



CITY OF SHORELINE 2018 STORMWATER MANAGEMENT PROGRAM (SWMP) PLAN

Prepared February 2018



Figure 1. Rain garden installed in Shoreline through the Soak It Up Rebate Program, Before (top right photo) and After (bottom right photo)

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CITY OF SHORELINE

2018 STORMWATER MANAGEMENT PROGRAM (SWMP) PLAN

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1. INTRODUCTION

1.1 PURPOSE OF THE STORMWATER MANAGEMENT PROGRAM PLAN

This document is the City of Shoreline's 2018 Stormwater Management Program (SWMP) Plan. The purpose of the document is to comply with requirements of the *Western Washington Phase II Municipal Stormwater Permit* (NPDES Permit). Specifically, under Section 5.C of the NPDES Permit (the Permit), the City of Shoreline must prepare the SWMP Plan to inform the public of the planned SWMP activities for the upcoming calendar year. This SWMP Plan covers the period between January 1, 2018 and December 31, 2018. It must be posted on the City's website by May 31, 2018.

1.2 THE NPDES PROGRAM

The National Pollutant Discharge Elimination System (NPDES) is a program created under the Federal Clean Water Act, with authority over the Permit given to Washington State Department of Ecology (Ecology). Ecology issues Permits to governmental and private entities. The intent of the NPDES is to protect and restore water quality in lakes and streams so that they can support "beneficial uses" such as fishing and swimming. Governmental and private entities wishing to discharge water or wastewater to surface waters regulated by the Federal Government ("waters of the state") must obtain permits and comply with conditions of the permit.

1.3 THE WESTERN WASHINGTON PHASE II MUNICIPAL STORMWATER PERMIT

The City of Shoreline has been operating under an NPDES Permit since 2007. The current Permit covers the period from August 1, 2013 to July 31, 2018, with a one year extension through July 31, 2019. The Permit allows municipalities to discharge stormwater from municipal systems into "waters of the state," as long as they implement programs to reduce pollutants in stormwater to the maximum extent practicable (MEP), apply all known and reasonable technologies (AKART) to address stormwater pollutants, and protect receiving waters from degradation.

This SWMP Plan follows the organization of Section 5.C of the Permit, and is broken into the five elements of the Permit:

- S5.C.1, Public Education and Outreach
- S5.C.2, Public Involvement and Participation
- S5.C.3, Illicit Discharge Detection and Elimination
- S5.C.4, Controlling Runoff from New Development, Redevelopment and Construction Sites
- S5.C.5, Municipal Operations and Maintenance

Coverage of Section 7, Compliance with Total Maximum Daily Load Requirements, and Section 8, Monitoring, is also included in this document.

In addition, the Permit requires the City to submit an Annual Report by March 31st of each year that details actions taken in the previous year to achieve compliance.

The full text of the Permit is available at: www.shorelinewa.gov/stormwaterpermit.

1.4 CITY COORDINATION AND RESPONSIBILITIES

Permit conditions require internal coordination and documentation of activities across several City departments. The Public Works Department Surface Water Utility staff will coordinate City efforts, and will meet with staff from other departments regularly to ensure that on-going and planned activities meet Permit requirements. It is anticipated that activities required for Permit compliance will be carried out largely by the Public Works, Information Technology, Planning and Community Development, Parks, City Manager's Office (City Attorney), and Administrative Services departments. The Fire/Building and Police departments will be involved to a lesser extent.

1.5 THE SURFACE WATER MANAGEMENT UTILITY – OTHER ACTIVITIES

This SWMP Plan details planned activities and that fall under the purview of the Permit. Stormwater management is one part of the City's overall surface water management strategy. The Surface Water Utility conducts a suite of programs that reduce flooding, protect and improve water quality, and protect and restore aquatic habitat in the City's streams and lakes. Although not directly required, flood reduction and aquatic habitat restoration efforts can often further stormwater management goals. For details on Surface Water Utility activities beyond this SWMP Plan, see the City website at <http://www.shorelinewa.gov/surfacewater> or contact the Surface Water Division of the Public Works Department at (206) 801-2450.

1.6 PERMIT IMPLEMENTATION TIMING

The Permit allows for phased implementation of stormwater management programs and actions. Table 1 provides a Permit implementation schedule and due dates. Shoreline will continue to implement ongoing activities throughout the remainder of the permit term.

Table 1. Timeline for Implementation of Stormwater Management Program

Western Washington Phase II Municipal Stormwater NPDES Permit Overview – 2013 to 2018

The timelines below provide an overview of major program components deadlines (**By Date** means "...no later than...") for implementing permit requirements of S5 Stormwater Management Program (SWMP) for Continuing City, Town and County Permittees. Other permit elements are listed on the next page. This is guidance only; please see the permit for additional detail and related requirements.

S5 Program Component	August 1, 2013 Ongoing program implementation	2014	2015	2016	2017	Jan-July 31, 2018
A. Stormwater Management Plan	Continue to track costs, actions and activities. Continue required internal and suggested external coordination and SWMP Plan submittal w/annual report. Update SWMP Plan annually.		By March 31: annual rpt includes description of internal coordination			
C.1 Public Education and Outreach	Continue public education and outreach program. Measure changes in behavior for 1 audience & 1 topic.	Create or partner w/others to create stewardship.		By February 2: use measures of behavior changes to improve program.		
C.2 Public Involvement	Continue to provide ongoing opportunities for the public to participate in SWMP decision-making. Post online annual reports and SWMP Plan for previous calendar year by 5/31 of each year.					
C.3 Illicit Discharge Detection and Elimination (IDDE)	Continue implementing the enforceable mechanism to prohibit illicit discharges, compliance strategy, IDDE and municipal staff training, citizen hotline and IDDE response, and maintain map of MS4.				By Dec 31: Field screen at least 40% of MS4 & on average 12% each year thereafter.*	By Feb 2: Update ordinance if needed.
C.4.a-f Control Runoff from New Develop't, Redevelop't Construction Sites	Continue to implement ordinance addressing construction/post-construx runoff controls; make NOIs for construction, industrial stormwater permits available; site plan review & permitting, requiring long-term maintenance; inspections; training; and enforcement.			By Dec 31: Update SW code to revised Appx 1 standards; review, revise, make effective developmt codes to make LID preferred approach.**	By March 31: Submit summary of review & revision of codes to reduce impervious surface, protect vegetation, minimize SW.	Achieve at least 80% of scheduled inspections.
C.4.g Watershed scale stormwater planning (selected permittees)	(By Oct. 31, 2013 Phase I permittee notifies Ecology of selected basin and affected Phase II permittees; convenes planning process.)	(By April 1: Scope of work submitted to Ecology by Phase I watershed plan lead.)	Participate in planning process, if located within selected basin.	By Oct 1: Phase I lead submits final watershed scale stormwater plan to Ecology.		
C.5 Municipal Pollution Prevention, Operation and Maintenance	Continue implementation of MS4 maintenance; annually inspect SW trmt & flow control BMPs/facilities; spot checks; O&M & SWPPPs for municipal lands & facilities; staff training			By Dec 31: Update maintenance standards to revised manual/ code standards.**	By August 1: Inspect all catch basins or document alternatives if used. Plan to complete inspections every 2 years thereafter.*	Achieve 95% of inspections for municipal stormwater treatment/flow control BMPs/facilities and catch basins.

S8 Monitoring and Assessment

S8 Monitoring	August 1, 2013	2014	2015	2016	2017	July 31, 2018
S8.A	Continue to provide description in each annual report of stormwater monitoring or stormwater- related studies conducted by permittee or others (except if related to S8.B or S8.C).					
S8.B Status and Trends Option #1	<i>PS Permittees ONLY:</i> By Dec 31: Notify Ecology which option selected for status and trends monitoring.	<i>PS Permittees ONLY :</i> By Aug 15: First annual payment to RSMP.				
S8.B Status and Trends Option #2		By July 31: Begin monitoring Wadeable streams.	Oct 1: Begin monitoring nearshore marine (if applicable).	Annual reporting as per Ecology-approved QAPP.		
C. Effectiveness Option #1	By Dec 31: Notify Ecology which option selected for effectiveness monitoring.	By Aug 15: Option #1 first annual payment to RSMP.				
C. Effectiveness Option #2		By Feb 2: Submit QAPP to Ecology. By Oct 1: Begin flow monitoring.	Oct 1: Stormwater monitoring program fully implemented.	Annual reporting as per Appendix 9.		
S8.D Source ID & Diagnostic Monitoring		By Aug 15: First annual payment to RSMP.				

Other significant elements of the permit

This is guidance only: see the permit for additional detail and related requirements.

S1 Application for coverage	Co-Permittees can end or amend agreements at any time.
S4.F Response to violations of Water Quality Standards	Notification and possible adaptive management may occur at any time.
S7 Compliance with Total Maximum Daily Load (TMDL) Requirements	Comply with applicable TMDL requirements listed in Appendix 2 per individual timelines.
S9 Reporting	Keep all records related to the permit for at least five years. Beginning March 31, 2015, submit a report for the previous calendar year using WAWebDMR or form provided by Ecology.
G3 Notification of Discharge Including Spills	Report to Ecology within 24 hours any discharge into or from the MS4 which could constitute a threat to human health, welfare or the environment.
G.18 Duty to Reapply	Apply for permit renewal no later than Feb. 2, 2018 (180 days before permit expiration).
G20 Non-compliance Notification	Notify Ecology within 30 days of becoming aware of permit non-compliance.

2. PUBLIC EDUCATION AND OUTREACH (S5.C.1)

The Permit requires the SWMP Plan to include a stormwater education and outreach program that will:

- Provide education and outreach to the public, including: school age children, businesses, residents, landscapers, property manager/owners, engineers, contractors, developers, and land-use planners.
- Create stewardship opportunities and/or partner with existing organizations to encourage residents to participate in activities such as stream teams, storm drain marking, volunteer monitoring, riparian planting, and education activities.
- Measure the understanding and adoption of behaviors for a target audience, and use this information to evaluate past programs and direct future programs.

The City of Shoreline’s Surface Water and Environmental Services Division of Public Works has several programs in place to help residents and businesses understand stormwater pollution as a significant water quality concern. The City provides outreach to residents, schools, businesses, and government on ways to reduce actions that negatively impact our environment.

The City tracks education and outreach efforts, and informally tracks costs versus benefits of the efforts. Formal tracking information can be found in Appendix B of the 2017 Annual Report.

In addition to local programs and events, Shoreline is an active participant in regional education and outreach activities through Stormwater Outreach for Regional Municipalities (STORM) and Stormwater Outreach Group (SOG). Efforts of these groups include developing regional stormwater education campaigns and evaluation.

S5.C.1.a Targeted Stormwater Outreach

Table 2 (below) lists target audiences and behaviors that are currently being addressed by the City’s education and outreach programs. These programs fulfill the Permit requirement to build general awareness. For the 2018 period, the City will continue to implement an education and outreach program designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts and encourage the public to participate in stewardship activities.

Table 2. Education and Outreach Programs Planned Activities

Item	Target Audience	Goal and/or Behaviors Promoted
Surface Water and Environmental Services Website	General Public; Businesses	Reduce contaminants entering the storm drain system through educational information accessible on the City’s website.

Item	Target Audience	Goal and/or Behaviors Promoted
Earth Day Every Day	General Public; Homeowners	Promotion of storm water quality BMPs, including natural yard care, car washing, car leaks, pet waste, low-impact development, stormwater impacts, and waste reduction that minimize the amount of pollutants washed down storm drains.
Soak It Up Program	General Public; Land Owners; Businesses	Continue rebate program for rain garden retrofits and native vegetation landscaping to community residents and businesses.
Storm Drain Marking Program	General Public	Awareness; prevention of discharge of non-stormwater materials into the stormwater system; resident participation by involvement of citizen organizations and residents in the storm drain labeling process.
Adopt-A-Drain Program	General Public; Residents	Raise awareness of stormwater impacts and ways that citizens can reduce these impacts.
Local Source Control/ Pollution Prevention Program	Businesses	Work with businesses to develop practical methods of reducing or eliminating discharge of non-stormwater materials into the stormwater system.
“Did You Know” factoid in the City’s monthly Currents news publication	General Public	Raise awareness of stormwater impacts and ways that citizens can reduce these impacts.
Park signage and pet waste stations encouraging people to pick up their pet waste (park rule or ordinance cited)	General Public; Dog Owners	Increase awareness of the importance of picking up pet waste.
Workshops and presentations on rain gardens and native vegetation landscaping	General Public; Land Owners; Contractors	Raise awareness of low impact development and incentives for these retrofits.

Item	Target Audience	Goal and/or Behaviors Promoted
Booths and displays at various special and on-going events on Basic Stormwater Education	General Public	Raise awareness of stormwater impacts and ways that citizens can reduce these impacts.
Water Quality Social Media (monthly on City Facebook & Twitter accounts)	General Public	Raise awareness of stormwater impacts and ways residents can reduce these impacts, including proper pet waste disposal, fixing car leaks, proper car washing procedures, natural yard care, hazardous waste disposal, and low-impact development. Will also promote stewardship programs, regional stormwater messaging, and local environmental events.
Environmental Mini Grant Program	General Public; Homeowners; Schools	Provides funding for community groups to implement projects that benefit the environment and community, such as riparian habitat restoration, ecosystems and stormwater education, natural yard care, and litter removal projects.

S5.C.1.b Creating Stewardship Opportunities

The City will continue to offer its Storm Drain Marking, Adopt-A-Drain, and Environmental Mini-Grant programs in 2018. Citizens, community groups, and school groups can volunteer to mark storm drains with “No Dumping” medallions through the Storm Drain Marking program. Utility staff coordinate, track, and provide support for marking efforts. The Adopt-A-Drain Program is a volunteer-based opportunity for residents to help care for Shoreline’s utility infrastructure of 7,000+ storm drains. Volunteers are provided with instructions and tools, by request, to care for a storm drain or multiple drains on their street or walking route. Tasks include monitoring and removing debris from the storm drain(s) approximately once a week during the storm season and tracking hours performed. The commitment term is for six months, October through March. The City also offers Environmental Mini-Grants for community groups to implement projects that preserve, restore, and enhance the environment and benefit the community.

S5.C.1.c Measuring Outreach Effectiveness

The City measured the understanding and adoption of the Soak It Up Low Impact Development (LID) Rebate Program through a survey conducted in 2015. A description of how the survey results were used to direct education and outreach resources for the Soak It Up LID Rebate Program, as well as the survey results, was attached to last year’s SWMP.

The Soak It Up LID Rebate Program was created to promote LID best management practices and adhere to permit requirements. This opportunity became available to property owners in fall 2013, giving incentive to stormwater retrofits such as disconnecting downspouts into rain gardens and/or converting hard surfaces to native vegetation landscaping. Behavior change is measured by the number of projects that are installed each year, and more specifically, the square footage of contributing area treated (i.e. rooftop) and/or hard surface removed.

3. PUBLIC INVOLVEMENT AND PARTICIPATION (S5.C.2)

The Permit requires the City to create opportunities for the public to participate in the decision-making processes involving the development, implementation and update of the City’s Stormwater Management Program (SWMP) and to post the SWMP Plan and annual report on the City’s website.

The City of Shoreline values public input on its stormwater programs. The City will provide ongoing opportunities for public involvement and participation through a variety of avenues.

S5.c.2.a-b Involving the Public in the SWMP

The City encourages the public to participate in the decision-making processes and updates related to the City’s SWMP through open houses, public meetings, surveys, public review and comment periods, and City Council meetings. This SWMP Plan and the annual report will be posted on the City’s website no later than May 31st of each year. Public comments can be made directly at www.shorelinewa.gov/stormwaterpermit.

Table 3. Public Involvement and Participation Planned Activities

Item	Description	Schedule
Post SWMP Plan on City website	The SWMP Plan outlines actions to be taken within the year to comply with the NPDES Permit. The SWMP Plan is open for public comment.	Annually, by May 31 st
Post Annual Report on City website	Annual Report is submitted to Department of Ecology by March each year. The final Report is posted on the City’s website.	Annually, by May 31 st
Accept public feedback on the City’s SWMP Plan via website, email, or any other written form	The City encourages public comment on the SWMP Plan.	Ongoing

Other avenues for public input include:

- Updates of the City’s Surface Water Master Plan. The first plan was developed in 2005 and updated in 2011. The Plan is currently being updated. During the plan update process, the public can participate through several avenues, including open houses, public meetings, surveys, public review and comment periods and/or City Council meetings. Two open houses have been conducted, one in September 2016 and the second in July 2017. The public can provide input during the current update process at www.shorelinewa.gov/2017masterplan.
- The public can give input each year to the capital improvement plan and budget that details programs outlined in the current Surface Water Master Plan at www.shorelinewa.gov/budget.

4. ILLICIT DISCHARGE DETECTION AND ELIMINATION (S5.C.3)

The Permit requires the City to have an ongoing program designed to prevent, detect, characterize, trace and eliminate illicit connections and illicit discharges into the City's stormwater drainage system.

One of the largest threats to the City's freshwater is illicit discharge. The City of Shoreline has an ongoing illicit discharge detection and elimination (IDDE) program to fulfill this requirement. The IDDE program has grown over the years and includes a variety of techniques and methods.

S5.C.3.a Municipal Stormwater Drainage System Map

The City maintains and updates a GIS database that contains all known outfalls, receiving water, stormwater facilities, and all known connections. Field staff are constantly verifying the mapped drainage system through the City's inspection programs and basin planning efforts.

S5.C.3.b IDDE Ordinance/Regulatory Mechanism

The City adopted and implemented an illicit discharge ordinance (SMC 13.10) that provides a list of prohibited and allowable discharges and enforcement procedures. In the vast majority of cases, the City seeks voluntary compliance through education and outreach to the general public and technical assistance to business owners through the Local Source Control/Pollution Prevention program.

S5.C.3.c-d Ongoing IDDE Program

The City currently has an ongoing IDDE program through the adoption of the *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection, 2004 manual (The Center for Watershed Protection manual). The City responds to and investigates reports of illegal dumping, spills, illicit discharges, and illicit connections. The City also maintains a spill response hotline (206.801.2700) for citizens to call and report illicit discharges or spill complaints. The hotline is advertised on the City's website at <http://www.shorelinewa.gov/spillresponse>. In 2018, the City will finalize a City-specific Illicit Discharge Detection and Elimination Program Manual.

The City is required to screen 40% of its stormwater system by December 31, 2017, and on average 12% each year thereafter. The City exceeded this requirement by screening 83% of its stormwater system by December 31, 2017. The City will continue to fulfill this requirement through its inspection programs (right-of-way, regional/residential, and hot spots) and stormwater infrastructure condition assessments.

S5.C.3.e Staff Training

The City has coordinated IDDE and spill response training for City staff to occur in the spring of 2018. In 2018, a City-specific training program will be developed for City staff.

S5.C.3.f IDDE Program Recordkeeping

The City uses Cityworks – a Work Order software – to track efforts made in identifying, reducing, and eliminating spills, illicit discharges, and illicit connections.

5. CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT, AND CONSTRUCTION SITES (S5.C.4)

S5.C.4 of the Permit requires that Shoreline implement and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities. This area of the permit has some of the most significant changes from the 2007 permit term to the current permit term. Among other items addressed below, the Permit intends to make low impact development (LID) the preferred and commonly-used approach to site development.

Controlling pollutant loads and reducing peak flows from developed sites is a long term goal of S5.C.4 of the Permit. Ongoing maintenance of permanent stormwater facilities is critical in meeting this goal. To this end, under the NPDES Permit, stormwater facilities permitted since 2007 require proof of ongoing maintenance. To assure maintenance is completed, the City inspects several hundred stormwater facilities on a rotating inspection cycle. Through this inspection program, the City strives to assure that stormwater facilities are functioning as designed.

S5.C.4.a Controlling Runoff from New Development, Redevelopment, and Construction Sites Ordinance/Regulatory Mechanism

Shoreline Municipal Code (SMC) 13.10.200 adopts the 2014 update of the *2012 Stormwater Management Manual for Western Washington (2014 SWMMWW)* and the Minimum Requirements found in Appendix 1 of the NPDES Phase II Permit. The City of Shoreline *Engineering Development Manual (EDM)* also addresses stormwater management as follows:

- Chapter 19 – Stormwater Manual Modifications: Modifies sections of Ecology's 2014 SWMMWW for the City.
- Chapter 21 – Infiltration: Provides information on subsurface investigation, prohibition, setbacks, and verification testing.
- Chapter 22 – Surface Water Project Classifications: Defines the minimum submittal requirements for the following project classifications:
 - Small Impact Projects (MR #2 only)
 - Medium Impact Projects (MR #1 through #5)
 - Large Impact Projects (MR #1 through #9)
- Chapter 23 – Site Development Plan: Specifies criteria for project layout and site design.
- Chapter 24 – Stormwater Pollution Prevention Plan (SWPPP): Defines the requirement for MR #2.

S5.C.4.b Review and Inspect Development/Redevelopment Projects

The current permitting process includes site plan review, inspections, and enforcement mechanisms for compliance. The City's Site Development Permit Checklist currently includes the following stormwater requirements:

- Plan, details, and profile of drainage system
- Erosion control
- Downstream analysis

- Drainage calculations
- Soils information
- Geotechnical or soils report
- Drainage system maintenance information or manual

Additionally, construction SWPPPs are included as part of the approved Civil Engineering Plan (not currently called out on the Site Development Permit Checklist). In-field pre-construction and pre-demolition conference is required as part of the Demolition Permit submittal process before any ground-disturbing activity takes place.

S5.C.4.c Post Construction Operation and Maintenance

The City of Shoreline requires covenants for inspection and maintenance on all new stormwater facilities, following the 2014 update to the *2012 Stormwater Management Manual for Western Washington*. Inspections in the City are divided into two main groups: erosion control inspections (includes Right-of-Way [ROW] and Building inspections) and private facility inspections. Erosion control inspections are conducted for public projects in the ROW, CIP projects, and private building projects. Private stormwater facility inspections require covenants to inspect private stormwater facilities, per the 2014 SWMMWW, the City’s Surface Water Code, and the EDM.

S5.C.4.d Notice of Intent (NOI)

The City will continue to direct representatives of proposed new development and redevelopment to the Washington State Department of Ecology website for electronic NOI submittal when requested.

S5.C.4.e Staff Training

Training will be kept up to date for employees involved in any aspect of planning, development, inspection, or enforcement of stormwater runoff controls.

S5.C.4.f LID Code-Related Requirements

The City completed a review and Gap Analysis of the existing codes and standards – including the existing Shoreline Municipal Code, Engineering Development Manual, the Comprehensive Land Use Plan, and the Critical Areas Ordinance – for consistency with the requirement of LID principles and Best Management Practices. A summary of the review and Gap Analysis is provided in the Technical Memorandum “City of Shoreline Code, Standard, and Document Review” dated January 20, 2016, attached to the 2016 SWMP. The document was used to guide the City in the code revisions and policy updates for making LID the preferred and commonly used approach in the City. The City used a process similar to the one outlined in *Integrating LID into Local Codes: a Guidebook for Local Governments* (Puget Sound Partnership, 2012). The revisions to the codes were adopted and made effective in Ordinance 768 on December 12th, 2016, attached to last year’s SWMP.

6. MUNICIPAL OPERATIONS AND MAINTENANCE (S5.C.5)

The Permit requires the City to implement an operations and maintenance (O&M) program that includes a training component and has an ultimate goal of preventing or reducing pollutant runoff from municipal operations. The City of Shoreline currently operates its O&M programs with the goal of reducing potential impacts to water quality. These programs use a variety of methods to meet that goal. The Roads Division follows guidance from the ESA Regional Road Maintenance Program Guidelines. The Surface Water Division implements a rigorous stormwater system inspection, maintenance, and cleaning program. All City departments adhere to Shoreline Municipal Code (SMC) 20.80.085 for use of pesticides, herbicides and fertilizers on City-owned property. Additionally, all City Maintenance Yards operate under a Surface Water Pollution Prevention Plan (SWPPP) and are regularly inspected to assure compliance with the SWPPP.

S5.C.5.a Maintenance Standards

The City continues to use the 2014 update to the *2012 Stormwater Management Manual for Western Washington* (SWMMWW) for maintenance standards as well as following the ESA Regional Roads Maintenance Program Guidelines.

S5.C.5.b Annual Inspection of Stormwater Treatment and Flow Control BMPs/Facilities

The City inspects and maintains all flow control and runoff treatment facilities owned and operated by the City to ensure they are maintained according to the standards per the Ecology 2014 SWMMWW through the City's Regional and Residential Inspection Programs. New stormwater treatment and flow control facilities are added to the inspection program once the City takes over ownership. In some cases, maintenance issues are sent to the City Surface Water Engineer to assess if the issue can be addressed for less than \$25,000. If the repair exceeds \$25,000, it is then considered a capital improvement project and is placed on a list of prioritized capital stormwater repair needs.

S5.C.5.c Major Storm Event Inspections

The City continues to perform spot checks of known "hot spots" after major storm events.

S5.C.5.d Catch Basin Inspections

The City continues to inspect all municipally operated catch basins through its Right-of-Way inspection program, its Regional inspection program, and its Residential inspection program. The frequency of catch basin inspections for each program is detailed in Table 4 below.

S5.C.5.e Established Stormwater Inspection Program

The City has an established stormwater inspection program designed to inspect all sites (see Table 4) and achieving at least 95% of inspections through the following programs:

- Right-of-Way Inspections: includes catch basins and pipe networks that transfer surface water runoff from right-of-way pavement.

- Commercial/Private Facility Inspections: involves visual checks of all stormwater infrastructure on site.
- Regional/Residential Facility Inspections: involves visual checks of all stormwater infrastructure on site.

City owned and operated pipes with a diameter of 12 inches or larger are assessed through the City's basin planning efforts.

Table 4. Stormwater Assets and Inspection Frequency

Inspection Program	Asset	Frequency of Inspection
Right-of-Way	Catch Basins	Every 2 years (1/2 annually) <i>Note: Aurora ROW CBs are inspected annually for the first 3 years</i>
	Ditch	
Regional	Catch Basins	Annually
	Facilities (ponds, tanks, wetlands, pump stations)	
	Culverts	
	Contech Filters	
	Aquafilter Vault	
	Vortechs	
	Ditch	
Residential	Catch Basins	Every 2 years (1/2 annually)
	Facilities (ponds, tanks, wetlands, pump stations)	
Commercial/ Private Facility	Catch Basins	Annually or Biennially, depending on inspection history
	Facilities (ponds, tanks)	
	Ditch	
	Swale	
	Filters	
	Vaults	

S5.C.5.f Reduction of Municipal Operations Stormwater Impacts

The City of Shoreline is committed to using applicable BMPs associated with runoff control during routine maintenance. The City continues to follow the ESA Regional Roads Maintenance Program Guidelines and adheres to SMC 20.80.085.

S5.C.5.g Staff Training

The City coordinated a Certified Erosion and Sediment Control Lead (CESCL) training in 2016. City staff will be trained in 2018 as needed.

S5.C.5.h Stormwater Pollution Prevention Plans (SWPPPs)

The City has SWPPPs on file for all maintenance and storage yards. SWPPPs were updated in 2017 and will continue to be updated as needed.

S5.C.5.i Maintenance Records

The City uses Cityworks (a Work Order software) to track inspections and maintenance/repair activities.

7. COMPLIANCE WITH TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS (PERMIT SECTION 7)

There are no TMDLs in the City of Shoreline.

8. MONITORING AND ASSESSMENT (PERMIT SECTION 8)

The Monitoring portion of the Permit has seen several significant changes for the new Permit term. Section 8 of the Permit covers Status and Trends Monitoring, Effectiveness Studies, and Source Identification and Diagnostic Monitoring.

In the first two categories, the City was given the option to either conduct its own qualifying Status and Trends Monitoring and/or Effectiveness Studies OR opt in to a regional collective fund. This fund is used to complete studies of regional significance. In 2013, the City of Shoreline opted to contribute to the Regional fund for the Status and Trends Monitoring and Effectiveness Studies for the Permit term. Stormwater Action Monitoring (SAM) is the regional stormwater monitoring program implemented through the collective funds. The Stormwater Work Group (SWG) sets priorities and oversees the budget for SAM. City staff continue to participate in the SWG. This group works to identify objectives for monitoring stormwater, to develop an approach to provide needed information about stormwater impacts and the effectiveness of stormwater management actions, and to share results in a way that helps the region make better decisions. Updates on this work are provided through SAM newsletters and the SWG Reporter. See their webpages at <https://ecology.wa.gov/About-us/Our-role-in-the-community/Partnerships-committees/Stormwater-Work-Group> and <https://ecology.wa.gov/Regulations-Permits/Reporting-requirements/Stormwater-monitoring/Stormwater-Action-Monitoring>.

In the case of the Source Identification and Diagnostic Monitoring, the City is required to pay into a collective fund to implement the Source Identification Information Repository (SIDIR). The City continues to contribute to SIDIR for the Permit term and City staff continue to participate in the Source Identification subgroup.