

City of Mukilteo
Stormwater Management Program (SWMP)
Plan
January 2017 – December 2017



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Table of Contents

Executive Summary	2
Introduction	2
Permit Element S5.C. - Public Education and Outreach	3
Permit Element S5.C.2 - Public Involvement and Participation	5
Permit Element S5.C.3 - Illicit Discharge Detection and Elimination	6
Permit Element S5.C.4 - Control Runoff from New Development, Redevelopment and Construction Sites	7
Permit Element S5.C.5 - Municipal Operations and Maintenance	8
Permit Element S7, Total Maximum Daily Load Requirement.....	8
Permit Element S8.A, Monitoring and Assessment	9
Estimated NPDES Implementation Costs	10

Executive Summary

The NPDES Program

The National Pollutant Discharge Elimination System (NPDES) is a program created under the Federal Clean Water Act, with authority over the program given to Washington State Department of Ecology (Ecology). The intent of the NPDES Program is to protect and restore water quality in waters of the State so that they can support “beneficial uses,” such as fishing and swimming. Governmental and private entities must obtain an NPDES Permit, and comply with conditions set forth in the Permit, before discharging stormwater or wastewater to waters regulated by Federal and State governments.

The Western Washington Phase II Municipal Stormwater Permit

The City of Mukilteo has held an NPDES Permit (the Permit) since 2007. The current Permit covers the period from August 1, 2013 to July 31, 2018. 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. The full Permit can be viewed at Department of Ecology’s website:

<http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/5YR/2014mod/WWAPhaseII-Permit-2014Final.pdf>

Purpose of the Annual Stormwater Management Program Plan

This document is the City of Mukilteo’s 2017 Stormwater Management Program (SWMP) Plan, covering the period between January 1, 2017 and December 31, 2017. The purpose of the document is to outline the City’s planned activities for the year, as they relate to Permit compliance. The City prepares and posts the SWMP Plan with the intent of soliciting feedback from the public during a draft phase, and of engaging the public regarding the planned activities related to Permit compliance. The most current SWMP Plans are posted on the City’s website.

As required, this SWMP Plan follows the organization of Section 5.C of the NPDES Permit:

S.5.C.1 - Public Education and Outreach

S.5.C.2 - Public Involvement and Participation

S.5.C.3 - Illicit Discharge Detection and Elimination

S.5.C.4 - Control Runoff from New Development, Redevelopment and Construction Sites

S.5.C.5 - Municipal Operations and Maintenance

Information on Section 7, Compliance with Total Maximum Daily Load Requirements, and Section 8, Monitoring, are also included in this document. The Permit requires the City to submit an Annual Report on Permit-related requirements to the Washington State Department of Ecology by March 31st of each year. The Annual Report is available online or request a copy by calling (425) 263-8083.

The City's *Comprehensive Surface Water Management Plan*, updated in 2015, is a more comprehensive plan, providing goals for the surface water utility on a broader range of topics, through 2012. The full plan can be found here: <http://mukilteowa.gov/departments/public-works/surface-water/programs-and-planning>.

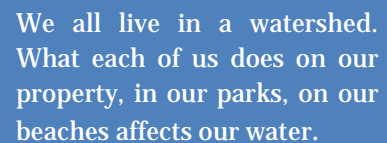
Introduction

The Permit requires a multi-faceted approach in addressing stormwater impacts. The City's goals and planned activities associated with each section of the Permit are outlined below.

Permit S5.C.1 - Public Education and Outreach

Goal

The goal of the education and outreach program is to reduce or eliminate behaviors and practices that contribute pollution to our streams and the Puget Sound.



We all live in a watershed. What each of us does on our property, in our parks, on our beaches affects our water.

Overview

Public education and outreach targets specific audiences about daily activities that create stormwater pollution. Audiences can include the general public, businesses, homeowners and their landscapers, developers, engineers, planners, and contractors. The City's program addresses several specific water quality issues as well as establishes a level of basic education concerning watersheds, stormwater, and the water cycle.

The City of Mukilteo has several programs to help residents and business owners understand stormwater pollution as a significant water quality concern. The City is involved in education programs locally and regionally, leveraging other successful outreach campaigns. The City tailors existing programs to fit the needs of our residents and stormwater needs. Examples of continuing partnerships include: Snohomish County Health Department, Snohomish County, Snohomish Conservation District, Burlington Northern Santa Fe (BNSF) Railway, Washington State Department of Transportation (WSDOT), Sound Transit, and neighboring municipalities.

Education and Outreach 2017 Planned Activities

To meet the requirement to build general awareness of the general public and businesses in 2017, the City will provide both active programs and passive programs. Active programs include programs that are actively soliciting participation. Passive programs are programs that provide information and other resources to residents when they need it, but are not being actively promoted. These may simply consist of flyers and website presence.

Active Programs

Youth stormwater and water quality awareness

- Partner with Snohomish County Beach Watchers to integrate stormwater messaging into its existing program, conducted at Lighthouse Park. The Beach Watchers provide outreach and education services for City residents primarily around the marine environment. In 2017, it is our goal to continue incorporating a stormwater message into the program.
- Continue partnership with the Snohomish County and Snohomish Conservation District, through the District's *Sound Education* programs, to encourage residents, teachers and students to participate in activities such as natural yard care, using low impact techniques, storm drain marking, riparian plantings and education activities.

Business Awareness and Outreach

The City anticipates a new partnership with ECOSS, a non-profit organization, who provides outreach to businesses and helps them develop a spill response plan. It is anticipated that ECOSS will reach out to 25 businesses in 2017. Each business participating in the program will receive a no-cost spill kit.

Storm Drain Marking and Adopt-a-Drain Program

Through a contract with Beach Watchers, the City will continue outreach around "Only Rain Down the Drain" with community residents. This program provides "at home" solutions to prevent water quality degradation and provides the opportunity for volunteers to place "Dump No Waste" markers around storm drains in the City. The City will explore an "Adopt-a-Drain" program as another stewardship opportunity.

Bluff and vegetation management

The City of Mukilteo has many steep slope areas, where uncontrolled stormwater runoff has the potential to exacerbate slide potential. Education on bluff management is a unique focus for the City. In 2017, the City will continue to:

- Participate in the Landslide Working Group to help educate homeowners on bluff and vegetation management.
- Continue partnership with BNSF, WSDOT, Sound Transit and the City of Everett, through the Landslide Hazard Working Group, to explore alternatives to managing stormwater on steep bluffs.

Natural Yard Care

The City will continue to explore opportunities to implement the findings of the behavior change study for the Natural Yard Care partnership. Funding for continued trainings was not received. Mukilteo will continue to explore avenues to partner with Snohomish County on their Natural Yard Care program, with potential of partnering on a class series in early 2018.

Private stormwater system and BMP maintenance

Continue working with private property homeowners and Homeowner's Associations to educate them on private stormwater BMPs on an individual basis, as requests arise.

Passive Programs

Ongoing messaging for pet waste management and disposal

In 2017, the City will continue with messaging about pet waste management through informational brochures at the City's dog park and other key locations.

Ongoing messaging to eliminate car wash wastewater from entering the MS4

Provide outreach and education for car washing through the City's website.

Other General Activities

- Update the City's Stormwater webpage, to reflect current programs and actions
- Support future activities in regional campaigns, such as the Don't Drip and Drive campaign.
- Use Puget Sound Starts Here (PSSH) messaging on stormwater related outreach materials and participate in PSSH programs, as appropriate.
- Build general awareness of engineers, contractors, developers, and land use planners, in 2017 the City will continue to:
 - Promote trainings for Low Impact Development offered by Department of Ecology and other resources.
 - Provide information to contractors, developers, and engineers on the technical standards for stormwater site and erosion control plans.
 - Provide ongoing resources to developers on new LID requirements.

Permit S5.C.2 - Public Involvement and Participation

Goal

The City's goal for public involvement and participation is to actively engage all willing residents, business owners, property owners, and contractors, in all of the aspects of the surface and stormwater utility; broadening the sense of responsibility and understanding of the health of our watersheds throughout the community.

Overview

Public involvement is actively sought in the development of the SWMP Plan. Citizens may review and comment on the SWMP by visiting the City of Mukilteo's website at <http://mukilteowa.gov/departments/public-works/surface-water/stewardship/npdes/>.

Public Involvement and Participation 2017 Planned Activities

In 2017, the City will continue marking publicly owned storm drains within the City with "Dump No Waste" markers. The City will actively seek public participation through the Beach Watchers program to mark storm drains with "Dump No Waste" markers.

Permit S5.C.3 - Illicit Discharge Detection and Elimination

Goal

The goal of the illicit discharge detection and elimination (IDDE) program is to detect, remove, and eliminate illicit discharges and connections found in the municipal stormwater system. This goal is achieved through inspections, education, regulations, and enforcement.

Overview

One of the largest threats to the City's freshwater is illicit discharge from both small and large sources. IDDE is an essential program to protect the water quality of our streams, lakes, and Puget Sound. The permit requires an ongoing program designed to prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the Municipal Separate Storm Sewer System (MS4).

Illicit Discharge Detection and Elimination

Only rain is allowed down storm drains. Illicit Discharge Detection and Elimination (IDDE) efforts focus on discharges that are not entirely composed of stormwater. The City has an IDDE hotline, (425) 263-8088, for the public to report suspected illicit discharge activities. Investigations and responses to illicit discharges are designed to detect, remove, and prevent illicit discharges. The City's drainage inventory atlas is available online at <http://mukilteowa.gov/departments/public-works/development-services>

Illicit Discharge Detection and Elimination 2017 Planned Activities

Maintain maps of the City's stormwater drainage system (MS4).

- Maintain and update the City's MS4 maps, including points of significance, such as outfalls, waters of the state, stormwater facilities, and all known connections.
- Field staff will continue to verify the mapped drainage system.
- Identify discharge points.
- 2017 will begin the move from a pdf version of our stormwater atlas to an interactive map available to the public. This may roll out in 2018, but work will begin in 2017.
- In 2017, the City will continue to update mapping of the stormwater infrastructure, (especially stormwater flow control and water quality facilities) including field verifications of infrastructure. This will be an ongoing effort, but the City expects to have all public facilities mapped by the end of 2017.

Continue to implement ongoing program to detect and identify non-stormwater discharges.

IDDE is a reactive program at this time. During 2017, the City will continue to follow the *Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual*. Other program items to continue include:

- Maintain City's Spill Hotline: (425)263-8088
- Continue to implement the City's internal training program

- MS4 Screening. The City has screened at least 40% of its MS4 for illicit connections and discharges through annual catch basin and facility inspections (screening due December 31, 2017).

Permit Element S5.C.4 - Control Runoff from New Development, Redevelopment and Construction Sites

Goal

Controlling pollutant loads and reducing peak flows from developed sites is a long term goal of Section 5C.4 of the Permit and for the City. The program applies to private and public development, including roads.

Overview

Section 5C.4 of the Permit requires that Mukilteo develop, implement and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities. Among other items addressed below, the Permit intends to make low impact development (LID) the preferred and commonly-used approach to site development. Controlling runoff from developed properties is necessary to reduce peak flow flooding, pollutant loading, and other negative freshwater impacts. By implementing BMPs, developed properties can reduce their impact on water quality, and help protect the City's watersheds, including Puget Sound. Ongoing maintenance of permanent stormwater facilities is critical in meeting this goal. To this end, stormwater facilities permitted since July 29, 2009 require proof of ongoing maintenance.

Control Runoff from New Development 2017 Planned Activities

- Continue to implement the *2014 Stormwater Management Manual for Western Washington*
- Continue to implement a permitting process that requires site plan review, inspections and enforcement mechanisms for noncompliance
- Update training for staff involved in controlling stormwater runoff in development. Planners and inspectors will stay current with Certified Erosion and Sediment Control Lead (CESCL) trainings.
- Low Impact Development (LID) standards in City Code. The City adopted required code amendments in 2016. The City will continue to support outreach regarding the new amendments.
- Facility Inspections: Continue regularly scheduled facility and BMP inspections.

Permit Element S5.C.5 - Municipal Operations and Maintenance

Goal

The City's goal is to ensure that all of the municipally owned stormwater management facilities are functioning properly, and to prevent or reduce pollutant runoff to the maximum extent practical during the course of City activities. Maintenance activities must be carefully planned, coordinated, and documented to meet the Permit requirements.

Overview

Pollution prevention and good housekeeping are the simplest and least costly methods to help protect stormwater quality from municipal facilities and City staff practices. The City follows the maintenance standards of Chapter 4.6 of Volume V of the *2012 Stormwater Management Manual for Western Washington*, and the *Western Washington Low Impact Development Operation and Maintenance Guidance Document*. The City Public Works facility operates under a Surface Water Pollution Prevention Plan to minimize impacts to surface water from the facility.

Municipal Operations and Maintenance 2017 Planned Activities

- Inspect all municipally owned or operated stormwater facilities. The City has approximately 120 stormwater treatment and flow-control facilities. The City will inspect each of these in 2017 for maintenance needs.
- Stormwater public works staff routinely performs spot checks of potentially damaged permanent treatment and flow-control facilities, other than catch basins, after major storm events.
- Implement practices, policies and procedures to reduce stormwater impacts associated with runoff from all municipal lands and associated with municipal operations.
- Update City staff training, as needed
- Inspection and Maintenance Records. The City will continue to work on automating inspection results and maintenance records.
- Catch Basin Inspections. The City anticipates completing the inspection and maintenance requirements by the stated deadline in the Permit.
- The City is planning to upgrade the City's decant facility to provide more efficient stormwater maintenance operations, beginning with design in 2017.

Permit Element S7 - Total Maximum Daily Load (TMDL)

There are no water bodies in the City of Mukilteo with a TMDL. Therefore, no activities are planned under this element.

Permit Element S8.A - Monitoring and Assessment

Goal

The goals of monitoring and assessment under the Permit are to: 1) study recommended BMPs to determine their effectiveness after implementation and through time; 2) monitor freshwaters to determine whether the region is achieving its goal of clean water; and 3) to track and record efforts in stopping pollution sources.

Overview

Section 8 of the Permit covers Status and Trends Monitoring, Effectiveness Studies, and Source Identification and Diagnostic Monitoring (SIDM). 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 will then be used to complete studies of regional significance. In the case of the SIDM, the City is required to pay into a collective fund.

The Stormwater Work Group (SWG), a subgroup of the Puget Sound Ecosystem Monitoring Program identifies objectives for stormwater monitoring. Working with regional input from several municipalities and the general public, the SWG develops an approach to provide information about stormwater impacts and the effectiveness of stormwater management actions. The SWG makes recommendations to Ecology for directed studies and shares the results with Permittees. For more information, see the SWG webpage at www.ecy.wa.gov/programs/wq/psmonitoring/swworkgroup.html.

Opt In Decisions

For this Permit term, The City of Mukilteo opted to contribute to the Regional fund for the Status and Trends Monitoring and Effectiveness Studies for the Permit term. The City will also contribute to the SIDM for the Permit term. No additional stormwater monitoring is expected in 2017.



Estimated NPDES Implementation Costs

NPDES Permit Requirements	2013	2014	2015	2016	2017	2018
S5.A SWMP	\$9,000	\$6,952	\$9,548	\$9,835	\$10,130	\$10,433
S5.C.1 Public Education and Outreach	\$9,000	\$19,270	\$19,548	\$19,835	\$20,130	\$20,433
S5.C.2 Public Involvement	\$22,500 ¹	\$23,175 ¹	\$4,774	\$4,917	\$5,065	\$5,217
S5.C.3 Illicit Discharge Detection and Elimination	\$2,250	\$2,317	\$23,870 ²	\$2,459	\$2,532	\$2,608
S5.C.4 Control Runoff from New Development, Redevelopment and Construction Sites	\$22,500	\$23,175	\$23,870	\$24,586	\$25,324	\$26,084
S5.C.5 Municipal Pollution, Prevention, Operation and Maintenance	\$1,375,284	\$2,996,854 ³	\$1,872,119	\$1,926,051	\$1,911,934	\$1,948,892
S8.A Monitoring		\$13,878	\$13,878	\$13,878	\$13,878	\$13,878
S9 Reporting	\$2,250	\$2,317	\$2,387	\$2,458	\$2,532	\$2,608
Other requirements for PSWQMP	\$7,313	\$7,532	\$7,759	\$7,991	\$8,231	\$8,478
NOI Preparation					\$7,000	
TOTAL ANNUAL COST	\$1,652,598	\$3,095,470	\$2,192,585	\$2,012,010	\$2,006,756	2,038,631

1. Cost is higher the first two years of the permit due to public involvement and participation in the update to the 2015-2021 Stormwater Management Plan
2. Cost is higher in 2015 for the development of the IDDE Program and re-training of all municipal field staff
3. Cost is higher due to additional operations and maintenance requirements (anticipate some grant monies to cover some of these costs)