



COUNCIL AGENDA: 8-28-12
ITEM: 2.13

Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Dennis Hawkins, CMC
City Clerk

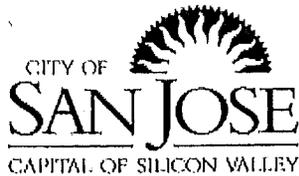
SUBJECT: SEE BELOW

DATE: 8-15-12

**SUBJECT: CERTIFICATION AND SUBMITTAL OF 2011-2012 STORMWATER
PERMIT ANNUAL REPORT**

RECOMMENDATION

As recommended by the Transportation and Environment Committee on August 13, 2012 and outlined in the attached memo previously submitted to the Transportation and Environment Committee, authorize certification and submit the 2011-2012 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.



Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow

SUBJECT: STORMWATER PERMIT ANNUAL REPORT 2011-2012

DATE: 07-25-12

Approved Ed Shikada
/s/

Date 08/06/12

COUNCIL DISTRICT: City-Wide

RECOMMENDATION

1. Accept this update on the 2011-2012 Stormwater Permit Annual Report developed in conformance with the Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit (Stormwater Permit) requirements, pursuant to the Federal Clean Water Act; and
2. Forward this report to the City Council and recommend that the City Council authorize certification and submittal of the 2011-2012 Stormwater Permit Annual Report to the San Francisco Bay Regional Water Quality Control Board in conformance with the Stormwater Permit requirements.

OUTCOME

Approval of this recommendation will result in submittal of the 2011-2012 Annual Report to the Regional Water Quality Control Board (Water Board), as required by the September 15 deadline.

BACKGROUND

Water enters the City's storm sewer system through more than 30,000 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 third Annual Report under the current 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 (BASMAA) 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, 2011, through June 30, 2012.

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; Parks, Recreation and Neighborhood Services; Public Works; Planning, Building and Code Enforcement; Transportation; 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

2011-2012 Program Highlights

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 2011-2012 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 138 cubic yards of debris from 24 stormwater pump stations.▪ Municipal Water applied Best Management Practices and monitored over 850 planned discharges of the potable water system.▪ Over 164 municipal maintenance staff received training in stormwater protection and Best Management Practices.	

Key Implementation Area	Permit Provisions
<p>Prevent Pollutant Discharges Through Effective Enforcement</p> <ul style="list-style-type: none"> ▪ Only 83 violations were identified during 973 City inspections of construction sites. All violations were corrected within 10 business days. ▪ The City inspected 4,258 Industrial and Commercial facilities, identified as a potential pollutant threat, for proper stormwater pollution prevention. ▪ A comprehensive update of Watershed Protection’s stormwater and source control inspection programs’ electronic inspection software and mobile hardware was completed. The update, which incorporates a web based system, has enhanced and streamlined the data tracking and reporting process for the inspection programs, greatly improved the quality of data and inspection reports, and will be used to more effectively and efficiently manage the environmental inspection programs. ▪ The City proactively screened over 488 storm drain outfalls for illegal discharges, of which 82 were identified as key major outfalls. No Illicit Discharge Detection and Elimination incidents were reported during the FY 11-12 screening. 	<p>C4 Industrial and Commercial Site Controls C5 Illicit Discharge Detection and Elimination C6 Construction Site Controls C15 Exempted and Conditionally Exempted Discharges</p>
<p>Guide Development to Protect the Watershed</p> <ul style="list-style-type: none"> • The City successfully implemented the Stormwater Permit’s requirement for development projects to use Low Impact Development (LID) stormwater management exclusively beginning in December 2011. The City approved development permits for 30 new private- and public-sector development projects that complied with the Permit by implementing onsite stormwater treatment measures. • The City collaborated with regional partners to successfully negotiate a stormwater treatment credit system that allows certain types of Smart Growth development greater flexibility in treating stormwater runoff. • The City, together with regional partners, developed specifications for Stormwater Permit-compliant green roofs and biotreatment soil mixes. These, in combination, with Hydromodification Management Applicability Map modifications and the Smart Growth credit system noted above, were adopted into the Permit by the Water Board in November 2011. • The City inspected 136 stormwater management systems at 71 project sites to ensure their proper installation, maintenance and function as part of its Stormwater Treatment Measure Operation and Maintenance Inspection Program. Two-thirds of the systems inspected were found to be in good working order, and staff worked with property managers correct the issues to ensure other systems are functioning properly. 	<p>C3 New and Redevelopment C6 Construction Site Controls</p>

Key Implementation Area	Permit Provisions
Develop and Implement Strategies to Reduce Target Pollutants	C9 Pesticide Toxicity Control C10 Trash C11 Mercury C12 PCBs C13 Copper C14 PBDEs, Legacy Pesticides, and Selenium
<ul style="list-style-type: none"> ▪ Implementing a \$200,000 grant project from the State Department of Pesticide Regulation, the City trained and certified 19 Spanish-speaking Green Gardeners; constructed two model residential gardens in the Guadalupe River Park and Gardens showcasing sustainable landscaping practices; and began testing techniques to maintain parts of the Guadalupe Courtyard Gardens using Integrated Pest Management (IPM) methods. ▪ Parks Division staff through its Chemical Advisory Board (CAB) evaluated its list of pesticides this past year. The result was a 40% reduction in the different pesticides used in City owned properties maintained by the Parks Division. Also Parks staff received training and began to pilot sheet mulching. Sheet mulching is an IPM method which reduces the need for pesticides in bare ground areas in parks by using cardboard covered by mulch, wood chip or compost/mulch. Staff has also increased the use of wood chips in bare areas as a weed deterrent. These areas have seen a decreased pesticide use by as much as 30%. ▪ The City completed investigations to identify possible past or ongoing sources of PCBs from industrial facilities in the Leo Avenue drainage area, where high levels of the contaminants were found in previous years. ▪ Public Works staff completed the design and engineering of a full trash capture device in the Leo Avenue drainage area that will also test the efficacy of such devices to capture mercury and PCB-contaminated sediment. ▪ The City completed construction of two full trash capture hydrodynamic separators and has begun the construction phase on seven additional large full trash capture devices. The purchase of these devices, totaling more than \$470,000, will be funded through the grant from the Association of Bay Area Governments. 116 individual connector pipe screens are also in operation. All totaled, an estimated 360 acres of urban service area are being treated with an estimated 1,295 gallons of trash captured by these systems in FY 2011-12. ▪ The City's Environmental Preferable Procurement Policy was amended to prohibit the City-funded purchase of polystyrene foam food service ware unless there are no practicable alternatives. ▪ On January 1, 2012, the City successfully implemented one of the nation's most comprehensive bans of single use plastic bags at retail and grocery stores. 	

Key Implementation Area	Permit Provisions
<p>Motivate Public Stewardship of the Watershed</p> <ul style="list-style-type: none"> ▪ Almost 6,400 “No Dumping” markers were installed on storm drain inlets by the Department of Transportation. To date, a total of 15,500 of the City’s approximately 29,000 inlets in public streets have been marked. With DOT staff installing the markers, the City saved approximately \$120,000 over the cost of the contractor marker installations in 2011-2012. ▪ The City participated in over 40 local community events and festivals to promote stormwater messages and distributed over 8,900 educational materials to the public. ▪ San José has completed the first year of the four-year <i>Clean Creeks, Healthy Community</i> grant funded pilot program to expand community engagement and address litter, illegal dumping, and homeless encampments along a targeted reach of Coyote Creek. During this first year of the grant, the <i>Clean Creeks, Healthy Community</i> project staff has worked with 404 local volunteers to remove 61 cubic yards of trash from Coyote Creek, participated in outreach events, community meetings, and canvassed neighborhoods to reach out to more than 500 residents about pollution prevention and environmental significance of Coyote Creek. A central part of this project is the City’s partnership with the non-profit Downtown Streets Team (DST) to provide housing and other support services to the homeless community in the targeted area. DST provides these services to the homeless community in exchange for their work picking-up litter and trash along the creek. With a team of 25 people, DST has collected more than 1,580 cubic yards of trash and has housed 14 people in FY 2011-12. ▪ City staff continued to serve in a leadership role among Bay Area stormwater and wastewater agencies to develop a comprehensive Bay protection and behavior change campaign. This past year, the campaign focused on message and brand development, and was successfully awarded grant funding for initial campaign roll-out. 	<p>C7 Public Information and Outreach ALL</p>
<p>Collect High Quality Monitoring Data</p> <ul style="list-style-type: none"> • City staff encouraged Citizen Monitoring by establishing 51 water quality monitoring stations at 31 different creeks within San José. • Over 30 volunteers are now trained to collect water quality readings and water body observations, and 20 trained volunteers went on to independently collect water quality data from 34 City established stations. • The City collaborated with the Santa Clara Valley Water District and the Countywide Program to monitor water quality at 8 stations along the Guadalupe River from Sep 8- Dec 5, 2011, successfully capturing the year’s first rain event, and piloted algal toxin monitoring within Alviso Slough. 	<p>C8 Water Quality Monitoring</p>

- City staff directly participated in the Regional Monitoring Coalition Spring Bioassessments and Status Water Quality Monitoring from March-June 2012.

Requests for Change in Permit Required Monitoring

Several provisions of the Stormwater Permit require that City staff conduct in-field monitoring of water released via routine and non-routine City operations. These include discharges from the City's stormwater pump stations and the City's Municipal Water System. Staff has conducted the required monitoring since December 2009. A review of the data collected from these monitoring efforts over the last two years indicates that some of these discharges pose a low risk to receiving waters and do not justify the staff effort.

Stormwater Pump Stations

Provision C.2(d) requires monitoring and/or observations at stormwater pump stations. The intent of the provision is to protect receiving waters from negative effects from pump station discharges. Under the provision, the City is required to conduct wet season inspections of all 27 of the City's pump stations, and dry-season monitoring of 13 stations and initiate corrective actions if dry season dissolved oxygen levels fall below specified benchmarks. This monitoring is conducted by staff from ESD and DOT. Some of the City's pump stations are very small and pose little or no risk to receiving water. Staff is working with BASMAA to develop proposed modifications to the monitoring requirements that would allow the City to cease activities for these small pump stations. A request to the Water Board for the proposed reduction in monitoring requirements will be either submitted with this Annual Report or through a separate request during the 2012-2013 fiscal year. Elimination of the monitoring requirement for these pump stations would relieve staff of monitoring at least two pump stations in the dry season and allow staff to focus on other priority operations. This request for modifications to the monitoring requirements is subject to review and approval by the Water Board Executive Director.

Discharges from Potable Water System

Provision C.15(b).iii requires the City to use best management practices for dechlorination and erosion and sediment controls for all planned discharges from the potable water system and to monitor and record chlorine residual, pH, and turbidity thresholds levels to evaluate the effectiveness of those best management practices. The monitoring and recording activity adds a significant work load to the Municipal Water System's hydrant maintenance program. Two years of monitoring data have shown that best management practices applied to these releases have been largely (>90%) effective with some variability in chlorine data. ESD staff participated in a study with other Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) agencies to test whether chlorine from hydrant flushing typically dissipates to below thresholds within a short distance away from the usual monitoring location. Preliminary results of this study confirm a significant reduction within a short distance, suggesting that even in instances where chlorine residual targets are not met, levels are safe by the time water is discharged to a water body. SCVURPPP is currently finalizing this report and, with this Annual Report, will be requesting a change in the monitoring requirements with the intention of reducing the monitoring

and data collection work load taken on by municipal water purveyors by specifying that only certain discharges are subject to the monitoring requirements rather than all discharges. This request for modifications to the monitoring requirements is subject to review and approval by the Water Board Executive Director.

The *Final Draft Stormwater Permit Annual Report 2011-2012* will be provided to the City Council in August 2012, concurrent with the Committee report out, as staff seeks City Council authorization to certify and submit the final report to the Water Board by the September 15, 2012 deadline.

EVALUATION AND FOLLOW-UP

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.

COORDINATION

This memorandum and the Annual Report were 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

TRANSPORTATION AND ENVIRONMENT COMMITTEE

07-25-12

Subject: Stormwater Permit Annual Report 2011-2012

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Attorney's Office.

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 Elaine Marshall, Environmental Services Program Manager, at (408) 793-5355