

CITY OF ENUMCLAW
2020 STORMWATER MANAGEMENT PROGRAM
PLAN (SWMPP)

City of Enumclaw
March 2020



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1. INTRODUCTION

1.1 Overview

This document presents the City of Enumclaw's Stormwater Management Program (SWMP) Plan. Preparation and maintenance of this SWMP Plan is required by the Washington State Department of Ecology (Ecology) as a condition of the Western Washington Phase II Municipal Stormwater Permit. The Phase II permit covers discharges from regulated small municipal separate storm sewer systems (MS4s). The SWMP Plan is intended to inform the public of the planned SWMP activities for the upcoming year.

The permit to discharge stormwater is designed to reduce the discharge of pollutants, protect water quality, and meet the requirements of the federal Clean Water Act.

Appendix A includes acronyms and definitions from the Permit to help the reader understand the City's Stormwater Management Program.

1.2 Regulatory Background

The National Pollutant Discharge Elimination System (NPDES) permit program is a requirement of the federal Clean Water Act which was enacted to protect and restore the waters of the United States and support "fishable, swimmable" water quality conditions. In many states, the federal Environmental Protection Agency (EPA) has delegated permit administration authority to state environmental agencies. These agencies must set permit conditions in accordance with the minimum federal requirements and can impose additional conditions. In turn, local jurisdictions must set permit conditions in accordance with the minimum state requirements and can impose additional conditions. In Washington State the permit administration authority is the Department of Ecology (Ecology).

In Washington, municipalities with a population of over 100,000 are designated as Phase I communities and must comply with Ecology's Phase I NPDES Municipal Stormwater Permit. Enumclaw's population is below the 100,000 threshold, so the City must comply with the Phase II Municipal Stormwater Permit (Permit). Ecology's Phase II Municipal Stormwater Permit is available on Ecology's website at:

[https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Municipal-stormwater-general-permits/Western-Washington-Phase-II-Municipal-Stormwat-\(1\)](https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Municipal-stormwater-general-permits/Western-Washington-Phase-II-Municipal-Stormwat-(1))

The Permit allows municipalities to discharge stormwater runoff from municipal drainage systems into the state's water bodies (e.g., streams, rivers, lakes, wetlands, and aquifers) as long as municipalities implement programs to protect water quality by reducing the discharge of "non-point source" pollutants to the "maximum extent practicable" (MEP) through application of Permit-specified components. Permittees who implement all of the Permit-specific components are considered by Ecology to be reducing pollutants to the MEP. The components specified in the Permit are collectively referred to as the Stormwater Management Program (SWMP) and are identified as follows:

- Stormwater Planning
- Public Education and Outreach
- Public Involvement and Participation
- MS4 Mapping and Documentation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment, and Construction Sites
- Operations and Maintenance

- Source Control Program for Existing Development

In addition to the SWMP components the Permit contains special conditions covering:

- Compliance with Total Maximum Daily Load (TMDL) requirements
- Monitoring and Assessment
- Reporting Requirements

The latest Permit issued by Ecology became effective on August 1, 2019, and will expire on July 31, 2024. The Permit requires the City to submit an annual report no later than March 31st of each year on progress in SWMP implementation. The Permit also requires submittal of a SWMP Plan which describes proposed SWMP activities for the current calendar year. The SWMP Plan is to be updated annually and be included in the submittal of the previous year's annual report.

1.3 City of Enumclaw Regulated Area

The Western Washington Phase II Permit applies to operators of regulated small MS4s that discharge stormwater to waters of Washington State located west of the crest of the Cascade Range. For cities, the Permit requirements extend to those areas of each City that drain to MS4s. Most of Enumclaw drains to MS4s that ultimately discharge into the Green River via Newaukum Creek as part of the Green/Duwamish River Watershed, and into the White River via Boise Creek as part of the Puyallup/White River Watershed. In addition, some portions of the City drain to public infiltration facilities where the stormwater soaks into the ground.

1.4 SWMP Implementation Responsibilities

The Engineering Division in the Public Works Department leads and coordinates the overall administration of efforts to comply with Permit requirements. The City's Stormwater Program Manager provides oversight of the Permit and related activities and programs. Other major departments/divisions included in the 2020 SWMP implementation are the Maintenance and Operations (M&O) Division of the Public Works Department, and Community Development (CD).

2. STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

This section of the SWMP describes Permit requirements related to overall Stormwater Management Program administration, and planned compliance activities for 2020.

2.1 Permit Requirements

The Permit (Section S5.A) requires the City to fulfill the following actions during the 5-year Permit cycle:

- Develop and implement a Stormwater Management Program (SWMP) and prepare written documentation (SWMP Plan) for submittal to Ecology by March 31 of each year. The purpose of the SWMP is to reduce the discharge of pollutants from the municipal stormwater system to the maximum extent practicable and thereby protect water quality. The SWMP Plan is intended to inform the public of the planned SWMP activities for the upcoming calendar year, including any actions to meet the requirements of S7 Compliance with Total Maximum Daily Load Requirements, and S8 Monitoring.
- Implement a program for gathering, tracking, maintaining, and using information to evaluate SWMP development, implementation and permit compliance and to set priorities.
- Coordinate with other permittees on stormwater related policies programs, and projects within adjacent or shared areas.
- Coordinate between City departments to eliminate barriers to compliance with the terms of the permit.

2.2 Planned 2020 Compliance Activities

Table 2-1 presents the proposed work plan for the 2020 SWMP administration activities.

Table 2-1. 2020 Stormwater Management Administration Program Work Plan		
Task ID	Task Description	Compliance Timeframe
SWMP-1	Revise and update the City's Stormwater Management Program Plan (SWMP Plan) to identify planned SWMP activities for 2020.	The SWMP submittal is due by March 31st of each year.
SWMP-2	Track program element implementation.	Annual Reporting is due by March 31 st of each year.
SWMP-3	Track costs associated with SWMP and ensure the utility rate is appropriate for proper implementation.	Due by fourth quarter of each year during City budgeting

3. STORMWATER PLANNING

This section describes the Permit requirements related to stormwater planning, and planned compliance activities for 2020.

3.1 Permit Requirements

The Permit (Section S5.C.1) requires the City to fulfill the following actions during the 5-year Permit cycle:

- Convene an inter-disciplinary team to inform and assist in the development, progress, and influence of the Stormwater Planning Program by August 1, 2020.
- Coordinate with long-range plan updates.
- Continue to integrate low impact code-related requirements.
- Develop a Stormwater Management Action Plan (SMAP) using a process similar to, and considering the range of issues outlined in the *Stormwater Management Action Planning Guidance* (Ecology 2019; Publication 19- 10-010) by March 31, 2023.

3.2 Planned 2020 Compliance Activities

Table 3-1 presents the work plan for the 2020 SWMP stormwater planning activities.

Table 3-1. 2020 Stormwater Planning Work Plan		
Task ID	Task Description	Compliance Timeframe
PLA-1	Convene an inter-disciplinary team to inform and assist in the development, progress and influence of the Stormwater Management Program.	August 1, 2020
PLA-2	Review stormwater planning process, schedule and deliverables with the Stormwater Management Program team.	December 31, 2020
PLA-3	Continue to require LID Principles and LID BMPs when updating, revising, and developing new local development-related codes, rules, standards, or other enforceable documents.	Ongoing
PLA-4	Work with Our Green Duwamish (OGD) on creation of a mapping tool which will assist with receiving water assessment and receiving water prioritization for fulfillment of future Permit SMAP requirements	Ongoing

4. PUBLIC EDUCATION AND OUTREACH

This section describes the Permit requirements related to public education and outreach, and planned compliance activities for 2020.

4.1 Permit Requirements

The Permit (Section S5.C.2) requires the City to fulfill the following actions during the 5-year Permit cycle:

- For at minimum one target audience and subject, build general awareness about methods to address and reduce impacts from stormwater runoff.
- Using social marketing practices and methods, effect behavior change for at minimum one target audience and one BMP to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.
- Provide and advertise stewardship opportunities and/or partner with existing organizations to encourage community engagement in addressing impacts to stormwater runoff and receiving waters.

These requirements may be met individually by the City or as part of a collaborative regional effort.

4.2 Planned 2020 Compliance Activities

Table 4-1 presents the work plan for the 2020 SWMP public education and outreach activities.

Table 4-1. 2020 Public Education and Outreach Work Plan		
Task ID	Task Description	Compliance Timeframe
EDUC-1	Continue collaboration with other NPDES municipalities through Stormwater Outreach for Regional Municipalities (STORM) and Puget Sound Starts Here to promote regional education and outreach.	Ongoing
EDUC-2	Continue implementation of a storm drain pollution marker program	Ongoing
EDUC-3	Use social marketing practices and methods to develop a behavior change campaign that is tailored to our community. Continue working with regional jurisdictions to explore business related behavior change activities that may be implemented as the Source Control Inspection program element of the Permit becomes effective.	Ongoing
EDUC-4	Continue business spill kit and pollution prevention program with ECOSS. Consider new business types that would benefit from this program especially those who may struggle to fulfill future source control requirements.	Ongoing
EDUC-5	Continue to educate business owners and general public during IDDE response efforts.	Ongoing
EDUC-6	Inform public employees, businesses and the general public of the hazards associated with illegal discharges and improper disposal of waste through handouts, posters, social media, door knockers, etc.	Ongoing
EDUC-7	Provide and advertise stewardship opportunities such as planting native plants and invasive species removal at City Parks. Advertise and partner with KCD to encourage residents to participate in volunteer water quality monitoring and other stewardship opportunities.	Ongoing

5. PUBLIC INVOLVEMENT AND PARTICIPATION

This section describes the Permit requirements related to public involvement and participation, and planned compliance activities for 2020.

5.1 Permit Requirements

The Permit (Section S5.C.3) requires the City to fulfill the following actions during the 5-year Permit cycle:

- Provide ongoing opportunities for public involvement and participation through advisory boards or commissions, public hearings, watershed committees, public participation in developing rate structures and budgets, or other similar activities. The public must be able to participate in the decision-making processes, including development, implementation, and update of the SWMP.
- Make the SWMP Plan and Annual Report available to the public, by posting on the City’s website. Make any other documents required to be submitted to Ecology in response to Permit conditions available to the public.

5.2 Planned 2020 Compliance Activities

Table 5-1 below presents the work plan for the 2020 SWMP public involvement and participation activities.

Table 5-1. 2020 Public Involvement and Participation Work Plan		
Task ID	Task Description	Compliance Timeframe
PI-1	Provide public involvement opportunities for annual SWMP update. This includes city council meetings, public works committee meetings, and other meetings/events in which the SWMP is discussed	Public involvement opportunities will be available before the March 31, 2020 submittal.
PI-2	Make SWMP Plan and Annual Report available to public by posting on the City website.	

6. MS4 MAPPING AND DOCUMENTATION

This section describes the Permit requirements related to mapping and documentation, and planned compliance activities for 2020.

6.1 Permit Requirements

The Permit (Section S5.C.4) requires the City to fulfill the following actions during the 5-year Permit cycle:

- Ongoing mapping of known MS4 outfalls and discharge points, receiving waters, stormwater treatment and flow control facilities owned by the Permittee, geographic areas served by the MS4 that don't discharge to surface waters, tributary conveyances to outfalls that are 24 inches in diameter or larger, connections between MS4s, and connections to the MS4 authorized or allowed by the Permittee after February 16, 2007.
- No later than January 1, 2020 begin collecting size and material for all known MS4 outfalls, and update records.
- Complete mapping of all known connections from the MS4 to privately owned stormwater systems before August 1, 2023.
- Utilize electronic mapping format with fully described mapping standards by August 1, 2021.
- Make maps available to Ecology, federally recognized Indian Tribes, municipalities and other Permittees upon request.

6.2 Planned 2020 Compliance Activities

Table 6-1 presents the work plan for the 2020 SWMP mapping and documentation activities.

Table 6-1. 2020 Mapping and Documentation Work Plan		
Task ID	Task Description	Compliance Timeframe
MAP-1	Continue mapping the MS4.	Ongoing
MAP-2	Continue collecting MS4 outfall size and material data.	Ongoing
MAP-3	Continue transfer of current AutoCAD City Storm Map to GIS and establishment of GIS mapping standards.	Ongoing

7. ILLICIT DISCHARGE DETECTION AND ELIMINATION

This section describes the Permit requirements related to illicit discharge detection and elimination (IDDE), and planned compliance activities for 2020.

7.1 Permit Requirements

The Permit (Section S5.C.5) requires the City to fulfill the following actions during the 5-year Permit cycle:

- Implement an ongoing program to detect and remove illicit discharges, connections, and improper disposal, including spills into the municipal separate storm sewers owned or operated by the City.
- Publicly list and publicize a hotline or other local telephone number for public reporting of spills and other illicit discharges. Track illicit discharge reports and actions taken in response through close-out, including enforcement actions.
- Inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.
- Train staff on proper IDDE response SOPs and train municipal field staff to recognize and report illicit discharges.
- Summarize all illicit discharges and connections reported to the City and response actions taken, including enforcement actions, in the Annual Compliance Report; identify any updates to the SWMP.
- Annually track total percentage of the MS4 screened since August 1, 2019.

7.2 Planned 2020 Compliance Activities

Table 7-1 presents the work plan for 2020 SWMP illicit discharge detection and elimination activities.

Table 7-1. 2020 Illicit Discharge Detection and Elimination Work Plan		
Task ID	Task Description	Compliance Timeframe
IDDE-1	Continue to implement City-wide IDDE Program and develop any necessary supplemental IDDE activities. Enforce EMC 14.10.095 using education and technical support as a first action and escalating code enforcement as needed. Publicize a phone number for public reporting of spills and illicit discharges.	Ongoing
IDDE-2	Provide IDDE training to new hires in Public Works Engineering and Maintenance & Operations. When deemed necessary, provide IDDE training to police department staff.	Ongoing
IDDE-3	Perform IDDE field screening of at least 12% of MS4 annually.	Ongoing
IDDE-4	Annually track total percentage of the MS4 screened since August 1, 2019.	Ongoing
IDDE-5	Summarize all illicit discharges and connections reported to the City and response actions taken, including enforcement actions, in the WQWebIDDE and Annual Report	Annually by March 31

8. CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT, AND CONSTRUCTION SITES

This section describes the Permit requirements related to controlling runoff from new development, redevelopment, and construction sites, and planned compliance activities for 2020.

8.1 Permit Requirements

The Permit (Section S5.C.6) requires the City to fulfill the following actions during the 5-year Permit cycle:

- Implement, and enforce a program to reduce pollutants in stormwater runoff to the municipal separate storm sewer system from new development, redevelopment, and construction site activities. The program must apply to both private and public development, including transportation projects.
- Have adopted regulations (codes and standards), plan review, inspection, and escalating enforcement SOPs necessary to implement the program in accordance with Permit conditions, including the minimum technical requirements in Appendix 1 of the Permit by June 30, 2022 (adoption of the 2019 SWMMWW).
- Have adopted regulations providing the legal authority, through the approval process for new development and redevelopment, to inspect and enforce maintenance standards for private stormwater facilities that discharge to the MS4.
- Implement a permitting process with site plan review, inspection and enforcement capability, using qualified personnel, for private and public projects.
- Make available, as applicable, the link to the electronic Construction Stormwater General Permit Notice of Intent (NOI) form for construction activity and, as applicable, a link to the electronic Industrial Stormwater General Permit NOI form for industrial activity to representatives of proposed new development and redevelopment.
- Provide training to staff on the new codes, standards, and SOPs and create public education and outreach materials.
- Record and maintain records of all inspections and enforcement actions by staff.
- Summarize annual activities for the “Controlling Runoff” component of the Annual Compliance Report; identify any updates to the SWMP.

8.2 Planned 2020 Compliance Activities

The City has a program to help reduce stormwater runoff from new development and construction sites. Table 8-1 presents the work plan for 2020 SWMP activities related to runoff control for new development, redevelopment, and construction sites.

Table 8-1. 2020 Controlling Runoff from Development, Redevelopment, and Construction Sites Work Plan		
Task ID	Task Description	Compliance Timeframe
CTRL-1	Track and report construction, new development, and redevelopment permits, inspections and enforcement actions.	Ongoing
CTRL-2	Implement a permitting process with site plan review, inspection and enforcement capability, using qualified personnel, for private and public projects.	Ongoing
CTRL-3	Inspect all permitted development sites throughout the construction process (pre-inspection, TESC inspections, final inspections)	Ongoing
CTRL-4	Inspect all permanent stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments every six months until 90% of the lots are constructed or construction has stopped and site is fully stabilized.	Ongoing
CTRL-5	Make available the link to the "Notice of Intent for Construction Stormwater General Permit" and/or the "Notice of Intent for Industrial Stormwater General Permit" to representatives of proposed new development and redevelopment.	Ongoing

9. OPERATIONS AND MAINTENANCE

This section describes the Permit requirements related to municipal operations and maintenance, and planned compliance activities for 2020.

9.1 Permit Requirements

The Permit (Section S5.C.7) requires the City to fulfill the following actions during the 5-year Permit cycle:

- Implement an O&M program, with the ultimate goal of preventing or reducing pollutant runoff from municipal separate stormwater system and municipal O&M activities.
- Implement maintenance standards for the municipal separate stormwater system that are at least as protective as those specified in the 2019 Stormwater Management Manual for Western Washington.
- Conduct annual inspections of all private stormwater treatment and flow control BMPs/facilities that were permitted in accordance with requirements adopted pursuant to the 2007 – 2019 municipal stormwater permits and that discharge to the MS4 (2010 to current). Enforce maintenance as triggered by the maintenance standards.
- Conduct annual inspection of all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities (those BMPs/facilities submitted in applications since 2010 to meet min. requirement 6-Treatment and 7-Flow Control) and perform maintenance as needed to comply with maintenance standards.
- Inspect all catch basins and inlets owned or operated by the City at least once every two years. Clean the catch basins if inspections indicate cleaning is needed to comply with maintenance standards.
- Check treatment and flow control facilities after major storms (10yr-24hr storms) and perform repairs as needed in accordance with adopted maintenance standards.
- Implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the City, and road maintenance activities under the functional control of the City, including but not limited to streets, parking lots, roads, highways buildings, parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control BMPs/facilities.
- Document the practices, policies and procedures before December 31, 2022.
- Implement an ongoing training program for employees of the City whose primary construction, operations, or maintenance job functions may impact stormwater quality. Document and maintain records of the training provided.
- Prepare Stormwater Pollution Prevention Plans (SWPPPs) for all heavy equipment maintenance or storage yards identified for year-round facilities or yards, and material storage facilities owned or operated by the City.
- Summarize annual activities for the “Pollution Prevention and Operations and Maintenance for Municipal Operations” component of the Annual Compliance Report; identify any updates to the SWMP.

9.2 Planned 2020 Compliance Activities

Table 9-1 presents the work plan for 2020 SWMP activities related to operations and maintenance.

Table 9-1. 2020 Operations and Maintenance Work Plan		
Task ID	Task Description	Compliance Timeframe
O&M-1	Conduct annual inspection of all treatment and flow control BMPs/Facilities (other than catch basins) in the public system and perform maintenance as triggered by the maintenance standards.	On-going
O&M-2	Conduct annual inspections of all private stormwater treatment and flow control BMPs/facilities that were permitted under the 2007 – 2019 municipal stormwater permits and that discharge to the MS4. Enforce maintenance as triggered by the maintenance standards.	On-going
O&M-3	Inspect catch basins at a rate that ensures all are inspected every two years. Clean/repair catch basins as triggered by the maintenance standards.	On-going
O&M-4	Perform street sweeping to reduce the amount of street waste that enters the storm drainage conveyance system.	Ongoing
O&M-5	Implement the SWPPP for the Public Works Operations Facility	Ongoing
O&M-6	Implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from lands owned or maintained by the City, and road maintenance activities under the functional control of the City.	Ongoing
O&M-7	Implement an ongoing training program for employees of the City whose primary construction, operations, or maintenance job functions may impact stormwater quality.	Ongoing
O&M-8	Document and maintain records of employee training.	Ongoing

10. SOURCE CONTROL PROGRAM FOR EXISTING DEVELOPMENT

This section describes the Permit requirements related to source control program for existing development, and planned compliance activities for 2020.

10.1 Permit Requirements

The Permit (Section S5.C.8) requires the City to fulfill the following actions during the 5-year Permit cycle:

- Implement a program to prevent and reduce pollutants in runoff from areas that discharge to the MS4.
- Require application of operational source control BMPs, and if necessary, structural source control BMPs or treatment BMPs/facilities, or both, to pollution generating sources associated with existing land uses and activities through the adoption of an ordinance by August 1, 2022.
- Establish an inventory that identifies publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4 by August 1, 2022.
- Inspect pollutant generating sources at publicly and privately owned institutional, commercial and industrial sites to enforce implementation of required BMPs to control pollution discharging into the MS4 beginning January 1, 2023. Annually complete a number of inspections equal to 20% of the established source control inventory list. Inspect 100% of sites identified through credible complaints.
- Provide sites with addresses on the established source control inventory list with information about activities that may generate pollutants and source control requirements applicable to those activities. Information can be provided via mail, telephone, electronically, or in person.
- Implement a progressive enforcement policy that requires sites to comply with stormwater source control requirements beginning January 1, 2023.
- Maintain records of site visits, inspection reports, warning letters, notice of violations, and other enforcement records to demonstrate effort to bring sites into compliance.
- Train staff who are responsible for implementing the source control program and related activities.

10.2 Planned 2020 Compliance Activities

Table 10-1 presents the work plan for the 2020 SWMP source control program for existing development activities.

Table 10-1. 2020 Source Control Program for Existing Development Work Plan		
Task ID	Task Description	Compliance Timeframe
SC-1	Begin planning process to establish an inventory by August 1, 2022 and to implement a source control program by January 1, 2023.	Ongoing
SC-2	Start educating businesses on the upcoming source control requirements so they can better be prepared to comply when the ordinance is adopted.	Ongoing
SC-3	Continue work with ECOSS to help local businesses comply with future operational source control requirements.	Ongoing

11. COMPLIANCE WITH TOTAL MAXIMUM DAILY LOAD REQUIREMENTS

The federal Clean Water Act requires that Ecology establish “Total Maximum Daily Loads” (TMDL) for rivers, streams, lakes, and marine waters that don’t meet water quality standards. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards. After the TMDL has been calculated for a given water body, Ecology determines how much each source must reduce its discharges of the pollutant in order bring the water body back into compliance with the water quality standards. TMDL requirements are included in the stormwater NPDES permits for discharges into affected water bodies.

Stormwater discharges covered under this Permit are required to implement actions necessary to achieve the pollutant reductions called for in applicable TMDLs. Applicable TMDLs are those approved by the EPA before the issuance date of the Permit or which have been approved by the EPA prior to the issue date of the Permit or the date Ecology issues coverage under the Permit, whichever is later. Information on Ecology’s TMDL program is available on Ecology’s website at <https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Total-Maximum-Daily-Load-process>.

In accordance with Permit condition S7 Compliance with Total Maximum Daily Load Requirements the City must comply with the following TMDL.

Name of TMDL	Puyallup Watershed Water Quality Improvement Project
Document(s) for TMDL	<i>Puyallup River Watershed Fecal Coliform Total Maximum Daily Load – Water Quality Improvement Report and Implementation Plan</i> , June 2011, Ecology Publication No. 11-10-040. https://fortress.wa.gov/ecy/publications/SummaryPages/1110040.html
Location of Original 303(d) Listings	Puyallup River 16712, 7498, White River 16711, 16708, 16709, Clear Creek 7501, Swan Creek 7514, Boise Creek 16706
Area Where TMDL Requirements Apply	Requirements apply in all areas regulated under the Permittee’s municipal stormwater permit and discharging to water bodies listed within the specific requirement in this TMDL section.
Parameter	Fecal Coliform
EPA Approval Date	September 2011
MS4 Permittee	Phase I Permit: King County, Pierce County Phase II Permit: Auburn, Edgewood, Enumclaw, Puyallup, Sumner

Actions required of the City under this TMDL include:

- Designate areas discharging via MS4 to Boise creek from mile 1.7 to 1.0 and the flume and laterals approximately 1 mile north of the confluence with the mainstem, north of SE 456th Street, between highway 410 to the west and Watson Street N. to the east as high priority areas for illicit discharge detection and elimination. Complete IDDE field screening for bacteria sources in 100% of these sub-

basins by July 31, 2024, and implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit in response to any illicit discharges found. The results of all bacterial screening conducted in these sub-basins shall be included in the annual reports submitted to Ecology.

- Inspect commercial handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria. Implement an ongoing inspection program to re-inspect facilities or areas with bacteria source control problems at least every three years.
- Conduct public education and outreach activities to increase awareness of bacteria pollution problems and promote proper pet waste management behavior.
- Install and maintain pet waste education and collection stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use and the potential for pollution of stormwater.

11.1 Planned 2020 Compliance Activities

Table 11-1 presents the work plan for 2020 SWMP activities related to TMDL requirement compliance.

Table 11-1. 2020 Compliance with TMDL Load Requirements		
Task ID	Task Description	Compliance Timeframe
TMDL-1	Include summary of activities conducted in TMDL area to address TMDL parameter (fecal coliform) with annual report to Ecology.	March 31, 2020
TMDL-2	Continue routine fecal coliform sampling at identified sites in the Boise Creek basin and adjust locations as needed in response to bacteria sample results.	Monthly
TMDL-3	Continue IDDE screening for bacteria sources on a schedule to complete 100% of the TMDL sub-basins by July 31, 2024.	On-going
TMDL-4	Maintain existing pet waste education and collection stations at municipal parks and other public lands reasonably expected to have substantial domestic (dog or horse) use and the potential for pollution of stormwater. Install additional pet waste stations as deemed appropriate.	On-going
TMDL-5	Continue collaborating with other agencies (e.g. King County, King Conservation District, and Ecology, to share TMDL related information & sampling data for the area. Participate in related Ecology TMDL activities.	On-going
TMDL-6	Continue identifying/implementing viable pet waste education/outreach strategies.	On-going

12. MONITORING AND ASSESSMENT

This section describes the Permit requirements related to water quality monitoring, and planned compliance activities for 2020.

12.1 Permit Requirements

The Permit (Section S8) requires the City to either conduct Status and Trends Monitoring, and Effectiveness and Source Identification Studies, or pay annually into a collective fund to implement monitoring under Ecology oversight through the SAM (Stormwater Action Monitoring) program. The City committed in 2019 to pay \$1,894.00 annually into the collective SAM monitoring fund for Status and Trends Monitoring and \$3,461.00 into the Effectiveness and Source Identification Studies fund.

The SAM brings together municipal stormwater permittees to collaborate on monitoring needs. The group aims to improve stormwater management, reduce pollution, improve water quality, and reduce flooding. They do this by working together to measure stormwater impacts on the environment and evaluate the effectiveness of efforts to manage stormwater.

All Permittees are required to submit information as requested for effectiveness and source identification studies that are under contract with Ecology as active Stormwater Action Monitoring (SAM) projects.

12.2 Planned 2020 Compliance Activities

Table 12-1 presents the work plan for 2020 SWMP monitoring activities.

Table 12-1. 2020 Water Quality Monitoring Work Plan		
Task ID	Task Description	Compliance Timeframe
MNTR-1	Pay \$5,355.00 annually into the SAM collective fund for implementation of Status and Trends Monitoring, and Effectiveness and Source Identification Studies.	Annual payment due by August 15 th .
MNTR-2	Submit information as requested for effectiveness and source identification studies that are under contract with Ecology as active Stormwater Action Monitoring (SAM) projects.	As requested.

Acronyms and Definitions

The following definitions and acronyms are taken directly from the Phase II Permit and are reproduced here for the reader's convenience.

40 CFR means Title 40 of the Code of Federal Regulations, which is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government.

AKART means all known, available, and reasonable methods of prevention, control and treatment. See also State Water Pollution Control Act, chapter 90.48.010 RCW and chapter 90.48.520 RCW.

All Known, Available and Reasonable Methods of Prevention, Control and Treatment refers to the State Water Pollution Control Act, chapter 90.48.010 RCW and chapter 90.48.520 RCW.

Applicable TMDL means a TMDL which has been approved by EPA on or before the issuance date of this Permit, or prior to the date that Ecology issues coverage under this Permit, whichever is later.

Best Management Practices are the schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices approved by Ecology that, when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State.

BMP means Best Management Practice.

Component or **Program Component** means an element of the Stormwater Management Program listed in S5 Stormwater Management Program for Cities, Towns, and Counties or S6 Stormwater Management Program for Secondary Permittees, S7 Compliance with Total Maximum Daily Load Requirements, or S8 Monitoring of this permit.

Community-based Social Marketing is a social marketing methodology. It employs a systematic approach intended to change the behavior of communities to reduce their impact on the environment. Realizing that providing information is usually not sufficient to initiate behavior change, community-based social marketing uses tools and findings from social psychology to discover the perceived barriers to behavior change and ways of overcoming these barriers.

Conveyance System means that portion of the municipal separate storm sewer system designed or used for conveying stormwater.

Co-Permittee means an owner or operator of an MS4 which is in a cooperative agreement with at least one other applicant for coverage under this permit. A Co-Permittee is an owner or operator of a regulated MS4 located within or in proximity to another regulated MS4. A Co-Permittee is only responsible for permit conditions relating to discharges from the MS4 the Co-Permittee owns or operates. See also 40 CFR 122.26(b)(1)

CWA means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. (6-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq).

Discharge Point means the location where a discharge leaves the Permittee's MS4 through the Permittee's MS4 facilities/BMPs designed to infiltrate.

Entity means a governmental body, or a public or private organization.

EPA means the U.S. Environmental Protection Agency.

Fully Stabilized means the establishment of a permanent vegetative cover, or equivalent permanent stabilization measures (such as riprap, gabions or geotextiles) which prevent erosion.

General Permit means a permit which covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual permits being issued to each discharger.

Heavy Equipment Maintenance or Storage Yard means an uncovered area where any heavy equipment, such as mowing equipment, excavators, dump trucks, backhoes, or bulldozers are washed or maintained, or where at least five pieces of heavy equipment are stored on a long-term basis.

Highway means a main public road connecting towns and cities.

Illicit Connection means any infrastructure connection to the MS4 that is not intended, permitted or used for collecting and conveying stormwater or non-stormwater discharges allowed as specified in this permit (S5.C.3 and S6.D.3). Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the MS4.

Illicit Discharge means any discharge to a MS4 that is not composed entirely of stormwater or of non-stormwater discharges allowed as specified in this permit (S5.C.3 and S6.D.3).

Impervious Surface means a non-vegetated surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A non-vegetated surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or stormwater areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater.

Land Disturbing Activity means any activity that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to clearing, grading, filling and excavation. Compaction that is associated with stabilization of structures and road construction shall also be considered land disturbing activity. Vegetation maintenance practices, including landscape maintenance and gardening, are not considered land disturbing activity. Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures.

LID means Low Impact Development.

LID BMP means low impact development best management practices.

LID Principles means land use management strategies that emphasize conservation, use of on-site natural features, and site planning to minimize impervious surfaces, native vegetation loss, and stormwater runoff.

Low Impact Development (LID) means a stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.

Low Impact Development Best Management Practices (LID BMP) means distributed stormwater management practices, integrated into a project design, that emphasize pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration. LID BMPs include, but are not limited to, bioretention, rain gardens, permeable pavements, roof downspout controls, dispersion, soil quality and depth, vegetated roofs, minimum excavation foundations, and water re-use.

Material Storage Facilities means an uncovered area where bulk materials (liquid, solid, granular, etc.) are stored in piles, barrels, tanks, bins, crates, or other means.

Maximum Extent Practicable refers to paragraph 402(p)(3)(B)(iii) of the federal Clean Water Act which reads as follows: Permits for discharges from municipal storm sewers shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques, and system, design, and engineering methods, and other such provisions as the Administrator or the State determines appropriate for the control of such pollutants.

MEP means Maximum Extent Practicable.

MS4 means municipal separate storm sewer system.

Municipal Separate Storm Sewer System means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

- (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of Washington State.
- (ii) Designed or used for collecting or conveying stormwater.
- (iii) Which is not a combined sewer;
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.; and
- (v) Which is defined as “large” or “medium” or “small” or otherwise designated by Ecology pursuant to 40 CFR 122.26.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology.

Native Vegetation means vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site. Examples include trees such as Douglas Fir, western hemlock, western red cedar, alder, big-leaf maple; shrubs such as willow, elderberry, salmonberry, and salal; and herbaceous plants such as sword fern, foam flower, and fireweed.

New Development means land disturbing activities, including Class IV General Forest Practices that are conversions from timber land to other uses; structural development, including construction or installation of a building or other structure; creation of hard surfaces; and subdivision, short subdivision and binding site plans, as defined and applied in chapter 58.17 RCW. Projects meeting the definition of redevelopment shall not be considered new development. Refer to Appendix 1 for a definition of hard surfaces.

New Permittee means a city, town, or county that is subject to the *Western Washington Municipal Stormwater General Permit* and was not subject to the permit prior to August 1, 2013.

New Secondary Permittee means a Secondary Permittee that is covered under a municipal stormwater general permit and was not covered by the permit prior to August 1, 2013.

NOI means Notice of Intent.

Notice of Intent (NOI) means the application for, or a request for coverage under a General Permit pursuant to WAC 173-226-200.

Notice of Intent for Construction Activity means the application form for coverage under the *Construction Stormwater General Permit*.

Notice of Intent for Industrial Activity means the application form for coverage under the *General Permit for Stormwater Discharges Associated with Industrial Activities*.

NPDES means National Pollutant Discharge Elimination System.

Outfall means a point source as defined by 40 CFR 122.2 at the point where a discharge leaves the Permittee's MS4 and enters a surface receiving waterbody or surface receiving waters. Outfall does not include pipes, tunnels, or other conveyances which connect segments of the same stream or other surface waters and are used to convey primarily surface waters (i.e., culverts).

Overburdened Community means minority, low-income, tribal, or indigenous populations or geographic locations in Washington State that potentially experience disproportionate environmental harms and risks. This disproportionality can be as a result of greater vulnerability to environmental hazards, lack of opportunity for public participation, or other factors. Increased vulnerability may be attributable to an accumulation of negative or lack of positive environmental, health, economic, or social conditions within these populations or places. The term describes situations where multiple factors, including both environmental and socio-economic stressors, may act cumulatively to affect health and the environment and contribute to persistent environmental health disparities.

Permittee unless otherwise noted, the term "Permittee" includes city, town, or county Permittee, Co-Permittee, New Permittee, Secondary Permittee, and New Secondary Permittee.

Qualified Personnel means someone who has had professional training in the aspects of stormwater management for which they are responsible and are under the functional control of the Permittee. Qualified Personnel may be staff members, contractors, or volunteers.

RCW means the Revised Code of Washington State.

Receiving Waterbody or Receiving Waters means naturally and/or reconstructed naturally occurring surface water bodies, such as creeks, streams, rivers, lakes, wetlands, estuaries, and marine waters, or ground water, to which infiltration MS4 discharges.

Redevelopment means, on a site that is already substantially developed (i.e., has 35% or more of existing hard surface coverage), the creation or addition of hard surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of hard surface that is not part of a routine maintenance activity; and land disturbing activities. Refer to Appendix 1 for a definition of hard surfaces.

Regional Stormwater Monitoring Program means, for all of western Washington, a stormwater-focused monitoring and assessment program consisting of these components: status and trends monitoring in small streams and marine nearshore areas, stormwater management program effectiveness studies, and a source identification information repository (SIDIR). The priorities and scope for the RSMP are set by a formal stakeholder group. For this permit term, RSMP status and trends monitoring will be conducted in the Puget Sound basin only.

Regulated Small Municipal Separate Storm Sewer System means a Municipal Separate Storm Sewer System which is automatically designated for inclusion in the Phase II stormwater permitting program by its location within an Urbanized Area, or by designation by Ecology and is not eligible for a waiver or exemption under S1.C.

Runoff is water that travels across the land surface and discharges to water bodies either directly or through a collection and conveyance system. See also “Stormwater.”

SAM means Stormwater Action Monitoring.

Secondary Permittee is an operator of a regulated small MS4 which is not a city, town or county. Secondary Permittees include special purpose districts and other public entities that meet the criteria in S1.B.

Small Municipal Separate Storm Sewer System means an MS4 that is not defined as “large” or “medium” pursuant to 40 CFR 122.26(b)(4) & (7) or designated under 40 CFR 122.26 (a)(1)(v).

Source Control BMP means a structure or operation that is intended to prevent pollutants from coming into contact with stormwater through physical separation of areas or careful management of activities that are sources of pollutants. The *SWMMWW* separates source control BMPs into two types. Structural Source Control BMPs are physical, structural, or mechanical devices, or facilities that are intended to prevent pollutants from entering stormwater. Operational BMPs are non-structural practices that prevent or reduce pollutants from entering stormwater. See Volume IV of the *SWMMWW* (2012) for details.

Stormwater means runoff during and following precipitation and snowmelt events, including surface runoff, drainage or interflow.

Stormwater Action Monitoring (SAM) is the regional stormwater monitoring program for Western Washington. This means, for all of Western Washington, a stormwater-focused monitoring and assessment program consisting of these components: status and trends monitoring in small streams and marine nearshore areas, stormwater management program effectiveness studies, and source identification projects. The priorities and scope for SAM are set by a formal stakeholder group that selects the studies and oversees the program administration.

Stormwater Management Program (SWMP) means a set of actions and activities designed to reduce the discharge of pollutants from the MS4 to the MEP and to protect water quality, and comprising the components listed in S5 (for cities, towns and counties) or S6 (for Secondary Permittees) of this Permit

and any additional actions necessary to meet the requirements of applicable TMDLs pursuant to S7 *Compliance with TMDL Requirements*, and S8 *Monitoring and Assessment*.

Stormwater Treatment and Flow Control BMPs/Facilities means detention facilities, treatment BMPs/facilities, bioretention, vegetated roofs, and permeable pavements that help meet Appendix 1 Minimum Requirements #6 (treatment), #7 (flow control), or both.

Surface Waters includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the State of Washington.

SWMMWW or Stormwater Management Manual for Western Washington means *Stormwater Management Manual for Western Washington (2019)*.

SWMP means Stormwater Management Program.

TMDL means Total Maximum Daily Load.

Total Maximum Daily Load (TMDL) means a water cleanup plan. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources.

The calculation must include a margin of safety to ensure that the water body can be used for the purposes the state has designated. The calculation must also account for reasonable variation in water quality. Water quality standards are set by states, territories, and tribes. They identify the uses for each water body, for example, drinking water supply, contact recreation (swimming), and aquatic life support (fishing), and the scientific criteria to support that use. The Clean Water Act, section 303, establishes the water quality standards and TMDL programs.

Tributary Conveyance means pipes, ditches, catch basins, and inlets owned or operated by the Permittee and designed or used for collecting and conveying stormwater.

Urbanized Area is a federally-designated land area comprising one or more places and the adjacent densely settled surrounding area that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile. Urbanized Areas are designated by the U.S. Census Bureau based on the most recent decennial census.

Water Quality Standards means Surface Water Quality Standards, chapter 173-201A WAC, Ground Water Quality Standards, chapter 173-200 WAC, and Sediment Management Standards, chapter 173-204 WAC.

Waters of the State includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the state" as defined in chapter 90.48 RCW which includes lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and water courses within the jurisdiction of the State of Washington.

Waters of the United States refers to the definition in 40 CFR 122.2.