfill slopes where necessary.

Inspection

Municipal areas were inspected at various frequencies (bi-weekly, monthly, quarterly) to ensure that BMPs were in good working order and that grounds were free of debris and spills and leaks from equipment or materials. At a minimum, all municipal facilities were inspected once in FY 05. Wastewater collection drains were also inspected and maintained, when needed.

For detailed BMPs implemented at municipal yards and operations stations, refer to the Equipment Division, Street Division, Environmental Services Department, Water Department, and Facilities Maintenance FY 05 Reporting Forms provided in Appendix B.

3.3.1.11 Environmental Services Department's facilities

The Environmental Services Department continued to improve the Ridgehaven Court "Green Building" by implementing the following:

- Excess and fallen debris/vegetation was collected from the surrounding canyons to prevent from entering the storm drain system

- Walkways were swept daily to remove trash and debris
- The Department installed a series of new drain inlets and a rock channel down drain adjacent to the parking lot at the South Chollas Landfill and stenciled all storm water entrances at the Miramar Operations Yard with the Think Blue symbol.

3.3.1.12 *Parks and Recreational Facilities*

The City's Park and Recreation Department is responsible for overseeing and maintaining 36,300 acres of developed and undeveloped open space, 337 parks including Balboa Park, Mission Trails Regional Park, and Mission Bay Park; twenty-five (25) miles of shoreline from Sunset Cliffs to La Jolla; thirteen (13) pools that are open year-round; three (3) public golf complexes; fifty-one (51) recreation centers; and twenty-five (25) tennis sites.

The Park and Recreation Department continued to implement the "Master Set of BMPs" Manual developed as a Storm Water Pollution Prevention reference guide for employees. The manual includes 31 specific BMPs that are divided into four categories: organic, maintenance, chemical, administrative. The manual was developed to provide employees with a standard and consistent approach for performing job activities and reducing and eliminating impacts to water quality. The Park and Recreation Department previously trained all appropriate employees on the BMPs provided in the manual and updated the Power Washing BMP in FY 05.

3.3.1.13 *Police Facilities*

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

- Operational BMPs were implemented for the Police Mounted Unit to provide for the clean up of horse manure on City streets and other public places.
- A new canine facility was built this year with BMP's in place and construction tailgate meeting held regularly for input from Police staff and Contractor. One example is specific dog runs and a large recreation area of grass for the dogs. This area reduces and controls fecal remnants from potentially getting into the storm water system.
- Conducted scheduled cleanings of parking lots and rooftop drains.
- Spent \$15,578 in FY 04 to clean up contaminants from roadways.
- At Headquarters building the landscape irrigation was reduced so not to produce excess run off and twice a week trash pick up and tailgate meeting are held so that staff can be updated on the BMP's for Headquarters building.

Additional BMPs from FY 03 and FY 04 continued to be implemented, including:

- Lids were provided for all dumpsters and were kept closed at all times.
- Leaking dumpsters were replaced, as needed.
- Irrigation systems were maintained and adjusted as needed to prevent excess runoff.
- Facilities, including storage areas, storm drain inlets and roof drains were inspected regularly to prevent contamination of waterways.
- Trash and litter abatement procedures were implemented at all facilities, including parking lots.
- The Police Department established Best Management Practices for the Air Support Unit located at Montgomery Field. Personnel assigned to that unit received training on these BMP's.
- Spill kits were provided for prompt cleanup of leaking vehicles or accidental spills.

- Hazardous materials were properly contained.
- BMPs were used to protect storm drain inlets near the fueling station and at the horse facility.
- Roll-off bins were properly covered, when necessary to prevent storm water contact.
- Drainage was modified at the pistol range and stables to prevent contaminated runoff from entering the MS4.
- Procedures were established for washing vehicles and horse trailers. Horses were only washed in designated areas. Horse manure and dog feces was collected and properly disposed.

For more information on BMPs implemented at Police facilities, refer to the Police Department FY 05 Reporting Form provided in Appendix B.

3.3.1.14 Fire Department Facilities

The City's Fire-Rescue Department maintains forty-seven (47) facilities and developed and implemented a Storm Water Pollution Prevention Plan for operations at these facilities. A summary of the BMPs implemented by the Fire-Rescue Department during the reporting period is provided below:

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

The Fire-Rescue Department's repair facility at 3870 Kearny Villa Road is the collection site for used oil, using a 1,000-gallon holding tank that is emptied by a certified contractor when necessary. Used oil collected citywide from Fire-Rescue facilities were brought to this location, where the pertinent information was processed and recorded. All manifests and paperwork are kept and maintained at the facility.

For more information on BMPs implemented at Fire Department facilities, refer to the Fire Department FY 05 Reporting Form provided in Appendix B.

3.3.1.15 City-Owned Leased Property

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

- Seven properties were inspected in FY 05. A copy of each Checklist is maintained in READ's records retention files.
- Standard lease language for all new leases, incorporating Water Quality Management Plan compliance and preparation was incorporated into all new/renewing leases. During the reporting period, there were a total of seven new or amended leases that included the storm water language.

For more information on BMPs implemented by the Real Estate Assets Department, refer to the READ FY 05 Reporting Form provided in Appendix B.

3.3.2 Training of Municipal Employees

City staff received training in general storm water issues and requirements. Employees also received training aimed at reducing or eliminating the discharge of pollutants from specific activities (activity-specific training). A summary of these trainings are provided in Section 12 “Education”.

3.4 MANAGEMENT OF PESTICIDES, HERBICIDES, AND FERTILIZERS

The City has taken measures to reduce the contribution of pollutants associated with the application, storage, and disposal of pesticides, herbicides, and fertilizers from municipal areas and activities to the City’s MS4. In FY 05, BMPs were implemented in priority areas, such as parks, landscaped areas, and municipal yards.

The Park and Recreation Department developed and implemented BMPs to reduce the risk of pollutants entering the MS4. These BMPs are included as part of the “Master Set of BMPs” Manual developed as a Storm Water Pollution Prevention reference guide for employees. The Park & Recreation Department made minor improvements to the Power Washing BMPs in FY 05. Employees responsible for Power Washing were trained via tailgate meetings with the new guidelines.

3.5 MUNICIPAL FACILITY INSPECTIONS

The City of San Diego requires applicable City departments to inspect all high priority municipal facilities annually, at a minimum. All Municipal facilities were inspected in FY 05. In many cases during the reporting period, municipal facilities were inspected more frequently, either formally (i.e. filling out a Storm Water Municipal Inspection Form) or informally (i.e. visual observations & walk-throughs). A copy of the inspection form used by departments for annual inspection of municipal facilities is provided at the end of this section.

The City of San Diego took measures to ensure that all municipal facilities were in compliance with the requirements of the municipal permit and the City’s Urban Runoff Management Plan. During the reporting period, if any issues were identified during facility inspections, the storm water representative responsible for inspections was trained to work with appropriate personnel to ensure that issues were addressed and ultimately resolved. These issues are reported to the Storm Water Pollution Prevention Division and are documented on the municipal inspection forms.

The following is a summary of potential issues identified during both routine inspections and program evaluations at municipal facilities in FY 05 and the actions that would be taken to correct the problem.

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

Storm Water Issue Identified	Action Taken to Correct Problem
Trash/debris at municipal yards and reservoirs	Sweepers were purchased by the Equipment Division. Sweeping was initiated at reservoirs and increased sweeping is being performed at municipal yards.

Storm Water Issue Identified	Action Taken to Correct Problem
Need for new/improved BMPs at Water Dept. and Street Division stockpile bins at Chollas municipal yard.	Street Division installed BMPs and increased sweeping frequency. Water Dept. increased sweeping frequency and installed roof structures over materials bins.
Potential for sediment/leaves to enter the storm drain system at Water Department yards	Implement additional sweeping, install fiber rolls, install gravel bags.
Excess trash/debris found at portions of 20th and B yard.	Organized yard cleanups and re-educated employees.
Presence of automotive fluid stains	BMPs (drip pans) were put in place to address leaking vehicles. Additional cleaning implemented.
Open lids on dumpsters and uncovered hazardous materials	Reeducated employees on procedures to keep containers, trash, and recycle bins closed at all times.
Maintenance for storm drain inlet protection BMPs	Established procedures for storm drain BMP inspection and storm drain cleaning. Replaced failing BMPs
Airplane washing conducted near storm drains without BMPs	Educate tenants on proper use of BMPs, such as shop vacs.
Potential for oil leaks from trucks	Purchase of spill kits or sand buckets for vehicles. Training for crews

3.6 ENFORCEMENT AND COMPLIANCE

3.6.1 *Hotline Complaint Investigations*

The Storm Water Pollution Prevention Division manages the Storm Water Pollution Prevention Hotline and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the city, including municipal areas.

3.6.2 *Enforcement Actions*

The Storm Water Pollution Prevention Division's Code Enforcement section enforces the City's Storm Water Ordinance City-wide, including municipal facilities and activities. The Storm Water Pollution Prevention Division took measures to ensure that all municipal facilities were in compliance with the requirements of the municipal permit and the City's Urban Runoff Management Plan. As described above, issues identified during municipal inspections are reported to the Storm Water Pollution Prevention Division and are documented on the municipal inspection forms.

In FY 05, Storm Water Pollution Prevention Division Code Compliance Officers conducted 31 investigations of potential discharges at municipal facilities or activities. Of those investigations, Code Compliance Officers identified two (2) storm water violations and issued notices of violation; one to the General Services Department (cement discharge) and the other to the Water Operations Division, Water Department (discharge of sediment) . The remainder of the investigations either resulted in the Code Compliance Officer determining that a storm water violation had not occurred, or that the discharge was not caused by the municipal activity/department.

3.7 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

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

Plans for the Low Flow Diversion System include the development of 29 new diversion facilities that will be located at storm drain outfalls along the City's shoreline communities of Ocean Beach, Pacific Beach and La Jolla. Eighteen (18) facilities (16 in La Jolla and 2 in Pacific Beach) are now under construction and are scheduled to be completed in late 2005. The remaining eleven (11) facilities (5 in La Jolla, 5 in Pacific Beach and 1 in Ocean Beach) went out to bid and construction is scheduled to begin in late 2005.

Figure 3-3. Municipal Inspection Form.

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

Inspector: _____ Phone Number: _____ Date/Time: _____		
---	--	--

I. Facility Information

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

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

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

III. General Site Conditions and Runoff Management Practices Review

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

* S = Satisfactory, U = Unsatisfactory

Figure 3-4 Continued.

Page 2 of 2

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

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

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

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

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

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

VI. Additional Comments (attach additional pages if necessary)

¹ Only required for NDPES General Storm Water Permit holders

4 INDUSTRIAL

The City continued to develop its Industrial Program during FY 05. The City hired a qualified environmental consultant/contractor during this past fiscal year to assist with further development of the industrial inspection program, to conduct inspections of industrial facilities, and to maintain an industrial inspection database. In addition, the City continued its efficient use of existing City programs to conduct additional inspections of industrial facilities, developed basic GIS maps of industrial facility records and program information, provided industries with educational and outreach materials created in the previous fiscal year, and developed a list of noncompliant industrial sites for follow-up enforcement. The FY 2005 accomplishments achieved in each of these program elements are further described below.

4.1 PRIORITY SOURCES

The City provided a prioritized inventory of industrial facilities within the City during the previous reporting period. The City commissioned its environmental consultant to again review the City's business license inventory containing over 90,000 entries and last year's inspection findings. Per the Standard Industrial Classification code, 243 industries were identified as high priority. Two hundred four (204) of these businesses were subsequently inspected by the City's consultant. Fourteen (14) of the inspected businesses were referred to the Regional Board and we anticipate that they will obtain coverage under the General Permit for Industrial Activities.

Updates to the inventory have been completed. The current inventory of industrial facilities is included as Appendix C and the list of facilities inspected by the environmental consultant, Metropolitan Wastewater Department's Industrial Wastewater Treatment Control Program, and the San Diego Regional Water Quality Control Board is attached as Appendix C. The City's method for prioritizing industrial facilities is included below. This prioritization flow chart considers six water quality threat factors. If the water quality threat for a facility is "yes" from any of the first five factors, the facility is ranked as high priority. A "yes" to the sixth water quality factor will rank the facility as medium priority. Facilities that receive "no" for all six factors are low priority.

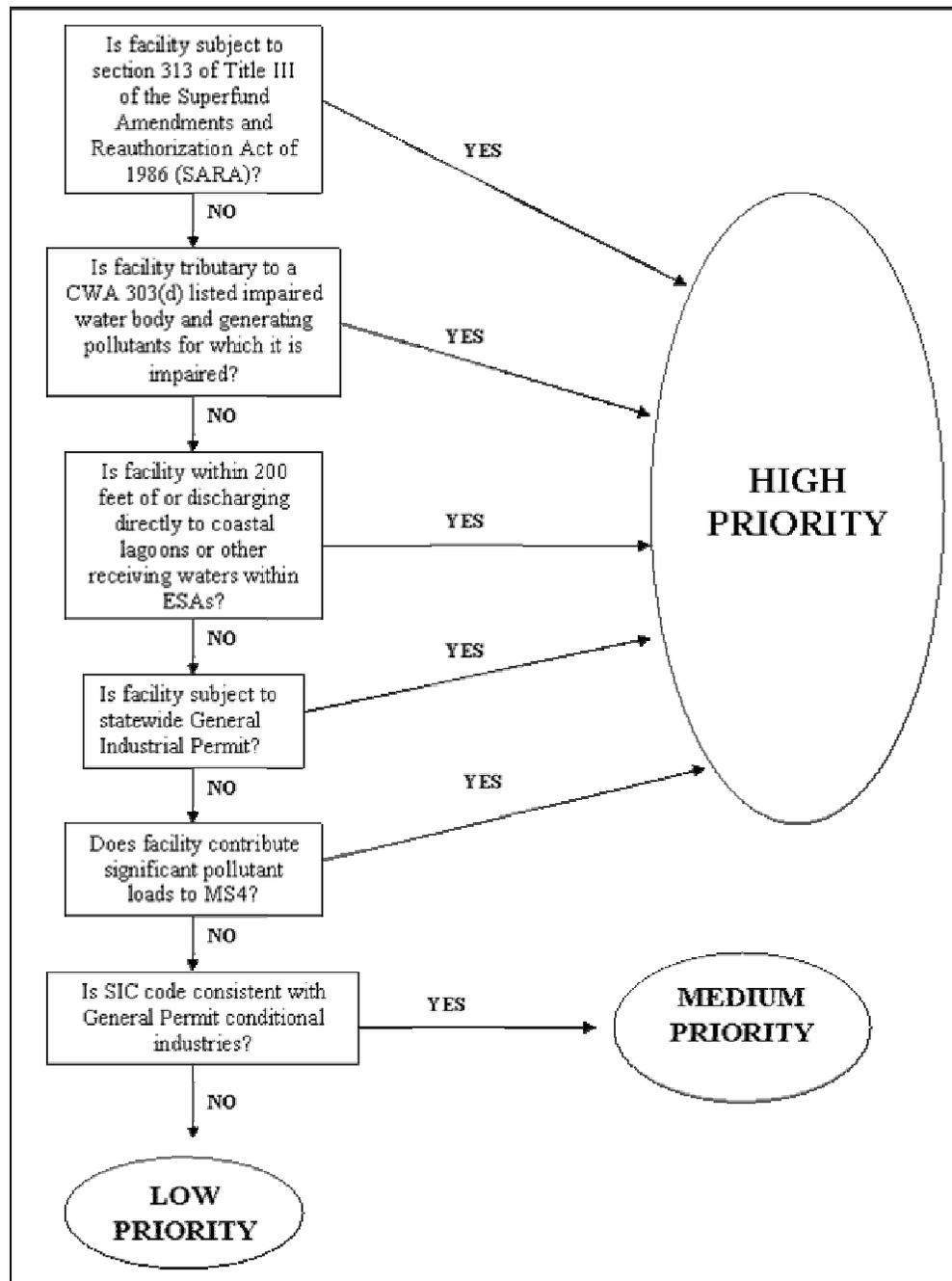


Figure 4-1. Industrial facilities water quality threat prioritization flow chart.

The City also made effort to identify General Industrial Permit non-filers. A Fact Sheet entitled “Regulations Governing Industrial and Commercial Facilities” was developed to make available to businesses that were unfamiliar with the State Industrial Storm Water Permit and pertinent regulations. In addition, this fact sheet was posted on the Storm Water Pollution Prevention Division’s website and provided to storm water Code Compliance Officers for distribution to businesses.

4.2 BMP REQUIREMENTS

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

4.3 BMP IMPLEMENTATION

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

4.3.1 *Education and Outreach*

The City has an ongoing education and outreach element included in its industrial sector management. These efforts are an essential component to ensuring compliance and understanding of industrial storm water requirements. Industrial inspectors distributed fact sheets and educational information during inspections as appropriate. These materials are described and highlighted in the following section.

4.3.1.1 *Fact Sheets*

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

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

These fact sheets are provided to industries during inspections, investigation, via the Think Blue website, or whenever requested. Over 11,000 were distributed with business license renewals during FY 05 as well.

4.3.1.2 *Think Blue Website*

The Think Blue website provides information for industrial facilities within the City about storm water regulations and facility and activity requirements. The website posts the Fact Sheets created for industrial facilities as well as the City’s Urban Runoff Management Plan which outlines required BMPs for industrial sites. The website also provides resources and links for industries on BMPs.

4.3.1.3 *Industrial Facility Leases*

The Real Estate Assets Department amended new and renewing leases to include storm water requirements for City-owned leased property, including industrial sites. This language educates

leaseholders that they must take measures to reduce the discharge of pollutants in runoff and can and will be accountable if storm water requirements are not met.

4.4 ENFORCEMENT AND COMPLIANCE

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

The City will continue to train City inspectors as needed to ensure that inspections are consistent and inspectors are well informed about current and changing storm water requirements and the inspection process.

4.4.1 Industrial Facility Inspections

The Metropolitan Wastewater Department's Industrial Wastewater Treatment Control Program (Pretreatment Program) contributed significantly by performing 22 storm water inspections at industrial facilities within the City during the reporting period. The Regional Board and the City's Storm Water Pollution Prevention Division also conducted inspections during this time. The City reports all inspections, including inspection information and findings to the Regional Board to maximize resources and avoid duplication of efforts. A summary table containing inspections completed by each agency is shown in Table 4-1.

Industrial inspection procedures are outlined in Appendix C which includes information on BMP review, follow-up, site inspection, and coordination with facility contact. The procedures were established and followed to ensure that storm water issues identified during the inspection are addressed in a coordinated and integrated manner. Issues identified during inspections by inspectors are noted on the storm water inspection checklist. As necessary to abate violations and gain compliance with municipal discharge prohibitions, the inspector may refer the facility to the Storm Water Pollution Prevention Division's Code Compliance Section for follow up investigation and enforcement. Results of the follow up investigations are tracked and managed by the Code Compliance Section.

A Total of 243 inspections were performed on facilities within the City in FY 05 as shown in Appendix C. The City of San Diego confirms that 240 of the 243 industrial facilities categorized as high priority were inspected. The remaining 3 high priority industrial facilities within our jurisdiction were inspected by Regional Board Industrial Compliance Unit staff. Of the facilities inspected, no sites were noted to have active illicit discharges or illegal connections to the storm water conveyance system.

Table 4-1. Industrial inspections completed by agency.

Facility Type	Facilities	City Inspections	State Inspections*
Industrial			
High	243	240	3
Medium	484	49	0
Low	1743	14	0
Other**	29	29	0
Total	2557	382	11

*Per email from Tony Felix, Region Board Industrial Compliance Unit Supervisor Dated October 13, 2005.

**Facilities inspected as potential non-filers that were Commercial; will be removed from FY06 Industrial inventory.

4.4.2 Complaint Investigations

The Storm Water Pollution Prevention Division operates the Storm Water Pollution Prevention Hotline and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including industrial facilities. A total of 3,818 calls were logged by hotline operators and 1,659 investigations were carried out by Code Compliance Staff (remaining calls were requests for information).

4.4.3 Reporting of Non-Compliant Sites

All inspections performed at industrial facilities including inspection information and findings are reported to the Regional Board. Inspections or investigations where sites are determined non-compliant and pose a threat to human or environmental health are reported to the Regional Board within 24 hours of the finding. During the reporting period, there were no known incidents of this nature at industrial sites.

4.4.4 Enforcement Actions

The City's process for inspection of industrial facilities ensures that appropriate enforcement actions are taken on facilities with storm water violations. Sites with storm water violations noted during inspections are referred to the Storm Water Pollution Prevention Division's Code Compliance Section for follow up investigation and enforcement.

During the reporting period, enforcement actions were taken against industrial facilities not in compliance with storm water regulations. Enforcement actions consist of issuances of notices of violation (NOVs), citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney's Office for prosecution. The standard procedure for enforcing the storm water ordinance by means of these mechanisms was described in Section 2, "Enforcement of Storm Water Ordinance" in the City's URMP Fiscal Year 2002 Report. Refer to Section 9.2 in the Enforcement Section for information about enforcement actions taken in FY 05.

4.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City has explored different alternatives to increasing the number of industrial inspections conducted annually. The MWWDP Pretreatment Program will continue to conduct industrial inspections in future years of program implementation. In addition, the Storm Water Pollution Prevention Division has hired an environmental consultant to assist with implementation of the Industrial Inspection Program and development and management of an industrial inspection database.

The City would like to incorporate the inspection and facility information into a relational database and develop a Geographic Information System for better management and analysis of data generated by the inspection program. GIS integration will continue during fiscal year 2006 as a tool to help manage and review the inspection data spatially.

In the long term, we intend to increase the number of inspections conducted in the region by developing a third party certified inspector program in cooperation with the Regional Board. A certified inspector program would allow individuals with knowledge of industrial activities to become certified inspectors. Industrial facilities can then contract with these individuals to perform the required inspections. Industrial facilities would be notified of their storm water requirements and given the option to have a certified inspector address the municipal inspection requirements.

The Storm Water Pollution Prevention Division continually updates and maintains the industrial facility inventory. Before the environmental consultant was hired, the Storm Water Pollution Prevention Division staff found it difficult to track changes in industrial operations throughout the City. The Storm Water Pollution Prevention Division began its data integration project which aims to relate existing disparate spreadsheets and databases maintained within the Storm Water Pollution Prevention Division. The development of a relational database will allow for additional application of GIS technology and better data tracking and reporting.

5 COMMERCIAL

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

5.1 PRIORITY SOURCES

The City provided a prioritized inventory of commercial facilities within the City during a previous reporting period. The City is continually updating and maintaining a robust database of commercial facility inventories through coordination with the City's business license division and the Food Establishment Waste Discharge Division (FEWD).

5.2 BMP REQUIREMENTS

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

5.3 COMMERCIAL BMP IMPLEMENTATION

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

5.3.1 *Education and Outreach*

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

5.3.1.1 *Business License Storm Water Compliance Flier*

The Storm Water Pollution Prevention Division's Public Education and Outreach Section developed one key item in the continuous effort to educate businesses. The Business License Storm Water Compliance Flyer was created and implemented in FY 04. The flier describes the interest businesses have in clean beaches and bays, summarizes the Municipal Code section, highlights business activities that reduce storm drain pollution, and provides telephone, email, and website address should businesses need additional information. These fliers are mailed to businesses during the business license department annual renewal process. Approximately 22,000 notices were sent in FY 04 and FY 05.

5.3.1.2 *Fact Sheets*

The Storm Water Pollution Prevention Division created and distributed fact sheets to educate residents and businesses on topics related to storm water. Storm water public education and

outreach staff created Fact Sheets specific to a variety of commercial activities that were distributed by Storm Water Pollution Prevention Division staff and other city employees during the reporting period. Fact sheets with topics applicable to commercial activities include:

- Automotive Fluids – proper use, containment, and disposal
- Best Management Practice Websites – for specific and additional information
- Car Washing – how to wash your car and not pollute storm drains
- Concrete Washout – proper waste handling techniques
- Construction Area Practices – erosion and sediment management
- Dumpsters & Loading Dock Areas – good housekeeping and leak/spill prevention
- Impervious Surfaces – maintenance and washing
- Restaurants – grease and food waste handling; maintenance and washing
- Spills – control, contain, and capture
- Swimming Pools and Spas – maintenance, draining, and filter washing
- Water Discharges from Private Property

These fact sheets are provided to businesses during inspections and investigation and are available on the Think Blue website, www.ThinkBluesd.org.”

5.3.1.3 Think Blue Website

The Think Blue website provides information about storm water regulations and requirements associated with commercial activities. The City’s Urban Runoff Management Plan outlines required minimum BMPs, and the Think Blue website posts fact sheets created to assist citizens and business understand proper BMPs for specific activities. The website also provides resources and links for commercial activities.

5.3.1.4 Other Educational Materials

The City developed of a series of mobile business informational cards for businesses to reference when working in the field. The cards provide storm water information, such as pertinent regulations and suggested BMPs to comply with storm water requirements for specific businesses.

In addition, the Copermittee Regional Outreach Workgroup developed a Spanish translation of the BMP guide for food service workers.

5.3.1.5 Workshops

The Copermittee Regional Outreach Workgroup participated in over twenty (20) outreach activities during this reporting period.

5.3.1.6 Best Management Practice Standards Workgroup

The Best Management Practice Standards Workgroup was established by the Copermittees to develop a regional approach to ensuring adequate implementation of BMPs in the cities and unincorporated areas of San Diego County. The Storm Water Pollution Prevention Division provided input and information to the workgroup to assist with the any necessary amendments and updating of the framework.

5.3.1.7 Grease Disposal Program

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 business on the proper disposal alternatives for fats,

oils, and grease. The Food Establishment Waste Discharge (FEWD) Section regulates restaurants' sewer grease trap to ensure proper function and also reviews disposal procedures for oil and cooking grease. Information is provided to restaurants through the Department's website, educational brochures, and a web-based video. This program is described in greater detail in Section 6.3.3 "Grease Disposal Program."

5.4 COMPLIANCE AND ENFORCEMENT

The City takes measures to ensure that facilities are complying with storm water regulations associated with commercial activities. These include routine inspections, hotline complaint investigations, and enforcement actions, where necessary. The City's Storm Water Pollution Prevention Division has set food and restaurant facilities as a high priority within the Commercial facility management program with additional attention provided to mobile businesses. As resources are identified, the Storm Water Pollution Prevention Division staff will include other businesses in its inspection and education programs. These steps are described below.

5.4.1 Commercial Facility Inspections

The Food Establishment Waste Discharge (FEWD) Program conducts storm water inspections of restaurants within the City. If improper conditions or practices are identified, the restaurant is sent an appropriate Think Blue Fact Sheet. If the inspector observes a potential for pollutants to enter the storm drain, or pollutants in the storm drain, the inspector refers the restaurant's inspection checklist and photo documentation to the Storm Water Pollution Prevention Division's Code Compliance Section for follow up investigation. Results of the follow up investigations are tracked and managed by the Code Compliance Section.

During the reporting period, 4,469 restaurants were inspected. Some of those inspections were referred to the Storm Water Pollution Prevention Division Code Compliance Section for follow up investigations. A table is provided in the attachments section Appendix C that lists the food establishments inspected in FY 05.

5.4.2 Complaint Investigations

The Storm Water Pollution Prevention Division operates the Storm Water Pollution Prevention Hotline and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including commercial facilities. A total of 3,818 calls were logged by hotline operators and 1,659 investigations were carried out by Code Compliance Staff (remaining calls were requests for information). Many of the investigations were referrals from FEWD, during the reporting period.

5.4.3 Reporting of Non-Compliant Sites

Inspections or investigations where sites are determined non-compliant and pose a threat to human or environmental health are reported to the Regional Board within 24 hours of the finding. During the reporting period, there were no incidents of this nature at commercial sites.

5.4.4 Enforcement Actions

The City's process for inspection and enforcement of violations ensures that commercial facility violations are abated. Sites with storm water violations noted during inspections are referred to the Storm Water Pollution Prevention Division's Code Compliance Section for follow-up investigation and enforcement.

Based upon review of the code compliance database and investigation case files, storm water staff noted several interesting correlations. Wastewater discharges from cleaning and washing activities performed during commercial and business operations were the most frequent followed by oil and grease (e.g., petroleum hydrocarbons) and concrete-related discharges. Concrete discharges originated from predominately commercial operations cleaning tools and equipment. Generally, the waste water discharges contained solutes, detergents, or other chemicals. The table below summarizes discharges by category.

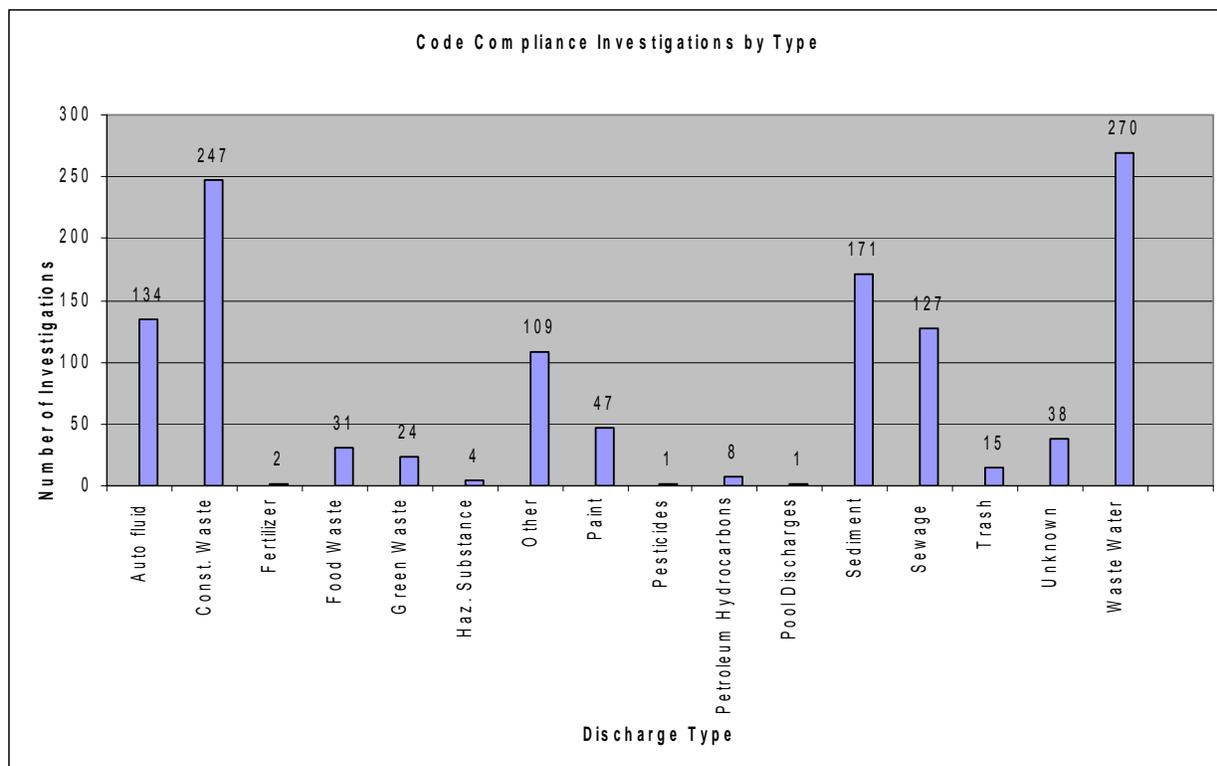


Table 5-1. Number of storm water-related investigations by discharge type.

During the reporting period, enforcement actions were taken against commercial facilities not in compliance with storm water regulations. Enforcement actions consist of issuances of notices of violation (NOVs), citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney’s Office for prosecution. Refer to Section 9.2, “Enforcement Actions,” for information about enforcement actions taken in FY 05.

5.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City intends to continue implementation of the commercial component as identified in the Urban Runoff Management Plan. To assist mobile businesses with understanding storm water requirements and choosing and implementing BMPs appropriate to specific operations, the Storm Water Pollution Prevention Division intends to develop and distribute educational mobile business cards as funding allows. These cards have already been developed for pressure washing operations and similar cards are planned for Mobile Car Washing/Detailing, Window Cleaning, Draining and Cleaning Pools, Spas or Fountains, Draining and Cleaning Ponds, Fire

Sprinkler System Maintenance, Masonry/Cement Mixing and Cutting, Painting and Coating Activities, and Washing Down (Not Emptying) Portable Toilets.

The Storm Water Pollution Prevention Division has developed a plan to electronically track and relate investigations and referrals from FEWD, industrial inspectors, and other agencies. The implementation of this plan will be permitted as funding allows. Once completed, this tool will help storm water staff track and interpret investigation case work and trends.

6 RESIDENTIAL

The City continued to implement the Residential Component of its Urban Runoff Management Plan to prevent and reduce pollutants in runoff from residential areas within the City. Highlights of the City's Residential Component during FY 05 include distribution of numerous education and outreach materials, development of various residential programs, events to educate residents and reduce pollutants, and enforcement of storm water violations from residential activities. These program elements are further described below.

6.1 PRIORITY SOURCES

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

6.2 BMP REQUIREMENTS

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

6.3 RESIDENTIAL BMP IMPLEMENTATION

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

6.3.1 *Education and Outreach*

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

6.3.1.1 *Public Service Announcements*

The Storm Water Pollution Prevention Division continued to implement the Think Blue media campaign to educate citizens on storm water issues and pollution prevention measures in FY 05. The campaign was broadcast on local radio and television stations reaching the English and Spanish Speaking communities. A detailed discussion of the Think Blue media campaign is provided in Section 12.2.1 "Think Blue Program- FY 2005."

6.3.1.2 *Think Blue Website*

The Think Blue website provides information, storm water regulations, and requirements associated with residential activities. The website posts the fact sheets created for these activities as well as the City's Urban Runoff Management Plan which outlines required minimum BMPs. The website also provides an interactive page for residents where they can find tips for preventing or reducing pollutants from different areas of the home. In late Fiscal Year 2005, the Storm Water Educational web site, www.ThinkBluesd.org was moved from an outside service provider to an internal City web site server. In the transition, records of the site's performance

were not captured. We can, however, infer that the site had an equal, if not greater, use by visitors in Fiscal Year 2005 as in Fiscal Year 2004. Historically, in each year of operation, the site has had increased usage by the public. In Fiscal Year 2005, two new popular features were added to the site :”*Chollas Creek Environmental improvement & Awareness Programs,*” and “*The Urban Runoff Event*” . The website received more than 410,000 hits in FY 04.

6.3.1.3 Fact Sheets and Brochures

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

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

These fact sheets are provided to businesses during inspections, investigation, via the Think Blue website, or whenever requested.

6.3.1.4 Outreach Events

During the reporting period, the Storm Water Pollution Prevention Division with the assistance of City Council office staff and media partners participated in a number of outreach events, many of which were aimed at educating residents about urban runoff and storm water pollution. Unfortunately, the numbers of events and public outreach activities was not tracked in Fiscal Year 2005. We did manage to launch a new regional event, the Urban Runoff in October 2004. A full discussion of this is provided in Section 12.2.6 “Speaker’s Bureau and Community Events”.

6.3.2 Household Hazardous Waste Program

The Environmental Services Department operates the Household Hazardous Waste (HHW) Program for the City and is responsible for public education and the investigation, maintenance, collection and remediation of hazardous substances including HHW from facilities, residents, vacant land and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill. The Environmental Services Department also collects HHW from 91 certified collection centers within the City.

The Environmental Services Department conducted education and outreach efforts directed at disseminating HHW information to residents. These efforts included numerous outreach events promoted with PSAs and other media advertisements, distributing educational materials, establishment of hotline to answer questions and set up appointments for HHW disposal, water bill informational inserts to be included in resident’s water bill. Detailed information about these efforts is included in the Environmental Departments FY 05 Reporting Form provided in Appendix B.

6.3.3 Grease Disposal Program

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 business on the proper disposal alternatives for fats, oils, and grease and provides residents a place to dispose oil and grease at the Miramar Landfill. As part of the education and outreach for this program, MWWD displays information in Community Service Centers and in City buildings, presents to grade schools, participates in community fairs, distributes educational materials and provides information on the Department's website.

6.4 ENFORCEMENT AND COMPLIANCE

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

6.4.1 Residential Investigations

Code enforcement officers conduct routine patrol of residential areas and investigate complaints from the storm water hotline. The Storm Water Pollution Prevention Division operates the Storm Water Pollution Prevention Hotline and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including residential areas and activities. A total of 3,818 calls (not all were residential related) were logged by hotline operators.

6.4.2 Enforcement Actions

Mechanisms that are available in order to ensure compliance with storm water regulations include distribution of educational materials, issuances of notices of violation, administrative citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney's Office for prosecution. The standard procedure for enforcing the storm water ordinance by means of these mechanisms was described in Section 1.3, "Enforcement of Storm Water Ordinance" in the City's URMP. Refer to Section 9, "Enforcement" for information about enforcement actions taken in FY 05.

6.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

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

7 LAND USE PLANNING FOR NEW DEVELOPMENT

The City continued to implement the Planning and Development Component of the Urban Runoff Management Plan to reduce the impacts of new development and redevelopment on storm water quality. Highlights of the City's Land Use Planning Component during FY 05 include continued implementation of the Storm Water Standards Manual, development of the Source Water Protection Guidelines, continued integration of storm water protection policies in the City's Community Plans and General Plan, continued development of the San Dieguito Watershed Stewardship Initiative, and completion of the Peñasquitos Watershed Management Plan.

7.1 LONG-RANGE PLANNING

7.1.1 General Plan

In October 2002, the City Council adopted the Strategic Framework Element and its associated documents, which include the Five-Year Action Plan. The Strategic Framework Element is a new element of the City of San Diego's General Plan and lays out a strategy for a comprehensive update of all of the elements of the General Plan. The Strategic Framework Element incorporates water quality and watershed protection principles in the Conservation and the Environment section of the document. The land use strategy proposed in the Strategic Framework Element incorporates a number of site and street design policies that achieve water quality and watershed protection principles such as reducing impervious surfaces and increasing vegetation. The water quality and watershed principles identified in the Urban Runoff Management Program were incorporated into the Strategic Framework Element and Five Year Action Plan and adopted by the City Council into the General Plan.

The Strategic Framework Five Year Action Plan includes direction to update the Conservation Element to further address storm water and urban runoff. In addition, the Strategic Framework Five Year Action Plan also includes recommendations to update other policies and regulations to address storm water and urban runoff, including amendments to the Street Design Manual, the Drainage Design Manual, and the Land Development Code. An Infrastructure Element discussing urban runoff and water quality infrastructure will be drafted in FY 06.

General Plan elements under development in FY 05 relevant to urban runoff include:

Strategic Framework and Land Use Element. The Strategic Framework and Land Use Element provides an overview of citywide policies in the interrelated areas of: urban form, neighborhood character, public facilities and services, conservation and the environment, mobility, housing affordability, economic prosperity and regionalism. The element also provides more detailed policy direction in the areas of equitable development, environmental justice, coastal planning, and annexations.

The City of Villages strategy is a major component of the Land Use Element. The City of Villages strategy calls for new growth to be targeted in mixed-use village centers in order to create lively activity centers, provide housing, improve workability, help support a state-of-the-art transit system, and provide an alternative to the development of outlying areas. Combined with the citywide policies, the strategy ensures that growth and redevelopment, regardless of

rate, will result in long-term environmental, social, and economic health of the City and its communities.

Conservation Element. The Conservation Element focuses on conserving natural resources, protecting landforms and open spaces, preventing pollution, and using resources wisely. A wide range of policies are proposed to help ensure that San Diego's environmental quality can be sustained for future generations. Many of the policies described in the element are already being implemented through specific programs in various City departments such as the Storm Water Pollution Prevention Division, the Sustainable Communities Program, and the Multiple Species Conservation Program. The Draft General Plan provides the broad context to view the purpose and interrelationships of these and additional programs. Storm Water Pollution Prevention Division Staff participated in the development of updates to the Conservation Element.

Key points:

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

The Conservation Element draft is available online at www.sandiego.gov/cityofvillages.

Mobility Element. The draft Mobility Element contains policies to reduce pollution through greater use of alternative modes of transportation, and to reduce large surface parking areas. For example, the Parking Management section of the element states that our parking strategies need to "address parking demand and supply and concurrently help implement General Plan goals (discussed above) for reducing storm water runoff and urban sprawl ..."
Monitoring Report.

General Plan Monitoring Report. In addition, a General Plan Monitoring Report (dated July 2005) was prepared using data gathered through June 2005. The report monitors progress toward implementing the Strategic Framework Element/City of Villages strategy and serves as a public education tool. The report addresses "Storm water and Urban Runoff," and "Environmental Education" efforts. The report also includes a section on San Diego's "Sustainable Community Program Indicators." These indicators measure the region's long-term health, or sustainability, on a variety of topics. Many of the indicators relate to storm water runoff including: #2 Create Neighborhoods We Can Be Proud of (monitor street trees per mile), #3 "Clean Up Our Beaches and Bays," #5 "Pursue Energy Independence (implement Green Building Policy)," #6 Complete Multiple Species Conservation Program (MSCP) Open Space Acquisition (provides large contiguous tracks of open space) and #7 "Water Conservation."

7.1.2 Community Plans

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

1. **La Jolla.** Staff secured Coastal Commission adoption of the La Jolla Community Plan in FY 2004 and began its implementation in FY 2005, which included extensive storm water policies as related to coastal bluffs and steep hillsides. For example, Coastal bluffs policies are to: direct roof and surface drainage away from the bluff towards the street or into special drainage facilities that have been equipped to divert water runoff from flowing over the bluff; improve existing street drainage outlets with energy dissipating devices or other similar measures in order to minimize erosion caused by quantity, velocity, or content of runoff; and create a monitoring program to ensure compliance with this Plan's policies and recommendations related to bluff top drainage. Steep Hillsides policies are to maintain the natural surface drainage system. "This includes intermittent streams, creeks, gullies and rivulets, especially where such drainageways adjoin or traverse other properties. The way in which changes to the natural land form or its surface coverage affects the natural drainage system must be determined prior to project approval. Sensitive design and the control of runoff will help eliminate problems of erosion, landslides or damage to plant and animal life."
2. **Ocean Beach.** Goals and recommendations relating to urban runoff and water quality have been drafted as part of the Ocean Beach Community Plan update. Goals include: Ensure a reliable system of water, storm water, and sewer facilities to serve the existing and future needs of the community.
3. **Mission Valley.** Work is proceeding on the Mission Valley Community Plan. This plan update is significant to water quality since the San Diego River flows through the valley. The plan will reference or incorporate the recommendations of San Diego River Master Plan

7.1.3 Street Design Manual

In November of 2002, the City Council approved a new revision of the Street Design Manual that included guidelines for reduced impervious surfaces and increased natural filter systems. These guidelines included reduced street width standards (curb to curb) for local residential streets, parkway standards (curb to property line) that allow large canopy form tree species to be planted along with a wider area for landscaping opportunities, design provisions that allow landscaping opportunities in the majority of the surface area of raised islands (e.g., raised medians), and design requirements that required all traffic calming installations to have a landscape element. The new Street Design Manual was implemented on new development throughout FY 05.

7.1.4 Source Water Protection Guidelines

In FY 2004, the Water Department produced Source Water Protection Guidelines for new development to guide future activities in the San Diego County watersheds that drain into drinking water reservoirs (Hodges, Sutherland, San Vicente, El Capitan, Otay, Barrett, and Morena). The Guidelines were prepared to assist municipal agencies, designers, land planners, developers, and citizens to conduct site design planning and select BMPs that protect or improve the quality of runoff draining into drinking water reservoirs. These Guidelines do not

address water quality concerns during construction activities, but rather are designed to help project proponents and reviewers address potential water quality issues over the life of the project by incorporating better site designs and source controls to protect source water. This process is applicable to nearly all projects. In addition, for large or complex projects, the Guidelines are intended to help focus the selection of treatment BMPs that are most effective (based on published studies) at reducing the pollutants of concern for drinking water protection in San Diego County.

7.1.5 Watershed & Resource Management Plans

Los Peñasquitos Watershed Management Plan.

In FY 2005, the Cities of San Diego, Del Mar, Poway, and the County of San Diego (City of San Diego is lead) completed preparation of a watershed management plan in coordination with the Los Peñasquitos Lagoon Foundation (LPLF), Citizen's Advisory Committee (CAC) and general public for the Los Peñasquitos watershed. The Los Peñasquitos watershed covers 100 square miles and is located in an area subject to pressures from extensive urbanization, including irrigation from agricultural activities, conversion of agriculture to urban uses, and un-maintained catch basins within the watershed. Funding for the project was provided, in part, through a contract with the State Water Resources Control Board (SWRCB), pursuant to the Costa-Machado Water Act of 2000 (Proposition 13) and any amendments thereto, for the implementation of California's Non-point Source Pollution Control Program.

The Watershed Management Plan identifies and prioritizes measures to preserve and/or improve the health of the watershed based on an assessment of existing watershed resources and issues, and includes a strategy to ensure the Plan remains a "living document." The Watershed Plan covers the following major issues:

1. An assessment of resources in the watershed, including identification of resources to be preserved and/or improved;
2. An assessment of problems /issues/threats to the watershed, including their causes and locations, as well as their prioritization for being addressed;
3. Identification of goals, policies, and potential projects to preserve resources and address problems/issues/threats, including a strategy for implementing the goals, policies and potential projects;
4. Identification of potential wetland enhancement and restoration opportunities within the watershed.
5. Identification of potential strategies to address changes in stream hydrology and morphology (such as peak flow rates and flow velocity, duration and volumes, as well as resulting erosion and sedimentation). Hydrologic conditions including altered water flow and velocity from encroaching urban development and increased runoff within streambeds have contributed to sedimentation within the watershed.

In FY 05, tasks focused on completing the draft/final plan and closing out the contract. The Final Watershed Plan is available on-line at www.projectcleanwater.org. Sixteen (16) public meetings were held during FY 2005 for the watershed plan. The City of San Diego anticipates taking the Los Peñasquitos WMP to the decision-makers in FY 2006.

For more information on the planning process or plan status, please see www.sandiego.gov/mscp/news.shtml and/or www.projectcleanwater.org/html/ws_penasquitos.html.

Chollas Creek Enhancement Program

In November, 2004, the first two pilot projects of the Chollas Creek Enhancement Program were completed, Segments 2A and 8. A ribbon-cutting ceremony, attended by the Mayor and Councilmember, was held at Segment 8. Implementation of Segment 2A involved: removal of non-native vegetation, clean-up of creek bed and creation of wetlands habitat for this approximate 0.77-acre site. Implementation of Segment 8 involved: removal of the southern bank concrete channel, removal of non-native vegetation, clean-up of creek bed, creation of wetlands habitat, construction of interpretive trails, educational exhibits and a passive park for this approximate 8-acre site.

Work is also underway to implement another pilot project along the Encanto Branch of Chollas Creek. Funding sources include a \$2.2 million grant from the State Water Resources Control Board.

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

San Diego River Master Plan

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

- Augment flows to the river.
- Remove/circumvent obstacles that impede flow.
- Remove invasive vegetation species.
- Encourage the growth of appropriate riparian vegetation.
- Re-contour the channel to encourage meander and braiding.
- Expand the floodplain.
- Adopt programs to reduce/remove non-point source loads of pollutants and prevent pollutants from entering the river at their source.
- Incorporate hydrology & water quality considerations in all future planning and guidance documents

Working with the Park & Recreation Department, Planning staff helped select the consultant for this plan, and has reviewed and commented on the plan as it has been drafted. Planning staff will also reference, or incorporate relevant recommendations of the master plan into the Mission Valley Community Plan. The process of developing an environmental document is anticipated to begin the Spring of 2006.

San Dieguito River Park Concept Plan

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

Plan objectives include:

- “Protection of Water Resources. Optimize the water quality and quantity of all groundwater resources and surface water bodies within the planning area through water conservation, erosion control, pollution control and restoration;” and
- “Preservation of the Natural Floodplain.” Maintain the 100-year floodplain and sheet-flow areas within the planning area in an open configuration with a natural channel and provide adequate area for the normal stream waters to meander.”

Planning staff is reviewing the San Dieguito River Park Concept Plan in preparation for City Council action to accept it.

San Pasqual Vision Plan

Updates on the San Pasqual Vision Plan were provided to the City Council's Natural Resources & Culture (NR&C) Committee in April and May 2005. Council Policy 600-45 was adopted by the City Council in June, 2005 in order to establish the Vision Plan directives as policy. It is expected that the City Council will adopt an amendment to the San Pasqual Valley Plan in FY 06. Also, in FY 06 2005, City Council should adopt a rezone for the City-owned properties in the San Pasqual Valley, to a more restrictive agricultural zone.

The purpose of the San Pasqual Vision Plan is to set forth a comprehensive vision for the San Pasqual Valley and action items for its protection. Plan goals include protecting the quality and capacity of the San Pasqual/Lake Hodges groundwater basin to ensure that this invaluable asset as a water resource is not compromised; and ensuring the long-term protection of the Valley's unique agricultural, biological, and water resources - to continually pursue the best protection of the Valley available. The Planning Department is responsible for implementing various components of this plan.

7.2 PROJECT PLANNING AND DESIGN

7.2.1 Storm Water Development Regulations

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

7.2.1.1 Public Projects

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

The Storm Water Pollution Prevention Division provides an optional review of CIP projects for compliance with the City's Storm Water Standards. In addition to the plans, the Storm Water Pollution Prevention Division's engineering review section often reviews Water Quality Technical Reports (WQTR), Storm Water Pollution Prevention Plans (SWPPP), and Water Pollution Control Plans (WPCP). After each review, a memo is sent to the City Project Manager informing them whether or not their project has met the requirements of the City's Storm Water Standards and what additional documents, plan revisions, etc. are required in order for them meet those requirements. Citywide, there were **12 CIP priority projects** which were required to prepare WQTR's during FY 05 (some projects may not have been captured in the URMP reporting).

7.2.1.2 Private Development

The Development Services Department (DSD) is responsible for managing the development project review services for private development in the City of San Diego. In December 2002, the Land Development Review Division of DSD adopted and began implementation of the Storm Water Standards Manual. Private projects are reviewed for conformance with the Storm

Water Standards Manual requirements by the Engineering Review and Planchecking Sections of the Land Development Review Division. To ensure consistency and adequate implementation of the storm water requirements, staff from these sections meet on a bi-weekly basis to discuss specific issues on development projects. Before discretionary projects are scheduled for decisionmaker approval or ministerial permits are issued, all storm water requirements must be satisfied either on the plans or in the project conditions.

During FY 05, **302 private priority projects** were reviewed by DSD for conformance with the Storm Water Standards Manual.

7.3 EDUCATION AND OUTREACH

7.3.1 *Fact Sheets*

Storm Water Pollution Prevention Division and the Land Development Review Division continued to distribute the "SUSMP" fact sheet to educate developers about new storm water regulations associated with new development or redevelopment. This fact sheet can be found on the Think Blue Website.

7.3.2 *Websites*

DSD provided information on the Department's website regarding storm water issues. Additionally, the Think Blue website provides links to resources that can provide additional information on land use planning and storm water regulations for new development and redevelopment.

7.3.3 *Training*

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

Development Services Department continued to hold bi-weekly staff meetings with engineering staff to discuss storm water requirements and implementation on private development projects. Some of these informal training meetings included attendees from the Storm Water Pollution Prevention Division. In addition to these meetings, Land Development Review Division had 30 employees trained in activity specific storm water principles during the year.

Development Services Department held two "Meetings with the Industry" during FY 05 in which post-construction storm water regulations were discussed with private engineers. These meetings were attended by approximately 50 people.

With the addition of a senior engineering position devoted solely to storm water requirements, Field Engineering conducted additional training in FY 2005 at regular staff meetings as well as informal training with direct interaction between the senior engineer and resident engineers on "day to day" implementation issues.

7.4 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will continue to implement the programs set forth in the Planning and Development Component of its Urban Runoff Management Plan. DSD and Field Engineering will continue to conduct informal staff training meetings and sessions and continue to hold bi-monthly

coordination meetings with the Storm Water Pollution Prevention Division. Planning Department Staff will once again present storm water educational material to the Community Orientation Workshop, which is an introductory training session for the members of the City's forty-two community planning groups.

8 CONSTRUCTION

The City continued to implement the Construction Component of its Urban Runoff Management Plan in FY 05 to prevent and reduce pollutants in runoff from construction activities within the City. Highlights of the Construction Component include development of numerous education and outreach materials, development and participation in various trainings and workshops to educate staff and the professional industry, implementation of a review program to ensure compliance with storm water requirements, inspection of construction sites, and enforcement of storm water violations from construction activities. These program elements are further described below.

8.1 PRIORITY SOURCES

Prioritized construction inventories are updated and provided to the Regional Board annually prior to October 1st. The construction list for FY 05 was submitted to the Regional Board in October of 2004.

8.2 BMP REQUIREMENTS

Section 3.4, "Construction Contracts," identifies the BMPs required for construction activities. These requirements are made fully enforceable through a series of regulations in the City's Municipal Code (Storm Water Management and Discharge Control Ordinance, §43.03 and Grading Regulations §142.02), which are implemented through construction development regulations in the City's Storm Water Standards Manual (<http://www.sannet.gov/development-services/news/newslst.shtml>). In summary, Storm Water Pollution Prevention Plans (SWPPPs) were required for all projects over one acre, and Water Pollution Control Plans (WPCPs) were required for all projects where a SWPPP was not required (under one acre in size), that had a potential to impact water quality during construction. Where appropriate, additional site-specific construction storm water BMPs may be required in SWPPPs, WPCPs and/or construction contracts.

8.3 BMP IMPLEMENTATION

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

8.3.1 *Construction and Grading Approval Process*

8.3.1.1 *Capital Improvement Projects*

The Engineering and Capital Projects (ECP) Department is responsible for planning, design and construction of a majority of the capital improvement projects and the remainder of capital improvement projects are managed by the Water Department, the Metropolitan Wastewater Department, and the Parks & Recreation Department. All project managers of capital improvement projects (CIP projects) that awarded construction contracts on or after December 10, 2002 have been required to incorporate the construction requirements set forth in the Storm Water Standards Manual, including all applicable projects in FY 05. These requirements must be incorporated into the project (specifications and plans) during the design and contract award phases to ensure that construction storm water issues have been addressed. To assist project managers, storm water language was included in the Capital Improvements Project contract

document (boilerplate) specifications along with standard drawing details. Drawings are routed internally (within the design sections) as part of a process termed "peer plan check" for a check on construction BMP measures. Revisions are made to the design, when necessary and then routed to the Storm Water Pollution Prevention Division staff for a more detailed and formal review. The drawings are simultaneously routed to the Field Engineering Division of the Engineering & Capital Projects Department for a constructability review and for evaluation of the adequacy and implementation of during-construction storm water protection plans. All ensuing comments are routed back to the project managers for revision prior to the release of the construction drawings.

In December 2002, the Field Engineering Division created a Construction Storm Water Management section to assist the REs with inspections of CIP and public improvements and grading associated with private construction sites. A Senior Civil Engineer and an Associate Civil Engineer were assigned to the section. Between October 2003 and January 2004, four RE positions were filled in the Construction Storm Water Management section. Each RE was assigned an area of the City to oversee the use of BMPs for construction activities. The section is responsible for acting as a support group for the Division on storm water related issues, the development of policies and procedures as well as providing internal and external training on storm water requirements. During the reporting period, the Construction Storm Water Management Section in the Field Engineering Division was available to assist with review of public improvement projects for compliance with construction storm water regulations.

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

8.3.1.2 Private Projects

The Development Services Department (DSD) is responsible for managing construction and development project review services for private development in the City of San Diego. In December 2002, the Land Development Review Division (LDR) of DSD adopted and began implementation of the Storm Water Standard Manual, which incorporated additional construction BMP requirements with the City's existing regulations, to reduce pollutants and control runoff flows from all new development and redevelopment projects.

During FY 05, LDR review staff ensured discretionary projects were conditioned to require the incorporation of all necessary construction BMPs prior to the issuance of any construction permits. In addition, projects seeking construction permits were required to incorporate all construction BMPs on the plans and in the appropriate construction storm water plan (Water Pollution Control Plans were required on projects that did not require a State Construction NPDES Permit, and Storm Water Pollution Prevention Plans were required on projects subject to the State Construction NPDES Permit).

LDR issued approximately 435 Public Improvement and grading permits during FY 05. Each of these permits had plans which were reviewed to ensure they complied with the construction requirements found in the Storm Water Standards Manual. As part of the review process LDR

enforces the requirement that each development in excess of one acre submit a SWPPP and provide the WDID number.

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

Education and Outreach

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

8.3.1.3 *Informational Material*

- The Engineering and Capital Projects Department sends wet weather and dry weather letters to every contractor with an active construction project summarizing storm water requirements. In addition, notices were also sent to all contractors informing them of the modifications to SWPPP requirements of the State General Construction Permit.
- The Development Services Department Inspection Services Division provides a "Grading – Do it Right" brochure and video which includes information about proper storm water pollution prevention practices. The video also airs regularly on City TV 24.
- The Development Services Department Inspection Services Division provided 1,000 posters to the construction industry. The posters promote proper storm water pollution prevention practices at construction sites.
- The Water Department offered a Storm Water Refresher Course during this year's Spring Training sessions. Approximately 300 employees attended this two-hour presentation. The sessions covered reinforcement training and guidance in placement of BMPs for temporary controls in field service situations and provided updated information on common storm water protection practices. In addition, the training center also conducted one general storm water class and two specific storm water classes.
- The Construction Storm Water Management Section of Field Engineering Division distributed a storm water packet at all pre-construction meetings. These packets consist of storm water-related information which must be discussed with contractors during pre-construction meetings.
- Development Services Department prepared a new construction BMP brochure. The brochure is expected to be distributed in FY 06.

8.3.1.4 *Websites*

The Think Blue website provides information about construction activities requirements for storm water compliance within the City. The website posts the Fact Sheets created for

construction activities as well as the City's Urban Runoff Management Plan. The website also provides links for resources that can assist with selecting and implementing BMPs for construction projects.

DSD operates a webpage devoted to construction industry professionals to provide them with online services and general information about the project review process and requirements.

8.3.1.5 Outreach Events

The Development Services Department Inspection Services Division held three storm water-related education/instructional workshop events during FY 05. These trainings were to the industry regarding proper storm water pollution prevention and BMP techniques.

The Field Engineering Division of the Engineering and Capital Projects Department was an active participant in educating the public at the following events: Construction Management Academy, Building Industry Association Storm Water Training Sessions, EGCA and AGC Storm Water Training Sessions, and outreach events to youth and college students. There were a total of 16 storm water-related outreach events conducted by Field Engineering during FY 05. Approximately 1,250 storm water related education/instructional workshop/brochures were distributed during FY 05.

8.3.1.6 Internal Training and Workshops

The following notable construction BMP-related training sessions and workshops were held for City staff in FY 2005:

- The Operations work force from the Water Department received a storm water refresher training session during this year's Spring Training. The two-hour presentation was attended by approximately 300 employees, discussed the placement of temporary BMPs in field service situations, and provided updated information on common storm water protection practices. In addition, Capitol Improvement Project staff attends most construction project meetings, promoting the importance of the Storm Water Pollution Prevention Plan.
- The Water Department required supervisors and crews to attend section tailgate meetings to educate them on the implementation of Best Management Practices during cleaning and construction; responsible material delivery and storage; and solid waste recycling management.
- Staff education and training were encouraged, including attendance at the Clean Water Summit Conference in July 2004 and at updated construction manager training in storm water Best Management Practices. The Environmental Permit Section gave monthly storm water compliance presentations to contractors and consultants hired to construct and monitor CIP projects, with a focus on correct application of Best Management Practices.
- The Development Services Department Land Development Review Division held four employee training events. These trainings were attended by 71 staff with most staff members attending multiple training sessions .
- Field Division held as-needed activity-specific training for staff in the form of pre-rainy season and post-rainy season training sessions. Additionally, storm water quality topics were discussed in the monthly R.E. meeting as questions arose throughout the year. There were a total of 14 training events conducted by Field Division during FY 05. Approximately 100 employees were trained for each topic.

- Field Division provided as-needed training for the Resident Engineers based on evaluations by the Regional Water Quality Control Board, observations of Field Supervisors, and/or sites that are not complying with storm water management requirements.
- After participating in the SUSMP audit with the Storm Water Pollution Prevention Division, Field Division rolled out additional training and inspection requirements for post-construction permanent BMPs. They also worked with Development Services Department to implement better methods for identifying such BMPs on plans.
- The Development Services Department Field Inspection Division provided training to staff on storm water pollution prevention for construction sites.

8.4 ENFORCEMENT AND COMPLIANCE

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

8.4.1 Construction Site Inspections

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

Field Engineering was able to maintain the Construction Storm Water Management Section which consists of six staff members. Their tasks include assisting with inspections of construction sites for BMP implementation, providing internal and external training, coordination with other departments and agencies, and assistance in preventing discharges of construction related pollutants into the storm water conveyance system. They continued to patrol four different areas of the City to inspect active construction sites and to document any needed adjustments. The Section also pursued enforcement action for sites that did not implement and/or maintain BMPs.

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

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

Based on the construction inventory that was submitted in October 2004, there were approximately **129 high priority, 169 medium priority, and 631 low priority active construction (CIP and private) sites**. **All of these sites were inspected according to the frequencies identified in the Storm Water Standards Manual**. Depending on the status of any given project, Field Engineering is required to perform more or less frequent construction inspections. A project's priority can change from day to day. For example, a project may be going through the closeout phase in which all construction activities have been completed. For the purposes of reporting, such a project would be considered a low priority site but would not have any storm water inspections occurring. Additionally, the priority of a construction site may change due to the activities being conducted onsite and the potential to generate pollutants that may impact water quality. Therefore, the numbers listed above are a representative approximation. As previously stated, all projects were inspected based on the required frequency.

8.4.1.1 Capital Improvement Projects

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

Water Department CIP Projects

The Water Department's Capital Improvement Project (CIP) Program prioritized construction projects and conducted inspections according to the criteria set forth in the City's Urban Runoff Management Plan. A storm water checklist is completed during inspections to ensure compliance with regulatory requirements and evaluate whether the BMPs are adequate and properly implemented or whether additional control practices are needed. During the reporting period, **13 of 13 high priority sites were inspected**. There were no medium or low priority construction sites identified.

Metropolitan Wastewater Department CIP Projects

During the reporting period, there were no construction projects to be inspected

8.4.1.2 Private Projects

The Inspection Services Division of Development Services Department inspects building sites routinely for compliance to storm water requirements. Approximately 10,675 building permits were issued in FY 2005. Of these 302 were high priority and the rest were medium and low priority. 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 of Development Services Department created and implemented a special correction notice that is issued when corrections pertaining to storm water pollution prevention are needed. This notice is just that; it serves to notify the contractor that improvements must be made immediately. For more egregious or repeat issues, inspectors have been trained to issue re-inspection notices, which effectively stops work on the site until the corrections are made and the site is reinspected.

8.4.2 Hotline Complaint Investigations

The Storm Water Pollution Prevention Division manages the Storm Water Pollution Prevention Hotline and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including construction areas. A total of 3,818 calls were logged by hotline operators and 1,659 investigations were carried out by Code Compliance Staff (remaining calls were requests for information).

8.4.3 Enforcement Actions

Departments will generally coordinate with the contractor through the Resident Engineer to correct any storm water issues or potential violations. If issues are not resolved and violations occur, stop work orders are generally issued and work is halted until the site is brought into compliance with storm water regulations. During the reporting period, stop work orders were issued by Field Engineering Division REs on nine construction projects. They are listed in the following table.

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

Project Name	Date Issued	Date Lifted
Black Mountain Ranch Unit 14	10-19-04	10-26-04
Gateway Navy Housing, Clark	10-21-04	12-02-04
7043 Florey Street	10-27-04	11-03-04
La Jolla Village Drive Bridge Widening Project	01-11-05	01-31-05
High Bluff Ridge at Del Mar Heights	01-11-05	01-14-05
Gateway Navy Housing, Clark	01-07-05	01-19-05
La Jolla Village Drive Bridge Widening Project	02-22-05	03-07-05
Black Mountain Ranch North, West Clusters, North Village	02-23-05	03-03-05 Partial 04-01-05
Torrey Ranch	03-29-05	4-12-05

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

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

The Building Inspection Division issued more than 218 warnings and of that amount 44 were charged reinspection fees (which essentially stops work until the problem is fixed and approved during a reinspection by the building inspector). An additional 23 projects were told to stop work except for storm water related corrections work.

8.4.4 Reporting of Non-Compliant Sites

Inspections or investigations where sites are determined non-compliant and pose a threat to human or environmental health are reported to the Regional Board within 24 hours of the finding. During the reporting period, there was one incident of this nature at a construction site (see Appendix B).

8.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

Inspection Services Division of the Development Services Department is in the process of hiring two additional staff in order to conduct inspections and assist in the implementation and enforcement of storm water regulations for construction activities. An additional four positions are being requested for FY 06. The Land Development Review Division began coordinating with the Storm Water Pollution Prevention Division to finalize revisions to the in-house procedure for the review and approval of the Water Quality Technical Reports in an effort to comply with concerns provided by the RWQCB during their most recent audit.

It was previously reported that revisions would be made to the Construction Component of the URMP by March 2005 as well as revisions to the Engineering and Capital Projects Department's boilerplate specification language for storm water by January 2005. Due to anticipated revisions to the State General Construction Permit and the Municipal Permit, the City has delayed the completion of the Construction Component update. Modifications to the Construction Component and the boiler specification language will be evaluated once the next version of the Municipal Permit is adopted. Depending on the complexity of any revisions, we will make modifications to the Construction component of the URMP. It is difficult to anticipate what level of effort will be involved, but anticipate that it would be completed by the end of 2006.

The Water Department expects to finalize the Miramar Water Treatment Plant (WTP) Master SWPPP and use it as a model to complete similar documents to address on-going and planned construction activities at the Otay and Alvarado WTPs

The Water CIP Construction Management Section, Water Operations Division will update specification language so it is consistent with storm water compliance requirements.

9 ENFORCEMENT

9.1 LEGAL AUTHORITY

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

9.2 ENFORCEMENT ACTIONS

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

Table 9-1. FY 05 Enforcement Actions.

Enforcement Action Taken	Number Issued In FY 05
Notice of Violation	801
Citation	170
Civil Penalty	153
Prosecutions	35

Table 9-2. FY 05 Prosecutions.

Case Closed	Case Type	Description	Result
6/9/04	residential	Discharge automotive fluids into stormwater conveyance SDMC 43.0304	Pled guilty \$750 fine, \$267 restitution to City
6/16/04	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$1800 fine
6/16/04	commercial	Disposal of waste in City right of way PC 374.3	Dismissed-codef pled guilty
7/20/04	commercial	Disposal of lead acid battery H&S 25189.5 haz waste disposal	PG. \$1000 fine \$177.57 rest to City
8/16/04	commercial	Burning unlawful material in fire ring on Fiesta Island SDMC 63.20.5	Pled guilty \$150 fine
9/24/04	residential	Discharge into stormwater conveyance SDMC 43.0304	PG \$300 fine

Case Closed	Case Type	Description	Result
10/17/04	residential	Discharge into stormwater conveyance SDMC 43.0304	PG \$300 fine
11/2/04	commercial	Burning unlawful material in fire ring on Fiesta Island SDMC 63.20.5	Pled guilty \$139 fine
11/12/04	residential	Discharge into stormwater conveyance SDMC 43.0304	PG \$250 fine \$220.05 restitution
11/23/04	commercial	Illegal dumping SDMC 54.0209	PG \$250 fine
11/23/04	commercial	Illegal dumping SDMC 54.0209	PG \$250 fine
12/2/04	commercial	Illegal dumping SDMC 54.0209	PG \$250 fine \$129.29 rest to City
12/09/04	commercial	Discharge automotive fluids into stormwater conveyance SDMC 43.0304	PG \$139 fine
12/9/04	commercial	Illegal dumping SDMC 54.0209	PG \$250 fine \$129.90 rest to City
12/16/04	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$139 fine \$126.83 rest to City
12/17/04	residential	Discharge into stormwater conveyance SDMC 43.0304	PG \$250 fine
12/20/04	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$250
1/5/05	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$250
1/6/05	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$250 fine \$108 rest to City
1/26/05	commercial	Illegal dumping SDMC 54.0209	PG \$250 fine
1/26/05	commercial	Illegal dumping SDMC 54.0209	PG \$250 fine
1/26/05	commercial	Illegal dumping SDMC 54.0209	Dismissed
12/20/04	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$500 rest to city
2/16/05	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$250 fine
2/16/05	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$250 fine \$105 rest to City
2/23/05	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$250 fine \$105 rest to City
3/2/05	commercial	Illegal dumping SDMC 54.0209	PG \$50 fine
3/10/05	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$500 fine
3/22/05	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$250 fine \$131 rest to City

Case Closed	Case Type	Description	Result
3/24/05	commercial	Disposal of waste in City right of way PC374.3	Pled guilty \$500 fine rest to City
3/25/05	commercial	Illegal dumping SDMC 54.0209	PG \$120 fine \$330 rest
4/6/05	commercial	Illegal dumping/water pollution F&G 5650(a)(1)	PG \$500 fine
5/4/05	commercial	Illegal dumping SDMC 54.0209	PG \$100 fine
5/18/05	commercial	Illegal dumping/water pollution F&G 5650(a)(1)	PG \$1600 fine \$1946 rest F&G
5/26/05	commercial	Discharge into stormwater conveyance SDMC 43.0304	PG \$250 fine rest-\$142 stormwater/\$63 Env serv.

9.3 FINDINGS

In FY 05, the City of San Diego’s Storm Water Code Compliance Officers completed 1,659 investigations. Investigations are tracked by substance discharged; categories include: Construction Waste (i.e. cement-like material), Wash Water, Petroleum Hydrocarbons (i.e. transmission fluid, oil, gasoline), Sewage, Sediment, Effluent on ground (i.e. pool water, water, ground water), Latex Paint, Waste Water, and Other (i.e. grease, chemicals, trash, green waste, hazardous substance). Figure 9-1 displays the FY 05 Investigations by discharge type.

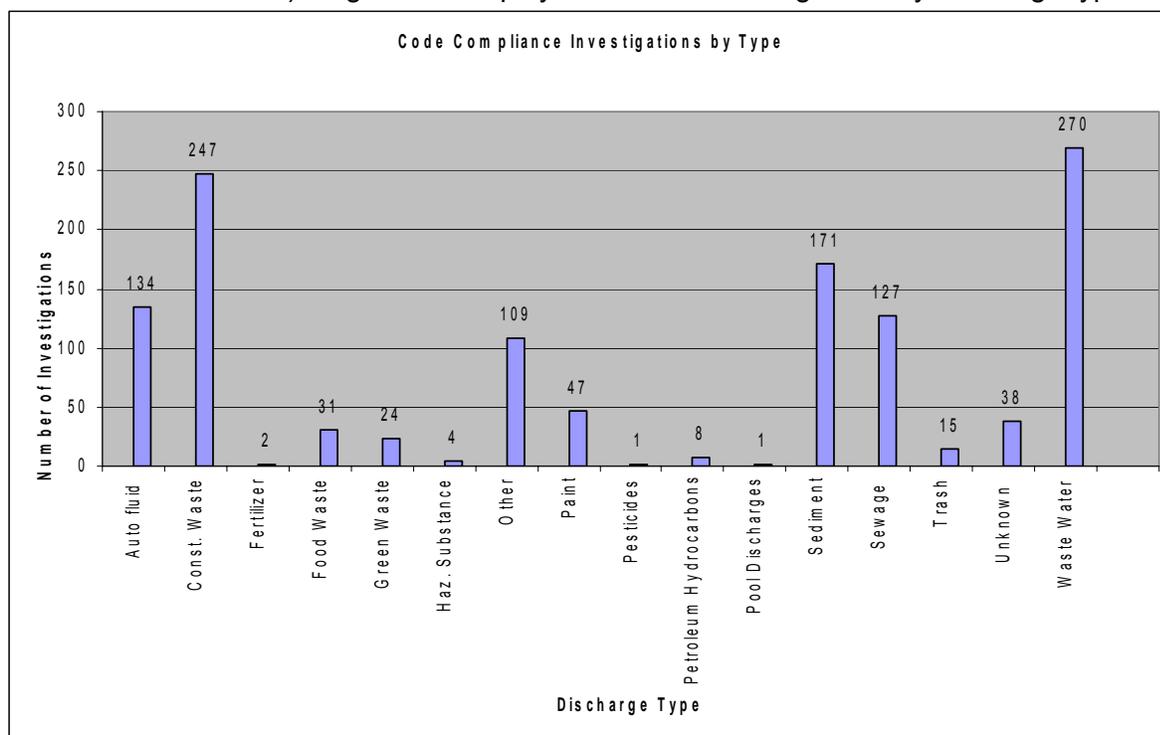


Figure 9-1. FY 05 Investigations by discharge substance type.

As a result of the City of San Diego’s investigations, 801 Notice of Violations, 170 Administrative Citations, and 153 Civil Penalties were issued. During the reporting period total penalties

assessed were \$191,257.63 Civil Penalties and \$19,600 for Administrative Citations, which averages to \$1,250.05 per Civil Penalty assessed and \$115.29 per Administrative Citation issued.

9.4 FUTURE ACTIVITIES

For the next permit year, the focus for the enforcement activities will be to continue on improving business practices. As the program has grown, business practices that were initially developed will continue to be reviewed. This review and improvement will include increasing the power and utility of our enforcement database, decreasing the turnaround time for assessment of penalties after site investigations, and a more efficient and effective organization process.

10 MONITORING

The City continued to implement the Monitoring Programs as identified in Section 1.4, “Water Quality Monitoring,” of the City’s Urban Runoff Management Plan. The Storm Water Pollution Prevention Division independently conducted, or participated with other agencies and organizations to conduct, numerous water quality monitoring studies in the San Diego region. A summary of the accomplishments in each of the monitoring programs (ongoing or completed) for FY 2005 is provided below. Findings and conclusions for the following programs (with the exception of the Toxic Hot Spots Monitoring in San Diego Bay) can be found in the 2004–2005 San Diego County Municipal Copermittee Urban Runoff Monitoring Report.

10.1 URBAN STREAM BIOASSESSMENT MONITORING

To assess the ecological health of watersheds, the Copermittees contracted Weston Solutions to collect and analyze benthic macroinvertebrate samples at numerous locations throughout each watershed in FY 05. Some of the sampling locations were located near mass loading stations so that a triad data review could be conducted. A copy of the bioassessment monitoring data and interpretation can be found in the San Diego County Municipal Copermittee 2004-2005 Urban Runoff Monitoring Report. The report contains information from sampling events conducted at a minimum of 20 reaches and three reference stations during the months of October 2004 and May 2005.

10.2 LONG-TERM MASS LOADING MONITORING

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

10.3 COASTAL STORM DRAIN OUTFALL MONITORING

The Coastal Storm Drain Monitoring Program is designed to identify illicit discharges into the storm water conveyance system, monitor the bacteria concentrations in receiving waters near storm drain outlets, and determine if urban runoff is negatively affecting recreational uses. The Storm Water Pollution Prevention Division coordinated through a regional monitoring work group attended by the County of San Diego Beach and Bay Monitoring staff, coastal Copermittees, and MEC Analytical–Weston Solutions. The SWP began coastal monitoring on schedule in November 2001. Within November 2004 through October 2005, the City monitored 12 high priority drains along the coast and five high priority drains in the Peñasquitos Lagoon on a monthly schedule from November to March and on a semimonthly schedule from April to October. The City of San Diego confirms that 357 sites were visited during this reporting period. A more detailed and comprehensive report on coastal storm drain outfall monitoring can also be found in the regional submittal from the principal Copermittee and represents a collaborative effort among members of the coastal monitoring workgroup. The coastal Copermittees have coordinated a comprehensive review of all monitoring data collected to determine trends, establish descriptive statistics of monitoring results, and provide information for further program evaluation and improvement. The coastal Copermittees have submitted recommendations for improvements to the Coastal Storm Drain Monitoring program in the 2005 Report of Waste Discharge.

During the winter of 2004 and into the spring of 2005, the monitoring staff performed a coastal inventory. There are greater than 80 known storm drain pipes that discharge to the San Diego City coastline (not including Mission Bay). Many of the drains collect water from only one street along the bluff while others capture and convey runoff from large areas. The 12 priority storm drains monitored are drains that capture large drainage areas. That does not mean that drains with a smaller catchment area do not have the ability to convey pollutants. Generally, drains with small catchment areas are dry. Monitoring these drains on the same frequency as the high priority drains would be an inefficient use of resources. The purpose of the inventory is to:

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

10.4 AMBIENT BAY, LAGOON, AND COASTAL RECEIVING WATER MONITORING

Storm Water Pollution Prevention Division participated in many of the regional monitoring program planning, data review, budgeting, and future monitoring recommendation sessions throughout the year. The monitoring for phase one and phase two began in the 2002-2003 reporting period and included activity in San Diego Bay, Mission Bay, Oceanside Harbor, and the Pacific Coastline, coastal lagoons and estuaries. Much of the Ambient Bay and Lagoon monitoring occurred in coordination with the Southern California Coastal Water Research Project (SCCWRP) Bight 2003 program as recommended by the municipal permit. The Bight 2003 monitoring coordinated, evaluated, and drew conclusions on monitoring programs performed by all the coastal counties from San Diego to Santa Barbara. The study assessed the overall health of the receiving waters and monitored the impact of urban runoff on ambient water quality. A detailed description of Phase II is discussed in the San Diego County Municipal Copermittees 2004–2005 Urban Runoff Monitoring Report.

10.5 TOXIC HOT SPOTS MONITORING IN SAN DIEGO BAY

The monitoring of San Diego Bay, formerly known as the California Bay Protection and Toxic Cleanup Program, was implemented for 10 years and identified five San Diego Bay locations that had sediment contamination causing toxicity to marine life and benthic community impairments. Due to the sunseting of California's Bay Protection and Toxic Cleanup Program, this program's goals and tasks were incorporated into the Regional Board's Pollutant Load Reduction Program for implementation under two total maximum daily load projects (TMDLs) and a Cleanup and Abatement Order. For additional information on specific projects see the "Special Projects" section.

11 ILLICIT DISCHARGE DETECTION AND ELIMINATION

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

11.1 DETECTION OF ILLICIT DISCHARGES AND CONNECTIONS

Detection of illicit discharges and connections is accomplished through a number of activities including the Dry Weather Monitoring Program (DWM), MS4 inspection, Sanitary Sewer Canyon Program, and hotline calls and referrals from other sources. During the reporting period, the **Storm Water Receiving Water Monitoring Group conducted 49 ICID investigations**, as described below.

11.1.1 *Dry Weather Monitoring for Illicit Discharges*

Between May 1, 2002 and September 30, 2002, the City implemented the first year of its Dry Weather Monitoring Program that was designed in the previous year to be consistent with requirements in Attachment E of the Municipal Storm Water Permit. The DWM program was designed specifically to detect and identify illicit discharges to the storm water conveyance system. Hence, the monitoring sites are primarily located at storm drain outlets, manholes, and storm water catch basins located in the curbside. During the 2004-2005 monitoring season, all of the 311 dry weather monitoring sites were located within the storm drain system. Each site was monitored at least one time during the monitoring period and field staff gathered extensive information about each site. Information gathered from each monitoring site was recorded on an official Dry Weather Monitoring Field Sheet. Pertinent information on the field sheet included: weather conditions, GPS coordinates, observations, discharge, color, odor, clarity, and biology.

For ease of understanding and a complete report, staff included all sites monitored during the dry weather 2004 monitoring season even if they fell outside the reporting period. Specifically, 60 monitoring sites were visited during June, 2004 which was 1 month prior to the FY05 reporting period.

The expanded Dry Weather Monitoring Program was designed to comply with the current Municipal Permit was developed during the 2002-2003 reporting period. A copy of the field book for the 2002 Dry Weather Monitoring Program can be found in the City of San Diego 2002 Urban Runoff Management Report submitted to the Regional Board. The field book contains a field monitoring form, extensive maps, directions, and standard operating procedures (SOP's). With the constant incoming data stream from routine monitoring, this program is revised and improved regularly to incorporate our ongoing learning, knowledge, and understanding.

The prescriptive monitoring requirements and associated follow-up investigations do not provide the only source for investigations. When time allows, monitoring staff follow the rule, "The long way in and a different long way out monitoring throughout." Taking a different route than normal provides opportunity to monitor new areas. Monitoring staff routinely walk canyons looking for hidden drains, drains plumbed over hillsides, and illegal dumping. In addition, monitoring staff

respond to citizen and city employee referrals where complicated conditions exist and/or multiple sources make identifying a responsible party difficult. Once a responsible party is identified the information is referred to a code compliance officer for follow-up and enforcement.

11.1.1.1 Monitoring Results

There are six major watersheds within San Diego City limits and dry weather monitoring activities occurred in all six watersheds. Table 11-1 summarizes the number of sites in each watershed and lists the number of screening and designated analytical sites.

Table 11-1. Dry Weather Monitoring Sites Per Watershed.

Watershed	Analytical	Screening	Total Sites
Mission Bay	17	59	76
Penasquitos	11	49	59
San Diego Bay	21	53	74
San Diego River	19	45	64
San Dieguito River	8	18	26
Tijuana	3	9	12

During dry weather monitoring in 2004, the City of San Diego confirms that staff monitored 311 of 311 dry weather sites at least one time each and completed the necessary monitoring, observations, sampling, and analysis. Of the sites monitored, storm water staff collected samples at 261 sites which had ponded or flowing conditions. Samples were not collected at 50 sites which had no flow and no ponded condition.

Of the 261 sites where samples were collected, 105 sites exceeded a trigger or fell outside of expected ranges for at least one screening or analytical parameter. Due to staffing limitations, the Receiving Water Monitoring Section conducted 16 Dry Weather Monitoring-related ICID investigations in CY 04. The dry weather monitoring data spreadsheets in Appendix E summarize and highlight monitoring sites with trigger exceedances and values outside expected ranges. The parameters that most frequently exceeded triggers or values outside expected ranges were bacterial indicators (total and fecal coliform and Enterococcus) and nutrients (nitrogen, ammonia, and phosphate).

After comparing the monitoring data to the response and investigation trigger levels, Storm Water Pollution Prevention Division staff identified 105 sites that had values outside expected ranges or exceeded a trigger level. Next, staff identified sites with parameter exceedances that would indicate potential illicit discharges. Specifically, sites with elevated: bacterial indicators; metals; detergents; ammonia (or combination of ammonia, nitrogen, and phosphate); and/or oil and grease were given priority investigation. A copy of each completed investigation report is available in Appendix E. Turbidity, temperature, and conductivity were not initially used to trigger an investigation though the data was reviewed and found to be helpful in identifying illicit discharges. For example, staff reviewed conductivity values at sites with values close to exceeding triggers. Low conductivity values that are consistent with drinking water may be an indication of using potable water to “wash down” or dilute pollutants. Sites with high conductivity results were reviewed to determine if the site was tidally influenced during sampling.

The dry weather monitoring program was developed to detect illicit discharge and illegal connections and the data should not be compared to or be considered an accurate assessment of ambient water quality. An assessment of ambient water quality can be found in the 2004-2005 Copermittee Storm Water Monitoring Report which included toxicity testing, storm water monitoring, and ambient bioassessment of benthic macroinvertebrates.

Based upon the monitoring results and initial data analysis, monitoring staff reviewed existing response triggers and made no significant changes to the current response triggers. Overall, the monitoring group found the dry weather monitoring program provided useful data for identifying illicit discharges, establishing background constituent levels, and review of existing response trigger levels.

11.1.2 MS4 Inspection

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

11.1.3 Sanitary Sewer Canyon Program

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

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

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

11.1.4 Hotline Calls/Referrals

The Storm Water Pollution Prevention Division operates the City's Storm Water Pollution Prevention Hotline and encourages the reporting of illegal discharges to the storm water conveyance system detected within the City. The Storm Water Pollution Prevention Division uses several strategies to capture citizen attention and impart the importance of recognizing and reporting illicit discharges and connections through television and radio programming, the Think Blue website, and educational fliers, handouts, flying discs, pencils, dustpans, etc. A total of 3,818 calls were logged by hotline operators and 1,659 investigations were carried out by Code Compliance Staff (remaining calls were requests for information).

The MWWWD operates and advertises a sewer spill hotline for the reporting of sewer spills 24 hours a day, 7 days a week. MWWWD crews are also on call 24 hours a day, seven days a week to respond to the calls.

11.2 ELIMINATION OF ILLICIT DISCHARGES AND CONNECTIONS

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

11.2.1 Education

The Storm Water Pollution Prevention Division educates residents and businesses through numerous education and outreach mechanisms. Educational materials such as flyers, door hangers, and fact sheets are distributed during events or by Code Compliance Officers while out in the field. The materials promote preventing illicit discharges through implementation of BMPs. The BMP's relate to the 3 'C's,' control, contain, and capture, which is one key component of the storm water pollution prevention message. The City also disseminates information on the Think Blue website, through Public Service Announcements, community events and workshops.

11.2.2 Complaint/Referral Investigations

Storm Water Pollution Prevention Division staff also conducts investigations of potential polluted discharges based on hotline complaints and referrals from other sources, such as other departments, agencies, etc. During FY 05, the Storm Water Pollution Prevention Division's Receiving Water Monitoring Section initiated **36 ICID investigations** from other referrals.

11.2.3 Spill Prevention and Response

The City implements spill prevention measures to eliminate and reduce the occurrence of spills and ensure that spills that do occur can promptly be contained and properly cleaned up. More detailed information about BMPs implemented during the reporting period is located in each department's FY 05 Reporting Form provided in Appendix B.

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

11.2.3.1 Sanitary Sewer Overflow Prevention and Response

The Metropolitan Wastewater Department continues to implement the measures of the Sewer Overflow Prevention Plan and the Sewer Overflow Response Plan, to prevent and contain spills,

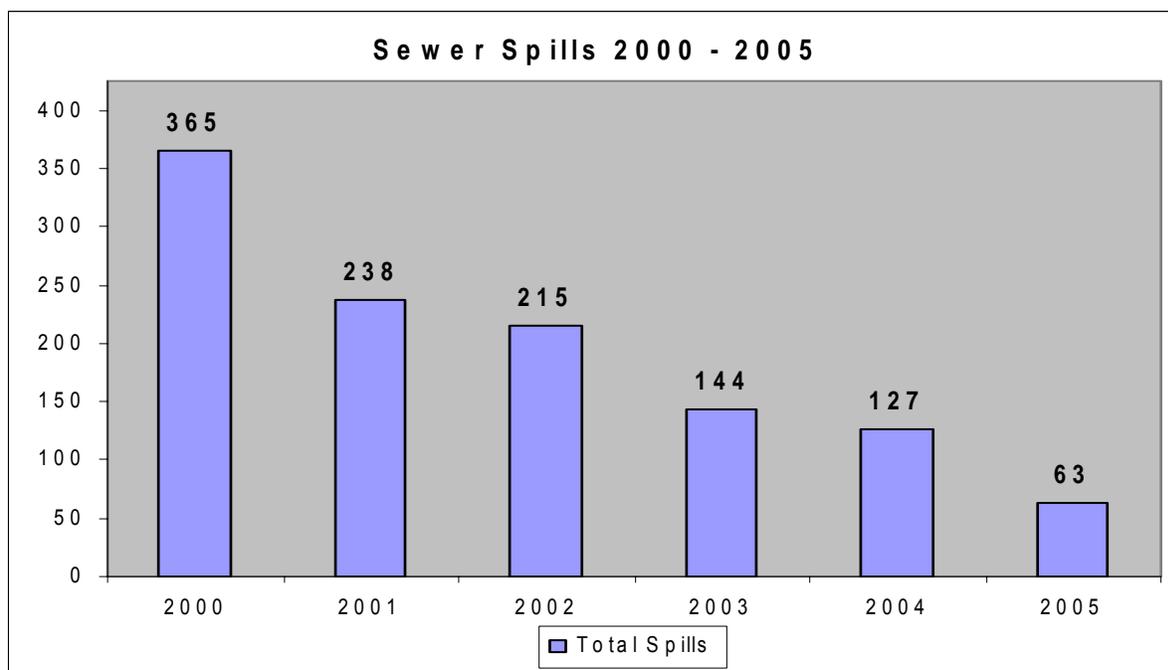


Figure 11-1. FY 05 Investigations by discharge substance type.

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

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

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

- Utilize new all surface access vehicles to maintain access to manholes while minimize habitat disturbance.

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

MWWD response crews are on call 24 hours a day/7 days a week to respond to, clean up and repair sewer leaks and spills. Once notified, crews are mobilized and dispatched to the site to capture and contain spills and prevent further discharge. Vactor trucks are generally used to collect the spill. Additional methods may be used, as necessary to properly clean the spill and any debris or litter that was mobilized as a result of the spill. Depending on the location of the spill, it may be diverted to the sewer system by the low flow diversion system if it has already reached the City's MS4.

11.2.3.2 Grease Disposal Program

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

11.2.3.3 24-Hour Reporting of Spills

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

During the reporting period, MWWD responded to and reported spills that either discharged to, or had the potential to discharge to, the City's MS4 or directly to receiving waters. Significant spills were reported to the Regional Board following the 24-hour criteria. Appendix F provides a list with associated information (time, date, location, actions taken to correct the problem, etc.), of the incidents reported in FY 05 that reached receiving waters or the City's MS4.

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

11.2.4 Enforcement

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

these mechanisms was described in Section 1.3, "Enforcement of Storm Water Ordinance" in the City's URMP Fiscal Year 2002 Report.

11.3 FACILITATE DISPOSAL OF HAZARDOUS MATERIALS

11.3.1 *Collection Facilities and Events*

The Environmental Services Department operates the Household Hazardous Waste (HHW) Program for the City and is responsible for the investigation, maintenance, collection and remediation of hazardous substances including household hazardous waste from facilities, residents, vacant land and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill. The Environmental Services Department also collects HHW from 85 certified collection centers within the City. Refer to Section 6.3.2 "Household Hazardous Waste Program" for amounts of HHW collected in FY 05.

The Fire-Rescue Department's Repair Facility at 3870 Kearny Villa Road is the collection site for used oil, using a 1,000-gallon holding tank that is emptied by a certified contractor when necessary. Used oil collected citywide from Fire-Rescue facilities are brought to this location, where the pertinent information is processed and recorded. All manifests and paperwork are kept and maintained at the facility.

11.3.2 *Education*

The Environmental Services Department provides educational outreach programs for City residents and staff and promotes prudent purchase, use, and disposal of household hazardous waste through media announcements and distribution of educational materials. These programs designed and implemented through the Environmental Protection Division are vital to the diversion of dangerous or contaminated substances from our City's land and waterways. The Storm Water Pollution Prevention Division conducts extensive education and outreach to San Diego residents and businesses to communicate the importance of proper disposal of hazardous materials and reporting of illicit discharges. These education and outreach efforts consist of distribution of informative materials, creating and running public service announcements on television and radio, and posting information on the Think Blue and Storm Water Pollution Prevention Division websites.

12 EDUCATION

The City's storm water education campaign for both the external and internal audiences is managed by the Metropolitan Wastewater Department, Storm Water Pollution Prevention Division. The "Think Blue" campaign is a multi faceted effort that encompasses public outreach and storm water pollution prevention advocacy, media advertising, and employee training. Section 11.1.4 discusses the City Storm Water Pollution Prevention Division's Think Blue campaign. Individual departments also create specific materials for their staff or customer use in protecting San Diego's water quality. Those materials are reviewed and approved by SWPPP prior to distribution.

12.1 STORM WATER POLLUTION PREVENTION DIVISION TRAINING OF MUNICIPAL EMPLOYEES

Training was provided to municipal employees via two avenues: training developed and given by Storm Water Pollution Prevention Division staff either in General Storm Water Training or Activity Specific Storm Water Training formats; and department-developed and provided Activity Specific Storm Water Training, described in Section 2, Municipal.

12.1.1 General Storm Water Training

During FY 05, Think Blue staff attended the City's New Employee Orientation session and trained all new City employees in "Storm Water and You," a general storm water pollution prevention awareness workshop in the fall of 2005. Departments performed general or activity-specific storm water training for appropriate staff, as needed. The Storm Water Pollution Prevention Division will continue to provide the general storm water training as New Employee Orientations are scheduled.

12.1.2 Activity-Specific Storm Water Training

In FY 2005, The Storm Water Pollution Prevention Division's Think Blue training section did not conduct activity specific training of targeted City staff.

12.2 STORM WATER POLLUTION PREVENTION DIVISION EXTERNAL EDUCATION AND OUTREACH

The City is concerned with both coastal and inland urban runoff abatement and the impact of one upon the other. This viewpoint stems from the unique boundaries of the city which gives it the distinction of being both the largest coastal jurisdiction and an owner of numerous inland reservoirs and key water resources in the region.

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

A few years later, the City's goals were determined by two policy developments –one municipal and one issued by the State of California– that occurred independent of one another within a short period of time. In February 2001, the Mayor of San Diego and the City Council set a goal of reducing beach postings and closures by 50 percent in four years (from calendar year 2000

statistics), and the California Regional Board adopted an updated regional municipal storm water permit (Municipal Permit). The City has reported on the progress of the Think Blue Campaign in each of the URMP Annual Reports to the Regional Water Quality Control Board.

12.2.1 Think Blue Program- FY 2005

12.2.1.1 Goals and Challenges

The City of San Diego's Storm Water Pollution Prevention Division goals for its Fiscal Year 2005 public information campaign are the same as those the Program started with. These goals are as follows:

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

June 30, 2005 concluded the fourth year of the "Think Blue" Media, Education and Public Advocacy Campaign under the MS4 permit. In prior years the Campaign was able to put forth a broad, multifaceted effort which included educating and training municipal employees, target external audiences as identified in the Municipal Permit (the residential, business and industrial audiences as well as school aged-children and the construction and development sectors), participate in Grant education and outreach activities, and actively participate in regional outreach and education efforts with the Copermittees. In Fiscal Year 2005, the campaign focused it's limited resources on meeting the requirements of existing State Proposition 13 and PRISM grants.

12.2.1.2 2004 Annual Residential Survey

Historically, the Campaign has conducted an annual Storm Water Pollution Prevention Division Follow-up Survey of City Residents. This survey provides data on how well the Campaign's efforts have penetrated the general public and quantifies our performance in reaching our goals. No survey was conducted for Fiscal Year 2005.

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

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

In addition, a number of other indicators have been moving in a positive direction, although the changes are not yet great enough to achieve statistical significance. As of August 2004, the data suggested that additional efforts in the area of public education may be successful in furthering program objectives. The mere fact that behavioral change increased from two behaviors in Fiscal Year 2003 to six in Fiscal Year 2004 strongly supported this contention. Insofar as the "Think Blue" slogan is concerned, the increase in awareness over time had been quite dramatic. Awareness of the slogan has steadily increased over time and extended to over half of the city's population. In 2001, some 31.2 percent of the City population registered awareness of the slogan. The change/increase is also statistically significant (See Figure 12-1 FY 2004 Awareness of the Slogan "Think Blue").

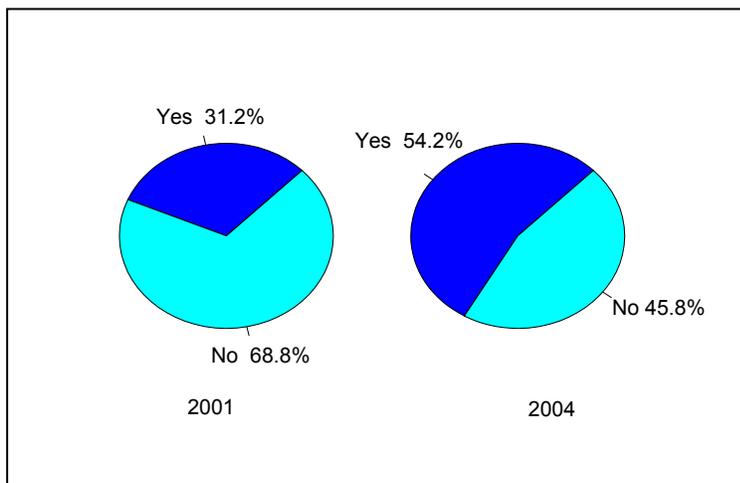


Figure 12-1. FY 2004 Awareness Of The Slogan “Think Blue.”

Finally, in terms of the campaign’s first objective, to increase awareness that storm water flows to water bodies untreated, the picture is unfortunately considerably less rosy. Awareness of this fact has actually decreased since 2001, as has awareness of San Diego’s storm drain system more generally. Thus far, residents have been willing to change behaviors without fully understanding the why—storm water flows untreated to the nearest water body. This indicated that an increased effort in outreach is needed to convey the “why” changing behavior is important to residents.

FY 2005 Media Purchase and PSA Airtime

In Fiscal Year 2005, the Campaign had limited resources available to air the existing Public Service Announcements on television and radio. A summary of the Year Four media buy is attached (see Table 12.1). The campaign aired from August 2004 through June 30, 2005 on local broadcast stations reaching the English and Spanish Speaking communities. The purchased air time totaled \$80,000, with the PSAs airing 3,769 times. The broadcast partners contributed an additional 533 free PSA airings, and other promotional opportunities such as community event booths, web page promotions, news stories and live on air interviews. The total value of the in-kind contributions of the Fiscal Year 2005 advertising partners is \$43,350, that’s a 54 percent leveraged dollar increase to our media and promotions budget. This figure is largely due to the unexpected use of our radio PSAs by MORE FM 98.9, a station we did not purchase air time from. Had we not had their contribution, our leverage match from the remaining stations listed below would be at 31 percent.

Table 12-1. Think Blue FISCAL YEAR 2004 Media Buy Year End Summary.

Station	FISCAL YEAR 2003 \$Expenditure	# Paid PSAs	# Comp N/C PSAs	Value of In-kind	Total Value
FM KPRI 102.1	\$15,000.	180	59 PSAs @\$85ea 3-Interview 3 mins Web link-year	\$ 8,000	\$ 23,000

Station	FISCAL YEAR 2003 \$Expenditure	# Paid PSAs	# Comp N/C PSAs	Value of In-kind	Total Value
B 94.9 FM	\$10,000.	42	Web link;192 PSAs; Man-on-the street interviews Streaming logo/banner & commercials (700) 5 month surf rpt sponsor	\$ 8,250	\$18,250
PLANET 103.7	\$ 9,000.	104	24 PSAs \$85 ea 30 Planet Tips @ 150 1-Interview J.Lawrence Earth Day Event	\$ 4,300	\$ 13,300
KGB 101	\$10,000.	100		-0-	\$10,000
MORE FM 98.9	-0-	-0-	232 PSAs @ \$76.72 ea	\$ 17,800	\$ 17,800
TV COX NETWORK	\$25,400.	3,220	-0-	\$ 0	\$ 25,400
XEWT 12 *	\$10,500.	123	26 PSAs @ \$125 ea 10 Did you Know tips	\$ 5,000.	\$ 15,500
TOTALS:	\$80,000	3769	# PSAs: 533 Stories: 1 Interviews: 4 #Other: 2 web links Radio Tips	Added Value \$43,350	Total Value \$123,350

* Aired entire County

** Cities of San Diego, Del Mar, Poway and Fairbanks Ranch in the County

The in-kind contributions of our media partners has been remarkably consistent since the inception of the campaign (see Table 12-2. Media leveraging,). The large drop in dollars to purchase air time severely limited the Campaign's ability to leverage additional free air-time and promotional events.

Table 12-2. Media leveraging.

	Fiscal Year 2002	Fiscal Year 2003	Fiscal Year 2004	Fiscal Year 2005
\$ Purchased Air Time	\$ 253,616.60	\$ 226,462.00	\$ 270,219.75	\$79,900
\$ In-kind value	\$ 160,286.56	\$ 135,252.00	\$ 139,868.00	\$123,350
% Leveraged	63%	59.7 %	52%	54%

12.2.2 Print Media

As in prior years of the campaign, the broadcast visibility of Think Blue generated additional print media coverage. A few print media highlights include:

- October 10, 2004, Union Tribune, "Mission Bay water might be safer than thought" B-1, Terry Rodgers.
- November 29, 2004, Union Tribune, "Cost concerns raised after L.A. voters pass pollution cleanup tax" B-1, Gordon Smith.

The value of this collateral coverage and publicity by print media is estimated at approximately \$12,000.

12.2.3 School Age Education – San Diego City Schools

Stewardship: Water Education for Lifelong Leadership – Project SWELL-



The City's effort to educate San Diego's Youth stayed on track in Fiscal Year 2005, as Project SWELL was expanded to more school grades. A major fundraising event was developed to help fund the development and long-term funding needs of the program. A description of the event is in section 12.2.6 Speaker's Bureau and Community Events, below.

In FY 2003, we began a science curricula enrichment partnership with San Diego Coastkeeper and San Diego City Schools to bring knowledge of San Diego's unique marine environment and the impact of urban runoff upon it to San Diego school children in 2003. In 2004 Project Swell's first unit was issued to correspond with the 5th grade "Water" kit used by San Diego City Schools and reaches 31,770 students. Professional development was offered to 5th grade educators to support the implementation of the 5th grade lessons.

In late 2005 the second unit, corresponding with 6th grade "Landforms" kit, will begin circulating to 9,090 students. Professional development is planned for 6th grade educators in the spring of 2006. The third unit, corresponding with 4th grade "Ecosystems" kit, will roll out in spring 2006 to 34,560 students with professional development occurring over the summer and fall of 2006. Finally, the fourth unit, corresponding to second grade "Pebbles, Sand, and Silt" will roll out in the fall of 2006 to students (the number is in the process of being identified) with professional development available in fall 2006.

12.2.4 Website

In addition to the media campaign, the Storm Water Educational web site, www.ThinkBluesd.org is available to the public and professional organizations as compliance and education resource. In Fiscal Year 2005, the City began the process of moving the site from an external, private web management company and server to a City web server. The transfer of the site disrupted our ability to track web visitors. We do not have usage data to report for FY 05. It is reasonable to assume that, at best, the site continued the historical trend of increasing traffic volume in each ensuing year and, at a minimum, it continued to receive a similar volume of traffic as in past years.

For reference, in FY 04, www.ThinkBluesd.org received more than 410,000 visits in Fiscal Year 2004 averaging more than 34,231 hits a month. The month of October 2003 recorded our highest volume of visits with some 50,047 hits, and January 2004 recorded our lowest number of hits in a month's time with 16,392. The site includes all of the Campaign's informational fact sheets, brochures, the City of San Diego's Urban Runoff Management Plan (URMP), the Storm Water Ordinance (Section 43.03 of the San Diego City Municipal Code), upcoming storm water events and outreach activity calendar, the PSAs, and other educational videos. A large portion of the site is available to browsers in both English and Spanish languages. We added a Chollas Creek Information component to the site this year. The component details out the progress on two grant projects in the Chollas Creek watershed.

12.2.5 Hotline

As a result of the decreased broadcast media campaign, in Fiscal Year 2005, the City's Storm Water Hotline, (619) 235-1000, realized a decrease in calls.

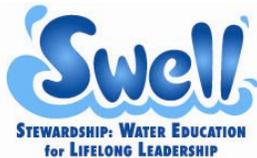
Table 12-3 Hotline Calls.

	Number of Calls
Fiscal Year 2002	2,904
Fiscal Year 2003	4,206
Fiscal Year 2004	4,397
Fiscal Year 2005	3,818

12.2.6 Speaker's Bureau and Community Events

URBAN RUNOFF:

The Think Blue Campaign did manage to debut a major event. The "Urban Runoff" was held in October 2004.



The overall goal of the Urban Runoff 5K Run/Walk & Junior 1K was to raise awareness of the need to combat urban runoff pollution, educate the public about its harmful impacts, and raise funds for comprehensive pollution prevention curricula for elementary school students, called project SWELL (Stewardship Water Education for Lifelong Leadership).

This unique event is the first of its kind that we are aware of to promote the issue of storm water runoff awareness.

The target audiences for the Urban Runoff were truly twofold. Our goal was to reach the participants who would come out to run, both adults and children. Additionally, our second target audience was elementary school students who would benefit from the Project SWELL program.

Local runners were specifically targeted including members of local racing teams, regional track clubs and military and corporate teams.

To connect with and educate our target audience the theme of preventing urban runoff was woven through the entire event, starting with the logo and race title "Urban Runoff". This theme was reinforced with the race t-shirts



that were awarded, educational booths set up at the race end point and in communication materials that supported the race, entry information, promotional ads, and radio public service announcements.

Description of funding and sponsorships:

To both engage and involve other environmental agencies and organizations, and defray costs, sponsorships were formed to support the event. The main co-sponsor with the City's Storm Water Pollution Prevention Division was San Diego Coastkeeper, a leading San Diego environmental protection non-profit organization. Additional sponsors included the City of San Diego's Metropolitan Wastewater and Water Departments, the Unified Port of San Diego, and the City of Oceanside Clean Water Program.

Corporate sponsors included Solar Turbines, Rick Engineering, NASSCO, Brown and Caldwell, The Corky McMillin Companies, Wilson Engineering, Southwest Marine, Sea World, MEC/Weston Solutions, PBS&J, Hirsh& Company, RBF Consulting and Dudek Engineering. These business sponsors contributed monetary funds at varying sponsorship levels. Our media sponsors were KPRI Radio and Get-1-Free Magazine, who contributed in-kind media services for the event. Sponsors were recognized in event materials including t-shirts, ad copy, forms and posters, radio promotions, press releases and public service announcements, information sheets for runners, company banners along the race route, and other promotional items.



Description of race logistics:

To coordinate a successful and professional event a well respected San Diego Race Management Company was hired to set up the race, Kathy Loper Events. They provided professional consultation on how to organize a successful race. In addition, they coordinated such details as race day logistics, registering runners, and providing and operating a computerized race results system.

Description of the size of the target audience:

Two hundred forty one runners and more than 100 children took part in the First Annual Urban Runoff 5K Run/Walk & Kids 1K Run. It is anticipated participation would continue to grow as the race becomes an annual established running event.

Description of results following implementation (e.g.' increased awareness, calls for information, changes in behavior, including a discussion of how these results were documented):

Thousands of San Diegans received the promotional race materials with educational messages on preventing storm water pollution such as:

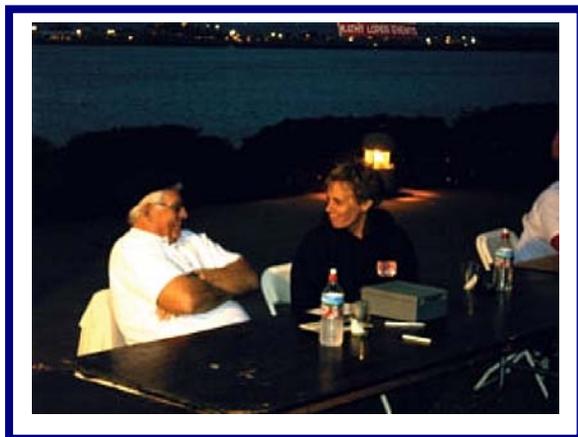
“Enjoyment of our beaches, bays and recreational waters is a promise we must realize and protect for the generations of San Diegans to come. Urban Runoff pollution threatens our quality of life and the legacy we leave our children. Join the City of San Diego and San Diego Coastkeeper at the Urban Runoff 5K to make a cleaner San Diego.”

The hundreds of runners who participated in the race will have a vested stake in protecting our waterways and promoting the message of preventing urban runoff, becoming stewards for the cause.



Following the race, runners and observers toured an environmental fair with more than 20 environmentally themed exhibits in the park. Finally, the beautiful course route along the San Diego Bay reinforced the message and meaning of the reason for the race.

Photographs of the event taking place:



Beyond the Urban Runoff, the City was unable to staff outreach events other than those specifically called for in the two state grants (see Section 0).

12.3 THINK BLUE COLLATERAL MATERIAL DEVELOPMENT AND DISTRIBUTION

The City distributed existing storm water pollution prevention materials. Unfortunately an accounting of the number of most Think Blue collateral materials distributed was not maintained in Fiscal Year 2005. Table 12-4. FY 2005 Think Blue collateral materials by target audience. **(Italics indicate new FY05 item)** identifies the Campaign's collateral materials available and distributed in FY'05 by target audiences.

Table 12-4. FY 2005 Think Blue collateral materials by target audience. (Italics indicate new FY05 item)

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children
<i>Business License Storm Water Compliance-mailer</i>			X			
<i>Post-Fire Best Management Practices (BMPs) for Runoff, Erosion and Sediment Control</i>	X	X	X		X	
<i>Recommended Dos and Don'ts for Post Fire Mitigation</i>	X	X	X		X	

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children
<i>SWELL: Investigation 5 Curricula-Teaching Binders</i>						X
<i>Pressure Wash Operators and Impervious Surface Cleaning</i>	X	X	X	X	X	
Construction BMP Poster	X	X			X	
Special Events Storm Water BMPs	X	X	X			X
Door Hanger- Help! Pollutants were found in your neighborhood storm drain.	X	X	X	X		
Clean Water Leader Card-	X	X	X	X	X	X
Municipal Code	X	X	X	X	X	X
Clean Water Leader Recognition Slip	X					
Storm Water Warrior Recognition Slip		X	X	X	X	X
Storm Water and You Training Video	X	X	X	X		X
Storm Water and You Training Workbook	X					
Think Blue: Easy Solutions...	X	X	X	X	X	X
Wally & Rufus Coloring Book						X
Trio- Storm Water Activity Sheets						X
Useful Tips For Cleaning-up Ash	X	X	X	X	X	
Automotive Fluids	X	X	X	X	X	
Car Washing	X	X	X	X	X	
Concrete Washout	X	X	X	X	X	
Construction Area Practices	X	X	X	X	X	
Dumpsters & Loading Dock Areas	X	X	X	X	X	
Industrial Facilities				X		
Industrial Regulations				X		
Landscape & Irrigation Links		X			X	
Impervious Surfaces	X	X	X	X	X	
Restaurants'			X			

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children
Sewer Overflows	X	X	X	X	X	
Spills	X	X	X	X	X	
SUSMP	X	X	X	X	X	
Swimming Pools	X	X	X			
Water Discharges	X	X	X	X	X	
BMP Websites	X		X	X	X	
Storm Drain Stencil	X	X	X	X	X	X
Dust Pans	X	X	X	X	X	X
Flyers	X	X				X
Key Chains	X	X	X	X	X	X
Pencils	X	X	X	X	X	X
Think Blue Stickers	X	X	X	X	X	X

During FY 05 over 11,500 incentive items and brochures were distributed. In addition, approximately 11,000 business license storm water compliance mailers were included in business license renewals.

12.4 OVERVIEW OF GRANT PROJECTS EDUCATION & OUTREACH

In FY 05, the City of San Diego began work on two three-year grant projects targeting the Chollas Creek area. These grants contain education and outreach elements that we hope will help identify successful methods to reach diverse residential and business audiences on the causes of storm water pollution and actions they can adopt to prevent further degradation of Chollas Creek. The IPM Education and Outreach Project is directed primarily towards residential pesticide users. The Chollas Creek Water Quality Protection and Habitat Enhancement Project is focused on outreach to commercial businesses.

Our initial activities for both grants occurred in Fiscal Year 2005 and focused on gathering data to help direct or education and outreach efforts by identifying our objectives, messages and implementation time line for each grant.

IPM Grant Strategic Objectives

Based on the research and general principles of behavioral change through public outreach programs, this project outreach and education strategy identified the following objectives:

- Raise awareness among target audiences of the benefits of using IPM practices.
- Provide tools and information that make it easy for target audiences to use IPM.
- Identify third-party spokespeople in the community to help spread information about IPM and reinforce IPM use.

IPM Grant Timeline

The following timeline outlines the first 24 months of outreach. A subsequent plan for calendar year 2006 will be developed based on the effectiveness of the 2005 efforts.

Table 12-5. IPM Grant Timeline.

Activities	Timeframe
------------	-----------

Activities	Timeframe
Focus Group Data	1/05
Meetings With Community Groups	2/05–5/06
Tailor and Distribute General IPM Educational Materials to Community	3/05–5/06
Presentations to Community Groups	3/05-8/06
Public Service Announcement Airing	5/06-1/07

Chollas Restoration Grant Strategic Objectives

Based on the focus group findings and general principles of behavioral change through public outreach programs, this project outreach and education strategy seeks to meet the following objectives:

- Raise awareness among target audiences of the importance of storm water pollution prevention.
- Raise awareness among target audiences of how they can prevent storm water pollution.
- Provide tools and information that make it easy for target audiences to use storm water pollution prevention BMPs.
- Identify third-party spokespeople to serve as examples in the community of good storm water pollution prevention behavior.

Research

In December 2004, focus groups were conducted with property managers and large and small businesses in the Chollas Creek Watershed (report attached). The purpose of these focus groups was to identify awareness of and opinions about storm water pollution and how businesses could help prevent it. Following are some of the focus group findings:

- Storm water pollution prevention is somewhat important but not a high priority for the focus group participants.
- Participants were not familiar with the concept of best management practices.
- Although not familiar with the terminology of best management practices, once explained, many participants said they did implement some of them on a regular basis.
- Participants complained that businesses are too often blamed for causing pollution and therefore more heavily scrutinized. Businesses feel residents and even City staff play a larger role in the problem.
- Many participants said they would be willing to try new things to prevent pollution as long as it didn't cost too much and as long as the City would help in some way.
- Participants thought information tailored to specific industries would be helpful.

Although focus group data cannot be generalized with a statistically significant level of confidence, these findings do provide an indication of the opinions held by the larger population of interest. They therefore provide an overall direction for the project outreach strategy.

Commercial Business Audiences

Priority audiences for this project outreach and education strategy include the following members of the Chollas Creek Watershed:

- Nurseries
- Cemeteries
- Property management companies

Chollas Area Outreach Activities

- We completed two clean-up events this reporting period. They were held April 9, 2005 and September 17, 2005.
- During this reporting period, the city held three community outreach meetings with the target audiences of both grants in attendance. In addition we attended several other community meetings we were invited to address.
- The Internet is not a primary communication vehicle for this community. However, the City does include all materials developed for the Chollas Creek Watershed outreach program on the City of San Diego "Think Blue" Web site, www.ThinkBluesd.org. The web site has posted and made available all fact sheets and collateral materials developed for both grants, <http://www.ThinkBluesd.org/Chollas/>
- Developed and issued Project fact sheets at community meetings
- Distributed IPM Pest cards at community events in the Chollas Creek area.
- We have begun dialogue aimed at recruiting commercial businesses to participate in a pilot program of business self assessment for storm water compliance. Draft materials were reviewed by businesses.
- We placed display advertisements encouraging use of pesticide alternatives in local community newspapers
- Drafted Project SWELL Curricula for the 4th and 6th grades.

Focus Groups

In December 2004 and January 2005, focus groups were conducted with residents of the Chollas Creek Watershed (report attached). The purpose of these focus groups was to identify awareness of and opinions about storm water pollution with an emphasis on integrated pest management. Following are some of the focus group findings:

- Most participants understood what storm water is, but some confused the storm water system with the sewer system.
- Storm water pollution prevention was described as somewhat important by most of the focus group participants. One described the importance by saying "We're all connected." Another said, "What goes into the water goes into you."
- Participants were not familiar with the term integrated pest management, but when it was explained, they were familiar with some of the applications.
- Most participants were willing to try IPM at their homes. Some said they would use IPM practices as long as it wasn't too inconvenient (One person said she didn't want a house full of spiders even though they eat flies).
- All participants liked the sample IPM information cards and thought they had good information.

Although focus group data cannot be generalized with a statistically significant level of confidence, these findings do provide an indication of the opinions held by the larger population of interest. They therefore provided an overall direction for the project outreach strategy.

12.5 REGIONAL EDUCATION EFFORTS WITH CO-PERMITTEES

In FY 2005, the regional Copermittees worked together with in our existing education and outreach budget of \$40,000 to host a series of Construction Industry Workshops, attend community events and produce a limited number of printed materials. The shared effort is detailed below.

Table 12-6 Regional Outreach to Construction-Related Audiences (FY 2004-05)

Date	Event Description	Estimated Attendance
11-19-04	Building Industry Association Presentation on Construction-Related BMPs and Inspections Location: Metro Wastewater – Topaz Way	100
03-11-05	Building Industry Association Permit Renewal Meeting Presentation on Construction-Related BMPs and Inspections Location: Metro Wastewater – Topaz Way	100
04-20-05	Building Industry Association Workshop Presentation on Construction-Related BMPs and Inspections Location: Rick Engineering	100
05-25-05	Building Industry Association SWPPP Workshop Presentation on Construction-Related BMPs and Inspections Location: USD, Linda Vista	100
06-01-05	Building Industry Association SWPPP Workshop Presentation on Construction-Related BMPs and Inspections Location: USD, Linda Vista	100

12.5.1 Other Regional Activities

In addition to the joint regional IPM Grant, the Copermittees conducted outreach at regional events and produced some printed materials.

Community Events: (Attendance in parentheses)

- EnviroFair 2004 – November 5 & 6 , '04 (General Business Outreach, General Public) (250)
- Commercial – Hospitality Resource Panel – SD Food and Beverage Association - April 19, 2005 (30) and May 12, 2005 (28)
- Quasi-Governmental – San Diego Fire Prevention Officer’s Association - May 18, 2005 (24)
- Commercial, Industrial and Construction – Supplier Development Council - April 25, 2005 (250)
- College Students and Parents – Cuyamaca College Parent-Daughter Night - April 26, 2005 (300)
- General Public and Commercial - Southwestern College – April 28, 2005 (1500)
- Commercial – SDG&E Food Service Seminars – (9-12 noon) 4 SDG&E Workshops for Food Service including Going Green Session
- Commercial - March 10- Cool Solutions for Food Service Refrigeration (13)
- Going Green Earth Friendly Foodservice – Presentations for Green Business and Stormwater BMPs April 28, 2005 (10)

- Equipment Selection for Savings and Success May 26, 2005 (12)
- Preventative Equipment Maintenance for Safety and Performance June 2, 2005 (15)
- Avocado Festival – April 16, 2005 (100)
- National Horse Show - April 23 (1500), 30 (1500), and May 7 (4000)
- Earth Day E-Watershed Community at Balboa Park – May 1, 2005 (100)
- Commercial- Industrial Auto Recyclers Association Meeting - May 25, 2005 (N/C) (79)
- Workshops Green Business Program Automotive Workshops (N/C):
- May 3, 2005 - Barrio Logan (3)
- May 12, 2005 - National City (30)
- June 21, 2005 – Vista (30)
- June 30, 2005 – Fallbrook (23)
- Municipal - Stormwater Inspector's Workshop – June 9, 2005 (59)

12.5.2 *Print Materials Provided on Behalf of the Regional Copermitees:*

So Cal Gas included a Clean Water Article in the December 2004/ January 2005 Gas Company News, which was distributed 530 communities (several million customers) outside of the SD County region. The article and distribution was at no cost to Copermitees.

12.6 GENERAL STORM WATER EDUCATION INFO FROM OTHER CITY DEPARTMENTS

12.6.1 *Water Department*

1. The 2004 Annual Drinking Water Quality Report was mailed to 565,744 residential and commercial customers in the City of San Diego. The report included special sections on the Drinking Water Source Assessment and Protection (DWSAP) Program and Watershed and Source Water Protection. The Division's dedication to the environment is highlighted in the Our Commitment section where more information on ISO 14001:2004 EMS is provided along with the announcement of the award recognitions. The Think Blue logo, website and phone number were also featured in the report.

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

2. Educational Posters have been designed, produced, and displayed at all nine City reservoirs to remind patrons of their responsibility to preserve and protect these drinking water sources by recycling and disposing their trash in properly marked containers.

3. City TV Bulletin Board Slides have been designed, produced, and are aired on City Access Channel 24 to remind the community of their responsibility to preserve and protect these drinking water sources by disposing their trash and recycling in properly marked containers. The Think Blue Logo is featured on these bulletin slides.

4. The Customer Care Package: Water Emergency Video and Brochure is a resource that provides information on the steps we take when responding to a water emergency, such as a

water main break. An environmental assessment and installation of storm water protection measures aimed to protect environmentally sensitive areas near a main break are mentioned in this emergency process. The 12-minute video is aired on City Access 24 television and is also available for viewing on the Department website. The brochure is handed out during a water emergency, given to community leaders to hand out, and is available on the website: www.sandiego.gov/water/operations. Media kits with this customer care package were also distributed to the local television stations, the Mayor and City Council members.

5. The Watershed Source Water Protection Display Board provides information about our water system of nine water supply reservoirs throughout San Diego County. It contains photos and information reflecting the importance of watersheds and reservoirs, and why their protection is vital to providing healthy and safe drinking water to our communities. This board was displayed at the 2005 San Diego Earth Fair, as well as at other community events. Related handouts are also distributed at these events.

6. The City of San Diego Water Department and the San Diego County Wildlife Federation (SDCWF) celebrated National Hunting and Fishing Day on September 25, 2004. This event creates a better public understanding of hunting and fishing and the important role that outdoorsmen and outdoorswomen have played in conservation and improving our natural resources. Amongst the many displays, City staff provides a booth sharing important information on ISO 14001:2004 EMS and Storm Water, educating patrons on how to help protect the quality of water and encouraging environmental stewardship. A press release about the event was distributed to local television stations, newspapers and publications. As a result, there were 15 media placements.

7. The Water Operations new Web Pages features a section dedicated to the Division's commitment to environmental stewardship. Topics appearing on the website include: Watersheds, Source Water Protection Guidelines, and ISO 14001:2004. The Division is committed to continually improving the work processes and practices to manage and minimize adverse effects on San Diego's rural, urban, and coastal environments. You can access the site at: www.sandiego.gov/water/operations.

8. The Water Emergency Service Request Door Hanger is a blue rectangle door hanger, provided to customers as a follow-up to a service request and to notify the customer on the type of service performed, such as: water was turned off, water pressure was checked, or water leaks were checked, while following ISO 14001:2004 EMS standards. The Think Blue logo is also placed on this door hanger. A sample door hanger is available on the Water Operations web pages at: www.sandiego.gov/water/operations.

9. In partnership with Caltrans, County of San Diego Public Works Division, and San Diego River Park Foundation, the City of San Diego Water Department is seeking to establish a model signage program for the creation and placement of Watershed Boundary Signs along public roadways located near its reservoirs. The signs will promote storm water pollution prevention awareness. The goal is to create opportunities to learn about the importance of watersheds, drinking water reservoirs, and encourage community stewardship of watersheds. An additional goal is for this local program to become a model for other regional and state water agencies.

10. Over 33 outreach presentations were created and performed by Water Department employees to various groups within the community including schools, public facilities, community sites, and recreation centers. The presentations discussed topics such as: water conservation, recycled water, storm water pollution prevention, and post-fire watershed protection and water quality.

11. A Watershed Source Water Protection Display Board provided information about the water system of the nine City reservoirs was exhibited at the 2005 Earth Fair. The display drew approximately 60,000 visitors and 200 related handouts were distributed.

12. Staff participated in the San Diego River Park Day and educated event participants on the importance of protecting water quality and preserving our natural resource, water.

13. Collateral Materials: Additionally, CIP and the Water Conservation Program had the following educational/informational materials and brochures”

CIP distributed an Alvarado Water Treatment Plant newsletter to 700 residents and placed 200 in local libraries. The newsletter also included an article regarding the importance of storm water pollution prevention controls at CIP sites.

La Jolla/Torrey Pines newsletter, containing storm water compliance messages, was mailed to 1200 residents and placed in the local high school.

Water Conservation Calendar was distributed to 10,000 residents city-wide. The calendar includes water conservation tips and storm water messages. The Think Blue logo is featured in the calendar.

(40) Reservoir Posters, reminding patrons of their responsibility to preserve and protect drinking water sources, displayed at all nine City reservoirs.

14. Watershed Source Water Protection Display Board providing information about the water system of the nine City reservoirs was exhibited at the 2005 Earth Fair as well as at other venues. 200 related handouts were also distributed at this event.

12.6.2 Metropolitan Wastewater Department

External Education

External outreach activities this year have included providing materials for major San Diego events such as Earth Day, participating in regional advertising efforts, and providing and editing language for external City newsletters. In addition we have provided educational items such as brochures, dust pans, pencils and other promotional items at major events throughout the City along with educational materials in both English and Spanish. We have been a major participant in “Project Swell” a storm water education program being implemented in San Diego City Schools. We are poised to expand this program to an additional grade level this fall.

13 PUBLIC PARTICIPATION

13.1 PUBLIC PARTICIPATION

The following is a summary of activities that various City departments conducted that facilitated public participation on water quality issues in FY 05.

13.1.1 *Airports-Brown & Montgomery*

Airports attended 12 Airports Advisory Committee (AAC) meetings. This is a forum for public input on airport issues, including storm water. The committee is made up of airport users, tenants, and community planning groups directly affected by the two airports. The committee was formed for and reports to the City Manager.

13.1.2 *Development Services Department (DSD)*

The public is provided a myriad of opportunities (approximately 350/year) to participate in water quality issues via Environmental Document Reviews, City Council Hearings, Planning Commission Hearings, and Hearing Officer Meetings during the project review process. In addition, DSD conducts two public workshops with the development industry each year to discuss new and relevant issues, including storm water development regulations.

13.1.3 *Engineering & Capital Projects – Field Engineering Division*

The following were open to the industry and/or general public in FY 05:

- Construction Management Academy (open to the industry to attend) (~2/FY)
- Building Industry Association – Storm Water Training Sessions (~1/FY)
- County Drainage Design Manual meetings – Revisions to current manuals (~6/FY)
- EGCA and AGC Storm Water Training sessions (~8/FY)
- Meetings with the Construction Industry (several throughout the year)

13.1.4 *Metropolitan Wastewater Department*

Metropolitan Wastewater Department (MWWD) participated in numerous outreach activities to involve the public in Storm Water Related issues and provide the opportunity for comment and involvement. Presentations have been given at various planning groups including Mission Bay and Encanto. Information and training was provided for all incoming community planning group board members at the spring training session. In addition a series of public workshops were held to involve the public in the restoration of Chollas Creek. Finally, staff from MWWD and numerous other City departments, including the Storm Water Pollution Prevention Division, participated in bi-monthly meetings with various stakeholders for the Open Space Canyons Advisory Committee. In total, MWWD held or participated in approximately 25 meetings with the public.

13.1.5 *Planning Department*

The Planning Department provided staff at many public meetings, workshops, and hearings where water quality issues were discussed. Major public outreach activities in FY 2005 included:

13.1.5.1 *General Plan Conservation Element.*

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

The new General Plan is intended to proactively address the challenges of growth and development through seeking solutions to infrastructure challenges, establishing better linkages between transit and land use planning, preserving important open spaces, strengthening our existing communities, and creating new neighborhood centers. The July 2005 Draft General Plan represents the results of five years of public input and staff work to prepare the Strategic Framework Element of the Draft General Plan and then to update the balance of the 1979 General Plan. Staff is continuing to seek public comment on the draft document and is working toward a November 2005 City Council hearing.

The complete Conservation Element draft is available online at: www.sandiego.gov/cityofvillages.

13.1.5.2 *Community Plan Activities (see Activities Reporting section for a description of each project)*

- Mission Valley Community Plan Update/San Diego River Master Plan. Planning staff regularly attended San Diego River Coalition meetings, San Diego River Conservancy, and Mission Valley Planning Committee meetings for a total of approximately 20 meetings where water quality/river issues were discussed. (Sr. Planner – 60 hours)
- La Jolla Community Plan. Staff presented the plan update to two Coastal Commission hearings, two City Council hearings, and at least two La Jolla Planning Group meetings where water quality issues were discussed.
- Ocean Beach Community Plan Update. Approximately ten Ocean Beach Update Subcommittee group meeting were held to develop, draft and discuss issues. Significant amount of time spent at each meeting on water quality, San Diego River, urban runoff, and beach cleanup issues. (Assoc. Planner - 30% time).
- Chollas Creek Enhancement Plan. FY 2005 public meetings included three community workshops; quarterly briefings with the Southeastern and Encanto Planning Committees, and regular updates to the Mayor's Wetlands Advisory Board and other environmental organizations (approximately 20 meetings).
- Central Police Garage Project. This project affected the Chollas Creek Plan, and involved several planning group meetings, as well as two Planning Commission and two City Council hearings (total of six meetings).
- San Pasqual Vision Plan. This vision plan was discussed at the San Pasqual and Rancho Bernardo Planning Group meetings, and the presented to the City Council's Land Use and Housing Committee in May of 2005 (total of five meetings).

13.1.5.3 *Watershed Plans*

Public meetings and outreach opportunities held in FY 2005 include sixteen meetings held for the Los Peñasquitos Watershed Management Plan (see Item D of Program Assessment of the Activity Reporting Form).

13.1.6 Police Department

The Police department is currently working with other City departments and community groups on the construction of the Northwestern Area Station where community input is incorporated with the design. Two community meetings were held to discuss each of these projects in FY 05.

13.1.7 General Services – Streets Division

Public comment period for Street Division Long-Term Drainage Maintenance Program Environmental Impact Report Scoping Letter and Notice of Preparation.

13.1.8 Water Department

The 2004 Annual Drinking Water Quality Report was mailed to 565,744 residential and commercial customers in the City of San Diego. The report included special sections on the Drinking Water Source Assessment and Protection (DWSAP) Program and Watershed and Source Water Protection. The Division's dedication to the environment is highlighted in the Our Commitment section where more information on ISO 14001:2004 EMS is provided along with the announcement of the award recognitions. The Think Blue logo, website and phone number were also featured in the report.

A message in Spanish is included on the outside of the English language report; directing customers to call the Public Information Office if they wish to receive a Spanish language version of the report. The Public Information Office received over 50 requests for the Spanish Report. The report also contained the Water Operations Public Information Office phone number and an email address where customers can write for more information or comment on the report. We received many complimentary phone calls and email messages in response to the report.

Staff from various sections of the Water Department attended numerous events such as: Council District meetings, community planning group meetings, community fairs and festivals, town council meetings and construction meetings. Members of the public were given the opportunity to provide feedback to our department via these meetings and also via our website.

A Watershed Source Water Protection display board provided information about the water system of the nine City reservoirs was exhibited at the 2005 Earth Fair*. The display drew approximately 60,000 visitors and 200 related handouts were distributed.

Staff participated in the San Diego River Park Day* and educated event participated on the importance of protecting water quality and preserving our natural resource, water.

In addition, CIP and the Water Conservation Program had the following educational/informational materials and brochures.

- CIP distributed an Alvarado Water Treatment Plant Newsletter* to 700 residents and placed 200 in local libraries. The newsletter also included an article regarding the importance of storm water pollution prevention controls at CIP sites.
- La Jolla/Torrey Pines Newsletter*, containing storm water compliance messages, was mailed to 1200 residents and placed in the local high school.

- Water Conservation Calendar was distributed to 10,000 residents city-wide. The calendar includes water conservation tips and storm water messages. The Think Blue logo is featured in the calendar.

Staff has also developed partnerships and collaborations with other related local and regional organizations to promote the importance water quality protection. The following is a list of other public participation opportunities that we are actively a part of:

- 11 San Dieguito Watershed meetings
- 3 Source Water Protection Guidelines Outreach meetings* to County of San Diego, Otay Ranch, and Development Services
- Development and completion of the Tijuana Vision Plan
- Development and completion of the Peñasquitos Watershed Management Plan
- Participation in Project Clean Water Technical Advisory Committee
- Participation in the Integrated Regional Water Management Plan, part of Prop 50, seeking funds for water supply, water quality, and watershed projects
- Monthly meeting for Watershed Planning efforts to review and comment with other agencies and organizations

13.2 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

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

14 ASSESSMENT OF URMP EFFECTIVENESS

An important task of the City’s Urban Runoff Management Program is to assess the progress of the program towards reducing pollutants in urban runoff. As a tangible indicator of the progress the Storm Water Pollution Prevention Division and City is making at reducing pollutants in our beaches and bays, the City has reduced the number of beach postings and closures by 76% between 2000 and 2005, and as a second indicator, the City has substantially reduced the percentage of beaches (as compared to the total miles of beaches within the City) under advisories or closures between 2000 and 2005 (See Figure 14-1). This reduction in postings and closures was in part due to the grant funding the City received to address bacteria in Mission Bay. This data suggests that the City’s efforts are making positive strides towards water quality in the San Diego Region.

As in past years, the City relies predominantly on qualitative assessments of program activities in this year’s assessment, and where possible, direct quantitative measures are used to assess the effectiveness of program areas.

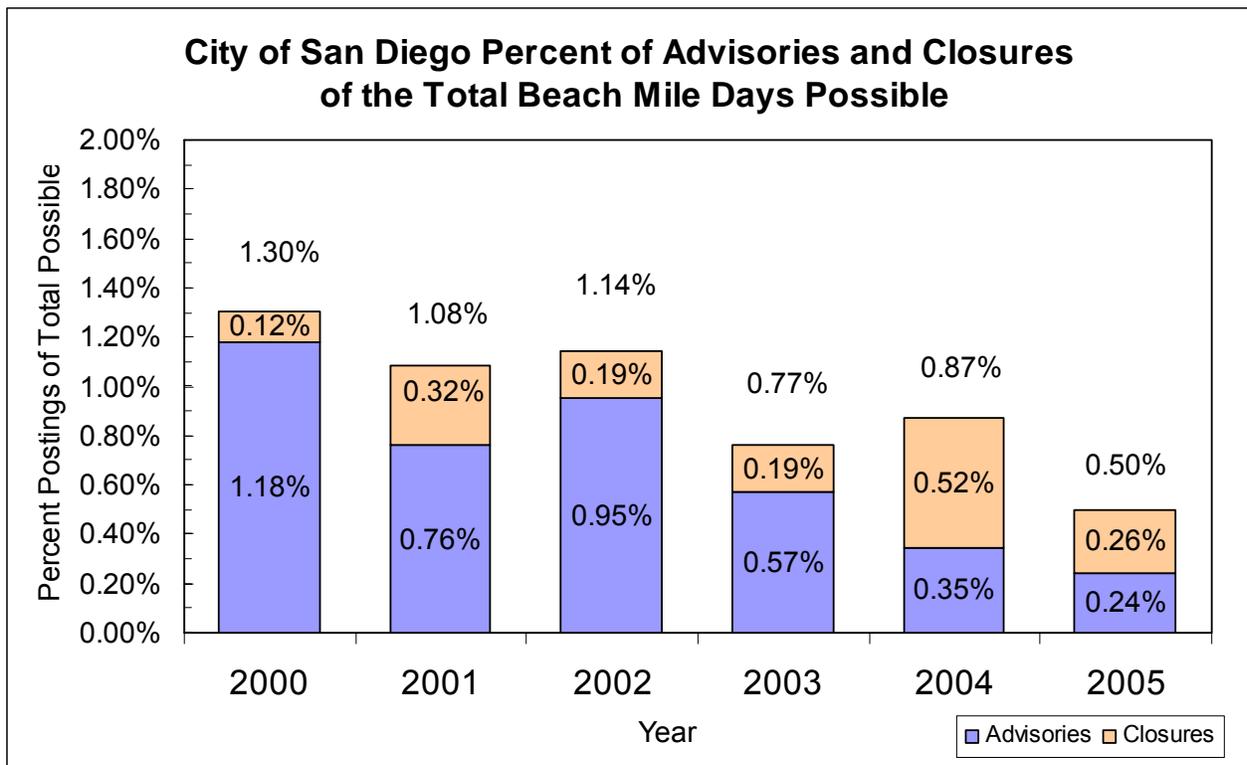


Figure 14-1. Percent of beach advisories and closures as compared to the total beach-mile-days possible.

As with previous program assessments, the Storm Water Pollution Prevention Division cannot make final conclusions regarding the program’s effectiveness on improving receiving water quality, in FY 05. The high variability of contributing factors to urban runoff monitoring, such as geography, vegetation, duration and intensity of storm events, ambient environmental conditions, existing conditions of receiving waters and wildlife such as birds, makes it difficult to define typical storm water discharges, let alone develop standardized means of assessing their

impacts. This variability in storm water monitoring data necessitates greater temporal and spatial breadth in data sets before they can be considered statistically significant. However, in some cases, we can identify quantities of pollutants removed from the storm drain system, changes in public awareness of storm water issues, and identify behavioral change by the public – all of which may be used to draw inferences regarding effective program implementation.

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

- ✓ *The City's Think Blue education and outreach program is focusing its efforts on the San Diego Bay Watershed with grant activities to increase awareness of storm water pollution with the residents and businesses surrounding Chollas Creek, a major tributary to San Diego Bay.*
- ✓ *The City's pollution abatement efforts continue to identify and abate sources of pollution, as evidenced by the reductions in beach postings and closures over the last five years.*
- ✓ *The City's special monitoring studies have identified and characterized water quality issues, such as bacteria in Mission Bay, so that program efforts can be most effectively applied to sources of pollution.*
- ✓ *The City has obtained approximately 8.4 million dollars in grants and contributed City funding to implement monitoring projects, special studies, habitat and wetlands improvement projects, and other BMPs all focused on protecting and improving water quality.*
- ✓ *The City continues to expand and maintain the low-flow diversion system to direct urban runoff during dry weather away from Mission Bay and other coastal areas to the wastewater treatment system.*
- ✓ *The Development Services Department and the Engineering & Capital Projects department continue to work collectively to send a strong message to the development industry that the City is serious about storm water compliance at construction sites.*

14.1 METHODOLOGY

The primary responsibility for the assessment of the overall program is with the Storm Water Pollution Prevention Division. However, other departments subject to requirements within the Urban Runoff Management Program are responsible for self-evaluation and reporting to the Storm Water Pollution Prevention Division. As part of the reporting process, departments quantified activities relevant to each component of the URMP and provided a qualitative account of specific component activities. Each department also provided financial information for storm water expenditures for the past Fiscal Year (Refer to Section 15 "Fiscal Analysis"). Completed Department Reporting Forms are provided in Appendix B.

This section presents the results of the quantitative and qualitative assessment provided by each department or program and presents an analysis of the strengths and weaknesses of each program component. The analyses in Sections 14.2 through 14.4 below were structured using five of the six components, or levels, of the program assessment strategy developed by the Copermittees, which are:

- Level 1: Compliance with activity-based permit requirements
- Level 2: Changes in knowledge or awareness
- Level 3: Behavioral change/BMP implementation
- Level 4: Load Reductions
- Level 5: Changes in Discharge Quality (not analyzed)
- Level 6: Changes in Receiving Water Quality

Documentation of Levels 1-4 is fairly straightforward, whereas documentation of Levels 5 & 6 requires the development and implementation of scientific studies designed specifically to detect changes in the quality of urban runoff discharges. Moreover, the detection of changes in discharge quality and, in particular, changes in receiving water quality require the collection of data over several years to detect and confirm change. Although the City of San Diego has very few data sets that span several years, we are working to collect this information and improve the process. Confirmation of changes in water quality throughout the City's watersheds cannot yet be determined.

It should be noted however, that the number of beach postings and closures (which are closed when bacteria levels exceed certain standards), have reduced by 76% between calendar year 2000 and 2005 (see Table 14-8, in the Monitoring sub-section below). This Level 6 measure—a 76% reduction in beach postings and closures—is an indicator of an improvement in receiving water quality within the City of San Diego, and is the ultimate management goal of the Storm Water Program. Although it is premature to draw linkages between program efforts and receiving water quality, it can be inferred from this data that the Storm Water Pollution Prevention Division's efforts have, to some degree, positively contributed to water quality in the region.

14.2 LEVEL 1: COMPLIANCE WITH ACTIVITY-BASED PERMIT REQUIREMENTS

The Program Component Assessment section (Level 1 analysis) below provides an analysis of one or several available measures in each program area. Please note that specific measures have not been developed by the Copermittees. Also, the Storm Water Pollution Prevention Division did not identify targeted outcomes for many of these measures, in which case the assessment is limited to a qualitative analysis.

14.2.1 Municipal

Table 14-1. Level 1: Compliance with activity-based permit requirements – Municipal.

Applicable Permit Section	Activity	Measure of Success	Target	FY 05 Actual	FY 04 Actual
F.3.a.(5)	Inspect Storm Drain Structures	% Completion	≈75,000 (100%)	12,971 (17.3%)	16,069 (21.4%)
F.3.a.(5)	Clean Storm Drains	% Completion	≈1,050 Miles (100%)	4.9 miles (.5%)	6.3 miles (.6%)
F.3.a.(7)	Inspect Municipal Facilities	% Completion	540* (100%)	615 (114%)	540 (100% of facilities operated in FY 04)

*Excludes City-owned leased properties.

14.2.1.1 Program Strengths

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

Table 14-2 Municipal Facilities with Water Quality Plans

Municipal Facility	No. of Facilities	Type of Plan Implemented
Municipal Yards/Operation Stations	5	SWPPP or WQMP
Airfields	2	SWPPP
Park & Recreation Facilities	429 ⁽¹⁾	BMP Manual for Storm Water Pollution
Landfills	7	SWPPP
Fire Department Facilities	47	SWPPP or WQMP
Wastewater Pump Stations and Reclamation Plants	10	SWPPP
Police Facilities	13	WQMP
Stadium	1	SWPPP
Water Treatment Plants	3	SWPPP
Reservoirs	41	SWPPP
Other Water Reservoirs and Pump Stations	57	Quarterly Storm Water Inspection Program

¹ Although each park and recreational facility is maintained and inspected by staff, storm water issues at these facilities are managed collectively by the Park & Recreation BMP Manual for Storm Water Pollution.

In the fourth year of program implementation, City departments improved their programs for BMP implementation at municipal facilities and for municipal activities. For example, the City began requiring employees to block storm drain inlets and vacuum up wastewater when pressure-washing during FY 04. It wasn't until FY 05 that the City began the process of developing written pressure washing procedures for all City departments. Written procedures were completed and associated activity-specific training was provided in early FY 05. All facilities and activities that have the potential to impact water quality are required to implement BMPs to reduce or eliminate pollutants. City staff was trained in general principles and, where necessary, activity-specific storm water issues and BMP implementation. High priority facilities were regularly inspected and problems were corrected where issues were observed.

14.2.1.2 Program Improvement Areas

The Street Division will continue seek to expand it's street sweeping and storm drain system cleaning efforts. In the interim, the Street Division will continue to prioritize resources in the areas of the storm drain system in most need of maintenance and cleaning to maximize efficiencies.

In addition, maintaining a database of municipal facilities continued to be a challenge in FY 05. Identifying and accounting for all municipal facilities is difficult because various separate databases are managed by individual departments which are continuously being updated. The City will continue to work to integrate and manage the separate municipal facility databases.

14.2.2 Industrial

Table 14-3. Level 1: Compliance with activity-based permit requirements – Industrial.

Applicable Permit Section	Activity	Measure of Success	Target*	FY 05 Actual	FY 04 Actual
F.3.b.6	Inspect Industrial Facilities	% Inspected	243 (100%)*	243 (100%)	381 (100%)

*This is not a complete list of high priority sites. For the complete list see Section 14.2.2.2 below.

14.2.2.1 Program Strengths

The Storm Water Pollution Prevention Division continued to use an environmental consultant/contractor to perform industrial inspections. In addition to the environmental consultant a few inspections were performed by well-trained pretreatment inspectors within the City’s own Metropolitan Wastewater Department. The inspections were very thorough and included documentation on a field inspection sheet. In addition, the contractor continued to use a relational database to track inspections performed during FY05. This database should also allow City Storm Water Pollution Prevention Division staff to evaluate inspections on a GIS system. Using the GIS system, Storm Water Pollution Prevention Division staff may be able to relate abnormalities in dry weather monitoring data to industrial activity and industrial activity with code compliance enforcement activity.

The Data management challenges in FY 03 were not experienced in FY 04 or FY 05. The Storm Water Pollution Prevention Division’s environmental consultant developed a relational database that tracked industrial inspections. While this system is not sophisticated, the database allows Storm Water Pollution Prevention Division staff to inventory, prioritize, and manage the data needed to implement the Industrial Component and evaluate its effectiveness.

14.2.2.2 Program Improvement Areas

Due to vast number of industrial businesses in the City (2,505 based on North American Industry Classification System codes) that are potentially subject to industrial inspection permit requirements, and the complexity in categorizing businesses into appropriate classifications, the exact number of high priority sites as defined by the Municipal Permit is not known. The City's database of industrial facilities, though complete, does not accurately prioritize all of the sites into their appropriate high, medium or low categories. As a conservative measure, many sites which likely are not high priority have been identified as such until the City can verify their priority through inspection. In the interim, the targeted number identified above (243) includes only the list of sites which the City can accurately verify are high priority. Specifically, this subset includes sites inspected by the MWWP Pretreatment Program and sites that possess a General Industrial Permit within the City of San Diego. The Storm Water Pollution Prevention Division will continue to re-prioritize its industrial facilities database.

The Storm Water Pollution Prevention Division will continue efforts to expand the Industrial Inspection Program to include inspections beyond the 243 sites inspected in FY 05.

14.2.3 Commercial

Table 14-4. Level 1: Compliance with activity-based permit requirements – Commercial.

Applicable Permit Section	Activity	Measure of Success	Target*	FY 05 Actual	FY 04 Actual
F.3.c	Notify commercial business of storm water regulations	% completion	100% (100,000 business licensees)	11,000 (11%)	11,000 (11%)
F.3.c.4	Inspect Commercial Facilities	% Completion	3,000 (100%)	4,469 (149%)	3,703 (123%)

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

14.2.3.1 Program Strengths

The City's Food Establishment Waste Discharge (FEWD) program within the Metropolitan Wastewater Department conducts routine inspections at restaurant facilities. FEWD inspectors have been formally trained to conduct storm water inspections in and around restaurants. The FEWD program inspects many of the 14,000 restaurants within the City of San Diego and reports any potential storm water violation to the Storm Water Pollution Prevention Division. During the reporting period, the FEWD inspected 4,469 restaurant facilities.

In FY 05, code compliance officers investigated reports of illegal discharge into the storm water conveyance system from commercial facilities. Many of these investigations resulted in enforcement actions.

14.2.3.2 Program Improvement Areas

The Storm Water Pollution Prevention Division recognizes the need to increase the distribution of educational materials to business owners. The City will continue efforts to increase the distribution of educational materials in future years.

Data management continued to be a challenge in FY 05 although it not as significant as in previous reporting years. FEWD and the Pretreatment Program have added fields to their databases which allow them to better track and report. The Storm Water Pollution Prevention Division recognizes that a more sophisticated system to track commercial facilities within the City would help; however, current budget constraints prevent immediate development and implementation of such a resource to track the implementation of the Commercial Component and evaluate its effectiveness. Better coordination is needed with other City departments to track and prioritize existing commercial facilities within the City.

The Storm Water Pollution Prevention Division's Code Compliance Section faced challenges in attempting to track enforcement actions by permit section (i.e. residential, commercial, industrial, construction). As a result, enforcement actions taken for violations commercial facilities are not known. The City will continue to work to improve data tracking and management. The City currently tracks enforcement actions by type of discharge and find that it better serves our needs in managing the relevant issues, such as ensuring fairness between different enforcement actions of the same discharge type.

The City's commercial inspections are currently limited to restaurants. While these inspections address the primary potential commercial source of storm water pollution, in future years the Storm Water Pollution Prevention Division will continue efforts to expand the inspection program to a second tier of commercial uses warranting inspection.

14.2.4 Residential

Table 14-5. Level 1: Compliance with activity-based permit requirements – Residential.

Applicable Permit Section	Activity	Measure of Success	Target*	FY 05 Actual	FY 04 Actual
F.3.d	HHW Collection	% completion	100% of FY 03 total (1,043 tons)	1,093 tons* (105%)	1,071 tons* (103%)

* The amount of HHW collected can be assumed to be higher since 61 of the 92 certified HHW collection centers did not track the amount of HHW collected.

14.2.4.1 Program Strengths

The Environmental Services Department’s Household Hazardous Waste (HHW) Program is responsible for the investigation, maintenance, collection and remediation of hazardous substances including HHW from facilities, residents, vacant land and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill. The Environmental Services Department also collects HHW from 92 certified collection centers within the City. Aside from the benefit of collecting over 1,000 tons of hazardous waste, this program helps protect water quality because a large component of the HHW Program is conducting education and outreach to educate residents on the proper use and disposal of hazardous materials.

Also in FY 05, City code compliance officers investigated reports of illegal discharge into the storm water conveyance system in residential areas. Many of these investigations resulted in enforcement actions and also provided another opportunity to educate members of the public.

14.2.4.2 Program Improvement Areas

The Storm Water Pollution Prevention Division’s Code Compliance Section faced challenges in attempting to track enforcement actions by permit section (i.e. residential, commercial, industrial, construction). As a result, enforcement actions taken for residential violations are not known. The City will continue to work to improve data tracking and management. The City currently tracks enforcement actions by type of discharge and find that it better serves our needs in managing the relevant issues, such as ensuring fairness between different enforcement actions of the same discharge type.

14.2.5 Land Use Planning

Table 14-6 Level 1: Compliance with activity-based permit requirements – Land Use Planning

Applicable Permit Section	Activity	Measure of Success	Target	FY 05 Actual	FY 04 Actual
F.1.b	Apply SUSMP requirements to applicable development	% completed	100% (302 projects)	302 (100%)*	378 (100% of projects in FY04)

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

14.2.5.1 Program Strengths

- ✓ In December 2002, the City began implementation of the Storm Water Standards Manual for both private and public projects. The Storm Water Standards Manual incorporated additional permanent (including SUSMP requirements) and construction BMP requirements into the City’s existing storm water-related development regulations to reduce pollutants and control runoff flows from all new development and redevelopment projects. Development

Services staff performing SUSMP review on private projects continue to undergo periodic training and are involved in bi-weekly discussions involving storm water requirements for development.

- ✓ In October 2002, the City Council adopted the Strategic Framework Element and the associated Five-Year Action Plan. In FY 05, the Planning Department continued to implement the general plan updates identified in the Strategic Framework Element, such as incorporating water quality and watershed protection principles into the Conservation Element of the General Plan.
- ✓ The Ocean Beach and Mission Valley Community Plans were in the process of being updated in FY 05 to include new language that states that development in the Ocean Beach Community Plan area must adhere to all of the City’s storm water development regulations, including the Storm Water Standards Manual.
- ✓ The Water Department took the lead in the region in developing Source Water Protection Guidelines for new developments to guide future activities in the San Diego County watersheds that drain into drinking water reservoirs. The completed Guidelines can now be used to assist municipal agencies, designers, land planners, developers, and citizens to conduct site design planning and select BMPs that protect or improve the quality of runoff draining into drinking water reservoirs.
- ✓ The Planning Department completed the Los Peñasquitos Watershed Management Plan. The plan identifies issues and opportunities within the watershed to improve water quality.

14.2.5.2 *Program Improvement Areas*

The Storm Water Pollution Prevention Division has identified a need to continue training for City staff responsible for implementing SUSMP requirements on both public and private projects. As of the writing of this report, the Storm Water Pollution Prevention Division completed and distributed an informal SUSMP review checklist and completed formal training sessions with CIP project managers and private development project review staff. In addition, the Storm Water Pollution Prevention Division will continue to meet monthly with the Development Services Department and when available, attend informal bi-weekly training meetings.

14.2.6 Construction

Table 14-7. Level 1: Compliance with activity-based permit requirements – Construction.

Applicable Permit Section	Activity	Measure of Success	Target	FY 05 Actual	FY 04 Actual
F.2.g	Inspect high priority construction sites	% completion	100% (129)	129 (100%)	69 (100% of sites in FY04)
F.2.g	Inspect medium/low priority construction sites	% completion	100% (800)	800 (100%)	759 (100% of sites in FY04)

14.2.6.1 *Program Strengths*

Over 13,000 private and CIP construction projects were tracked during the reporting period. Of those projects, 129 were identified as high priority and all were inspected. BMPs are required and being enforced for all construction projects consistent with the requirements of the City’s Storm Water Standards. The Field Engineering Division’s ability to inspect and ensure effective

implementation of BMPs on grading sites was again largely due to the Construction Storm Water Management Section. This section, which included one senior and one associate engineer, now includes two additional staff, and provides “in-house” expertise on storm water requirements to resident engineers and serves as training coordinators and liaisons to other departments on storm water issues.

The City conducts important education and outreach efforts for construction activities. Efforts include distribution of educational materials, posting of information on websites, and workshops for the construction industry.

14.2.6.2 Program Improvement Areas

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

Although the Inspection Services Division and Field Engineering Division have effective programs in place to ensure all job sites are inspected and tracked, the City generally lacks software and data management tools designed to capture data for reporting purposes. This will be an area for continued improvement in future years.

14.2.7 Monitoring

Table 14-8 Level 1: Compliance with activity-based permit requirements – Monitoring

Applicable Permit Section	Activity	Measure of Success	Target	FY 05 Actual	FY 04 Actual
Attachment B (C)	Monitor Coastal sites	% Completed	357 (100%)	357 (100%)	323 (100% of sites in FY04)
Attachment E(4)	Monitor dry weather sites	% completed	311 (100%)	311 (100%)	293 (98% of FY 04 sites)

14.2.7.1 Program Strengths

In FY 05 Storm Water Pollution Prevention Division staff visited 311 sites and performed monitoring at all of these sites within the storm water conveyance systems as part of the dry weather monitoring program. This provides thorough coverage of the six watershed areas within the jurisdiction of the City of San Diego. Dry weather monitoring data is stored in a spreadsheet which allows for limited GIS mapping as well as some statistical capabilities. This data storage method has allowed Storm Water Pollution Prevention Division staff to perform limited statistical analysis in order to refine investigational triggers and identify areas that need further investigation. The dedication and thoroughness of Storm Water Pollution Prevention Division staff continues to make positive contributions to improving water quality.

The Storm Water Pollution Prevention Division’s monitoring staff implement the Coastal Storm Drain Monitoring Program. During this reporting period all site visits were as scheduled. The Storm Water Pollution Prevention Division’s monitoring staff also participates in regional monitoring workgroup, the Regional Harbor Monitoring Program, and TMDL workgroups.

14.2.8 Enforcement

Table 14-9. Level 1: Compliance with activity-based permit requirements – Enforcement.

Applicable Permit Section	Activity	Measure of Success	Target	FY 05 Actual	FY 04 Actual
F.5.c	Investigate identified illicit discharges	% Completed	1,659 (100%)	1,659 (100%)	1,694 (100% of complaints in FY04)

14.2.8.1 Program Strengths

The Storm Water Pollution Prevention Division’s Code Enforcement Section enforces the storm water ordinance and works with the City Attorney’s office to prosecute noncompliance through administrative citations, civil penalties, and criminal proceedings. Every single reported discharge reported to the Storm Water Pollution Prevention Division was investigated. In FY 05, the result of those investigations resulted in the issuance of 801 notices of violation, 170 citations and 153 civil penalties.

The Program’s enforcement activities effectiveness can logically be attributed to several notable strengths: the Code Enforcement Section’s code enforcement officers are well trained, efficient, and dedicated to enforcing the City’s Storm Water Ordinance; a knowledgeable attorney and personnel in the City Attorney’s office provide knowledgeable assistance in the enforcement process; efficient coordination between code enforcement officers and other Storm Water Pollution Prevention Division staff, other City Departments, and other agencies; the readily available Think Blue public information fact sheets; operation and public awareness of the City’s storm water pollution prevention hotline; and citizens’ awareness of violations and willingness to call and report. Each of these groups calls the hotline and it is reflected in the number of investigations. A chart summarizing the investigations by month is inserted below.

As a result of difficulties in tracking and querying enforcement data, the Storm Water Pollution Prevention Division’s Code Compliance Section began development of a database to track enforcement actions. This database is helping to assess workload, enforcement locations, investigation status, and violation resolution. The Code Compliance Section will work on modifying the database to allow tracking in a relational GIS system.

14.2.8.2 Program Improvement Areas

In FY 05, civil penalties decreased by 14% over the prior fiscal year, and administrative citations dropped by 39%. [Chris- I deleted this highlight in it’s entirety].

14.2.9 Illicit Discharge Detection and Elimination

Table 14-10 Level 1: Compliance with activity-based permit requirements – Monitoring

Applicable Permit Section	Activity	Measure of Success	Target	FY 05 Actual	FY 04 Actual
F.5.c	Investigate potential illicit discharges	% Completed	181 (100%)	48 (35%)	47 (45% of FY 04 potential discharges)
F.5.d	Eliminate detected I.D.	% completed	177 (100%)	33 (25%)	47 (45% of FY 04 investigations)

	connections				
--	-------------	--	--	--	--

14.2.9.1 Program Strengths

In addition to generating investigations as a result of monitoring, reports of “foul smelling water” and areas that look “gross” initiate subsequent investigations. These investigations generally lead to identification of illegal discharges and appropriate enforcement actions are taken against the responsible party.

14.2.9.2 Program Improvement Areas

Storm Water Pollution Prevention Division staff were unable to perform some follow-up investigations in a timely manner. While chronic sources of pollution are easily identified with traditional tracking and investigation methods, single or intermittent illegal discharges can be harder to track and investigate when a long period of time has elapsed. Furthermore, some intentional violators perform work which results in illegal discharges at night. The City will continue efforts to expand the program to reduce investigation response times and allow staff to work night shifts to increase the number of illicit discharges identified.

14.2.10 Education

Table 14-11 Level 1: Compliance with activity-based permit requirements – Education

Applicable Permit Section	Activity	Measure of Success	Target	FY 05 Actual	FY 04 Actual
F.4	Conduct outreach	% completion	100% of 2003 number of 89	Unknown. Materials distribution was not tracked in FY'05.	49 (55%)
F.4	Distribute educational materials	% completion	100% of 2003 amount of 48,725	Unknown. Materials distribution was not tracked in FY'05.	154,390 (316.5%)

14.2.10.1 Program Strengths

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

Other departments conducted education and outreach to employees and target audiences. Many departments provided staff with additional general and activity-specific storm water training in FY 05, including the Park and recreation Department, and Field Engineering Division. Additionally, many departments created and distributed a large number of storm water educational materials and advertisements and conducted workshops and outreach programs as both internal and external education measures.

14.2.10.2 Program Improvement Areas

Historically, the strengths of this program were in its Public Service Announcements (PSAs) and media leveraging to increase PSA air time on local television and radio stations. The campaign reaches all corners of the county and assists all jurisdictions governed by the Municipal Permit in achieving regional education and awareness.

In terms of the campaign’s first objective, to increase awareness that storm water flows to water bodies untreated, the picture is unfortunately considerably less rosy. In looking at Fiscal Year 2004 Survey results, awareness of this fact decreased since 2001, as has awareness of San Diego’s storm drain system more generally. Thus far, residents have been willing to change behaviors without fully understanding the why—storm water flows untreated to the nearest water body. This indicates an increased effort in outreach is needed to convey “why” changing behavior should be important to residents. Thus, the Storm Water Pollution Prevention Division has identified a need to continue to focus education efforts on educating the commercial, industrial, and construction sector, and educating the various audiences that the storm drain system is not part of the sewage collection system. The City will continue efforts to expand its education and outreach programs to more effectively reach target audiences and affect behavioral change.

14.2.11 Public Participation

Table 14-12 Level 1: Compliance with activity-based permit requirements – Public Participation

Applicable Permit Section	Activity	Measure of Success	Target	FY 05 Actual	FY 04 Actual
F.6	Events allowing the public to participate	# Conducted	500	488 (98%)	629 (129%)

14.2.11.1 Program Strengths

The City’s efforts to continue promoting public participation have been notable in FY 05. Departments city-wide have provided opportunities for public involvement and have implemented measures to solicit public input related to storm water issues. Some of these efforts include, but are not limited to workgroup meetings, several citywide hotlines to take public comments and questions, volunteer programs and events, community and council meetings, fairs, presentations, and workshops.

14.3 LEVEL 2: CHANGES IN KNOWLEDGE/AWARENESS

The following analyses of changes in knowledge or awareness are a necessary precursor to desired behavioral changes. Such changes are most often targeted through outreach or training programs. Once obtained, they presumably form the basis of behavioral change and therefore BMP implementation. For example, it can be argued that an increase in a resident engineer’s knowledge of proper use of construction BMPs may result in more effective inspections, which in turn may result in a construction contractor properly implementing BMPs on a job site. The following sections identify measurable program areas where positive changes in knowledge or awareness have been identified.

14.3.1 Hotline Activity

Table 14-13. FY 02, through FY 05 Hotline Calls Received.

	Number of Calls
Fiscal Year 2002	2,904
Fiscal Year 2003	4,206
Fiscal Year 2004	4,695
Fiscal Year 2005	3,818

14.3.2 Complaints

In FY 05 1,659 complaints were reported to the Storm Water Pollution Prevention Division, compared to 1,694 in FY 04. With the drop in hotline calls and the consistent level of investigations it can be inferred that a higher percentage of calls actually concern storm water discharges rather than requests for information or misdirected calls.

14.3.3 Residential Survey Results

Table 14-14 Changes in Knowledge or awareness – Residential Survey

Applicable Permit Section	Activity	Measure of Success	Target*	FY 05 Actual	FY 04 Actual
F.3.d	Expand Think Blue Education	% Public aware of Think Blue	31.2% (2001 level)	No survey performed	54.2%

14.3.3.1 Program Strengths

The City was unable to conduct the Annual Residential Survey for Fiscal Year 2005. However we can reasonably infer that much of the gains the campaign has documented since inception in 2001 have been maintained.

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

Insofar as the “Think Blue” slogan is concerned, the increase in awareness over time has been quite dramatic. Awareness of the slogan has steadily increased over time and now extends to over half of the city’s population. In 2001, some 31.2 percent of the City population registered awareness of the slogan. The change/increase is also statistically significant (See Figure 13-2. Awareness of the Slogan “Think Blue”).

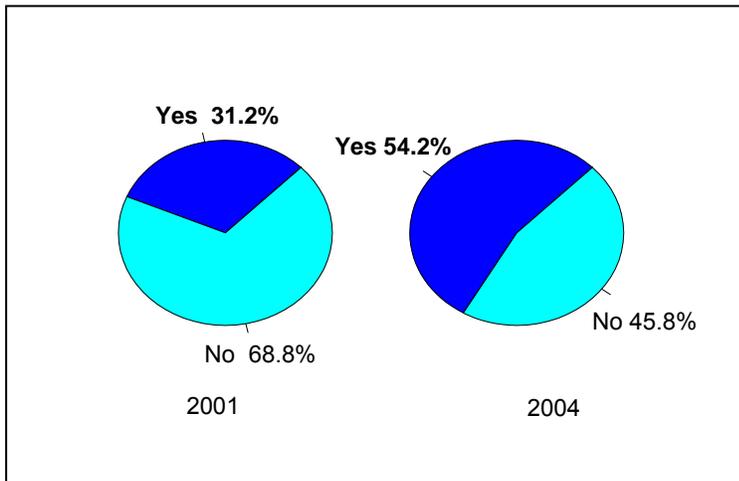


Figure 14-2. Awareness of the Slogan “Think Blue”.

Website Activity

In late Fiscal Year 2005, the Storm Water Educational web site, www.ThinkBluesd.org was moved from an outside service provider to an internal City web site server. In the transition records of the site's performance were not captured. We can, however, infer that the site had an equal, if not greater, use by visitors in Fiscal Year 2005 as in Fiscal Year 2004. Historically, in each year of operation, the site has had increased usage by the public. In Fiscal Year 2005, two new popular features were added to the site: "Chollas Creek Environmental improvement & Awareness Programs," and "The Urban Runoff Event".

14.4 LEVEL 3: BEHAVIORAL CHANGE/BMP IMPLEMENTATION

14.4.1 Residential Survey Results – (Behavioral Change)

Due to staffing interruptions and budget shortfalls in FY 05, the Storm Water Pollution Prevention Division did not conduct its annual residential storm water survey. The City intends to conduct this survey in FY 06. While recent data is not available, it can be inferred from the FY 04 and previous surveys that behavioral change continues to progress in a positive direction as a result of the City's efforts. To review from the results of last year's *Storm Water Pollution Prevention Program 2004 Follow-up Survey of City Residents*, six behaviors changed in a positive and statistically significant direction.

14.4.2 Storm Water Standards Manual Implementation–(BMP Implementation)

The City's Storm Water Standards Manual, which requires permanent (SUSMP) BMPs and construction BMPs on all applicable development projects, was applied to all public and private development projects in FY 05. This includes 929 active construction sites of which 129 were high priority (construction BMPs) projects. In addition, 302 projects were considered priority (post construction BMPs) and required to incorporate treatment control BMPs, as required by the Storm Water Standards Manual. It can be assumed that each of these projects implemented permanent and/or construction BMPs to address receiving water quality. Assuming that these BMPs performed with some degree of effectiveness, it can also be inferred that the City's requirement to implement development-related BMPs had some positive effect on receiving water quality in the region in FY 05.

14.5 LEVEL 4: LOAD REDUCTIONS

The Load Reduction (Level 4 analysis) below provides a quantity of materials which were already within the MS4 and would have made their way onto our Beaches and Bays.

Table 14-15 Storm Drain Inspections and Cleanings

Applicable Permit Section	Activity	Measure of Success	Target	FY 05 Actual	FY 04 Actual
F.3.a.(5)	Inspect & Clean Storm Drain	FY 04 level	31,925 tons (100% of FY04 total)	26,365 tons (82.6%)	31,925 tons

The Street Divisions procedures for cleaning the City's MS4 resulted in a total of approximately 50,060 tons of material collected (including street sweeping) prior to reaching our beaches and bays. The City also participated in clean up events, gathered recyclables, and conducted other activities to remove trash and debris before reaching the MS4. These programs and events collected approximately 101,967 tons of additional material.

14.5.1.1 Program Strengths

Even with a staff reduction of 25% at the end of FY 04 the Streets Division was able to remove 86% of the total debris removed the previous year.

14.5.1.2 Program Improvement Areas

The Street Division will continue to prioritize resources in the areas of the storm drain system in most need of maintenance and cleaning to maximize efficiencies. In addition, Street Division will continue efforts to expand storm drain cleaning efforts in future years.

14.6 LEVEL 6: CHANGES IN RECEIVING WATER QUALITY

Table 14-16. Level 6: Changes in Receiving Water Quality.

Applicable Permit Section	Activity	Measure of Success	Target	FY 05 Actual	FY 04 Actual
N/A	Reduce Beach Posting	% Reduction	978 (50% reduction from 2000 baseline)	458 (76% reduction)	617 (68% reduction)

14.6.1.1 Program Strengths

At the end of calendar year 2003, the City realized a 76 percent reduction in beach postings and closures (See Figure 16-1). That means that San Diego’s beaches were dramatically cleaner than in previous years illustrating the City of San Diego’s efforts to find and eliminate sources of bacteria that close our beaches.

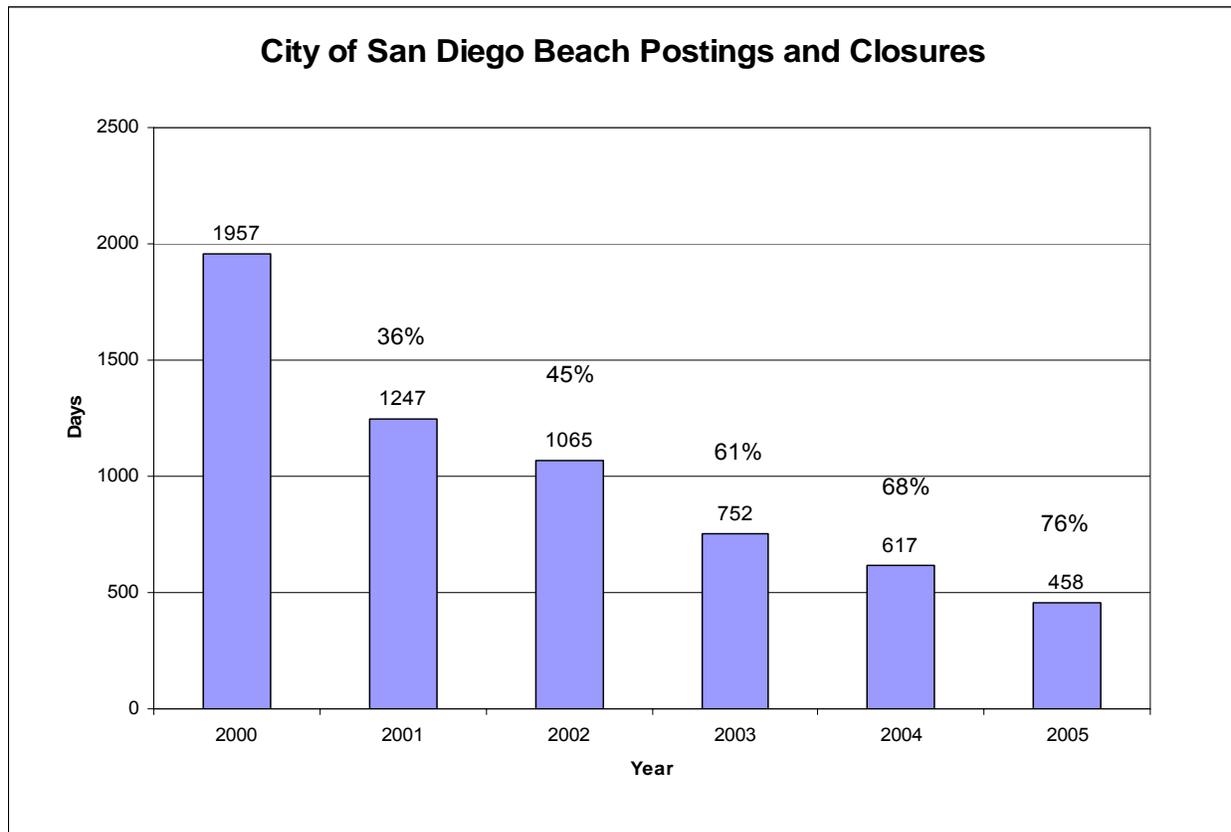


Figure 14-3. Beach posting and closures in the City of San Diego between 2000 and 2005.

15 FISCAL ANALYSIS

The Fiscal Analysis component was developed to identify costs associated with the Urban Runoff Management Plan for the entire City of San Diego. Implementation of the Municipal Storm Water Permit requirements on a Citywide basis were projected (in FY 01) to cost as follows:

Table 15-1. Projected Implementation Costs.

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

*Actual implementation of the activities identified in the Urban Runoff Management Program is dependent upon identification of funding in future yearly budgets and City Council approval.

15.1 FISCAL ASSESSMENT

For Fiscal Year 2005, the City of San Diego’s citywide expenditures for implementation of the Municipal Storm Water Permit requirements consisted of the following components:

- Land Use Planning
- Construction
- Municipal
- Industrial
- Enforcement
- Commercial
- Residential
- Education* (includes Public Participation)
- Illicit Discharge Detection and Elimination
- Program Assessment

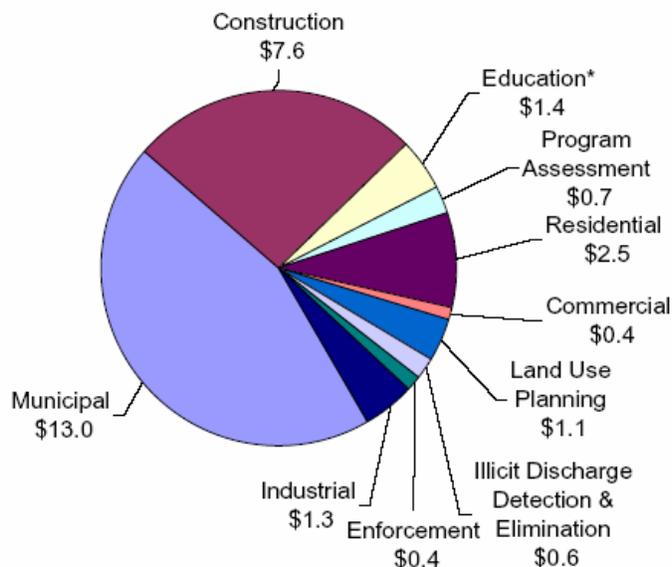


Figure 15-1 Citywide Expenditures by Permit Area

A total of \$29,088,617 was expended in Fiscal Year 2005 for implementation of citywide URMP activities. This amount includes costs paid by sewer and water rate payers and costs reimbursed by project applicants. An overview of the expenditures reflected in these components is described below. Also, the attached table details expenditures by component throughout the City of San Diego.

Land Use Planning

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

Construction

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

Municipal

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

Industrial

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

Commercial

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

Enforcement

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

Residential

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

Education and Public Participation

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

Illicit Discharge Detection and Elimination

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

Program Assessment

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

15.2 GRANT AND OTHER FUNDING FOR SPECIAL STUDIES

In addition to resources identified for permit requirements, the City of San Diego actively seeks grant and other funding sources for special studies and capital projects. Funding for these projects are limited to the projects specified and can not 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 Fiscal Year 2005. The City managed a total of approximately \$9,400,000 in special projects during FY 05.

Table 15-2 Funding for Special Projects

Funding Source	Project	Amount
Proposition 13, Clean Beaches Initiative Grant	Mission Bay Bacteria Sources Identification Study	\$1.3 million
Proposition 13, Clean Beaches Initiative Grant	San Diego River and Ocean Beach Water Quality Improvements	\$1.5 million
Proposition 13, Clean Beaches Initiative Grant	Mission Bay Computerized Irrigation Control System	\$1.1 million
Proposition 13	San Diego Watershed Common Ground Project	\$0.9 million
Proposition 13	Chollas Creek Water Quality Protection and Habitat Enhancement Project	\$2.2 million
California State Appropriations	Rose and Tecolote Creeks Water Quality Improvements	\$2.0 million
Supplemental Environmental Projects	Mission Bay Water Quality Study	\$0.4 million

15.3 FUNDING SOURCES

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

15.3.1 General Fund

The General Fund is the general operating fund for the City of San Diego.

15.3.2 Enterprise Funds

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

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

15.3.3 Internal Service Funds

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

- Engineering and Capital Projects Fund
- Equipment Division Funds

15.4 FUTURE PROJECTIONS

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

For future fiscal years, including Fiscal Year 2006, Citywide URMP expenditures will remain consistent with minor additions to reflect increased salary adjustments. Departments work diligently to prioritize and stretch the dollars they currently have, to effectively implement their components of the URMP.

15.4.1 Storm Drain Fee

The City of San Diego (City) Metropolitan Wastewater Department Storm Water Pollution Prevention Division has proposed a plan to begin collection of a storm drain fee to assist in the financing of a capital improvements program and the underwriting of activities pursuant to the City's Municipal Storm Water National Pollutant Discharge Elimination System Permit. The proposed fee would enable the City to approach watershed-based planning more holistically through the implementation of upstream-to-downstream pollutant control and conveyance system upgrades. The City has begun studying the implications of such a fee collection and the benefits and challenges of implementation.

Funds would be used to upgrade the components of the City's upstream-to-downstream pollutant control system. These could include, for example: increased street sweeping and greater efforts in educating the public about storm water pollution issues and enforcing storm water standards; upgrades to the City's storm drain system and installation of debris and sediment traps; structural improvements at storm water discharge points, such as drop structures, flow dissipaters, and filters; and "green" improvements, such as creek restoration and cultivation of healthier wetlands.

Benefits of such an approach funded by a storm water management fee would be greater protection of the environment, life, and property. Installation of storm drain filters and creek restoration, for example, would improve the quality of the storm water runoff entering into the San Diego River. Improvements/upgrades to the City's storm drain system would lower the potential for urban flooding during precipitation and raise the chances of runoff first passing through some form of treatment before discharge from the storm drain system and into waterways like the San Diego River.

16 SPECIAL PROJECTS

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

16.1 BACTERIA IMPAIRED WATERS TMDL PROJECT 1 FOR BEACHES AND CREEKS

In 1998, numerous coastal beaches were placed on the 303(d) as impaired for bacteria indicators. As a result of this action, the Regional Board coordinated with Tetra Tech, Inc. to develop a technical report of the bacteria impaired beaches and creeks in the boundaries of San Diego Regional Water Quality Control Board 9. The City of San Diego was designated as the Stakeholder Advisory Group (SAG) representative. During this reporting period, several SAG meetings were held to discuss this TMDL and to participate in the southern California reference beach study with the purpose to determine the background levels of bacteria in creeks that flow onto coastal beaches.

In FY 05 the San Diego County SAG members assisted with the collected and transportation of bacteria samples from both San Onofre and San Mateo Creeks, lagoons and beaches in conjunction with other locations across the bight. The City of San Diego processed all San Onofre and San Mateo samples as a donation to the development of the background reference for the TMDL. All activities were coordinated by SCCWRP at the direction of the Los Angeles Regional Board.

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

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

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

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

In FY 05, the City sent a response letter to the Regional Board on June 15, 2005, concerning the tentative CAO and prepared for and attended public workshop on June 29, 2005, designed

to solicit input on what the requirements of the final version of the CAO should be. The City also worked with its consultant to develop a sediment sampling scope of work for gaining a better understanding of the pollutant load proportion emanating from City property. It is estimated that this activity will continue for several years.

16.4 MISSION BAY BACTERIA TMDL

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

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

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

16.6 ROSE CREEK WATERSHED OPPORTUNITIES GRANT

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

16.7 ROSE AND TECOLOTE CREEKS WATER QUALITY IMPROVEMENT PROJECT

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

16.8 PACIFIC BEACH POINT STUDY

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

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

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

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

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

16.11 DIAZINON MONITORING IN THE CHOLLAS CREEK WATERSHED

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

16.12 CHOLLAS CREEK DISSOLVED METALS TMDL

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

16.13 INTEGRATED PEST MANAGEMENT (IPM) EDUCATION AND OUTREACH PROJECT

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

16.14 CHOLLAS CREEK WATER QUALITY PROTECTION & HABITAT ENHANCEMENT PROJECT

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

16.15 SAN DIEGO WATERSHEDS COMMON GROUND PROJECT

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

16.16 REGIONAL HARBOR MONITORING PROGRAM

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

16.17 SAN DIEGO BAY HARBOR BACTERIA TMDL

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

16.18 SAN DIEGO RIVER – OCEAN BEACH WATER QUALITY IMPROVEMENT PROJECT

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

16.19 SAN DIEGO RIVER RESTORATION PROJECT

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

16.20 SAN DIEGO RIVER PARK MASTER PLAN

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

17 CONCLUSIONS AND PROGRAM AMENDMENTS

17.1 SUCCESSES AND CHALLENGES

Urban runoff discharged from municipal storm water conveyance systems has been identified by local, regional, and national research programs as one of the principal causes of water quality problems in most urban areas. The City of San Diego's storm water conveyance system, which collects runoff from our streets, rooftops, driveways, parking lots, and other impervious areas, flows directly to our beaches and bays without receiving treatment. Through the hard work of the Storm Water Pollution Prevention Division and other City staff there has been a reduction in the number of beach postings and closures over the last five years (see Figure 17-1). In addition to reducing beach postings the City also reduced the number of sewage spills between 2000 and 2005 (see Figure 17-2).

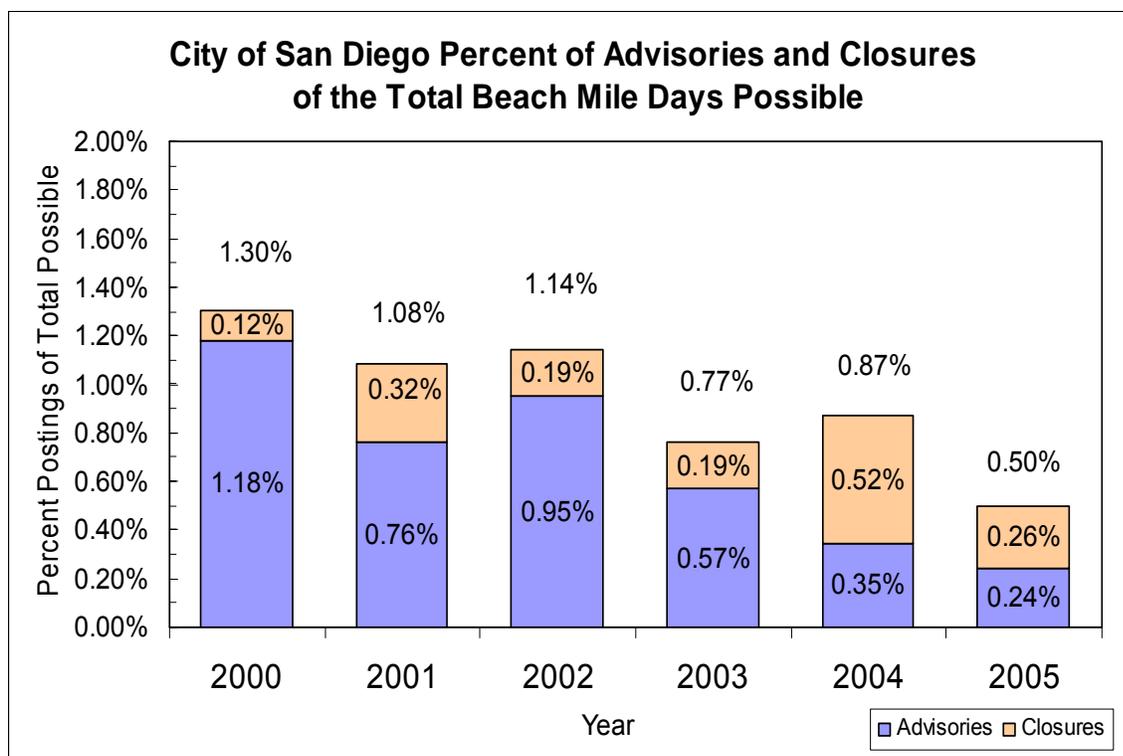


Figure 17-1. Beach posting and closures in the City of San Diego between 2000 and 2004.

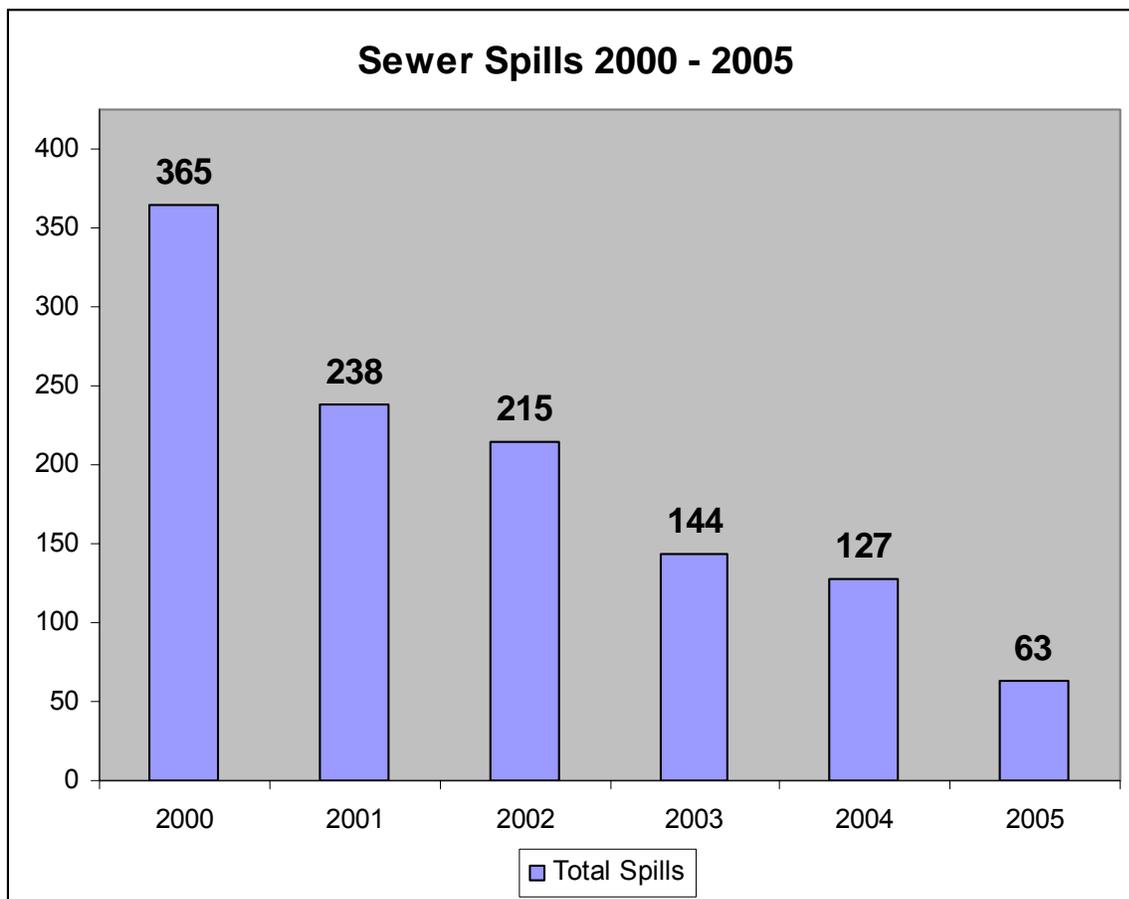


Figure 17-2. Number of sewer spills in the City of San Diego between 2000 and 2005.

17.1.1 Successes

Special projects are an integral tool in the City's effort to leverage limited resources with grant dollars and partnerships with environmental organizations and agencies. The City's Storm Water Pollution Prevention Division achieved significant benefits to water quality beyond its \$2.3 million budget by leveraging \$14,183,300 in special projects. Specifically, the City received \$8,486,000 in grant funds, supplemented by over \$5.5 million in City and partner agency matching funds. The grants are helping further our clean water efforts in San Diego Bay, San Diego River, Chollas Creek, and Mission Bay. Special studies at Mission Bay Park and the mouth of the San Diego River have resulted in the implementation of bacteria source abatement projects. In addition to these water quality improvement projects, the Storm Water Pollution Prevention Division also participated in six Total Maximum Daily Load (TMDL) programs, and numerous special water quality monitoring investigations to determine the sources of various water quality problems.

In addition to the above mentioned special projects, the Storm Water Pollution Prevention Division achieved many other successes in implementing the URMP in the 2005 fiscal year.

- ✓ The Monitoring Section eliminated 33 illicit discharges in FY 05.

- ✓ The Storm Water Pollution Prevention Division's Code Enforcement Section continued its efforts in seeking out and abating illegal discharges and was responsible for issuing 801 Notices of Violation, 170 citations, 153 civil penalties, and successfully prosecuting 35 cases.
- ✓ The City continued implementing the Storm Water Standards Manual in FY 05. The Regional Board's March 2005 SUSMP audit verified that City staff associated with land development are successfully enforcing post construction requirements on development projects.
- ✓ A mailing insert to accompany business license renewals and business tax certificate mailings was distributed to industrial and commercial businesses. It served to educate businesses of the City's storm water best management practices requirements and ordinance. Approximately 11,000 business mailers were issued.

17.1.2 Challenges

The Urban Runoff Management Plan, adopted by City Council in January 2002, outlines a phased implementation that would allow increased activities as additional funding was identified. However, the City has not identified funding for the physical upgrades, training, and other program enhancements originally identified during the preparation of the URMP or estimated as part of the current storm drain fee analysis. To advance program efforts, the City will continue to leverage grant and partner agency dollars in future years.

The City of San Diego also faces significant challenges in effectively gathering and managing storm water program data. With a growing population of 1.2 million residents and 237 square miles of urbanized development, the City is huge relative to other jurisdictions in the region. The enormity of the data management challenge is something the Storm Water Pollution Prevention Division is continually working to overcome. To address the need for effective data management capabilities, the Storm Water Pollution Prevention Division initiated a comprehensive effort to design and build an integrated, internet based database and software system in FY 05. The system will be designed to manage data program- and City-wide, with a web-based interface so City departments can easily submit URMP data to the Storm Water Pollution Prevention Division.

The City's implementation of the URMP did present some challenges in the 2005 fiscal year.

- ✓ The Storm Water Pollution Prevention Division continued efforts to streamline industrial and commercial inspection programs to ensure they are both effective and cost-efficient. To address this need, the City is improving its ability to accurately and strategically manage these programs with the development of a sophisticated data management system and inspection program and is continuing efforts to expand its inspection programs.
- ✓ The Storm Water Pollution Prevention Division continued efforts to expand its Illicit Discharge Detection and Elimination programs to improve our ability to address dry weather monitoring exceedances in a timely manner. In addition, the Storm Water Pollution Prevention Division continued efforts to expand its data management capabilities to decrease turnaround times for analysis of monitoring data.
- ✓ The City of San Diego must comply with Areas of Special Biological Significance (ASBS) requirements, which prohibit the discharge of pollutants into ASBS areas near La Jolla Cove and La Jolla Shores. The City is partnering with Scripps Institute of Oceanography and environmental organizations to develop an implementation plan. However, millions of

dollars will likely be needed to construct the best management practices and other improvements that may be identified in the plan.

- ✓ The City's municipal yards have been cleaned dramatically, and are maintained in a manner much more protective of water quality by implementing additional good housekeeping practices. Yet more can be done, although additional benefits will predominantly require structural improvements. The City is currently pursuing options to build structural BMPs at municipal yards using grant funding.
- ✓ Implementation of the City's construction and permanent storm water development regulations in the Storm Water Standards Manual is only the beginning; the City recognizes a need for comprehensive and continual training of the development community and City staff (including CIP project managers, field inspectors, and engineering review staff).
- ✓ Although all City employees have received basic storm water training, some field operations crew members perform job functions that have considerable potential to impact water quality if not trained appropriately. The Storm Water Pollution Prevention Division recognizes a need for continued and improved communication with other department's storm water representatives and field crews to first, understand the issues surrounding the field crew operations, second, assist in identifying and training City staff in appropriate controls, and third, maintain communication with departments to ensure issues have been adequately addressed.

17.2 FUTURE RECOMMENDATIONS

17.2.1 *Continue to Leverage Limited Resources*

The Storm Water Pollution Prevention Division recognizes that managing the various program efforts of the Urban Runoff Management Plan has been, and will continue to be, our most significant challenge. The short term goal of the Storm Water Pollution Prevention Division is to continue to leverage limited resources in program areas that can achieve the most benefits to water quality improvement. This generally includes jurisdictional efforts, such as the Think Blue media campaign, grant-funded special projects, and municipal efforts.

In the 2004 fiscal year, the Storm Water Pollution Prevention Division focused its internal education and training efforts on good housekeeping practices and pollution prevention: simple, inexpensive, and yet effective strategies. This will continue to be the Storm Water Pollution Prevention Division's philosophy in future years. In another effort to leverage limited resources, the Storm Water Pollution Prevention Division will continue to participate in the City's Progress Guide and General Plan update process to enable a broad-brush approach to enacting new storm water-related land use policies by updating and implementing policies that will affect development City-wide.

Equally important, as the region moves towards watershed-based programs and Total Maximum Daily Load (TMDL) programs, the City will continue to support regional, holistic approaches to addressing water quality issues. Specifically, the City will seek to address constituents of concern with comprehensive controls and strategies that may span across several watersheds.

17.2.2 *Obtain Secure Funding Source*

In 1990, the City of San Diego began collecting a storm drain fee via the City's water and sewer residential utility customers to reimburse the General Fund for a portion of all storm drain and

storm water quality costs. The Fund is used for the operations, maintenance, capital projects and management of the storm drain system. The most recent fee increase occurred August 1, 1996, when it was set at \$0.95 cents per month per residential customer, and \$0.0647 per 100 cubic feet of metered water use for all other utility accounts. There is a maximum monthly fee of \$575, and a minimum of \$0.95.

In Fiscal Year 2005, the Storm Drain Fee generated \$14.4 million. The operating budget for storm drain maintenance and street sweeping was \$10.6 million. The \$3.8 million balance of the City's storm drain fee revenue was allocated to various other city-wide needs, including administration and Municipal Permit compliance oversight. Beyond the total storm drain fee revenues of \$ 14.4 million, the City's General Fund contributed \$8.45 million toward outstanding Storm Water-related expenses.

To obtain additional funding, City staff began working with a subcommittee to the City's Public Utilities Advisory Committee (PUAC), to prepare a Storm Water Management Fee/Cost of Services Study that would outline the City's comprehensive storm water program needs; outline fee approval options, such as a general election measure or property owner vote; and identify an avenue of fee collection, revenue management and financial oversight. The subcommittee is scheduled to present its recommendations in March, 2006, to the PUAC. The PUAC will then be presenting formal recommendations to City Council for consideration.

17.3 PROPOSED PROGRAM AMENDMENTS

The Storm Water Pollution Prevention Division is amending several URMP components as part of the fiscal year 2004 Annual Report: Water Systems, Component 2.1.14; A Copy of the amended component is provided in Appendix A.