



# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Kerrie Romanow

**SUBJECT:** STORMWATER PERMIT  
ANNUAL REPORT 2018-2019

**DATE:** August 19, 2019

Approved

*D. DSYL*

Date

*8/30/19*

## RECOMMENDATION

Approve a resolution authorizing certification and submittal of the FY 2018-2019 Stormwater Permit Annual Report to the San Francisco Bay Regional Water Quality Control Board by September 30, 2019, in conformance with the Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit requirements, pursuant to the Federal Clean Water Act.

## OUTCOME

Approval of this recommendation will result in submittal of the FY 2018-2019 Annual Report to the Regional Water Quality Control Board (Water Board) as required by the Permit.

## EXECUTIVE SUMMARY

The Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (Permit) requires the City to submit a Stormwater Management Annual Report (Annual Report) by September 30 of each year certifying implementation of and compliance with the Stormwater Permit requirements. The Annual Report fulfills the requirement for reporting on activities undertaken from July 1, 2018, through June 30, 2019.

The current 5-year Permit, effective January 1, 2016, includes significant requirements related to green stormwater infrastructure, trash load reduction, and polychlorinated biphenyls (PCBs) control measures. Staff implemented programs and activities to address these and other requirements in FY 2018-2019. This memorandum highlights the City's accomplishments and activities supporting compliance with the Permit during the reporting period and briefly describes significant activities planned for FY 2019-2020.

## **BACKGROUND**

Stormwater enters the City's storm sewer system through approximately 32,000 inlets, is conveyed through approximately 1,130 miles of sewer mains, and discharged largely without treatment, through 1,500 outfalls, to local creeks and streams and ultimately to San Francisco Bay. Discharged water is comprised of rainfall, irrigation water, and other water used outdoors along with pollutants it can collect and transport as it flows across rooftops, sidewalks, driveways, streets, and landscaping.

The Federal Clean Water Act requires the City to operate its municipal separate storm sewer system under a NPDES permit for the discharge of stormwater to surface waters. The Permit 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 Permit includes provisions that require reduction of pollutants to storm drains resulting from routine municipal operations; appropriate site design and treatment measures to manage stormwater runoff quality and quantity from new and redevelopment project sites; inspection of construction sites and industrial and commercial facilities that could potentially contribute to stormwater pollution; prohibition, detection, control, and elimination of illicit discharges; implementation of control methods for pollutants of concern such as PCBs, pesticides, mercury, and trash; and monitoring to track water quality status and trends. The Permit includes several significant requirements related to green infrastructure planning, trash reduction, and PCBs controls.

The Permit requires the City to submit an Annual Report by September 30 of each year, documenting performance of Permit required actions and certifying Permit compliance. The Annual Report follows a standardized reporting template developed by the Bay Area Stormwater Management Agencies Association (BASMAA), approved by Water Board staff, and used by all 76 agencies regulated by this regional permit. This standardized reporting template is intended to provide the Water Board with consistent information about permittee compliance throughout the Bay Area. The referenced Annual Report fulfills the requirement for reporting on activities undertaken from July 1, 2018, through June 30, 2019.

Actions to prevent pollution from entering the City's storm sewer system involve various City operations, as well as the daily activities of San José residents and businesses. Accordingly, multiple City departments are actively engaged. Collaborative efforts are critical to preventing stormwater pollution and protecting water quality. Collaborating departments include: Environmental Services (ESD); Public Works (PW); Planning, Building and Code Enforcement (PBCE); Transportation (DOT); Parks, Recreation and Neighborhood Services (PRNS); Housing, and the City Attorney's Office. ESD provides Permit oversight and leads or coordinates implementation across the various City departments. Table 1 lists the Permit elements and identifies departments engaged in their implementation.

Table 1

Permit Provision	City Departments					
	ESD	DOT	Housing	PBCE	PRNS	PW
Municipal Operations	X	X			X	X
New Development and Redevelopment (Green Infrastructure)	X	X		X	X	X
Industrial and Commercial Site Controls	X					
Illicit Discharge and Detection Elimination	X	X				
Construction Site Control	X			X		X
Public Information and Outreach	X				X	
Water Quality Monitoring	X					
Pesticides Toxicity Control	X	X			X	X
Trash Load Reduction	X	X	X		X	X
Mercury, PCBs, and Copper Controls	X			X		X
Exempted and Conditionally Exempted Discharges	X			X		

**ANALYSIS**

**Permit Implementation Highlights for FY 2018-2019**

City departments implementing the Permit requirements worked diligently to meet the challenge of conducting compliance activities. Accomplishments during FY 2018-2019 demonstrate the collective efforts of City departments to improve the condition of local creeks and waterways and reduce pollutant loads to San Francisco Bay.

The Permit includes significant requirements in the “New Development and Redevelopment”, “Trash Load Reduction”, and “PCBs Controls” provisions. The City has and will continue implementing activities and programs to meet these Permit requirements. Highlights of key Permit implementation activities for FY 2018-2019 and for the upcoming year are summarized below:

**Development and Green Stormwater Infrastructure**

The Permit mandates that new development and redevelopment projects meeting certain criteria include appropriate source control, site design, and treatment measures to manage stormwater runoff pollutants and prevent increases in runoff flows from project sites (i.e., “Regulated Project”). Compliance is achieved primarily through the development review, planning, and the permitting process by ensuring water quality protection is integrated into new and redevelopment projects. The Permit further requires regular inspection of all installed treatment measures to ensure proper operation and maintenance. In FY 2018-2019, ESD collaborated with PW to develop an electronic inspection form to streamline installation tracking. The number of development projects in the City with installed treatment measures increased to 455 in FY 2018-2019. This number is expected to continue to increase in FY 2019-2020 as new and redevelopment occurs.

The Permit requires the City to submit a Green Stormwater Infrastructure Plan (GSI Plan) to the Water Board by September 30, 2019 with the Annual Report. The Green Stormwater Infrastructure Plan will serve as an implementation guide as the City shifts from impervious surface drainage to green stormwater infrastructure. In FY 2017-2018, the City entered an agreement with Paradigm Environmental, Inc. to begin development of the Green Stormwater Infrastructure Plan and ESD, PW, etc. have worked together to complete a Draft Green Stormwater Infrastructure Plan that will be presented to Council for consideration on September 10, 2019.

The City continued evaluating public infrastructure projects for the potential to incorporate green stormwater infrastructure. City departments coordinated to identify opportunities to include green stormwater infrastructure in planned capital improvement projects. A list of projects with potential to include green stormwater infrastructure is in the Annual Report.

#### Trash Load Reduction

The goal of this Permit provision is to reduce and eliminate trash passing through the municipal separate storm sewer system (MS4) to protect uses of waterways to which the system discharges. This provision includes mandatory trash load reduction goals and compliance targets of 70% trash load reduction by 2017, 80% trash load reduction by 2019, and a goal of 100% trash load reduction from the MS4 by 2022. The City's trash load reduction as of July 1, 2019 is 96.8%.

The City achieved the current reduction through a combination of full trash capture systems; source control actions; a Direct Discharge Trash Control Program (homeless encampment cleanups); additional creek and shoreline cleanups conducted by Downtown Streets Team and volunteer creek cleanup groups; and on-land trash control efforts verified by visual assessments. Each of these program efforts, and the associated trash load reductions are described below:

#### Full Trash Capture Device Installation

To achieve trash load reduction requirements in the Permit, the City has installed a combination of large and small full trash capture devices to prevent trash from polluting waterways. Since 2011, the City has installed a total of 27 Hydrodynamic Separator (HDS) systems. Large full trash capture HDS systems are devices installed underground in the MS4 that intercept trash entering the system from large drainage areas encompassing multiple neighborhoods. The City has also installed 118 Connector Pipe Screens (CPS). CPSs are small full trash capture devices installed in storm drain inlets retaining trash and debris in the catch basin. Collectively, these HDS and CPS systems treat 12,924 acres of trash generating areas in the City. The City is claiming 46.2% trash load reduction credit for full trash capture systems.

The Permit includes inspection and maintenance requirements for all full trash capture devices. In FY 2018-2019, DOT implemented the long-term customized maintenance schedule for each system based on data gathered in FY 2017-18 during the monthly HDS systems inspection program. These inspections revealed that some devices require multiple cleanings annually to ensure the devices are functioning properly. The Permit requires CPS devices to be inspected and maintained at least once per year, however, if they are in areas significantly impacted by

trash, they must be inspected at least twice per year. A small number of CPS devices required multiple cleanings. To reduce the number of cleanings, the City installed auto-retractable screens (ARS) at these locations. These installations are part of a regional pilot study, led by SCVURPPP, to determine if the ARS devices can provide full trash capture. The results of this pilot study will be released in December 2019. These maintenance requirements have increased the workload of DOT to ensure compliance with the Permit.

In FY 2018-2019, six new large trash capture devices were installed. DOT will begin to coordinate with the contractor to gain access for preliminary inspections of the new devices in the fall of 2019.

#### *Direct Discharge Trash Control Program*

ESD, Housing, and PRNS continued to partner on implementing a Direct Discharge Trash Control Program (DDTCP) with the objective to remove trash from significant stretches of San José creeks. In August 2016, the City received approval of the DDTCP from the Water Board Executive Officer and authorization to claim up to a 15% trash load reduction offset for encampment cleanups conducted in connection with the program. The DDTCP documents the coordinated efforts of the three departments and partner non-profit organizations to conduct outreach to homeless individuals, dismantle encampment structures, remove residual trash from creeks, and patrol focus areas to prevent re-establishment of encampments. In FY 2018-2019, the DDTCP efforts resulted in 526 tons of trash removed from creeks. ESD, Housing, and PRNS plan to continue working together along with external partners to implement this key program in FY 2019-2020. The City is claiming the maximum allowable 15% trash load reduction offset based on the volume of trash removed in FY 2018-2019.

#### *Additional Creek and Shoreline Cleanups*

The City continued cleanups along Coyote Creek, Los Gatos Creek, and the Guadalupe River with partners Downtown Streets Team (DST), Keep Coyote Creek Beautiful (KCCB), and South Bay Clean Creeks Coalition (SBCCC). DST crews removed 214 tons of trash from San José waterways. More than 2,483 volunteers participated in 44 creek cleanups led by Keep Coyote Creek Beautiful and South Bay Clean Creeks Coalition and removed 81 tons of trash.

Collectively, these partners removed 295 tons of trash from San José's creeks in FY 2018-2019.

City departments and other non-profit groups conducted additional creek cleanups. The City is claiming the maximum 10% trash load reduction offset for additional creek cleanups and plans to continue this effort in FY 2019-2020.

#### *Jurisdictional Source Controls*

The City continued to implement and assess the EPS Foam Food Container Ordinance that became effective for all food service establishments January 1, 2015, and the Single-Use Carryout Bag Ban ordinance that became effective January 1, 2012. Creek and river litter surveys have shown a 69% reduction in the number of bags found in storm drain inlets, and a 78% reduction in the number of bags found in creeks. Since full implementation of the Foam Food Container Ordinance, most restaurants have successfully transitioned from using foam food

ware to alternative products. In FY 2018-2019, staff responded to three complaints from the public and issued 38 enforcement actions for violations found during restaurant inspections. One fine was issued to a business found in violation. Staff conducted targeted outreach to 560 food service establishments on the requirements of the ordinance. The City estimates an approximate 73% reduction in the amount of EPS food service ware in stormwater. The City is claiming the maximum 10% trash load reduction credit for its jurisdiction-wide source control programs.

#### On-land Visual Trash Assessments

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) conducts on-land visual trash assessments to evaluate changes in the level of trash that could be transported into the storm sewer system. At least 10% of street miles in trash-impacted areas where control measures other than full trash capture are implemented are assessed. Assessments are conducted at least three times each year on randomly selected qualifying street segments. In FY 2018-2019, assessments showed a 15.6% trash load reduction. The results may reflect the impact of City trash control measures such as street sweeping, the Illegal Dumping Rapid Response Program, public litter cans, the Anti-Litter Program, #BeautifySJ, or public outreach. The trash load reduction percentage documented by the assessments may vary over time.

#### Polychlorinated Biphenyls (PCBs) Controls

The Water Board has assigned a particularly high priority to PCBs in the Permit since urban stormwater is thought to be the primary pathway of new PCBs loads to the San Francisco Bay. Bay-wide, stormwater Permittees are required to reduce PCBs loads within the Permit term by implementing a variety of control measures including screening for PCBs before demolishing a building.

ESD and PBCE worked collaboratively to meet the requirement by incorporating PCBs screening into the demolition approval processes for both public and private projects. As of July 1, 2019, project applicants must complete PCBs screening forms prior to City approval of building demolitions. PCBs testing is only required for select buildings constructed between 1950 and 1980 and will not be required for wood frame and residential buildings. Information about the new program is available at [www.sanjoseca.gov/ManagingPCBs](http://www.sanjoseca.gov/ManagingPCBs).

The complete *FY 2018-2019 Stormwater Permit Annual Report* is available on the City website at <http://www.sanjoseca.gov/Archive.aspx?AMID=160&Type=&ADID=1>

### **EVALUATION AND FOLLOW-UP**

As the City continues with Permit implementation, staff will provide reports on key implementation efforts to the Transportation and Environment Committee and City Council.

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<sup>1</sup> 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.

## **POLICY ALTERNATIVES**

***Alternative #1: Do not approve the FY 2018-2019 Stormwater Permit Annual Report to the Regional Water Quality Control Board.***

**Pros:** None known. The report is primarily a report on past activities.

**Cons:** To not submit or delay in the submittal beyond September 30 would put the City at risk of being found in violation of the Permit.

**Reason for not recommending:** This Annual Report submittal will fulfill a Permit-mandated obligation and maintain City compliance with its Permit. This Annual Report represents the best and most complete summation of City activities related to stormwater for FY 2018-2019.

## **PUBLIC OUTREACH**

This memorandum will be posted on the City's Council Agenda website for the September 10, 2019 City Council Meeting.

## **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; Housing; 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 their respective operations.

## **COMMISSION RECOMMENDATION/INPUT**

There is no commission recommendation or input associated with this action.

## **COST SUMMARY/IMPLICATIONS**

There are no direct costs associated with submittal of the Annual Report, as the report summarizes activities that were already funded and have already occurred. Ongoing programs related to the Permit are funded primarily through the Storm Sewer Operating Fund (Fund 446). Certain programs discussed in this memorandum that cannot be funded by Fund 446 are funded from the General Fund.

HONORABLE MAYOR AND CITY COUNCIL

August 19, 2019

**Subject: Stormwater Permit Annual Report 2018 - 2019**

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**CEQA**

Not a Project, File No. PP17-009, Staff Reports, Assessments, Annual Reports, and Informational Memos that involve no approvals of any City action. (Environmental Services)

/s/

KERRIE ROMANOW

Director, Environmental Services

For questions, please contact Sharon Newton, Deputy Director, Environmental Services, at (408) 793-5351.

Attachment