

**City of Mukilteo**  
**Stormwater Management Program (SWMP)**  
**Plan to fulfill NPDES Requirements**  
**January 2018 – December 2018**

---



Prepared by  
The City of Mukilteo  
11930 Cyrus Way  
Mukilteo, WA 98275

This page intentionally left blank

# Table of Contents

---

Executive Summary .....	i
Permit S5.C.1 - Public Education and Outreach.....	1
Permit S5.C.2 - Public Involvement and Participation.....	3
Permit Element S5.C.4 - Control Runoff from New Development, Redevelopment and Construction Sites .....	4
Permit Element S7 - Total Maximum Daily Load (TMDL) .....	6
Permit Element S8.A - Monitoring and Assessment.....	6
2018 Estimated Costs to Implement NPDES Permit .....	7

## **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 (Permit) since 2007. The current Permit covers the period from August 1, 2013 to July 31, 2018, with an extension to 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. The full Permit can be viewed at Department of Ecology's website:

<https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Municipal-stormwater-general-permits>

### **Purpose of the Annual Stormwater Management Program Plan**

The purpose of the Stormwater Management Program (SWMP) Plan is to outline the City's planned activities for the period between January 1, 2018 and December 31, 2018, as they relate to Permit compliance. The City prepares and posts the draft SWMP Plan with the intent of soliciting public feedback related to those planned activities. 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. As is required, the City submits 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 you can 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 2021. The full plan can be found here: <http://mukilteowa.gov/departments/public-works/surface-water/programs-and-planning>.

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 change behaviors and practices that contribute pollution to our streams and the Puget Sound.

### **Overview**

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, ECOSS, and neighboring municipalities.

### **Education and Outreach 2018 Planned Activities**

To meet the requirement to build general awareness of the general public and businesses in 2018, the City provides these outreach opportunities and educational information.

### **Outreach**

#### Youth stormwater and water quality awareness

Continue partnership with Snohomish County and the 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 continuing its 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 an additional 25 businesses in 2018. Each business participating in the program will receive a no-cost spill kit.

#### Storm Drain Marking and Adopt-a-Drain Program

In 2017, the City launched an outreach/public participation program with community residents to encourage "Only Rain Down the Drain". 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 continue providing drain marking kits and opportunities for interested volunteers.

#### 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 2018, 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 and Snohomish County have been working together to provide a Natural Yard Care training to Mukilteo residents. It is anticipated that trainings will be offered to Mukilteo residents in 2018, at a convenient location. While the training is open to all residents, the City plans to directly mail invitations to approximately ½ of its Single Family Residential homes in the City. Targeted invitations have proven to increase turnout. This program is a continuation of Permit requirement to S5.C.1.c to evaluate one targeted behavior for one target audience in at least one subject. The results from that evaluation are being used to adjust the program and direct resources most effectively.

#### 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.

### **Educational Information**

#### Outreach Branding

The City will pursue creating standardized outreach and education materials with clean stormwater messaging. This effort will include standardized templates for different campaigns. The intent is to have easily modified templates with messaging that resonates with local residents and water quality issues. It is anticipated that these will be used in the future for mobile business outreach, development brochures, and banners.

#### Ongoing messaging for pet waste management and disposal

In 2018, the City will continue with messaging about pet waste management through informational brochures at the City's dog park and other key locations. Stormwater will be providing mutt mitts with stormwater messaging at City park locations in 2018.

#### 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.
- Use Puget Sound Starts Here (PSSH) messaging on stormwater related outreach materials and participate in PSSH programs, as appropriate, and as it resonates with Mukilteo's residents.
- Build general awareness of engineers, contractors, developers, and land use planners, in 2018 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 2018 Planned Activities**

- In 2018, the City will continue offering volunteer opportunities to mark publicly owned storm drains within the City with "Dump No Waste" markers.
- The City will include residents in the stormwater branding effort planned for 2018 (see first bullet above).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 comprised of stormwater. The City has an IDDE hotline, (425) 263-8088, for the public to report suspected illicit discharge activities. The City's drainage inventory is available online.

[\[city.maps.arcgis.com/apps/webappviewer/index.html?id=854d1c26481c40ebac5c7a2b465ac35f\]\(http://mukilteo-city.maps.arcgis.com/apps/webappviewer/index.html?id=854d1c26481c40ebac5c7a2b465ac35f\)](http://mukilteo-</a></p></div><div data-bbox=)

## **Illicit Discharge Detection and Elimination 2018 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, including known discharge points.
- In 2018, 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 known private facilities mapped by the end of 2018.

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

During 2018, 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 will continue to screen its MS4 as part of the annual catch basin and facility inspections.
- The City intends to update its internal Spill Response Plan. It is anticipated that the City will purchase a trailer to house spill materials and equipment for more coordinated spill response. Funding for these purchases will come from an Ecology Capacity Grant.

## **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 Best Management Practices (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 2018 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 flow control and water quality 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 *2014 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 2018 Planned Activities**

- Inspect all municipally owned or operated stormwater facilities. The City has approximately 145 stormwater treatment and flow-control facilities. The City will inspect each of these in 2018 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 inspects every catch basin in the City once every two years, completing maintenance when required.

## **Permit Element S7 - Total Maximum Daily Load (TMDL)**

There are no water bodies in the City of Mukilteo with a TMDL designation. 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 is 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 <http://www.ecy.wa.gov/programs/wq/psmonitoring/swworkgroup.html>

The City’s Stormwater Programs Manager is involved with the Stormwater Work Group, providing local input on the regional efforts.

**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 2018.

**2018 Estimated Costs to Implement NPDES Permit**

<b>NPDES Permit Requirements</b>	<b>2018</b>
<b>S5.A SWMP Administration</b>	\$11,000
<b>S5.C.1 Public Education and Outreach &amp; S5.c.2 Public Involvement</b>	\$69,000
<b>S5.C.3 Illicit Discharge Detection and Elimination</b>	\$41,000
<b>S5.C.4 Control Runoff from New Development, Redevelopment and Construction Sites</b>	\$156,000
<b>S5.C.5 Municipal Pollution, Prevention, Operation and Maintenance</b>	\$1,248,000
<b>S8.A Regional Monitoring Program</b>	\$14,000
<b>Ecology Permit Fees</b>	\$13,000
<b>TOTAL ANNUAL COST</b>	<b>\$1,552,000</b>