



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow

**SUBJECT: STORMWATER PERMIT
ANNUAL REPORT 2017-2018**

DATE: September 6, 2018

Approved

Date

9-6-18

RECOMMENDATION

Adopt a resolution authorizing certification and submittal of the FY 2017-2018 Stormwater Permit Annual Report to the San Francisco Bay Regional Water Quality Control Board by September 30, 2018, in conformance with the Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit (Permit) requirements, pursuant to the Federal Clean Water Act.

OUTCOME

Approval of this recommendation will result in submittal of the FY 2017-2018 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, 2017, through June 30, 2018.

The current 5-year Permit, effective January 1, 2016, includes significant requirements related to green infrastructure, trash load reduction, and polychlorinated biphenyls (PCBs) control measures. Staff implemented programs and activities to address these and other requirements in FY 2017-2018. 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 2018-2019.

BACKGROUND

Stormwater enters the City's storm sewer system through more than 35,000 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. It can collect and transport pollutants 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 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, 2017, through June 30, 2018.

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 oversight of the Permit 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		X
Exempted and Conditionally Exempted Discharges	X			X		

ANALYSIS

Permit Implementation Highlights for FY 2017-2018

City departments implementing the Permit requirements worked diligently to meet the challenge of conducting compliance activities. Accomplishments during FY 2017-2018 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 2017-2018 and for the upcoming year are summarized below:

Development and Green 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. The number of development projects in the City with installed treatment measures is expected to continue to increase in FY 2018-2019. ESD, PW, DOT, and PBCE worked together in FY 2017-2018 to continue streamlining procedures through the implementation of interdepartmental standard operating procedures intended to better ensure all new and redevelopment projects comply with Permit requirements.

The Permit requires the City to submit a Green Infrastructure Plan to the Water Board by September 30, 2019. In FY 2017-2018, the City entered an agreement with Paradigm Environmental to begin development of the Green Infrastructure Plan and conduct a reasonable assurance analysis (RAA). The required modeling analysis is intended to provide “reasonable assurance” to the Water Board, Baykeeper, and other stakeholders that the City’s plan will, through implementation of green infrastructure and other control methods, reduce stormwater pollutants to acceptable levels. The Green Infrastructure Plan will refer to the RAA, and serve as an implementation guide as the City shifts from impervious surface drainage to green infrastructure.

The Green Infrastructure Plan and RAA are scheduled to be completed by the end of FY 2018-2019 and will address requirements in both the Permit and Baykeeper Consent Decree. Following the completion of the plan, a capital improvement program will incorporate select priority projects recommended for construction and, as funding becomes available, begin to meet the City’s requirement under the Baykeeper Consent Decree to appropriate \$100 million to implement the Green Infrastructure Plan.

In FY 2018-2019, during the development of the Green Infrastructure Plan, the Permit requires the City to continue evaluating public infrastructure projects for the potential to incorporate green infrastructure. During FY 2017-2018, ESD coordinated with other City departments to determine if there were opportunities to include green infrastructure into planned capital improvement projects and has identified those opportunities in the Annual Report. In addition, the City completed construction of two green street projects that incorporate green infrastructure technologies into multi-modal roadway improvements.

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 compliance targets of 70% trash load reduction by 2017 and 80% trash load reduction by 2019, with a goal of 100% trash load reduction from the MS4 by 2022. The City’s trash load reduction as of July 1, 2017 was 79.2% and as of July 1, 2018 is 88.3%.

The City achieved its 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 (DST) 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 21 public Hydrodynamic Separator (HDS) systems. HDSs

are large full trash capture systems installed underground in the MS4 which capture trash entering the system from large drainage areas. 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 9,691 acres of trash generating areas in the City. The City is claiming 38.9% trash load reduction credit for full trash capture systems.

The Permit includes inspection and maintenance requirements for all full trash capture devices. In FY 2017-2018, DOT implemented an aggressive monthly HDS systems inspection program to gather data necessary to develop a long-term customized maintenance schedule for each system. 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 located in areas significantly impacted by trash, they must be inspected at least twice per year. A small number of CPS devices required multiple cleanings, thus ESD and DOT are evaluating installing auto-retractable screens to reduce the maintenance frequency of these devices. These maintenance requirements have increased the workload of DOT to ensure compliance with the Permit.

In FY 2017-2018, ESD, DOT and Public Works continued to work collaboratively on the location, and design, of six additional large full trash capture devices. Construction contracts are scheduled to be awarded in FY 2018-2019 for installation of these large full trash capture systems by June 30, 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, with the larger goal of reducing these kinds of associated environmental impacts of homeless encampments. In August 2016, the City received approval of the DDTCP from the Water Board Executive Officer. The approval was granted due to the comprehensive nature of the program (i.e., beyond simply removing trash): 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 2017-2018, the DDTCP efforts resulted in 890 tons of trash and debris removed from waterways, 185 Park Ranger patrols, and 557 enforcement actions. In addition, over the past two years, DST helped 30 individuals from their creek cleanup teams find employment and 18 find housing. ESD, Housing, and PRNS plan to continue working together along with external partners to implement this key program in FY 2018-2019. The City is claiming the maximum allowable 15% trash load reduction offset based on the volume of trash removed in FY 2017-2018.

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's creek crews cleaned San José waterways five

days a week and removed 292 tons of trash. More than 2,277 volunteers participated in 47 creek cleanups led by Keep Coyote Creek Beautiful and South Bay Clean Creeks Coalition and removed 68 tons of trash. Collectively, these partners removed 360 tons of trash from San José's creeks in FY 2017 - 2018.

Additional creek cleanups were conducted by City departments and other non-profit groups. The City is claiming the maximum 10% trash load reduction offset for additional creek cleanups and plans to continue this effort in FY 2018-2019.

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 stormdrain 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 2017-2018, staff responded to 6 complaints from the public, and issued 56 enforcement actions for violations found during restaurant inspections. One fine was issued to a business found in violation. Staff conducted education and outreach to 448 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 2017-2018, assessments showed a 14.4% 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.

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 that could include removal of PCBs-containing sediment in large trash capture devices, additional street sweeping, inlet cleaning, and the referral of suspected PCBs source properties to the Water Board. Toward the latter effort, ESD assessed old industrial sites in FY 2017-2018 as required in the Permit. ESD staff continue to collaborate with BASMAA, the Water Board, industry, and internally to develop and begin implementing a program to prevent PCBs from entering the storm sewer system when buildings constructed or

remodeled between 1950 and 1980 using PCBs-containing materials are demolished. The Permit requires municipalities to implement such a program by July 2019. This control measure will account for the largest proportion of the required PCBs load reduction.

The Permit also includes a requirement to evaluate PCBs presence in caulks and sealants used in storm drain or roadway infrastructure in public rights of way. BASMAA has secured a contractor to conduct a region-wide study to address this requirement. The City is participating along with many other Bay Area municipalities to ensure a comprehensive evaluation.

The Permit also requires planning and implementation of green infrastructure to reduce PCBs loads by specific county-wide amounts. The Baykeeper Consent Decree requires similar planning and implementation of green infrastructure but primarily addressing fecal indicator bacteria, which are much more broadly distributed.

The complete *FY 2017-2018 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.

POLICY ALTERNATIVES

Alternative #1: Do not approve the 2017-2018 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 2017-2018.

PUBLIC OUTREACH

This memorandum will be posted on the City's Council Agenda website for the September 18, 2018 City Council Meeting.

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.

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.

CEQA

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

/s/
KERRIE ROMANOW
Director, Environmental Services

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