



COUNCIL AGENDA: 9-13-05

ITEM: 2.6

Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Carl W. Mosher

SUBJECT: URBAN RUNOFF MANAGEMENT
PLAN 2004-2005 ANNUAL REPORT

DATE: 8-24-05

Approved

Date

8/29/05

RECOMMENDATION

Authorize submittal of the 2004-2005 Urban Runoff Management Plan Annual Report and certification to the Regional Water Quality Control Board (Water Board) in conformance with the City's Municipal Separate Storm Sewer System National Pollutant Discharge Elimination System (NPDES) permit requirements, pursuant to the Federal Clean Water Act.

BACKGROUND

The Federal Clean Water Act requires the City to have an NPDES permit for the discharge of stormwater to surface waters via the City's storm sewer collection system (Stormwater Permit). San Jose is included in the stormwater permit issued to the Santa Clara Valley Urban Runoff Pollution Prevention Program (Program), which involves 15 agencies in Santa Clara County whose land area drains to South San Francisco Bay. The City's co-permittees are 12 other municipalities, the County of Santa Clara, and the Santa Clara Valley Water District. The Water Board renewed the permit in February 2001 with subsequent amendments to the permit in October 2001 and July 2005.

The Stormwater Permit mandates that the City submit an Annual Report by September 15 each year, documenting the performance of permit-related tasks and evaluating the effectiveness of the activities. This most recent Report fulfills the annual requirement for reporting on activities undertaken from July 1, 2004 through June 30, 2005.

ANALYSIS

The Annual Report covers a variety of urban runoff program elements designed to reduce pollutants in stormwater discharges. Programs include industrial inspections, new development plan review, street and storm sewer maintenance, construction site inspections, public education, and other strategies to reduce specific pollutants.

In addition to a brief overview of the activities conducted, the Annual Report cites both accomplishments and opportunities for improvement for each program element during the fiscal year. Among the highlights for FY 2004-2005 are:

- Expanded implementation of treatment control measures on new development projects.
- Completion of more than 3,000 inspections of industrial and commercial facilities.
- Implementation of trash assessments and an MOA with the Santa Clara Valley Water District to coordinate on trash management activities.
- Expansive training to ensure that standard operating procedures (SOPs) and best management practices (BMPs) are incorporated into City operations as well as in the private sector.

See Attachment A for the Executive Summary, which provides greater detail. The complete Urban Runoff Management Plan Annual Report 2004-2005 is available on the City website.

OUTCOME

Approval of this recommendation will result in submittal of the FY 2004-2005 Annual Report to the Regional Water Quality Control Board, as required by permit.

PUBLIC OUTREACH

Outreach is an integral part of the Urban Runoff program. The Management Plan includes components to conduct outreach to various sectors of the community on relevant stormwater issues, e.g., pesticide use, mercury, new development requirements and ensuring that only rainwater enters the storm sewer system. Many outreach activities are accomplished in partnership with the Program or regional campaigns. No additional outreach was conducted specifically for this recommendation.

COORDINATION

The Annual Report was developed by ESD in collaboration with the departments of Planning, Building and Code Enforcement; Public Works; Transportation; Parks, Recreation and Neighborhood Services; and General Services as well as the Redevelopment Agency and the City Attorney's Office.

COST IMPLICATIONS

There are no direct costs associated with submittal of the Annual Report, as the report summarizes activities that have already occurred. Ongoing programs related to the stormwater permit are funded primarily by storm sewer service and use charges through the Storm Sewer Operating Fund (Fund 446).

BUDGET REFERENCE

Fund #	Appn #	Appn Name	RC #	Total Appn.	Amt for Contract	2004-2005 Adopted Operating Budget*	Last Budget Action (Date, Ord.No.)
446	0762	Non-Personal/Equipment		1,965,774	N/A	VIII-50	N/A

* Adopted by the City Council on June 22, 2004.

CEQA

Not a project.


CARL W. MOSHER
Director, Environmental Services

Attachment A
City of San José Urban Runoff Management Plan
Annual Report FY 2004-2005

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); 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 800 cases, an increase from last year but within the five-year average. Residential incidents continue to be most frequent with vehicle-related sources being most common. Dumping of various materials was also a prevailing source. Construction related incidents are still notable but have declined over previous years as coordination of inspections across departments improves. ESD responds to all complaints with education and enforcement in partnership to achieve compliance and prevent future incidents.

In 2004-05, ESD conducted several preventative outreach and clean-up activities to address illegal discharges. Inspectors began attending preparation meetings in advance of outdoor events

sponsored by the City to educate organizers on best management practices (BMPs) to prevent pollution. Inspectors conducted on-site trainings at selected multi-tenant businesses to educate them on pollution prevention practices. The City also responded to several complaints regarding litter in or along local creeks. Clean up activities were coordinated across departments through this and the Trash program elements.

Industrial & Commercial Discharges (IND)

Under this program element, ESD inspects more than 3,000 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. 70% 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.

Approximately one third of the businesses inspected are restaurants or other food service facilities. These inspections address how a restaurant conducts cleaning practices, particularly outdoors. Increasingly, this program also addresses how a facility manages its oil and grease wastes. Such wastes pose a risk of clogging the sanitary sewer system, which can then result in illegal stormwater discharges. This year, the City produced a comprehensive outreach packet to focus on restaurants. This and other outreach efforts appear to be working. Among restaurants, inspectors note that housekeeping issues are improving but that oil and grease issues remain persistent.

Inspectors have been able to manage an increasing workload through prioritization and the sound use of technology. A City effort to encourage business licensing has resulted in a large influx of additional businesses to incorporate into the program. These newly licensed businesses are being phased in over a three-year period to effectively manage the workload. Inspectors continue to use the new Environmental Enforcement Data Management System (EEDMS) database and personal digital assistants (PDAs) to efficiently conduct inspections and manage information.

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 to the storm drain system. The City also provides input and support to the Program's multi-year monitoring program, and reviews work products as various Program-level projects are designed and completed.

New and Redevelopment (NDC)

This program element is driven by provision C.3 (New and Redevelopment) of the permit, as amended in October 2001 and 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 requirements for Group 1 projects (those that create one acre or more of impervious surface) began on October 15, 2003 and was expanded in February 2005 to include all Group 1 projects. This requirement was again expanded on May 17, 2005, to include Group 2A projects (those that create or replace 10,000 square feet or more of impervious surface and have a significant potential to contribute pollutants).

During the past year, the City has made significant strides in implementing this program. The City has revised administrative processes and updated relevant documents needed for implementation. The primary tools for implementation are the Municipal Code and the Council Policy on Post Construction Urban Runoff Management. Policy revisions were approved by City Council on February 15, 2005 and May 17, 2005. The City also remains an active partner in the Program's development of various guidelines and tools for implementation of the C.3 provisions. At the local level, the City now requires developers to submit a Stormwater Control Plan for all applicable projects to delineate clearly how stormwater requirements are being met for new development. This Plan is intended to expedite review and ensure that stormwater measures are tracked throughout the development cycle. The City also implemented an expansive training program to give staff the information and resources needed to effectively guide and review development applications. Among the training highlights was a four-session series focused on stormwater controls from design to maintenance to proper selection. Staff from five departments attended.

Generally, implementation of stormwater controls is easier on undeveloped, "greenfield" sites, such as Coyote Valley (at the southern tip of San Jose) because the land requirements for runoff treatment BMPs can be factored into the master plan and accommodated early in the development process. Implementing stormwater 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 participate in efforts to develop analytical tools and outreach on a regional basis. Planning and Public Works continue 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 stormwater 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 2004-05, the City focused on staff training as a means of increasing inspector awareness of conditions that lead to stormwater pollution and improving coordination across departments.

Public Works inspectors now regularly refer cases to ESD for follow-up and include detailed information on issues identified at a site to both ESD and Building. Inspectors also conducted on-site trainings at selected sites to educate project managers and subcontractors on BMPs.

While inspection efforts are improving, site conditions do still show stormwater issues need to be addressed. Overall, the need for enforcement decreased, but more than 300 verbal warnings were issued in addition to more than 70 written notices or citations.

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 2004-05, this training was completed in May 2005. Session content centered on review of the Department of Transportation's BMPs and Standard Operating Procedures (SOPs) for O&M activities. Training content is directed by which work groups are present, and the training curriculum is revised when needed to reflect new practices. For example, a new training module specific to DOT electrical staff was developed and training conducted in June 2005. On average, 96% of the employees responded that the BMPs taught were appropriate for their work.

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.

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 clean rainwater. Maintenance staff training is conducted to coincide with that of the PSR program element and was completed in May 2005.

DOT successfully implemented its annual storm drain inlet inspection and cleaning program, cleaning approximately 28,000 inlets. To date, the City has been able to achieve the more comprehensive Tier 2 level of inlet cleaning performance. Due to budget constraints anticipated for 2005-06, a modified implementation of Tier 2 may be needed. In 2004-05, new criteria were developed for inlet cleaning data collection, and training on the criteria was conducted for the cleaning crews prior to the start of the inlet cleaning program. The new data collection criteria worked well. Evaluation of the inlet cleaning data collected indicates that approximately five 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 illicit 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 illicit pollution is identified. Using this information, the City can direct resources to known problem areas.

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 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 integrated pest management techniques for many years. Pesticide use on City of San José municipal 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 2004-05, the City implemented a new data management tool to compile and evaluate information on pesticide use on City property. This database includes information reported by City staff and contractors. While some issues remain with incomplete data from contractors, comparative data was reviewed for City staff applications and for golf courses. In general, City use of the two most common herbicides (Roundup and Pendulum) decreased despite an increase in total acreage maintained. In some cases, Gallery was used to replace Pendulum to address escape weeds and resistance to Pendulum. The use of diuron products was increased to maintain effective weed control along undeveloped rights-of-way and alleviate the need for repeated treatment. Golf course applications fluctuated to address specific infestations such as pink snow mold and dollar spot fungus. Golf course managers also began using a crystalline form of copper, as a test to determine whether it provides longer lasting algae control than the liquid form used previously.

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, almost exclusively, low mercury-containing fluorescent lamps. Expired lamps are required to be recycled. A flyer was distributed to staff in various departments to ensure that lamps are stored, handled, and disposed properly. In 2004-05, the City recycled nearly 38,000 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. The City also conducts various outreach efforts at both the City and Program levels.

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.

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 development of a video demonstrating the implementation of BMPs for a specific work function. This year, the tank cleaning program was the focus of annual evaluation of SOPs and the review found that no changes in the current practice are needed.

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. 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 outreach and education activities, including many in collaboration with other agencies, such as through the Program or regional groups. Highlights for 2004-05 include continued stenciling of storm drain inlets throughout the City with the appropriate neighborhood creek name and 945-3000 hotline number; hosting creek clean-up sites; completion of a BMP packet aimed at restaurants; and participation in a Water Wizard Festival for 300 third grade children. Outreach continues to be a vital tool for enforcement inspectors, allowing for direct education of polluters and potential polluters. 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.

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 2004-05, the City held more than 70 sessions on various topics to ensure that City staff received training on procedures and issues related to stormwater programs. Some are part of well-established training regimens. Strong emphasis was maintained on "keeping mud out of the streets and storm drains" during the erosion and sediment control training for both City staff and developers. Best management practices were reviewed in detail with various operations and maintenance personnel. New trainings held this year addressed implementation of the C.3 (New and Redevelopment) requirements including a series of workshops addressing control measure selection and design.

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 during the first two quarters of 2005. Quarterly hazardous material inspections, which include stormwater issues, were also conducted in 2004-05. 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 (i.e., training). As a first task, the Main Yard SWPPP was revised in June 2005. The combination of site inspections and the semi-annual meetings appears to be working well. The Corp Yards' general appearances have improved over the last several years and the concerns identified in the inspection reports are usually minor and resolved swiftly.

Copper & Nickel Action Plans (CNAP)

This program element is implemented pursuant to provisions C.9.a and 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 were previously distributed to industrial facilities. In 2004-05, ESD began a project to include additional rooftop inspections of select facilities in order to evaluate the degree of BMP implementation and the need for additional outreach or enforcement efforts. The project will continue through next year.

The City also completed its "NOI Filers" project. This activity was aimed at increasing awareness among industrial facilities of their obligations under the State's General Industrial

Activities Stormwater Permit. 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 State permit. This year, the City also completed a mass mailing to prospective facilities to alert them to the requirements. This mailing will be repeated and the project evaluated next year.

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 the 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, hotspot prioritization, and enhancements to trash management practices were the focus of activities during 2004-05. The hotspot list is comprised of Antilitter Program sites, parks, and homeless encampments located throughout the City. This year assessments were performed at hotspots within the Coyote watershed using standard protocol selected by the Program. The assessments provided useful 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 assessed, but that enhancements are needed in others. Preliminary efforts to enhance trash management practices at high priority locations and in general to address potential impacts to creeks began in 2004-05.

This year the City of San Jose and the Santa Clara Valley Water District (District) executed a Memorandum of Agreement (MOA) for Trash Prevention and Removal (Trash MOA). Both the City and the District have individually established programs that entail trash removal from creek areas. The purpose of the Trash MOA is to formalize the commitment of the City and District to coordinate resources, when feasible, to remove trash in and near creeks. Among other provisions, the MOA calls for up to three partnered cleanup projects each calendar year. The trash cleanup projects are intended to take place at locations that fall outside the normal scope of operations of the City and District. During this reporting period, one such project occurred in an area along Coyote Creek with a large in-creek trash accumulation. Two additional cleanups are scheduled to take place in 2005.