



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow

SUBJECT: STORMWATER PERMIT
ANNUAL REPORT 2010-2011

DATE: 08-08-11

Approved

Date

8/18/11

COUNCIL DISTRICT: City-Wide

RECOMMENDATION

- (a) Authorize certification and submittal of the 2010-2011 Stormwater Permit Annual Report to the San Francisco Bay Regional Water Quality Control Board in conformance with the Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit requirements, pursuant to the Federal Clean Water Act.
- (b) Direct staff to return to the Transportation and Environment Committee in October for review and discussion of the Annual Report.

OUTCOME

Approval of this recommendation will result in submittal of the FY 2010-2011 Annual Report to the Regional Water Quality Control Board (Water Board), as required by permit.

BACKGROUND

Water enters the City's storm sewer system through approximately 29,000 storm drain inlets. Stormwater flows are conveyed without treatment to local creeks and streams and ultimately to San Francisco Bay. This water is comprised of rainfall, irrigation water, and other water used outdoors. It collects pollutants as it flows across rooftops, sidewalks, driveways, streets, and landscaping.

The Federal Clean Water Act requires the City to operate under a National Pollutant Discharge Elimination System (NPDES) municipal stormwater permit for the discharge of stormwater to surface waters via the City's storm sewer collection system. On October 14, 2009, the San Francisco Regional Water Quality Control Board (Water Board) adopted the Municipal Regional Stormwater NPDES Permit (Stormwater Permit) for the San Francisco Bay Region.

The Stormwater Permit became effective December 1, 2009, and remains in effect through November 30, 2014. It specifies actions necessary to reduce the discharge of pollutants in stormwater to the maximum extent practicable and effectively prohibit non-stormwater discharges into the municipal storm sewer system to protect local creeks and the Bay.

The Stormwater Permit requires that the City submit an Annual Report by September 15 of each year, documenting the performance of Permit activities and certifying compliance with Permit requirements. This report is the second Annual Report under the new Stormwater Permit and follows a standardized reporting template for all 76 agencies regulated by this regional permit. The report format was developed by the Bay Area Stormwater Management Agencies Association and approved by Water Board staff. This standardized reporting template is intended to provide the Water Board with more robust and consistent information about permittee compliance. This Annual Report fulfills the requirement for reporting on activities undertaken from July 1, 2010, through June 30, 2011.

ANALYSIS

Actions to prevent pollution from entering the City's storm sewer system can encompass all levels of City operations, as well as the daily activities of San José residents and businesses. Accordingly, many City departments are actively engaged and are critical to the City's efforts to prevent stormwater pollution and protect water quality including: Environmental Services; General Services; Parks, Recreation and Neighborhood Services; Public Works; Planning, Building and Code Enforcement; Transportation; the Redevelopment Agency; and the City Attorney's Office.

The City's Stormwater Permit implementation activities are detailed in the *Stormwater Management Plan, 2009-2014*. The Plan describes the City's approach and strategies for implementing the requirements of the Stormwater Permit and for protecting local creeks and the Bay. The Plan was accepted by the Transportation and Environment Committee in May 2011.

Through implementation of the *Stormwater Management Plan for 2009-2014*, the City strives to achieve the following objectives:

- Manage stormwater to ensure clean, healthy creeks and Bay;
- Ensure that City complies with Stormwater Permit requirements in a cost-effective manner;
- Integrate new permit requirements into existing programs to minimize resource impacts, whenever possible; and
- Utilize opportunities in permit implementation to pilot new approaches and familiarize City staff with these approaches so the City is well positioned to inform development of the next permit.

Stormwater Permit implementation and compliance affects many components of City operations. It also has broad community implications including increasing public awareness of the storm sewer system and its connection to local creeks, as well as encouraging implementation of Best Management Practices and behavior changes to reduce pollutants entering the storm sewer

system and local creeks. Key program elements of the Stormwater Permit and associated implementation actions fall into six Key Implementation Areas:

- Ensure City Operations Integrate Water Quality Protection
- Prevent Pollutant Discharges through Effective Enforcement
- Guide Development to Protect the Watershed
- Develop and Implement Strategies to Reduce Target Pollutants
- Motivate Public Stewardship of the Watershed
- Collect High Quality Monitoring Data

While the Stormwater Permit became effective in 2009, it includes many implementation requirements that come online over the course of the Permit term. City departments implementing the permit have been working diligently to meet the challenge of conducting compliance activities and developing and implementing new programs with limited and shifting resources. Key accomplishments achieved by City departments implementing the Stormwater Permit during FY 2010-2011 include:

Key Implementation Area	Permit Provisions
Ensure City Operations Integrate Water Quality Protection	C2 Municipal Operations C5 Illicit Discharge Detection and Elimination C15 Exempted and Conditionally Exempted Discharges
<ul style="list-style-type: none"> ▪ Prior to the winter rains, the Department of Transportation removed 158 cubic yards of debris from 23 stormwater pump stations. ▪ Municipal Water applied Best Management Practices and monitored over 800 planned discharges of the potable water system. ▪ Over 300 municipal maintenance staff received training in stormwater protection and Best Management Practices. 	
Prevent Pollutant Discharges Through Effective Enforcement	C4 Industrial and Commercial Site Controls C5 Illicit Discharge Detection and Elimination C6 Construction Site Controls C15 Exempted and Conditionally Exempted Discharges
<ul style="list-style-type: none"> ▪ The City inspected 5,240 Industrial and Commercial facilities for proper stormwater pollution prevention. ▪ The City proactively screened over 300 storm drain outfalls for illegal discharges; three were found and remedied. ▪ Only 130 violations were identified during 950 City inspections of construction sites. Almost all violations were corrected within 10 business days. 	

Key Implementation Area	Permit Provisions
<p>Guide Development to Protect the Watershed</p> <ul style="list-style-type: none"> • In coordination with Regional partners, the City developed feasibility criteria for using Low Impact Develop (LID) techniques exclusively for stormwater treatment. LID measures typically minimize stormwater runoff from a development and include collecting and reusing rainwater, evapotranspiration via a greenroof, or treating of stormwater by infiltration or bioretention. • Minimum specifications for green roofs and biotreatment soils meeting Permit requirements were established. • A proposal for allowing Smart Growth greater flexibility in treating runoff was submitted for Water Board approval. • Integration of stormwater treatment measures into 31 new private sector projects, with 73% of those using on-site landscaping to filter and treat some or all runoff. All of these projects met the Permit's stormwater treatment requirements. 	<p>C3 New and Redevelopment C6 Construction Site Controls</p>
<p>Develop And Implement Strategies to Reduce Target Pollutants</p>	<p>C9 Pesticide Toxicity Control C10 Trash C11 Mercury C12 PCBs C13 Copper C14 PBDEs, Legacy Pesticides, and Selenium</p> <ul style="list-style-type: none"> • Implementing a \$200,000 grant from the State Department of Pesticide Regulation, the City hosted a Green Gardener course in Spring 2010 which graduated and certified 30 local professional landscapers. • 12 City staff received over 20 hours of training in Bay Friendly sustainable landscaping practices. • The City recycled more than five tons of its own spent mercury-containing lamps. • The City completed construction of a large-scale full trash capture device that treats a catchment area of 48 acres. • San José was selected to be awarded a \$680,000 EPA grant to begin a four-year pilot program to creatively address litter, illegal dumping, and homeless encampments along a targeted reach of Coyote Creek.
<p>Motivate Public Stewardship of the Watershed</p> <ul style="list-style-type: none"> • Staff distributed over 900 copies of "You Are the Solution to Water Pollution" in English, Spanish and Vietnamese at outreach events • Over 2,660 "No Dumping" markers were installed on storm drain inlets by the Department of Transportation. 	<p>C7 Public Information and Outreach ALL</p>

**Collect High Quality
Monitoring Data**

C8 Water Quality Monitoring

- City staff teamed with IBM Almaden Research Labs to promote the Creek Watch iPhone app and used it during the first San José Snap Shot Water Quality Monitoring Day, which was held in conjunction with IBM on June 15, 2011.
- The City collaborated with the Santa Clara Valley Water District and the Countywide Program to monitor first-flush water quality at 15 stations on Coyote Creek and the Guadalupe River.

See Attachment A for the Executive Summary excerpted from the Annual Report, which provides greater detail. The complete *Stormwater Permit Annual Report 2010-2011* is available on the City website at <http://www.sanjoseca.gov/clerk/agenda.asp>¹.

EVALUATION AND FOLLOW-UP

After Council approval, staff will return to the Transportation and Environment Committee for a review and discussion of the Annual Report. The compressed timeline between the close of the fiscal year and the required submittal to the Water Board does not allow sufficient time to report to the Committee in advance of the City Council. Additionally, as the City continues with permit implementation, staff will provide regular reports on key implementation efforts to the Transportation and Environment Committee and City Council.

PUBLIC OUTREACH/INTEREST

- Criteria 1:** Requires Council action on the use of public funds equal to \$1 million or greater. **(Required: Website Posting)**
- Criteria 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**
- Criteria 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

Although the Annual Report does not meet any of the above criteria, outreach is an integral part of the Stormwater Management program. The City conducts outreach to various sectors of the community on relevant stormwater issues, such as 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 Santa Clara Valley Urban Runoff Pollution Prevention Program or regional campaigns.

¹ All documents referenced as web links are also available for review in the City Clerk's Office or the Environmental Services Department. To find a report at the website, select the Council date and item number.

HONORABLE MAYOR AND CITY COUNCIL

08-08-11

Subject: Stormwater Permit Annual Report 2010-2011

Page 6

COORDINATION

The Annual Report was developed by the Environmental Services Department in collaboration with the departments of Planning, Building and Code Enforcement; Public Works; Transportation; and Parks, Recreation and Neighborhood Services; and the City Attorney's Office. The Annual Report was reviewed by each of these departments to ensure that the data and information presented in the report accurately and properly reflects of their operations.

COST SUMMARY/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 through the Storm Sewer Operating Fund (Fund 446).

CEQA

Not a project, File No. PP10-069(a), City Organizational & Administrative Activities.

/s/

Kerrie Romanow

Acting Director, Environmental Services

For questions please contact Melody Tovar, Deputy Director, Environmental Services, at (408) 793-5353

Attachment: Stormwater Permit Annual Report 2010-2011 Executive Summary

Attachment A
FY 2010-2011 Stormwater Permit Annual Report
City of San José

Executive Summary

The City is required to submit to the San Francisco Bay Regional Water Quality Control Board (Water Board) an Annual Report that documents compliance with the Municipal Regional Stormwater NPDES Permit. The Annual Report is prepared pursuant to provisions C.1 – C.16 of the National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge through the City's storm sewer system to waters of the United States.

The Report includes sections for each of the Permit provisions and follows the annual reporting format developed by the Bay Area Stormwater Management Agencies Association (BASMAA) and approved by the Water Board's Executive Officer. Each section is comprised of data tables and narrative to demonstrate progress and accomplishments in the program element.

Most program elements contain components carried out by more than one City department. On May 2, 2011, the City Council's Transportation and Environment Committee accepted the City's Stormwater Management Plan for 2009-2014, which describes the City's approach and strategies for implementing the requirements of the Permit and for protecting local creeks and the Bay. For San José, the approach for attaining compliance and implementing the Permit's requirements fall into six Key Implementation Areas:



Coyote Creek

- Ensuring City operations integrate water quality protection;
- Preventing pollutant discharges through effective enforcement;
- Guiding Development to Protect the Watershed;
- Developing and Implementing Strategies to Reduce Target Pollutants;
- Motivating Public Stewardship of the Watershed; and
- Collecting High Quality Monitoring Data.

Although 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), this report includes detailed information for only those activities that were performed by the City. Program and BASMAA reports are included by reference. The following report provides an overview of the past year's progress toward addressing each Permit provision.

C.2 Municipal Operations

During this reporting year, efforts under this provision focused on implementing new or revised operational protocols to incorporate appropriate Best Management Practices (BMPs) to control and reduce non-stormwater discharges and polluted stormwater to storm drains and waterways during operation, inspection, and routine repair and maintenance of municipal facilities and infrastructure.

The City provides regular training to staff to ensure that appropriate stormwater protection BMPs are employed during applicable municipal operations and maintenance activities. The Permit requires BMP training for City staff that conduct maintenance and repairs on any paved and/or unpaved rural road. Training for rural public works maintenance staff was held in September 2010, focusing on deployment of practical and effective stormwater BMPs for road

maintenance activities to protect riparian habitat, aquatic species, and water quality. Training included field demonstrations of proper BMP use and installation for inlet protection, erosion control blankets, turf reinforcement mats, silt fences, straw wattles, straw bales, and re-vegetation. The training fulfills one of two required trainings for rural public works maintenance staff during the Permit term as part of provision C.2.e.ii.(4).



Storing municipal equipment inside covered structures and placing drip pans beneath equipment are examples of BMPs that protect storm drain inlets

Additional BMP training was held from May through June 2011 covering street repair and maintenance; sidewalk and plaza maintenance; park maintenance; bridge and structural maintenance and graffiti removal; and corporation yard operations. A total of 306 staff from multiple City departments completed this training.

The City also provides technical assistance to municipal staff through the Environmental Services Department intranet with links to the California Stormwater Quality Association Handbook for Municipal Operations and the BASMAA Blueprint for a Clean Bay and Pollution Prevention Training Program for Surface Cleaners.

The City completed dry and wet season inspections and dry season monitoring of its stormwater pump stations. Dry season monitoring and inspections are required for thirteen (13) of the City's twenty seven (27) stormwater pump stations. The City recorded one instance in which the dissolved oxygen (DO) value was below the 3 mg/L implementation level, however this small discharge infiltrated before reaching the main river channel.

The City conducts annual stormwater pump station wet well cleanings. Department of Transportation maintenance crews removed approximately 158 cubic yards of debris from 23 of the City's 27 stormwater pump stations in preparation for the 2010–2011 wet season.

C.3 New and Redevelopment

San José's implementation of Permit Provision C.3 in FY 10-11 focused on preparing for the transition to Low Impact Development (LID) stormwater management beginning in December, 2011 while ensuring new and redevelopment projects met existing C.3 requirements. The City participated in several BASMAA and countywide Program efforts to develop standardized LID implementation tools, such as LID feasibility criteria, green roof and soil specifications, and a proposed LID reduction credit program that would afford Smart Growth greater flexibility in meeting stormwater treatment requirements.



O&M Verification Program inspection of media filtration vault

The City made a number of improvements to its own processes in FY 10-11 to better implement Provision C.3. For example, C.3 data collection and reporting capability was added to the parcel information and permitting software used by the City's Development Services staff, a weekly C.3 coordination meeting involving Development Services and Environmental Services staff was established, SOPs for O&M inspection were revised, and post-construction stormwater BMP initial installation inspections were launched.

Coordination with local developers aimed to keep the industry apprised of changes to City services driven by C.3 requirements and other regulations. The City used its industry roundtable meetings and direct contact with current project applicants to call attention to upcoming stormwater management requirements. Similarly, outreach and training for City staff focused on current and upcoming C.3 implementation requirements as they relate to the project design and review process.

Development activity in FY 10-11 remained slow. A total of thirty-one (31) C.3 Regulated Projects were approved during the reporting year, down from fifty-seven (57) in FY 09-10. Consistent with San José's sustainable development goals and Smart Growth strategy, over one-quarter of those projects were located in Transit Oriented Development areas.

The City pursued grant funding for five potential Green Street pilot projects where rain gardens, biotreatment tree planters, and permeable pavement could be used to treat street runoff. Collaboration between the City's Transportation, Public Works, and Environmental Services Departments produced concepts and cost estimates for these five Green Street projects. The City was unsuccessful in securing grant funding for any one of three projects proposed for funding in 2010 through the EPA Region 9 Water Quality Improvement Fund Grant. At the time of



San José Environmental Innovation Center parking lot draining to a vegetated swale

preparation of this report, the results of the initial application process for funding through the State's Prop 84 Urban Greening Grant for two of the projects are still pending.

C.4 Industrial and Commercial Site Controls



Environmental Inspectors investigating an overflowing grease interceptor at a restaurant

The goal of the Industrial and Commercial Inspection program is to protect the storm sewer system from polluted discharges originating from commercial and industrial facilities. The program includes more than 12,000 businesses in its inspection inventory and provides educational materials to business operators on best management practices to prevent stormwater pollution. The City's Business Inspection Plan is designed to target inspector resources at facilities with a higher potential to contribute pollutants to stormwater. This prioritization considers the type of business and the compliance history of a facility in establishing inspection frequency. In FY 10-11, the

City completed inspections for 5,240 facilities, which included new food service facilities discovered by inspectors in the field.

More than 7,200 inspections were conducted in FY 10-11. The City inspected 16% fewer facilities in FY 10-11 compared to FY 09-10 yet had an increase in violations of 3.75%. Inspectors found and documented 102 actual discharge violations and 1,648 potential discharge violations. Approximately 19% of the facilities inspected included at least one violation. Additionally, in FY 10-11, the City improved its rate of correcting identified violations within 10 business days (or in an otherwise timely manner) to 91%.

C.5 Illicit Discharge Detection and Elimination

The Illicit Discharge Detection and Elimination (IDDE) program detects illicit discharges and responds to complaints regarding illegal discharges or threats of discharge to the storm sewer system. The City received 555 IDDE complaints in FY 10-11.

Of these 555 complaints, 129 could not be found upon field inspection. Sanitary spill or leak made up the next largest category of cases, representing almost 10% of the IDDE caseload. The increase in this category can be attributed to greater communication and collaboration between the IDDE inspectors and the City's Department of Transportation as part of their response to sanitary sewer overflows.

The City developed standard operating procedures and supporting documentation for conducting screenings of its outfalls in conjunction with its existing outfall inspection and maintenance program.

A total of 306 outfalls were screened from July 1, 2010 through June 31, 2011 of which 112 were identified as key major outfalls. Three screenings identified IDDE incidents, with one occurring at a key outfall. These incidents were referred to the IDDE inspection program for follow-up and resolution.

C.6 Construction Site Control

City staff from Public Works and Environmental Services carried out a total of 943 inspections at 116 construction sites in FY 10-11, resulting in 108 enforcement actions. Similar to previous years, inadequate sediment control (dirt leaving the site) was the most common problem observed at construction sites, followed by poor site management (housekeeping). Inspectors were able to achieve compliance predominantly through Level 1 (Correction Notices and Verbal Warnings) enforcement, and no violations took more than 30 days after discovery to correct.



Environmental Inspector tracking down the source of a sanitary sewer leak into a storm sewer main

In FY 10-11, San José's Construction Stormwater Inspection Program Standard Operating Procedures (SOPs) were updated to further clarify roles and responsibilities and provide additional detailed guidance to inspection and other staff involved in Provision C.6 compliance. Microsoft SharePoint was used to develop two online tracking systems that; 1) reduce the response time from when construction activities start and Environmental Services inspectors begin inspections; and 2) enable information from the paper inspection forms used in the field by Public Works inspectors to be transferred to a system that can be accessed by both field inspectors and program staff responsible for tracking and reporting data. Additionally, field inspection forms were updated for Public Works and Environmental Services inspectors.



Good site management and sediment control at a construction site

San José participated in the countywide Program's Construction Ad-Hoc Task Group to identify efficient approaches for implementing Provision C.6 and improve data collection and reporting consistency among Permittees. City construction inspectors also participated in several trainings this fiscal year. Because the NPDES State Construction General Permit became effective in July 2010, a number of the trainings attended by City staff were related to the Qualified SWPPP Practitioner/Qualified SWPPP Developer (QSP/QSD) certification process related to compliance with that General Permit.

C.7 Public Information and Outreach

The City has a robust and broad-based public information and outreach program that utilizes many different methods to deliver stormwater pollution prevention and watershed protection messages to diverse audiences. Community outreach and providing opportunities for participation in water quality protection activities are critical elements for encouraging the public behavior changes needed to manage stormwater quality. They are also important for garnering the support needed to continue and expand services and programs.



2011 Water Wizards Festival

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. In addition, the City strives to attend events that are popular with the Spanish and Vietnamese speaking communities and provide multilingual information. Highlights for FY 10-11 include: hosting cleanup locations at two county-wide creek cleanup events; leading interactive educational games at Happy Hollow Park and Zoo; partnering with retail stores to provide on-site IPM outreach; and organizing a city-wide citizen water monitoring event. Outreach continues to be a vital tool for inspectors, allowing for

direct, targeted education on key best management practices a business can employ to prevent pollution. Education is the first step in the City's Enforcement Response Plan. Another critical audience for outreach and education directed at sustained behavior changes and watershed protection is school-aged youth. Educating the youth of San José continues to be a priority, with multiple programs targeting students, teachers, administrators, and school communities with watershed education and green practices.

The City also actively supports Program-wide and Bay Area-wide outreach and education activities, including IPM outreach, mercury outreach, regional media relations, and the Watershed Watch campaign. Coordinating outreach activities with the Program and Bay Area-wide efforts enables the City to deliver consistent pollution prevention messages more effectively, more frequently, and at reduced cost. In FY 10-11, the City collaborated with the San Francisco Estuary Partnership (SFEP) and other interested agencies to develop a prospective regional Bay Protection and Behavior Change campaign, seeking to leverage outreach activities across both wastewater and stormwater agencies to improve message consistency and effectiveness. This effort is ongoing to build partnerships for the launch of a unified approach to pollution prevention messaging.

C.8 Water Quality Monitoring

Most monitoring activities required in the stormwater permit are implemented at the Program level. However, the City also participates directly in region-wide and local monitoring activities. These include numerous committees, workgroups, and strategy teams for the San Francisco Bay Regional Monitoring Program (RMP) for Trace Substances; SCVURPPP Monitoring ad hoc task group, and the Program Pollutants of Concern ad hoc task group; various regional and Program-focused investigations of pollutants and sources to the storm drain system.

This year, City staff actively participated in planning and review activities for the RMP, serving on the Steering Committee, Technical Review Committee, and as members of the Sources, Pathways and Loadings workgroup; Emerging Contaminant workgroup; and Dioxin Strategy team. Financial support for the RMP has continued since its inception. In FY 10-11, the City reviewed RMP study reports, Pulse of the Estuary articles, and served on RMP committees and workgroups. Through these roles, the City helped to develop work products and prioritize information needs through the RMP Master Planning effort and restructuring of RMP status and trends monitoring.



San José staff retrieve a monitoring device from the Guadalupe River

City staff also participated directly in the BASMAA Monitoring and POC Committee, which is the lead committee for development and coordination of the newly formed Regional Monitoring Coalition.

Locally, San José led or participated in two collaborative water quality studies of Coyote Creek and the Guadalupe River (ongoing in FY 11-12). In Coyote Creek, the City worked cooperatively and shared resources with the Santa Clara Valley Water District and the countywide Program to monitor water quality along a large urban reach of the creek. In the Guadalupe River, the City partnered with the Santa Clara Valley Water District to monitor water quality in the urban reaches of the river and Alviso slough during the first seasonal rain. The City helped IBM-Almaden Research Labs test and promote the iPhone application (app) "Creek Watch," which allows volunteers to report real-time information about waterways in order to aid watershed management agencies. Staff also worked with IBM-Almaden Research Labs to promote citizen monitoring and hold the first San José Snap Shot Water Quality Monitoring Day on June 15, 2011. Staff also began implementation of a City-sponsored volunteer water quality monitoring pilot program, which will begin work in early FY 11-12.

C.9 Pesticides Toxicity Control

The Pesticides Toxicity Control program element consists of provisions intended to prevent impairment of urban streams by pesticide-related toxicity. These include requirements to adopt and implement an Integrated Pest Management (IPM) policy, train staff, control sources, and provide public outreach, among others. San José has incorporated IPM techniques in City operations for several years. The City's IPM Policy (formally part of the Pollution Prevention Policy), requires IPM techniques to be implemented in municipal operations to implement the reduction, phasing out, and ultimately eliminating the use of pesticides that impair surface waters.

During the reporting year, San José continued to apply proven and innovative IPM techniques to address municipal pest problems. Some examples of IPM techniques used by the City during the last fiscal year include grazing for weed abatement, replacing diseased or insect-infested plants with more site-appropriate, pest resistant species, dormant oil for sycamore scale and anthracnose control, identifying areas of grub infested turf that can be treated with nematodes

instead of chemicals, mulching and replenishing mulch, power washing moth cocoons from trees and others.

During FY 10-11, the City received the State Department of Pesticide (DPR) Alliance Grant. Using this grant, the City is testing a landscape maintenance work plan for creating a model pesticide-free park at the Guadalupe River Park. Under this project, municipal landscape maintenance cultural practices will be modified on a 4-acre portion of this regional park during the project period to test how the park can be maintained using IPM techniques within current resource levels. As part of the project, City is also piloting other state-of-the-art techniques such as weed and rodent monitoring using GPS-based mapping systems. Results from this project will be used to inform maintenance practices at other City parks, and could also be applicable to similar parks in other municipalities. As part of this project, City is setting up a 15,000 square foot weed-prevention demonstration area for the benefit of municipal staff and commercial landscapers that will demonstrate several weed-prevention techniques that could replace or reduce reliance on herbicides.



Owl box

The City's use of pesticides that can affect water quality, specifically organophosphates, fipronil, pyrethroids and carbaryl, continued to remain minimal. No organophosphorous pesticides and carbaryl were used in the past three years. Pyrethroid and fipronil use has increased compared to FY 09-10, but remains low. Use of pesticides may vary from year to year due to pest cycles and weather conditions. Occasionally when less toxic methods are not sufficiently effective, other methods are employed to prevent the pest problem from escalating until non-toxic and revised cultural practices can take effect, thus minimizing the overall application of toxic chemicals.

San José participates in regional collaborative efforts to provide educational outreach to residential and commercial pesticide users and pesticide retailers. Two education programs, Our Water, Our World and the Program's Watershed Watch campaign continued to increase target audiences awareness of benefits and techniques of less toxic pesticide use. Watershed Watch continued facilitating the Santa Clara Valley Green Gardener training program and offered expanded trainings in Spanish. Using DPR Alliance Grant funding, the City partnered with the non-profit Guadalupe River Park Conservancy to offer an additional spring training session of the Santa Clara Valley Green Gardener program in English. Thirty (30) landscape professionals were certified as Green Gardeners during this session.

As part of the DPR Alliance Grant, the City is also working on installing sustainable residential-style demonstration gardens at the Guadalupe River Park and Gardens, with interpretive signs to demonstrate sustainable landscape principles to residents.

C.10 Trash Load Reductions

The City has made progress towards compliance with section C.10 of the Municipal Regional Permit (Permit). Working with our BASMAA partners, the City has been actively involved with the development of the Short Term Trash Load Reduction Plan and Baseline Trash Load and Trash Load Reduction Tracking Method, all due for submittal to the Water Board by February 1, 2012. On February 7, 2011, the City Council's Transportation and Environment Committee accepted

an update on the City's trash and litter reduction effort that included establishing a set of guiding principles for the City's Trash Load Reduction Plan. These Guiding Principles will shape and focus the development of the strategies and tactics of the Trash Load Reduction Plan by requiring the plan to:

- Achieve demonstrable progress toward the goals for reducing trash loading to waterways;
- Balance cost and effectiveness;
- Support community objectives for improving the quality of life in our neighborhoods;
- Support achievement of other water quality and environmental objectives; and
- Leverage resources and approaches with new and existing partners.

With these guiding principles, the City has framed three main strategies: prevention, interception, and clean-up. These strategies address trash reduction at each stage of the process from the source of the litter to its accumulation in the watershed. The Trash Reduction Plan will build upon established City efforts to address litter and trash, will incorporate new technologies and actions to managing and capturing trash, and will explore new partnerships and approaches to changing behavior and preventing and managing trash and litter. As efforts to quantify baseline trash loads and determine trash reduction credits are finalized and presented to the Board in the upcoming year, City staff will refine the City's strategy to best reach the required trash reduction targets.

As part of the effort to determine San José's Baseline Load, the City hosted a BASMAA-wide trash assessment at its Mabury Corporation Yard. The trash load assessment involved City staff working with BASMAA staff and contractors in evaluating 71 sampling locations throughout the San Francisco Bay area (34 of the sample locations were located in San José).



BASMAA contractor sorts through storm drain inlet debris at City of San José's Mabury Corporation Yard to quantify trash for baseline loading assessment

During FY 10-11, the City completed construction of the first hydrodynamic separator (HDS) systems for trash removal. This first HDS unit will treat a catchment of 48 acres before discharging to a reach of Coyote Creek. A second unit, currently under construction, will treat 207 acres.

The San José City Council approved an agreement with SFEP on November 16, 2010. Through this grant agreement, San Jose will be able to access a minimum of \$610,000 for the purchase of Full Trash Capture Devices. Candidate locations for an additional six HDS systems are currently undergoing engineering and geotechnical analysis and evaluation.

Also during FY 10-11, the City installed an additional 37 small full trash capture devices (connector pipe screens) in locations throughout San José, bringing the City's total number of connector pipe screen installed to 118. In addition to controlling trash from the catchment areas where they are installed, these devices are spread over a sampling of land uses, population densities, and income strata in an effort to estimate the trash load from the entire city. The City's preliminary estimate of the land area treated for trash from these connector pipe screens is 342 acres. As of this reporting date, two HDS units will be treating 255 acres. The total land area being treated with full trash capture is estimated to be 597 acres. This estimate will be further refined with the submittal the Baseline Trash Load and Load Reduction Tracking Method due by February 1, 2012.

All 32 trash hot spots identified by the City were cleaned in 2010. The City has re-commenced clean-up of these hot spots, and to date has cleaned 11 of the 32 sites in 2011. In 2010, 80.78 cubic yards of debris were removed from these locations, and to date 49.2 cubic yards of debris has been removed in 2011.

San José has also demonstrated leadership in reducing trash both in Santa Clara County and regionally. Highlights of these regional leadership roles include:

- Adoption of the Bring Your Own Bag Ordinance by the City Council on December 14, 2010. The City is preparing businesses and residents for the ordinance effective date of January 1, 2012.
- Commencement of a stakeholder process to reduce litter from foam plastic restaurant take-out food packaging.
- Award of a \$680,000 grant from the US EPA Region 9 San Francisco Water Quality Improvement Fund for the Clean Creek, Healthy Communities program. This pilot program will utilize an innovative approach to improve creek health along a targeted stretch of Coyote Creek by engaging the neighbors as stewards of the creek, working to deter illegal dumping and littering, and applying an innovative approach to working with homeless individuals to cleanup trash within the project area.



Hydrodynamic separator unit is placed into position on Wool Creek Drive

C.11 Mercury Controls and C.12 Polychlorinated Biphenyls (PCBs) Controls

The City has continued its efforts to reduce or eliminate potential mercury discharges from municipal operations. The City purchases low mercury content fluorescent lamps, and spent lamps are recycled properly. In FY 10-11, the City recycled more than 12,925 pounds of spent mercury-containing lamps. The City held 15 thermometer take-back events where 882 mercury-containing thermometers and 18 other mercury containing devices were collected for proper disposal. The City also supports the Santa Clara County Household & Small Business Hazardous Waste Program to provide fluorescent lamp recycling services to residents.

The City also continued to support the San Francisco Bay Regional Monitoring Program (RMP), which has worked collaboratively with the BASMAA Regional Monitoring Coalition to plan and implement a number of projects to evaluate sources and loadings of mercury and PCBs. The City is an active participant in regional efforts to understand and control stormwater inputs of



Fluorescent lamps stored for hazardous waste collection at corporation yard

both mercury and PCBs to the Bay. In particular, the City is an active participant on the BASMAA Monitoring and Pollutants of Concern Committee and multiple project-specific teams and workgroups such as the PCBs in Caulk Project, Stormwater Pump Station Diversions to POTWs effort, and multiple Clean Watersheds for a Clean Bay (CW4CB) workgroups. The CW4CB project is funded largely by an EPA Water Quality Improvement Fund Grant to implement multiple provisions under C.11 and C.12 such as on-land investigations and abatement, enhanced sediment management, and evaluation of on-site stormwater treatment via retrofit. Many of the efforts under CW4CB began within the City in FY 10-11 or are planned to occur within San José in subsequent years. The City continues its commitment to work with the Water Board and stakeholders toward TMDLs that are technically defensible and feasible for implementation.

C.13 Copper Controls

The City has long supported the Brake Pad Partnership, a collaborative multi-stakeholder organization formed to address copper from brake pads. The City submitted letters of support for AB 346 (Kehoe) to effectively eliminate copper in brake pads sold in California. AB 346 became law in July 2010. The bill was drafted with unanimous agreement among the Partnership's industry, stormwater agency, and environmental members and the law would effectively eliminate copper from all automobile brakes sold in California. The City is also an active participant in the RMP, which will implement studies to reduce copper pollutant impact uncertainties. An RMP special study began in 2011 to evaluate the effect of dissolved copper on the olfactory system of salmonids.

In the City's identified and incorporated businesses with copper use or have sources of copper into its Industrial and Commercial Inspection program, and 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 continues to be available for distribution to targeted industrial facilities. On May 5, 2011, San Jose inspectors attended the Program's IND/IDDE Workshop, "Conducting Effective Inspections of Industrial and Commercial Facilities." This workshop featured training on "Inspecting Industrial/Commercial Facilities for Pollutants of Concern" which cover PCBs, copper, and mercury.

The City provides BMP information for its residential and commercial constituents on various actions they can take to reduce or eliminate the exposure and discharge of copper from their activities. Materials were distributed during inspections, at the City's planning and permitting offices, at outreach events, and on the City's website.

C.14 Polybrominated Diphenyl Ethers (PBDE), Legacy Pesticides and Selenium

Provision C.14 is implemented at the regional level. The City is an active participant in regional efforts to determine to what degree PBDEs, legacy pesticides and selenium are present in urban runoff and the distribution of these pollutants in urban areas. Studies to understand the extent to which urban runoff serves to convey these pollutants are implemented through the RMP and the Regional Monitoring Coalition (RMC) implementation of provision C.8. The City participates in both the RMP and the RMC through multiple RMP workgroups and the BASMAA Monitoring and POC Committee respectively.

C.15 Exempted and Conditionally Exempted Discharges

This provision includes requirements to implement BMPs and monitoring during planned and unplanned discharges of the potable water system; discourage individual residential car washing; control swimming pool, spa, and fountain water discharges; and limit pollution from excess irrigation.

The City held BMP training with its Municipal Water System staff and its contractor on December 15, 2010, to familiarize staff with practices required to prevent pollutants from entering the storm system during planned discharges of the potable water system. Municipal Water System staff also monitored water quality of the discharges after BMPs as required by the permit.

For planned discharges, the percent within benchmark for chlorine residual, pH, and turbidity were 84.80%, 97.76%, and 98.09% respectively. Significant improvement in BMP effectiveness was demonstrated for chlorine residual compared to last year's performance, and effectiveness for pH and turbidity remained very high. There were a total of five (5) unplanned discharges from July 2010 through June 2011. Staff was unable to monitor these discharges because none had water remaining in amounts sufficient to sample once flows had been stopped. Priority is given to isolating and stopping unplanned discharges to minimize threat to public safety, property damage, and service disruptions.



Preparing to deploy planned discharge BMPs and monitor water quality

Though outreach activities, the City encouraged residents to protect water quality by washing their cars at establishments where the wash water is recycled, or by washing cars over landscaped areas. The City's Water Waste Ordinance encourages water conservation and prohibits practices that lead to over watering and runoff. Additionally, the City continues to promote water-wise landscape irrigation techniques.

Conclusion

The City of San José is a leader in promoting bold, proactive environmental policies and continues to meet or exceed its regulatory obligations. The City is committed to managing and protecting stormwater quality and actively participates in many local and regional efforts designed to leverage the most value for its resources and citizens. San José will continue to focus resources to best protect water quality for the benefit of our citizens, businesses, and future generations.