



# Memorandum

**TO:** TRANSPORTATION AND ENVIRONMENT COMMITTEE

**FROM:** John Stufflebean  
Katy Allen  
Jim Helmer

**SUBJECT:** SEE BELOW

**DATE:** 03-27-07

Approved

Date

3/27/07

**SUBJECT: REPORT ON STORMWATER PROGRAM AND STORM SEWER INFRASTRUCTURE**

## RECOMMENDATION

- (a) Accept staff report on the City's Stormwater Program and storm sewer infrastructure, including analysis of key elements, organizational structure, priorities, and regulatory requirements.
- (b) Direct staff to proceed with a detailed assessment of activities, programs, and funding needs associated with the identified Stormwater Program priorities.
- (c) Direct staff to develop a scope of work and funding resources needed in order to complete a comprehensive analysis of the condition and infrastructure needs of the Storm Sewer System.

## OUTCOME

Accepting this report will inform the Transportation & Environment Committee and City Council of the City's Stormwater Program, regulatory requirements associated with its Stormwater NPDES Permit, and infrastructure needs for the storm sewer collection system. This report will also provide recommended priorities for future activities for the City's Stormwater Program.

## EXECUTIVE SUMMARY

San José has two separate sewer systems. The sanitary sewer system flows through 2,200 miles of pipelines to the Water Pollution Control Plant for treatment. Stormwater by comparison is conveyed untreated to local streams and ultimately San Francisco Bay through a separate system of 28,500 storm drain inlets, pipelines, and 1,250 outfalls.

### ***Stormwater Program and Permit***

Common pollutants such as paint, oil, soap, trash, copper, nickel, mercury, sediment, leaves, and pesticides can degrade water quality in our local surface waters. The City's Stormwater Program aims to minimize these pollutants before they reach local streams. Ultimately, all City departments carry out certain specific tasks to implement the overall program.

### ***Joint Permit and Bay Area Permit***

Municipalities that operate separate storm sewer systems discharging into local streams and water bodies are required to have a National Pollutant Discharge Elimination System (NPDES) Stormwater Permit under the Federal Clean Water Act and State law. The San Francisco Bay Regional Water Quality Control Board (Water Board) issues a joint stormwater permit to a collection of 15 agencies in Santa Clara County including San José whose land area drains to the Bay. The Stormwater Permit allows the City to discharge waters collected by its storm sewer system through more than 1,250 storm sewer outfalls to local streams.

NPDES permits are typically issued for a term of five years. The City's current stormwater permit has been administratively extended since February 2006 pending adoption of a Bay Area-wide Municipal Regional Permit – possibly in 2007. Increased requirements for stormwater programs are expected with the new permit.

Staff has identified five priorities for future stormwater management programming: sediment, trash, pesticides, treatment controls for new development, and creek erosion. These are the areas proposed to have the greatest potential for marked improvements in the health of our watersheds.

### ***Storm Sewer Infrastructure***

The City's storm sewer system was constructed primarily to convey storm drainage away from developed areas. The original design standard for the collection system was set to convey a 3-year storm event, but that has been modified over time to a 10-year storm event. Currently, 93% of the existing system still only meets the original design standard of smaller diameter pipelines and outfalls. Upgrading the existing system to a 10-year standard would be impractical and extremely costly. Instead, upgrades of the system focus on strategic locations. This infrastructure in many locations is over 50 years old, and most of the 26 pump stations operated by the City are over 40 years old, driving the need for increased repair and rehabilitation.

Also, while all new developments are required to design their on-site storm system to accommodate the 10-year storm event, they are not required to address capacity deficiencies of the downstream system to which they connect. Since 90% of the storm pipes within San José are already undersized, evaluating how upcoming developments will affect the existing storm system capacity is important.

The City's strategy for storm infrastructure has to date focused on the highest priority rehabilitation and drainage area needs. Due to limited resources for capital improvements, the City has never conducted a comprehensive needs analysis for storm infrastructure. Such an effort would provide the necessary information to identify and address system deficiencies,

capacity constraints, and system expansion for the complete storm sewer system.

## **BACKGROUND**

The City's storm sewer system was constructed primarily as a means to convey rainwater away from developed areas. Water that enters our City storm sewer system through more than 28,500 storm drains flows untreated into the nearest creek or river and ultimately to San Francisco Bay. Also called urban runoff, this water is comprised of rainfall, irrigation water and other water used outdoors. It collects pollutants as it flows over sidewalks, driveways, roofs, streets, and landscaping.

The City's Stormwater Program aims to protect local creeks and rivers by minimizing pollution and erosion from the storm sewer system. This effort requires the collaboration of all City departments, each of which must perform certain activities to prevent pollution since there is no centralized treatment as with the sanitary sewer. Ultimately, the health of the Bay requires collaboration among all communities surrounding this iconic waterway to minimize pollution.

### ***Common Pollutants***

Common pollutants entering our storm system include paint, oil, soap, trash, copper, nickel, mercury, and pesticides. Materials less commonly recognized as pollutants, such as leaves or landscape clippings, can reduce the amount of oxygen available for the variety of plants and animals, including fish, living in or near our creeks. Even sediment can impair water quality, since other pollutants can adhere to it. Some pollutants are especially harmful since they concentrate ("bioaccumulate") as they travel up the food chain from smaller to larger animals.

### ***Stormwater Program Elements***

The City's Stormwater Program covers a variety of activities to minimize pollution conveyed to local creeks from the storm sewer system. Annually, staff prepares two documents to describe the activities of the Stormwater Program. The *Annual Workplan* and the *Annual Report* are both submitted to the Council for approval. Attached is the Executive Summary from the FY 05-06 Annual Report, approved by Council in August 2006. Council approved the FY 07-08 Workplan on February 27, 2007.

The Stormwater Program is comprised of 15 program elements, including enforcement and inspection; outreach and education; municipal maintenance activities; controls on new development projects; and activities to address specific pollutants. A list of program elements and the primary City departments involved in their implementation are provided in Attachment A. Together, they illustrate that the Stormwater Program requires a collaborative approach within the City as well as countywide and regionally.

### ***Joint Stormwater Permit***

The key driver for stormwater management has been the Stormwater Permit. Municipalities that operate separate storm sewer systems discharging into local streams and water bodies are

required to obtain an NPDES Stormwater Permit under the Federal Clean Water Act and State law. In California, these permits are issued by one of the Regional Water Quality Control Boards, which are arms of the State Water Resources Control Board. In 1990, Santa Clara County became the first in the nation to obtain a countywide stormwater permit when 13 cities, the County, and the Santa Clara Valley Water District applied as a new coalition called the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP or Countywide Program).

The Countywide Program is organized, coordinated, and implemented in accordance with a Memorandum of Agreement (MOA) signed by all of the agencies. The MOA details the responsibilities of each co-permittee and a cost-sharing formula for joint expenditures. Annual Program costs are approximately \$3.3 million with San José and the Santa Clara Valley Water District providing approximately \$1 million each.

The Program's Urban Runoff Management Plan consists of an area-wide plan and individual co-permittee plans describing what the Program will do, with co-permittees acting individually and collectively, to reduce urban runoff pollution. The Program's primary activities fall into the following four areas:

*Outreach and Education:* The Program implements the award-winning Watershed Watch campaign, consisting of general media outreach, grassroots event participation, and partnerships with local businesses and trade organizations.

*Monitoring:* The Program implements a multi-year monitoring program to evaluate surface water quality in the Santa Clara Basin and to evaluate trends in overall watershed health. This program encompasses biological, chemical, and physical assessment of waterways.

*Regulatory Guidance and Advocacy:* The Program provides regulatory interpretation and guidance to co-permittees on the Stormwater Permit and other regulatory issues that affect the Program. The Program also tracks activities at the regional, state, and federal level related to stormwater management.

*Stormwater Program Development and Reporting:* The Program assists co-permittees in developing appropriate stormwater programs to implement all required components in the permit. The Program also coordinates the development and submittal of the annual work plan and progress reports to the Regional Water Board.

## **ANALYSIS**

### ***Recommended Priorities for Stormwater Programming***

From a watershed perspective, large facilities that discharge to waterways through a single or limited numbers of pipelines such as wastewater treatment plants, factories, or refineries have treatment controls in place that are well-understood. Stormwater runoff comes from so many separate sources and through thousands of outfalls into the streams - it is inherently more difficult to control. Additional efforts are appropriate for stormwater management in order to

protect and improve the conditions of our local streams and Bay. Staff has identified the following priorities for future stormwater management programming:

### Sediment

Sediment is soil, sand, and other debris washed from streets and land into creeks and rivers. Erosion of sediments is a natural process, but human activities such as construction can generate excess sediment. Sediment is detrimental to the storm drain system because it clogs pipes and can lead to localized flooding. It also impacts fish and wildlife in creeks and the Bay by clogging gills, degrading living and spawning habitat, and generally degrading water quality. Copper, mercury, pesticides and other pollutants can bind to sediment and be carried into streams.

Construction sites are one of the most common sources of sediment-laden runoff and the permit requires ongoing inspections, monitoring, and reporting of these sites. Sediment is also found on streets, parking lots, rooftops, and other impervious surfaces; thus measures to control sediment in new development projects are required. The natural process of creek erosion contributes to sediment in the creeks, but urban runoff flows exacerbate this problem.

Solutions to further control sediment could include:

- Expand inspection activities at active construction sites to ensure proper practices are followed
- Focus new development stormwater treatment controls on those that are most effective at capturing sediment such as swales, bioretention planter boxes, and green roofs.
- Implement stormwater measures that control the volume and duration of runoff from new development to further limit erosion in creeks.

### Trash

Trash can form large accumulations in creeks that are unsightly, may hamper recreational use, impact water quality, and potentially cause flood-control problems. Trash blows into creeks from nearby trails or roads and accumulates through illegal dumping, illegal encampments, and deposits from storm sewers. Many City departments are collaborating on preventing littering through the Santa Clara County Litter Technical Advisory Committee and programs such as the Anti-Litter Campaign, Adopt-A-Creek Program, and storm drain inlet cleaning. The City and Water District collaborate to coordinate activities and collaborate on selected clean ups; 16 tons of garbage were removed from creeks and banks in four clean-ups in 2006.

Managing trash impacts to creeks is expected to be emphasized in the Regional Permit, with the possible inclusion of numeric limits that will limit the amount of trash permitted in the creeks.

Solutions to markedly reduce the amount of trash in local creeks could include:

- Continue partnered clean-ups with the Water District and other agencies.
- Implement enhanced system maintenance and structural controls such as inserts in catch basins to limit the amount of trash entering the storm drain system.
- Increase partnerships and collaboration with the police, housing and County agencies to address homeless encampments along creeks.

### Pesticides

Pesticides in creeks are toxic to fish and other wildlife. All Bay Area urban creeks have been identified as impacted by diazinon, a pesticide now banned by the EPA. Though diazinon is prohibited, pesticides replacing it also are demonstrating water quality impacts and toxic effects on fish and wildlife. The City is required to demonstrate and document decreased pesticide use in City activities, and the regional permit is expected to include more stringent regulations.

Solutions to reduce the threat of pesticides for local creeks could include:

- Expand use of Integrated Pest Management (IPM) techniques that employ non-chemical methods to pest control problems and least toxic alternatives on City properties.
- Design new buildings and landscaping to minimize the amount of pesticides used.
- Expand promotion of IPM techniques to the community.

### Treatment Controls for New Development

During the development and redevelopment process, two important changes occur. First, vegetated ground cover that can absorb rainwater and naturally clean pollutants is converted to impervious surfaces (paved streets, driveways, rooftops and parking lots). Second, urban development can create new pollution sources and increase levels of existing pollution sources (such as automotive wastes, copper and nickel, excess sediment, pesticides, pet wastes, and trash).

The City's development policies have long been aimed at protecting water quality. Broad based policies related to riparian protection, protection of hillsides, and transit-oriented development are crucial to protecting watershed assets. Over the last decade, the stormwater permit has increasingly required that measures be implemented on individual development projects that treat stormwater runoff prior to discharge to the storm sewer system. Examples include grassy swales, detention basins, porous paving, bioretention planter boxes, and mechanical devices. The key policy tool for this effort is City Policy 6-29 entitled Post-Construction Urban Runoff Management. The policy has been updated several times, most recently in 2006, to reflect permit requirements. The policy requires all projects that create or replace 10,000 square feet or more of impervious surface area to incorporate stormwater treatment measures that are hydraulically sized. This requirement affects the majority of new and redevelopment projects in San José.

Potential efforts to enhance implementation of these measures include:

- Continued investment in training for staff and the development community on stormwater treatment measure design and new technological solutions.
- Careful oversight of constructed measures to ensure proper operation and maintenance of these measures and to evaluate effectiveness.
- Implementation of an off-set program to allow projects where on-site implementation of treatment measures is prohibitive to contribute to alternative solutions, such as the retrofit of existing sites with treatment controls.

### Creek Erosion

As development occurs, runoff flow patterns change. This is known as “hydromodification” and can increase erosion of creek and river beds. Erosion is a serious issue in local waterways because it adversely affects property values, aquatic habitat, fish spawning areas, community aesthetics. It is extremely costly to repair.

In 2001, the Program stormwater permit established new and very technical requirements that apply to new development projects to reduce erosion in creeks effective October 2005. City Council adopted City Policy 8-14 entitled Post-Construction Hydromodification Management on October 18, 2005. The policy established a framework, consistent with the current permit requirements, for incorporating measures into the City’s development review and approval process to control hydromodification impacts from new and redevelopment projects. The new Regional Permit is anticipated to apply these requirements to a wider array of new development projects.

Potential efforts to enhance implementation of these measures include:

- Continued investment in training for staff and the development community on design and new technological solutions.
- Collaboration with the Water District and Regional Water Board on alternative strategies for addressing flow controls from individual projects, such as the siting of regional facilities to address multiple development projects or the implementation of stream restoration projects to accommodate greater volumes of water and address existing impacts.

### *Funding for Program Activities*

#### Storm Sewer Operating Fund

The Storm Sewer Operating Fund (Fund 446) is the primary means of funding for the Stormwater Program. Revenue comes from the Storm Sewer Service Charge, an annual fee paid by owners of residential, commercial, industrial, and institutional properties based on the relative quality and quantity of runoff contributed to the system by various property types. For most properties, the Storm Sewer Service Charge is placed on the annual property tax roll and collected by the Santa Clara County Tax Collector’s Office.

The annual Storm Sewer Service Charge pays for the operation, maintenance, and improvement of the storm drain system, which includes pipelines, pump stations, and outfalls into the creeks. It also supports environmental protection programs to minimize pollution and meet regulatory requirements for protection of the San Francisco Bay and local streams.

#### Other Funds

Effective stormwater management requires a collaborative, inter-department approach. Several major activities related to stormwater management are conducted using other funding sources. For example, street sweeping is co-funded with the Integrated Waste Management Fund 423. The implementation of pollution prevention methods as part of routine operations and maintenance functions impacts several City services including those that are supported by the

General Fund, such as parks maintenance, road repair, and city facility maintenance.

***Municipal Regional Permit (Regional Permit)***

The current stormwater permit was issued in February 2001 and has been administratively extended since February 2006 pending development of a Regional Permit for stormwater, which will cover 76 municipalities in the Bay Area. Program and City staff along with other regional associations have participated during the Water Board's process to develop the Regional Permit.

Water Board staff released a proposed working draft Regional Permit in October 2006. As drafted, the new requirements would require significantly more resources for several City departments. A Tentative Order is anticipated to be released in early summer, which will provide greater clarity on what the Water Board staff intend to present to their Board for adoption. Staff will continue to monitor and participate in this process and will update and seek Council direction once a Tentative Order for the Regional Permit becomes available.

In the meantime, several other water quality regulatory requirements that have already been approved and will be incorporated into the Regional Permit, may demanding significant City resources. Several sediment-bound pollutants, such as mercury, pesticides, and PCBs, have been identified as impairing, or degrading the water quality, of, San Francisco Bay. As a result, the Regional Water Board has initiated Total Maximum Daily Load (TMDL) regulatory requirements, which requires all sources, including urban runoff, to drastically reduce their load, or the amount, (e.g. 50% reduction in urban runoff mercury loads) of these "priority pollutants" to the Bay. Several programs and studies will be required as part of the Implementation Plan associated with each priority pollutant.

***Storm Sewer System Infrastructure and Needs***

***Storm Drainage System***

The City's storm drain network includes a storm sewer collection system of more than 950 miles that collects runoff from more than 28,500 storm inlets and conveys runoff to the local rivers and creeks via 1,250 storm outfalls. In some locations where gravity flows are not feasible, storm pump stations pump the water directly into a river or creek.

In general, the age of the storm system closely matches the age of the adjacent housing stock or commercial development, so in many locations, the storm system is over 50 years old. Until recently, the design standard required the system to convey a 3-year storm event. Over 93% of the existing storm system is designed to this older standard of smaller diameter pipelines and outfalls. In many areas that have been annexed to the City, the capacity is even less than a 3-year event.

The City's current design standard requires that new storm drainage systems be designed to convey a 10-year storm event; however, upgrading of the existing system to a 10-year standard would be impractical and extremely costly. Instead, selective upgrades of the system at strategic locations is utilized to optimize the existing network and take advantage of existing outfalls of

sufficient size to convey increased stormwater flows.

A first step towards developing a more strategic and efficient plan for the rehabilitation and upgrade of the storm drainage system would be to prepare a detailed assessment of activities and funding associated with a storm drainage infrastructure needs analysis.

#### Storm Pump Stations

The City owns and operates 26 storm pump stations with various capacities. The larger pump stations drain areas located north of Highway 101 into the Guadalupe River. The smaller pump stations typically drain street underpasses. The construction dates of the smaller pumps are from 1928 to 1975, with most of them 40 years of age or older. Nine pump stations are in the priority list of rehabilitations ranging from \$50,000 to over \$3 million.

#### Nuisance Ponding along Special Corridors

Public Works staff has successfully focused capital improvement projects to address deficiencies in the storm system that lead to nuisance ponding in neighborhoods and business districts. These projects focus on problems that impact pedestrian corridors, crosswalks, business districts and access to schools and community centers that do not have proper drainage.

#### Drainage Basin Studies

Due to the limited size of the Storm Capital Improvement Program, the City has never conducted a comprehensive Storm Drain Master Plan to identify the unfunded deficiencies and capacity constraints for the complete system. In order to optimize the existing system, smaller "basin" studies are conducted with available funds to evaluate the capacity needs of small drainage sheds within the City.

Due to recurring flooding within the Alviso storm basin in 2006, staff worked with a hydraulic consultant to evaluate the existing storm drainage system and pump station in Alviso. The evaluation confirmed areas to improve the drainage system that is below standard capacity and relies on a single pump station for drainage. Projects recommended to improve the storm system's ability to convey flows from major storm events in this area have been estimated in excess of \$8 million.

In order to rehabilitate the system to current standards, substantial improvements, including the addition of new pump stations and construction of new storm mains, is recommended.

#### Outfall Capital Improvement / Repair Program

The Department of Transportation is responsible for inspecting and maintaining over 1,250 storm drain outfalls citywide. Approximately 250 of the outfalls (20% of total) require rehabilitation or replacement to optimize system reliability, capacity and operation.

Rehabilitation of the outfalls also will reduce localized creek channel scouring and erosion. A comprehensive outfall maintenance and repair program is needed to optimize the discharge capacity and structural integrity of the City's network of outfalls. The typical scope of work for outfall improvements includes:

- Repair/replacement of flapgates
- Repair/replacement of broken and/or corroded outfall pipes
- Dredging channel bottoms to remove excessive sediment
- Removal of invasive vegetation
- Upgrading existing outfall structures to improve erosion protection
- Reconstruction of existing outfall structures and channel armoring
- Constructing new/missing outfall structures
- Bank erosion repair (if City-owned property)

Successful implementation of an outfall improvement program will require extensive environmental planning and approvals; regulatory permits from the Regional Water Quality Control Board, Santa Clara Valley Water District, California Department of Fish and Game, and the Army Corps of Engineers; preparation of mitigation plans; post-project monitoring; and regulatory reporting for up to ten years from project completion.

#### Major Developments / Future Impacts

Several major developments are underway that will connect to the City's existing storm drain system. While all new developments are required to design their on-site storm system to accommodate the 10-year storm event, they are not required to address capacity deficiencies of the downstream system to which they connect. And although many of the large developments are being required to implement flow control measures to address the quantity and timing of stormwater runoff discharging from their site, not all may be able to meet the standards of the City's stormwater permit due to site or technical limitations.

Since 90% of the storm pipes within San José are already undersized, an evaluation is needed to determine how upcoming developments such as the Coyote Valley Specific Plan and Evergreen East Hills Vision Strategy will affect the existing storm system capacity.

#### PUBLIC OUTREACH

City staff will continue to conduct outreach efforts to the development industry as the Municipal Regional Permit progresses to keep consulting engineers, planners and developers aware of pending regulation changes that may affect development projects.

At the time the City Council determines a need to review a proposed increase in Storm Sewer Service Charge, the City would be required to issue a Proposition 218 rate notice to affected rate payers (property owners) with a mandatory 45-day review period and process for filing formal protests. Any proposed increase in connection fees would also be noticed to affected parties.

**COORDINATION**

This memorandum was coordinated with the City Attorney's Office and the City Manager's Office. As staff proceeds with more detailed analyses of programmatic and infrastructure needs, recommendations will be coordinated as needed with additional affected departments, most notably General Service; Planning, Building and Code Enforcement; and Parks, Recreation and Neighborhood Services.

**COST AND BUDGET IMPLICATIONS**

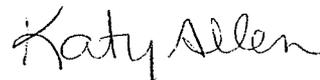
Expanding Stormwater Programs and addressing storm sewer infrastructure needs will require increased resources, which is likely to necessitate a rate increase for the Storm Sewer Operating Fund. Staff will present detailed information on proposed programming and funding needs during the annual budget development process.

**CEQA**

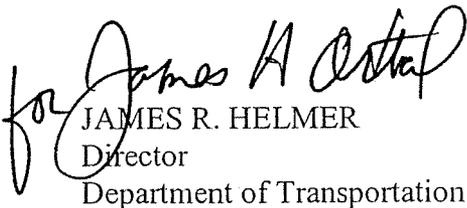
Not a project.



JOHN STUFFLEBEAN  
Director  
Environmental Services Department



KATY ALLEN  
Director  
Public Works Department



JAMES R. HELMER  
Director  
Department of Transportation

For questions, please contact Melody Tovar, Deputy Director, Environmental Services Department Watershed Protection Division, at (408) 277-3892.

Attachments: FY 05-06 Annual Report Executive Summary



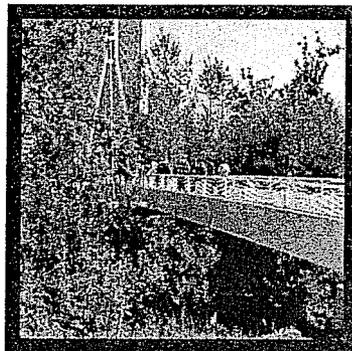
Attachment A

## STORMWATER PROGRAM ELEMENTS

ELEMENT	DESCRIPTION	PRIMARY DEPARTMENTS
<b>Illicit Connection/Illegal Dumping</b>	Inspectors respond to complaints regarding illegal discharges or threats of discharge to the storm sewer system.	Environmental Services
<b>Industrial/Commercial Discharger Inspection</b>	Inspectors visit more than 4,000 businesses per year to help businesses employ proper practices to prevent stormwater pollution.	Environmental Services
<b>New and Redevelopment Projects</b>	New and redevelopment projects integrate stormwater measures such as swales, detention basins, bioretention, and porous paving to address pollutant discharges and increased storm flows for the life of a project.	Public Works; Planning, Building and Code Enforcement; and Environmental Services
<b>Construction Inspection</b>	City inspectors review activities at construction sites to prevent sediment and other pollutants from entering the storm sewer system.	Public Works, PBCE Building Division, and Environmental Services
<b>Public Streets, Roads, and Highways Operation and Maintenance; and Rural Public Works</b>	Key maintenance activities such as street sweeping are conducted and best management practices (BMPs) are incorporated during routine City activities, such as street repair.	Transportation; Parks, Recreation and Neighborhood Services
<b>Storm Drain Operation and Maintenance</b>	Key maintenance activities such as catch basin cleaning are conducted to ensure the proper function of the storm sewer system to collect and convey storm runoff.	Transportation
<b>Water Utility Operation and Maintenance</b>	BMPs to reduce stormwater pollution are incorporated into maintenance activities such as water line cleaning.	Environmental Services /Municipal Water System
<b>Pesticide Management</b>	Reduction of pesticide use on City property, community education, and participation in regulatory activities are aimed at addressing the affects of pesticides in stormwater.	General Services; Transportation; Parks, Recreation & Neighborhood Services; Public Works; and Environmental Services
<b>Control Program for Mercury</b>	Reduction in the use of and proper disposal products that contain mercury (such as fluorescent tubes) is promoted within City operations and to the community.	General Services, Transportation, and Environmental Services

ELEMENT	DESCRIPTION	PRIMARY DEPARTMENTS
<b>Copper &amp; Nickel Action Plans</b>	Outreach and partnership activities are implemented to address key potential sources such as brake pads, architectural use of copper, and pool algacides.	Environmental Services
<b>Trash</b>	Assessment of litter hot spots, targeted outreach, and selected clean up partnerships are employed to address litter and illegal dumping that threatens to pollute urban waterways.	General Services; Parks, Recreation & Neighborhood Services; Transportation; and Environmental Services
<b>Monitoring Program</b>	The City participates in monitoring activities area-wide, including Regional and Program-focused investigation of pollutants and sources of pollutants to the storm drain system.	Environmental Services
<b>Corp Yard Operation and Maintenance</b>	BMPs to prevent stormwater pollution are incorporated into yard operations such as covering storage areas and conducting equipment washing and repair in areas that do not drain to the storm sewer.	General Services; Parks, Recreation & Neighborhood Services; PBCE; PW; Transportation; and Environmental Services
<b>Public Information and Participation</b>	The City has a robust and broad-based public information and public participation program utilizing many different outreach methods to best deliver stormwater pollution prevention and watershed protection messages.	Environmental Services

# City of San José Urban Runoff Management Plan *Annual Report 2005-2006*



*City of San José Urban Runoff Management Plan  
Annual Report FY 2005-2006*

# **City of San José**

# **Urban Runoff Management Plan**

## ***Annual Report 2005-2006***

---

**September 2006**

### **Acknowledgements**

**This report was prepared by the City of San José**

*Environmental Services Department*

*Watershed Protection Division*

*Urban Runoff Program Section*

**In partnership with:**

*Environmental Services Department: Watershed Enforcement*

*Environmental Services Department: Municipal Water*

*Department of Parks, Recreation, & Neighborhood Services*

*Department of Planning, Building & Code Enforcement*

*Department of Public Works*

*Department of Transportation*

*General Services Department*

*San José Redevelopment Agency*

**Cover Pictures**

First Row:

- 1) The wetlands of South San Francisco Bay, with the Diablo Mountain Range to the east.

Second Row:

- 1) Third-grade students performing the experiment "Pollution Soup" at the Water Wizards Festival at the Guadalupe River Park and Gardens
- 2) Pedestrian Bridge over the Guadalupe River in downtown San José. A guide is speaking to participants at a workshop entitled "Development and Water Resources: Making the Connection," a joint effort between the City, the Santa Clara Valley Urban Runoff Pollution Prevention Program, and the Watershed Management Initiative's Land Use Subgroup.

Third Row

- 1) A parking lot paved with porous concrete: a stormwater treatment and hydromodification control measure.
- 2) A Street Sweeping crew from the City's Department of Transportation.
- 3) A storm drain inlet stenciled with the name of the nearest creek and the City's stormwater dumping complaint phone number.

## Executive Summary

The City is required to submit to the Regional Water Quality Control Board (Water Board) an Annual Report that documents the progress of the Urban Runoff Management Plan for the previous fiscal year. The Annual Report is prepared pursuant to provision C.6 of the City's National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge to the City's storm sewer system.

The Report includes sections for each of the program elements included in the Urban Runoff Management Plan as required in the permit. Each section is comprised of an update on the status of the work plan, an evaluation of various performance elements, responses to Water Board feedback received during the past year, and additional tables or information to demonstrate performance for a program element. Summaries are also provided for the array of outreach activities and municipal training sessions that are included in various program elements.

Most program elements contain requirements that affect more than one City department. The strategy for attaining compliance focuses on three different types of activities that the City conducts:

- 1) Enforcement and monitoring to detect and respond to incidents of illegal discharge to the storm sewer system;
- 2) Structural and business process changes to City operations and services; and
- 3) Education for municipal employees as well as the community at large.

The City also contributes to activities undertaken by the Santa Clara Valley Urban Runoff Pollution Prevention Program (Program) and the Bay Area Stormwater Management Agencies Association (BASMAA); however, this report includes only activities performed by the City. An overview of the year for each program element follows.

### ***Illicit Connection / Illegal Discharge Inspection (ICID)***

The City's Environmental Services Department (ESD) responds to complaints regarding illegal discharges or threats of discharge to the storm sewer system. This year, the City responded to more than 792 cases, a slight decrease from last year but well within the five-year average case rate. Residential incidents continue to be most frequent, with vehicle-related sources being most common. Dumping of various materials was also a prevailing source of incidents. ESD responds to all complaints with education and enforcement in partnership to achieve compliance and prevent future incidents. Staff intends to do targeted outreach to four Strong Neighborhood Initiative (SNI) areas that exhibited a high number of residential complaints in FY 06-07 in an effort to educate the residents and reduce the number of complaints.



*Storm drain inlet stenciled with hotline number and local creek name*

The City continues to conduct targeted outreach in an effort to reduce the number of ICID calls. In FY 05-06 City staff met with the San Pedro Square Business Association, assisting with the planning and implementation of procedures to stop discharges to the storm drain from surface cleaning and leaking trash compactors.

### ***Industrial & Commercial Discharges (IND)***

Under this program element, ESD inspects more than 3,500 businesses per year to ensure that proper practices are employed to prevent stormwater pollution. How frequently a business is inspected depends on their potential for contributing pollutants as determined by previous inspection results. This method of assigning inspection frequencies has been effective in focusing limited inspection resources on high priority cases to best protect water quality. 72% of the businesses inspected are found to have no significant stormwater issues and thus do not warrant near-term re-inspection. When issues are identified, education and enforcement are used together to achieve compliance.

FY 05-06 marked the third time in three years that the City experienced a significant spike in the number of business license applications. The total inventory of facilities in the City that are subject to inspection has doubled over the last three years, representing a significant workload challenge. The City began to integrate this increased workload for the short term by prioritizing and phasing initial inspections and shifting resources. Since this increase in workload is expected to continue in subsequent fiscal years, long-term strategies will be explored to fulfill inspection requirements.

FY 05-06 marked the fourth year of implementation of the comprehensive restaurant inspection program and 1,148 facilities were inspected. Staff also conducted a review of the last three years of data in order to assess how the program is working. Based on the data assessment, the City is establishing a Fats, Oils, and Grease (FOG) Inspection Program. This Program will target food



*A City inspector explains stormwater Best Management Practices to a downtown restaurateur*

service facilities and focus specifically on successfully integrating the sanitary sewer management plan (SSMP) requirements and enhancing the business' general awareness of stormwater issues related to food service facilities.

Education remains the primary tool for preventing or stopping practices that may pollute stormwater. In FY 05-06, inspectors distributed almost 9,000 Best Management Practices (BMPs) brochures, fact sheets, posters, and other materials as part of the IND program. Generally, inspectors are being very proactive and distributing BMPs to support educational efforts. For example, businesses that did not have any current

stormwater issues were still given BMPs by inspectors to assist the business in their efforts to keep pollution out of the storm drain system.

### ***New and Redevelopment (NRD)***

This program element is driven by the New and Redevelopment provision (also referred to as C.3) of the permit, as amended in October 2001 and again most recently in July 2005. This provision requires that development projects implement controls to address pollutant discharges and increased storm flows for the life of a project. The implementation of the new hydromodification management plan (HMP) requirements began on October 18, 2005.

The City continues to make significant strides implementing this challenging program. The City adopted the Post-Construction Hydromodification Management Policy 8-14 (Policy 8-14) on October 18, 2005. The policy requires the management of development-related increases in peak runoff flow, runoff volume and duration (“hydromodification”), where such hydromodification is likely to cause increased erosion, silt pollutant generation or other impacts to beneficial uses of local rivers, streams and creeks. Techniques for managing hydromodification include detention basins and other landscape measures that infiltrate or hold stormwater flows for controlled release. Policy 8-14 supplements stormwater treatment requirements delineated in Policy 6-29 entitled “Post-Construction Urban Runoff Management.”

The City also implemented an expansive training program for both treatment controls and hydromodification to give staff the information and resources needed to effectively guide and review development applications and to design public projects. Among the HMP training highlights were a Green Roof Symposium that focused on green roofs as a stormwater and hydromodification control measure appropriate for small urban infill sites. Additionally, City staff from five departments attended both the SCVURPPP and StormCon HMP workshops. Plus, City staff also attended a beta testing demonstration of the Bay Area Hydrology Model (BAHM) software that will greatly simplify the modeling calculations required to comply with the HMP.

The City conducted a pilot inspection program in FY 05-06 and, based on those results, revised its Operation and Maintenance Program. The revised program requires inspection of all stormwater treatment and hydromodification measures installed during the first year of operation. Subsequent inspections are based on observed stormwater issues such as improper installation and lack of functionality. This revised program is based on the City’s successful IND inspection program.



*Porous-paved parking lot: a structural stormwater control*

The City continues to find that implementation of stormwater and hydromodification controls are easier for undeveloped, “greenfield” sites, such as Coyote Valley (in southern San Jose) because the land requirements for runoff treatment and

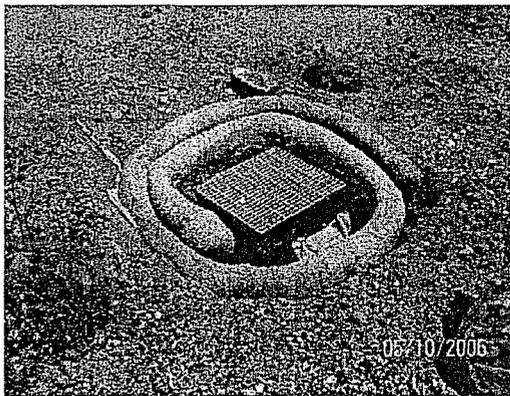
hydromodification measures can be factored into the master plan and accommodated early in the development process. Implementing stormwater treatment and hydromodification controls on smaller, infill sites in a developed urban area is much more difficult given limited land area, the high cost of land, and the City's policies that discourage sprawl and encourage increased densities. These policies have an associated water quality benefit as they reduce traffic congestion and the associated air pollution.

The City continues to emphasize site design and source control as the primary tactics for addressing stormwater on a project-by-project basis. The City has also continued to actively participate in efforts to develop analytical tools and outreach on a regional basis. City staff from a variety of departments continues to provide information about stormwater issues and new requirements to the public and the development community.

### ***Construction Inspection (CON)***

The City inspects activities at construction sites to prevent sediment and other pollutants from entering the storm sewer system. Inspectors from Public Works and Building review erosion and sediment controls as part of their routine inspections. Environmental Services supplements this effort with limited inspection and broad enforcement follow-up. These departments also collaborate in providing outreach materials and training to the development community on appropriate best management practices.

In FY 05-06, the City again focused on staff training, hosting and coordinating several training sessions for staff involved in construction inspection. Two trainings were held in October 2005 by City staff for Building and Public Works inspectors. Staff has also attended trainings held by



*Proper stormdrain protection during construction prevents construction debris and sediment from entering the stormdrain*

the Santa Clara Valley Urban Runoff Pollution Prevention Program and the Water Board held in December 2005 for inspectors and construction project managers. An additional training was held in January 2006 by City staff for Public Works capital improvement project managers. These focused trainings help project managers and teams ensure erosion and sediment control measures are included on plans and specifications. Trainings have made inspectors more vigilant in identifying and correcting problems at construction sites. Environmental Services staff plans to conduct frequent, short, focused stormwater BMP trainings for all inspection groups during section meetings throughout FY 06-07 to supplement the main fall annual training.

While inspection efforts are improving, site conditions still show that vigilance is necessary to ensure stormwater issues are addressed. Overall, the need for enforcement increased with 223 verbal warnings, 90 written notices, and 54 administrative citations issued by ESD Watershed Enforcement Inspectors.

### ***Public Streets, Roads, & Highways (PSR)***

This program element is pursuant to provision C.2.a of the permit and is one of several that address municipal activities. These program elements essentially consist of best management practices (BMPs) being incorporated into City operations such as street repair. Training plays a key role in ensuring that staff uses the proper techniques during the course of their duties to protect water quality. For FY 05-06, this training was completed in May 2006. Session content centered on review of the Department of Transportation's BMPs and Standard Operating Procedures (SOPs) for O&M activities. Corp Yard Stormwater Pollution Prevention Plan training was integrated into the DOT crew training in FY 05-06. Training content is directed by which work groups are present, and the training curriculum is revised when needed to reflect new practices. On average, 88% of the employees responded that the BMPs taught were appropriate for their work.



*Department of Transportation paving crew applying their training along with the pavement*

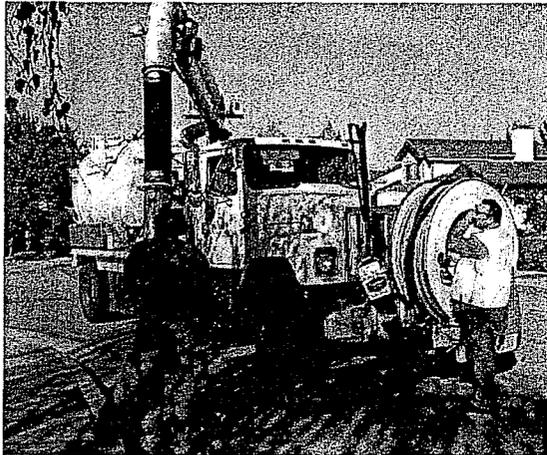
Training was also conducted for Rural Public Works BMPs in accordance with provision C.5, which requires that the City employ proper techniques when conducting maintenance activities in rural areas. This standard is integrated as part of the PSR program element. The City's departments of Parks, Recreation, and Neighborhood Services; General Services; and Transportation are responsible for managing rural public works maintenance and support activities.

The City conducts an extensive Street Sweeping program, involving the sweeping of the central business district; arterials, collectors, and bicycle lanes; and residential streets. Annually, the City sends out a calendar of the street sweeping schedule to each single-family dwelling, and asks neighborhood associations within the City to include reminders in their association newsletters for moving parked vehicles on street sweeping days. The City is continuing to expand the areas in which parking restrictions are required and enforced to improve the effectiveness of the street sweeping program. In FY 05-06, the enforcement area was broadened from 160 to 196 curb miles. The City anticipates expanding the areas in which parking restrictions are required and enforced for street sweeping by approximately 40 curb miles in FY 06-07.

### ***Storm Drain System Operation & Maintenance (SDO)***

Storm Drain System Operation and Maintenance is another municipal activity program element implemented in accordance with provision C.2.a of the permit. This program includes key maintenance activities that are conducted to ensure the proper function of the storm sewer system to collect and convey storm runoff. Maintenance staff training was conducted to coincide with that of the PSR program element and was completed in May 2006.

DOT successfully implemented its annual storm drain inlet inspection and cleaning program, cleaning approximately 28,500 inlets. To date, the City has been able to achieve the more comprehensive Tier 2 level of inlet cleaning performance.



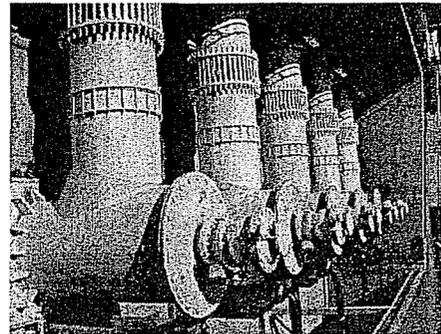
*Department of Transportation Vactor crew  
cleaning out a storm drain inlet*

Due to budget constraints anticipated for FY 06-07, a modified implementation of Tier 2 may be needed. Evaluation of the data collected during inlet cleaning indicates that approximately six percent of the City's storm drain inlets and catch basins had a problem associated with them. The key problems for stormwater protection were cars parked on catch basins; high debris (leaves, lawn clippings, dirt and other natural materials); excessive garbage (paper, bottles, cans, and other man-made waste); and pollution (concrete, antifreeze, oil, paint, etc. that appear to have been

intentionally dumped into the inlet or catch basin). Maintenance staff is directed to contact Environmental Enforcement when pollution is identified. Using this information, the City directs resources to known problem areas.

### ***Water Utilities Operations & Maintenance (WUOM)***

This program element addresses a municipal activity and is implemented in accordance with provision C.2.a. The program addresses operation and maintenance activities at the City's Municipal Water system. The key tools for implementing this program are the Water Utility Pollution Prevention Plan and staff training to ensure that proper techniques are employed during maintenance activities. The City's training program includes the annual development of a video demonstrating the implementation of BMPs for a specific work function. This year's hydrant-flushing program was the focus of annual evaluation of SOPs and the review found that no changes in the current practice are needed.



*Pumps at the Rincon II Pump Station*

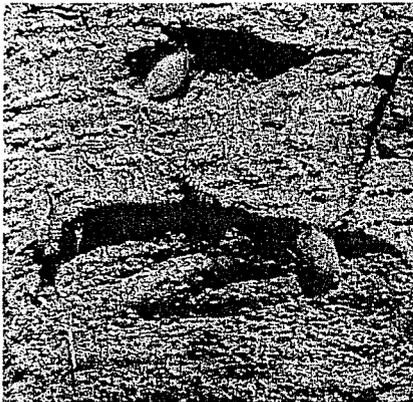
An inventory of potential water utility discharges must be conducted every three years and included in the Annual Report, as required by the Water Utility Operations & Maintenance Discharge Performance Standard. This inventory is to be performed in each service zone (North San Jose, Evergreen, Edenvale, Coyote, and South Bay Water Recycling), by Municipal Water staff. Municipal Water staff conducted the inventory in March 2006 for all service zones. The findings revealed that current SOPs and BMPs, which are successfully being implemented to reduce and eliminate pollutant discharges to receiving waters, are effective and no changes are needed.

## ***Pesticide Management (PM)***

This program element is required pursuant to provision C.9.d. of the permit. The purpose of the Pesticide Management program is to reduce the amount of pesticides in stormwater and landscape runoff. Activities include setting municipal policy, implementing proper techniques when selecting and applying pesticides on City property, staff training, public education, and City participation in regional efforts to influence regulations that affect pesticide management. In 2003, the Council adopted an Integrated Pest Management (IPM) Policy, which calls for municipal operations to incorporate IPM techniques and to reduce, phase-out, and ultimately eliminate the use of pesticides that cause impairment of surface waters.

The City has incorporated the use of IPM techniques for many years. Pesticide use on City property is based upon specific site needs. The decision to use a pesticide is determined by several factors, i.e., site evaluation, accurate identification of the pest, past history, monitoring of thresholds, review of alternative means of control, and selection of the most favorable and effective pesticide. The City also seeks to reduce the need for pesticide usage through alternate actions such as mulching, weed barriers, proper irrigation, and selection of disease resistant plants. In many instances, plant diseases and pest problems are tolerated rather than employing any pesticides. When pesticide use is necessary, the City strives to use products that are less toxic and safer for employees.

In FY 05-06, the City continued data collection and tracking of pesticide applications on City property. While improvements have been made, some data remains incomplete for Facilities and



*Tussock Moth infestation on an oak tree at Williams Street Park*

Special Districts. City staff will continue to work with contractors in FY 06-07 to resolve outstanding reporting and data collection issues. Comparative data was reviewed for City staff applications and golf courses. In general, City use of the two most common herbicides (Roundup and Pendulum) decreased despite an increase in total acreage managed. The use of Surflan and Gallery increased, in some cases replacing Pendulum and reducing the need for repeat applications. The use of Karmex decreased substantially in response to concerns about its impact on water quality. The pesticide Drive, containing an active ingredient deemed less toxic to the environment was tested by City staff and found to yield better results in lesser amounts than other products.

City staff continues to use ongoing and new methods to resolve municipal pest problems with less toxic and non-chemical integrated pest management techniques. PRNS continues to effectively use mulch to alleviate the need for pre-emergent herbicides and reduce water use. PRNS experienced success using biological controls such as wasps to address oak and tussock moths at test locations. The City Arborist has adopted the practice of offering IPM solutions to the callers regarding maintenance of street trees. Also, the arborist is encouraging the use of a disease resistant hybrid palm tree in new Public Works projects rather than the California Fan Palm, which is susceptible to pink rot and requires regular fungicide treatment. Due to its superior environmental practices, including IPM, the Los Lagos

Municipal Golf Course and its superintendent were honored as the Golf Course Superintendents Association of America/Golf Digest (GCSAA) National Public and Overall winners of the 2005 GCSAA/Golf Digest Environmental Leaders in Golf Awards.

New projects to reduce reliance on chemical controls are planned for implementation in FY 06-07. The first project involves the use of predators to control rodent populations in certain parklands. The proposal involves building owl boxes and placing them strategically to entice owls to establish habitat and prey upon the rodents. The second project involves the use of a native grass seed mix to control star thistle weed along trails. Pesticides are typically used in the area proposed for a trial project. DOT-Special Districts will continue to evaluate the gopher pilot project that began in FY 04-05, which uses traps to control gophers rather than pesticides.

In FY 06-07, the City will continue taking a lead role in the planning process as co-host for the 3<sup>rd</sup> Annual Regional IPM Conference scheduled for November 2006 at the San Jose Convention Center. In FY 05-06, representatives from ESD, DOT, PRNS and GS began serving as conference chair and on various IPM Conference planning subcommittees.

### **Mercury (M)**

This program element is implemented pursuant to provision C.9.c of the permit. The City has continued its efforts to reduce or eliminate mercury discharges in municipal operations. The City purchases low mercury-containing fluorescent lamps. Spent lamps are required to be recycled. In FY 05-06, the City recycled nearly 9,100 feet of mercury-containing lamps. Residential recycling of lamps is accomplished through the City's support of the Santa Clara County's Household & Small Business Hazardous Waste program.



*Fluorescent lamps for recycling at the Central Service Yard*

February 2006 marked the start of the Universal Waste Rules which require common household products like batteries, thermometers, fluorescent lamps and cathode ray tubes that contain hazardous materials, such as mercury and other heavy metals, to be disposed at approved locations like the County's Household Hazardous Waste site. These products are no longer accepted in curbside trash or recycling receptacles. The City conducted various outreach efforts at both the City and Program levels to alert residents of this change including postings on the City's website and articles in the City's *Curbside Courier* newsletter.

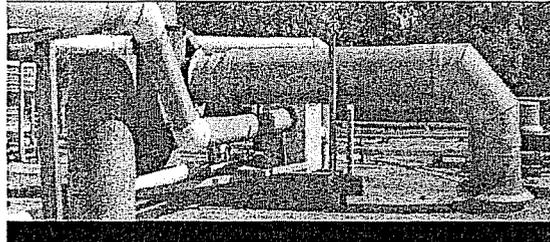
In addition, the City has operated and maintained a National Mercury Deposition Network (MDN) site since January 2000, collecting samples, recording data, and sending both to the national MDN laboratory. The City also continues its support of the San Francisco Bay Regional Monitoring Program, AB 982 TMDL Public Advisory Group, WMI Guadalupe River Mercury TMDL Workgroup, and the Clean Estuary Partnership. The City continues its commitment to

work with the Water Board and stakeholders toward TMDLs that are technically defensible and feasible for implementation.

### ***Copper & Nickel Action Plans (CNAP)***

This program element is implemented pursuant to provisions C.9.a and C.9.b of the permit, which incorporate Action Plans for copper and nickel to be implemented based on water quality monitoring results in the South Bay. The action plans include activities for which various agencies or entities assume responsibility. Only activities undertaken at the municipal level for stormwater are included in this report. Such activities have largely been integrated into other ongoing program elements but are reported as a summary for clarity. Copper and nickel remain among the list of pollutants addressed by general and targeted outreach regarding stormwater pollution prevention.

In the City's Industrial and Commercial Inspection program, key activities have been implemented to address copper either exclusively or among the array of potential pollutants. A fact sheet regarding rooftop sources of copper pollution was again distributed to select industrial facilities. In FY 05-06, the City's Watershed Enforcement Inspectors completed a pilot project that involved inspecting rooftops of select facilities in addition to regular inspection activities. The purpose of this pilot was to evaluate the degree of BMP implementation and the need for additional outreach or enforcement efforts. Results of this project indicate that additional rooftop inspections are not necessary.



**IS YOUR ROOF RUNOFF POLLUTED?**

The City also continued its "NOI Filers" project. This activity aimed to increase awareness among industrial facilities of their obligations under the State's General Industrial Activities Stormwater Permit (GIASP) by providing them with BMPs and information alerting them to the requirements. Review of this information has already been successfully incorporated into routine inspections, and the City reports to the Water Board a list of facilities that have not yet filed under the GIASP.

### ***Trash (TRA)***

This program element is implemented pursuant to the Program's Trash Work Plan and provision C.1 of the permit. The purpose of the Trash program is to address litter and illegal dumping that threatens to pollute urban waterways. The impetus for this program was the 2001 Water Board Staff Report recommending that all urban creeks, lakes, and shorelines be placed on a monitoring list due to the threat of trash impairment to water quality. Activities associated with the Trash program since its inception in FY 02-03 include a survey of San Jose's established trash management services and programs and identification of litter hotspots.

Trash assessments based on a trash problem area list continued to be the focus of activity during FY 05-06. The trash problem area list is comprised of Anti-Litter Program sites, parks, and homeless encampments located throughout the City. This year a second round of assessments

was performed at priority hotspots in the Coyote watershed and at all locations in other watersheds. Assessments were performed using standard protocol selected by the Program. The assessments provided information regarding the type and potential sources of trash found in and around urban creeks and offered insight into the effectiveness of existing trash management practices. The trash assessments revealed that existing trash management activities are sufficient at many locations, but that enhancements are needed in others.



*Volunteers removing trash from Coyote Creek  
behind San Jose High Academy*

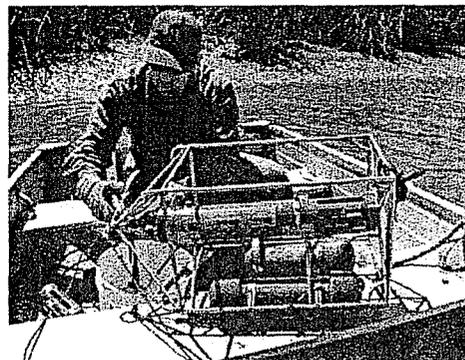
The City continues to try to maximize existing resources to address trash problem areas throughout the City. This year Watershed Enforcement acted as a resource to help address trash problems on privately owned property adjacent to creeks. Enforcement inspectors contacted property owners to ensure clean up and/or prevent trash from re-accumulating. In addition, the City established an agreement with the San Jose Conservation Corps to provide clean-up services along creeks to supplement existing clean-up provided by City maintenance. The Conservation Corps removed approximately 70 cubic yards (approximately 7 tons) of trash from the Guadalupe River and Coyote Creek.

This year the City of San José and the Santa Clara Valley Water District (District) continued efforts associated with the Memorandum of Agreement for Trash Prevention and Removal (Trash MOA), which began in FY 04-05. The highlight of Trash MOA activities was the partnered clean-up projects on Coyote Creek. The Trash MOA calls for three partnered clean-up projects each calendar year that are intended to take place at locations that fall outside the normal scope of operations of the City and District. During this reporting period, two partnered clean-up projects occurred in the Coyote Creek Watershed and a third on the Guadalupe River. An estimated total of four tons of debris was removed.

In addition, ESD is investigating structural trash management controls. The City submitted a concept proposal to the State Water Board Consolidated Grants Program for funds to support implementation of a structural trash control pilot program. The grant concept proposal was not invited to the application stage, but City funds were budgeted to support much smaller scale implementation of trash controls (catch basin inserts, inlet bars, or underground separation units) in FY 06-07.

### ***Monitoring (MON)***

Monitoring activities required in the stormwater permit are generally implemented in collaboration with other agencies. The City continues to participate in monitoring activities area-wide, including Regional and Program-focused investigation of pollutants and sources of pollutants to the storm drain system. The City also provides input and support to the Program's



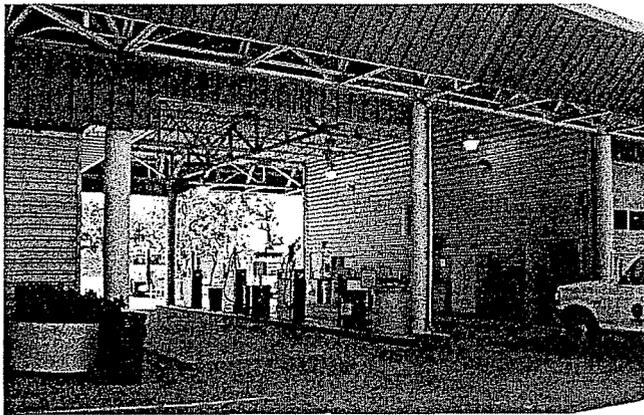
*Watershed Protection Biologist collecting  
field data from Coyote Creek*

multi-year monitoring program, and reviews work products as various Program-level projects are designed and completed.

### ***Municipal Compliance (MC)***

This program element summarizes the City's efforts to train City staff on pollution prevention practices and to ensure that City facilities comply with stormwater requirements. In FY 05-06, the City held over 75 sessions on various topics to ensure that City staff received training on procedures and issues related to stormwater programs. Trainings continued on the implementation of the New and Redevelopment (C.3) requirements with a strong focus on hydromodification measures. Also, the City received several presentations by stormwater product vendors.

To ensure stormwater compliance at City properties, Corporation Yards were routinely inspected for stormwater permit compliance. An annual inspection was conducted at each of the six yards



*Fueling island at Mabury Corporation Yard*

during the first quarter of 2006. Quarterly hazardous material inspections, which include stormwater issues, were also conducted in FY 05-06. A Corporation Yards' Pollution Prevention Team (P2 Team) was formed in December 2004. The responsibilities of the team are to review and update Corp Yard Stormwater Pollution Prevention Plans (SWPPPs), assess the Corp Yards for current stormwater best management practices (BMPs) in use, determine if new BMPs should be included in the SWPPPs, and assist in implementing the SWPPPs (e.g.

training). SWPPP revisions for three of the Corp Yards (Mabury, South, and West) were drafted in FY 05-06 and are currently under review. Also, SWPPP training was conducted at all six of the Corp Yards in June 2006. On average, 93% of the employees responded that the BMPs taught were appropriate for their work. The combination of site inspections and the semi-annual meetings appears to be working well. The concerns identified in the Corp Yards' inspection reports are usually minor and resolved swiftly.

### ***Public Information / Participation (PIP)***

This program is implemented in accordance with provision C.4 and includes general outreach, targeted outreach, educational programs, and public participation activities. The City has a robust and broad-based public information and public participation program, utilizing many different outreach methods to best deliver stormwater pollution prevention and watershed protection messages. Conducting outreach to the community and providing opportunities for participation in water quality protection activities are critical to evoking the behavior changes needed to manage stormwater quality. They are also important for garnering the support needed to continue and expand services and programs.

The City participates in and supports a wide variety of stormwater outreach and education activities, including many in collaboration with other local and regional agencies. Highlights for FY 05-06 include: continued stenciling of storm drain inlets throughout the City with the appropriate neighborhood creek name and 945-3000 hotline number; providing access and supplies for multiple creek clean-up sites; training sessions for developers on construction requirements; and conducting four Wacky Watershed teacher training workshops to 40 teachers. Outreach continues to be a vital tool for inspectors, allowing for direct education of polluters and potential polluters. Education is the first step in the City's Enforcement Response Plan. Educating the youth of San José continues to be a priority, with several different programs targeting both students and teachers with watershed education.

The City also actively supports Program-wide outreach and education activities, including IPM outreach, Mercury outreach, and the Watershed Watch campaign. Coordinating outreach activities with the Program and Bay Area-wide efforts enables the City to deliver some of its pollution prevention message more effectively and at reduced cost.



*Watershed Protection Engineer  
educating 3<sup>rd</sup> graders at the  
Water Wizards Festival*

### ***Permit Reapplication***

The City's current NPDES permit was adopted in February 2001 for a five-year period. The permit was amended in October 2001 and July 2005, with both amendments relating to the New and Redevelopment stormwater treatment and hydromodification provision, also known as Provision C.3. The permit has been administratively extended since February 2006, pending the adoption of the Bay Area-wide Municipal Regional Permit.

In late 2005, the Water Board embarked on a multi-stakeholder process to craft an NPDES permit, called the Municipal Regional Permit (MRP) that would apply to all municipal stormwater dischargers in the Bay Area. In the past, NPDES permits were issued separately to Bay Area stormwater programs with staggered adoption dates, which often resulted in uneven and inequitable requirements.

City staff has dedicated numerous hours to participate in work groups convened to help develop performance standards for the Inspection and Outreach components of the new permit. Staff has also participated in the steering and stakeholder meetings convened by Water Board staff. City staff will continue to participate in the MRP process through the Program, BASMAA, and individually as a City. The Water Board is expected to adopt the MRP in 2007.

## **Conclusion**

The City of San José is committed to managing and protecting stormwater quality and dedicates significant resources to a variety of activities designed to address stormwater quality issues. The



City actively participates in many local and regional efforts designed to leverage the most value for its resources and citizens. The City strives to be a leader in watershed protection, and continues to meet or exceed its permit-mandated obligations. Future fiscal years will bring new challenges, but the City is actively positioning itself to best meet these challenges and maintain the high quality of service its constituents expect.

*Alum Rock Library detention pond, a stormwater treatment control measure*

