

# *Stormwater*

Rain flows across hard surfaces.  
It picks up our pollution.  
The pollution flows to the Sound.



Prepared in fulfillment of NPDES Permit requirements

By

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## **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**

In 1999, the United States Environmental Protection Agency (EPA) created an NPDES Phase II Permit. This Permit requires operators of small Municipal Separate Storm Sewer Systems (MS4s) to obtain coverage, as defined in U.S. Census Bureau urbanized areas. The City of Mukilteo operates an MS4 under this definition.

The City of Mukilteo has been operating under a Phase II Permit since 2007. On August 1, 2019, Ecology issued a new Phase II Permit. The City is operating under this Permit through July 31, 2024 (Permit). 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 text of the 2019 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 Permit requires that all Permittees prepare a Stormwater Management Program (SWMP) Plan. The purpose of the SWMP Plan is to outline the City's planned activities for the upcoming year 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.

The City submits an Annual Report on Permit-related requirements to the Washington State Department of Ecology by March 31st of each year as required by the Permit. The Annual Report is available online, or interested parties can request a copy by calling (425) 263-8083.

## **2020 NPDES Permit Coverage and Planned Activities**

The 2019 Permit is organized differently from the 2013 Permit and contains new requirements. This SWMP Plan covers planned activities for the period January 1, 2020, through December 31, 2020, and follows the organization of 2019 Permit Section 5.C as follows:

- S.5.C.1 – Stormwater Planning
- S.5.C.2 – Public Education and Outreach
- S.5.C.3 – Public Involvement and Participation
- S.5.C.4 – MS4 Mapping and Documentation
- S.5.C.5 – Illicit Discharge Detection and Elimination
- S.5.C.6 – Control Runoff from New Development, Redevelopment and Construction Sites
- S.5.C.7 – Operations and Maintenance
- S.5.C.8 – Source Control Program for Existing Development

Information on Section 7, Compliance with Total Maximum Daily Load Requirements, and Section 8, Monitoring, are also included in this document.

The City's *Comprehensive Surface Water Management Plan*, last updated in 2015, contains policies and goals for the surface water utility on a broad range of topics, through the end of the planning period in 2021. The full plan can be found on the City's website at: <http://mukilteowa.gov/departments/public-works/surface-water/programs-and-planning>.

## **Permit Element S5.C.1 – Stormwater Planning**

### **Overview**

The goal of the Stormwater Planning program is to build on past City efforts to protect and improve receiving water quality and beneficial uses under anticipated future developed conditions. The continuation of this effort will require a multi-disciplinary team and coordination with many of the City's long-range land use plans that are used to accommodate growth or transportation.

### **Stormwater Planning 2020 Planned Activities**

The Permit requires the City to convene an interdisciplinary team no later than August 1, 2020. The City convened such a team in 2019 consisting of the Surface Water Programs Manger, Planning Manager and Assistant City Engineer and meets monthly. This team will change from time to time, as plans are developed and as needs change or new needs are identified.

In 2020, the team will prepare materials in preparation of response to the 2019 Annual Report questions (due March 31, 2020). These questions address how anticipated stormwater impacts on water quality were addressed in updates to all long-range plans (if at all), during the 2013-2019 permit term. Although there was no requirement in the 2013-2019 Permit cycle to update any long-range plans, the City will review the plans adopted in that timeframe to see if, and how, they addressed stormwater impacts on water quality.

The City will engage with a consultant to conduct an evaluation of past watershed planning efforts, including the May 2013 *Mukilteo Watershed-Based Stormwater Strategies Plan*, the December 2014 *Mukilteo Stormwater Retrofit Project Identification and Prioritization Report*, and related retrofit projects that have been completed as recommended in these planning documents.

This evaluation will be compared to current Permit requirements as they relate to *Receiving Water Assessment* (due March 31, 2022), *Receiving Water Prioritization* (due June 30, 2022), and *Stormwater Management Action Plan* (due March 31, 2023) to generate a gap analysis. The gap analysis will identify what further action is required and any additional budget necessary to meet the respective deadlines. The consultant will assist staff in preparing a report that outlines next steps forward to meet the various deadlines and requirements for Stormwater Planning.

## **Permit Element S5.C.2 – Public Education and Outreach**

### **Overview**

There are two goals of the education and outreach program. The first is to build general awareness related to the impacts from polluted stormwater. The second is to affect individual behavior change related to specific practices that contribute pollution to our streams and the Puget Sound.

## **Education and Outreach 2020 Planned Activities**

The City of Mukilteo's education and outreach program has several elements to help residents and business owners understand stormwater pollution as a significant water quality concern.

### **Regional Collaboration**

The City is involved in education programs locally and regionally. The City tailors existing programs to fit our residents' and stormwater needs. Examples of continuing partnerships include: Snohomish County Health District, Snohomish County Surface Water Management, Snohomish Conservation District, ECOSS, and neighboring municipalities through the Stormwater Outreach for Municipalities (STORM) group.

The City's Natural Yard Care Program, Youth Stormwater and Water Quality Awareness classes and Business Outreach Spill Kit program are specific programs that are the direct result of regional collaboration (see below for program details).

### **Stormwater Outreach for Municipalities (STORM) Long-Term Funding Committee**

STORM is a regional work group comprised of municipal Permittees from jurisdictions of all sizes. The STORM work group is led by a steering committee and has several work groups for separate stormwater related outreach topics. STORM meets quarterly, where information is shared across jurisdictions. Mukilteo leverages the expertise that STORM provides through use of educational materials and partnership opportunities in regional campaigns.

STORM has a Coordinator who oversees meeting agendas, trainings, and spearheading regional outreach campaigns. Over many years, the STORM Coordinator position has been temporarily funded with grant monies or other non-stable funding sources. In 2020, STORM has been working to identify secure long-term funding sources, and has convened a committee (the Long-Term Funding Committee) to navigate the process. Mukilteo is a member of the Long-Term Funding Committee (LTF Committee). The value the STORM Coordinator provides is not something the City does have capacity to replace, so it is in the City's interest to support maintaining this position with a stable funding source.

### **General Awareness**

To meet the requirement to build general awareness of the general public and businesses in 2020, the City has identified target audiences and subject areas from the lists provided in the Permit.

#### **Stormwater Branding**

Target Audience: General Public

Subject Area: General impacts of stormwater on surface waters, including impacts from impervious surfaces.

In 2019, the City developed a stormwater logo and graphics to be used in stormwater messaging. In 2020, The City will be creating vehicle wraps using this logo and messaging for

some of its stormwater related equipment. This campaign will further be used to create educational brochures to convey best practices related to many stormwater pollutants. The City will update its website with this new messaging in 2020.

#### *Youth Stormwater and Water Quality Awareness*

Target Audience: Elementary School-Aged Children

Subject Area: General impacts of polluted rain water on surface waters, including impacts from impervious surfaces.

The City will continue its partnership with the Snohomish Conservation District (SCD), through the SCDs Sound Education programs, to provide education at the elementary school level. Topics include lessons titled “Four Drops of Rain”, “It’s not Fido’s Fault!”, “Macro Mayhem”, “Salmon of Puget Sound”, “Water Quality Monitoring with Test Kits”, and “Water Quality Monitoring with Live Benthic Macros”.

#### *Pet Waste Station Messaging*

Target Audience: General Public

Subject Area: General impacts of polluted rain water on surface waters, including impacts from impervious surfaces.

The Stormwater Utility will continue to provide mutt mitts (dog waste bags) with stormwater messaging at City parks and other City-managed pet waste stations.

#### *Table at City Touch-A-Truck Event*

Target Audience: General Public

Subject Area: General impacts of stormwater on surface waters, including impacts from impervious surfaces.

City staff will host a table with information related to water quality and individual actions that can impact water quality. General discussions will be generated with a “prize wheel.” Prizes related to specific Best Management Practices (BMPs) will be distributed to event attendees.

### **Behavior Change**

#### *Natural Yard Care*

The City, in partnership with Snohomish County and other local cities, have provided Natural Yard Care training since 2013. These classes are meant to promote behavior change that benefits water quality. It is anticipated that a new evaluation of the effectiveness of this program will be complete in early 2020. This report will fulfill the requirement in Permit Section 5.C.2.ii(b) to conduct a new evaluation of the ongoing behavior change campaign originally started under Section 5.C.1.c of the 2013 Permit (to evaluate one targeted behavior for one target audience in at least one subject).

The City will use the recommendations from this evaluation to develop a behavior change strategy covering the dates April 1, 2021 through March 31, 2024. This may include



modifications to the existing campaign, offering Natural Yard Care to a new target audience, or identifying a new target audience and developing a new BMP behavior change campaign.

#### *Business Awareness and Outreach*

The City anticipates continuing its partnership with ECOSS in 2020. ECOSS educates businesses on procedures for preventing spills from entering the stormwater network. They help businesses develop a spill response plan that is specific to their business practices. It is anticipated that ECOSS will provide follow-up visits to 25 businesses, and evaluates whether the business shows behavior change related to spill clean up. Each business that participates in the program receives a no-cost spill kit.

### **Stewardship**

#### *Drain Marking Program*

The City will continue to offer its Drain Marking program as a stewardship opportunity for interested groups. The City has kits available that include all of the necessary tools and equipment to apply drain markers within the City. Staff will be evaluating this program in 2020 to identify opportunities to engage additional residents.

#### *Private Stormwater System and BMP Maintenance*

Most of the private stormwater facilities within the City do not fall under the Permit's requirements for the City to inspect for maintenance, due to the age of the infrastructure. As opportunity arises, City staff work with private property homeowners and Homeowner's Associations to educate them on private stormwater BMPs, their maintenance requirements, and the importance of these facilities on the landscape.

## **Permit Element S5.C.3 – Public Involvement and Participation**

### **Overview**

The City’s goal for public involvement and participation is to actively engage its residents, business owners, property owners, and contractors in preservation and protection of clean water. The City achieves this through advisory councils, public hearings, watershed committees, volunteer opportunities, and other avenues for participation as activities arise. In 2020, the City will complete its evaluation of overburdened communities in Mukilteo to make any necessary changes to its SWMP Plan.

### **Public Involvement and Participation 2019 Planned Activities**

#### SWMP Plan Update

Public involvement is sought during development of the SWMP Plan. Residents are encouraged to review and comment on the SWMP Plan by visiting the City of Mukilteo’s website at <http://mukilteowa.gov/departments/public-works/surface-water/stewardship/npdes/>. The final SWMP Plan and the 2019 Annual Report will be posted on the City’s website no later than May 31, 2020.

#### Annual Utility Update to Council

City staff plans to provide a stormwater utility update to City Council in the first quarter of this year. The update includes reports on Permit compliance, as well as other goals and performance measures for the Utility. This update is advertised on the Council Agenda.

#### Storm Drain Marking Program

In 2017, the City launched a public participation program with community residents to encourage “Only Rain Down the Drain.” This program 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 in 2020.

## **Permit Element S5.C.4 – MS4 Mapping and Documentation**

### **Overview**

The goal of the mapping program is to provide continuous improvements and updates to the City’s map of the stormwater network. Accurate mapping helps the utility understand flows in the system, trace illicit connections and spills, and identify discharge locations to natural water bodies. While this Permit element is new in the 2019 Permit, related activities were previously required under the Illicit Discharge Detection and Elimination.

### **Mapping and Documentation 2020 Planned Activities**

Maintain maps of the City’s stormwater drainage system (MS4

- Begin collecting pipe material and pipe size information for all known outfalls by January 1, 2020.
- 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.
- Continue efforts for complete mapping of all known connections from the MS4 to a privately owned stormwater system (scheduled to be complete August 1, 2023).
- Maintain the City’s Stormwater Network Viewer, available on the City’s website at: <https://mukilteowa.gov/maps/interactive-maps/>

## **Permit Element S5.C.5 – Illicit Discharge Detection and Elimination**

### **Overview**

The goal of the illicit discharge detection and elimination (IDDE) program is to prevent, detect, characterize trace and eliminate illicit discharges and connections found in the MS4. This goal is achieved through inspection, education, regulation, and enforcement.

### **Illicit Discharge Detection and Elimination 2020 Planned Activities**

The City will continue to implement its ongoing program to detect and identify non-stormwater discharges and will continue to follow the *Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual* (Herrera, 2013).

Other program elements include:

- Maintain City’s Spill Hotline: (425) 263-8088
- Continue to implement the City’s internal training program
- Continue to screen the City’s MS4 as part of the annual catch basin and facility inspections
- Update the City’s outreach, investigation, and code compliance procedures related to spill response

## **Permit Element S5.C.6 – Control Runoff from New Development, Redevelopment and Construction Sites**

### **Overview**

Permit Section 5.C.6 requires that Mukilteo develop, implement and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities. Controlling runoff from developed properties reduces peak flow flooding, pollutant loading, and other negative freshwater impacts.

### **Control Runoff from New Development 2020 Planned Activities**

- Continue to apply Mukilteo Municipal Code (MMC) Section 13.12.160 to address runoff from new development, redevelopment, and construction site projects. The City requires development projects to meet the Minimum Requirements, thresholds, and definitions of the Appendix 1 of the Permit. This is met by administering the *2014 Stormwater Management Manual for Western Washington* (Ecology Manual) and the City of Mukilteo's *2019 Amendment of the 2017 Development Standards* (DS) for all permitted new development and redevelopment projects.
- 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.
- The City will continue to apply Ecology's maintenance standards in Chapter 4 of Volume V of the Ecology Manual.

## **Permit Element S5.C.7 – Operations and Maintenance**

### **Overview**

The City's goal is implement and document a program that ensures maintenance activities to prevent or reduce pollutant runoff to the maximum extent practicable, including stormwater facility maintenance and other non-stormwater related maintenance activities.

### **Municipal Operations and Maintenance 2020 Planned Activities**

- The City will follow the maintenance standards of Chapter 4.6 of Volume V of the Ecology Manual, and the *Green Stormwater Operations and Maintenance Manual* (Seattle Public Utilities, 2009) using the timeframes for maintenance found in the Permit.

#### Maintenance of Stormwater Facilities:

- MMC 13.12.160 will be applied to verify adequate long-term operation and maintenance (O&M) of stormwater treatment and flow control facilities.
- Continue annual facility and BMP inspections for stormwater treatment and flow control BMPs/facilities permitted prior to July 29, 2009 (the date the City began permitting projects in accordance with the 2007 Permit).
- Inspect all municipally owned or operated stormwater facilities. The City has approximately 145 stormwater treatment and flow-control facilities. The City Public Works operations staff will inspect each of these in 2020 to identify maintenance needs.
- Public Works operations staff routinely perform spot checks of potentially damaged permanent treatment and flow-control facilities, other than catch basins, after major storm events.
- Public Works operations staff will inspect 50% of the City's owned or operated catch basins and addressing any maintenance deficiencies.
- Staff will continue to follow their practices, policies and procedures to reduce stormwater impacts associated with runoff from all municipal lands and associated with municipal operations. Draft documentation of these practices will be developed in 2020.

- City staff training will be updated as needed, according to the City’s Training Program.
- The City Public Works facility will continue to operate according to the Surface Water Pollution Prevention Plan (SWPPP). Operations staff inspect the facility quarterly, in accordance with the SWPPP.

## **Permit Element S5.C.8 – Source Control for Existing Development**

### **Overview**

Source Control for Existing Development is a new Permit requirement. The goal of the source control program for existing development is to provide technical assistance to business that have the potential to pollute. This assistance will be aimed at implementing operational BMPs or treatment facilities, where warranted.

### **Municipal Operations and Maintenance 2020 Planned Activities**

This program does not yet exist in Mukilteo. In 2020, staff will develop an initial inventory list of businesses that meet the criteria of Permit Appendix 8. Staff will use this inventory to identify work load, additional funds and/or staffing levels needed to meet this new Permit requirement.

## **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 – Monitoring and Assessment**

### **Overview**

The goals of monitoring and assessment under the Permit are to: 1) study small streams and marine nearshore areas to track long term trends in water quality and 2) study the effectiveness of the elements required under the SWMP.

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 1) conduct its own qualifying Status and Trends Monitoring and/or Effectiveness Studies, or 2) 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: <https://ecology.wa.gov/Regulations-Permits/Reporting-requirements/Stormwater-monitoring/Stormwater-Action-Monitoring>

### **Opt-In Decisions**

The City of Mukilteo will make annual payments into the collective fund for both Regional Status and Trends Monitoring and SWMP Effectiveness and SIDM Studies. No additional stormwater monitoring is expected in 2020.

This draft SWMP Plan will be available for comment through March 2, 2020. The final document is required by March 31, 2020, and will be available on the City's website at <https://mukilteowa.gov/departments/public-works/surface-water/stewardship/npdes/>.