

City of Ferndale  
2019 Stormwater Management Program

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This document is formatted as a response to specific special conditions within the “Western Washington Phase II Municipal Stormwater Permit” (Permit) that authorizes the City of Ferndale to discharge stormwater to the waters of the State of Washington. The titles of the sections and sub-sections match those of the Permit. Per the Permit, this program summary will be updated each year and will be available to the public. (S5.C.2b) Participation and comments are welcome and may be directed to City of Ferndale Stormwater staff.

Redlines in this document reflect the proposed language in the Draft Western Washington Phase II Municipal Stormwater Permit to be issued July 1, 2019 and made effective August 1, 2019.

**S5.C.1 Comprehensive Stormwater Planning**

The City shall implement a Comprehensive Stormwater Planning program to inform and assist in the development of policies and strategies as a water quality management tool to protect aquatic resources. The City shall conduct a similar process and consider the range of issues outlined in the Stormwater Management Action Planning Guidance (Ecology, 2018). The City will convene an interdisciplinary team to inform and assist in the development, progress, and influence of this program.

The minimum performance measures are:

- a. Coordination with long-range planning updates
- b. Low Impact Development code-related requirements
- c. Stormwater Management Action Planning

**S5.C.1 Public Education and Outreach**

**S5.C.2 Public Education and Outreach**

The goal of the education and outreach program is to: Build general awareness about methods to address and reduce impacts from stormwater runoff; Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts; and encourage the public to participate in stewardship activities. The education and outreach program is designed to achieve measurable improvements in the target audience’s understanding of the problem and what they can do to solve it.

The City measures the understanding and adoption of the target behaviors among the targeted audiences. The resulting measurements are used to direct education and outreach resources

most effectively, as well as to evaluate changes in adoption of the targeted behaviors.  
(S5.C.1.b)

The City tracks and maintains records of public education and outreach activities. (S5.C.1.c)

**GENERAL AWARENESS:**

**Target Audience: General Public (including school age children), and businesses (including home-based and mobile businesses)**

**Subject Areas:**

- General impacts of stormwater on surface waters
- Impacts of impervious surfaces
- Impacts of illicit discharges and how to report them
- Low impact development (LID) principles and LID Best Management Practices (BMPs)
- Opportunities to become involved in stewardship activities

*Plans for 2019:*

Staff maintains resources on the City’s website about the impacts of stormwater on surface waters. Staff will explore opportunities to partner with Ferndale schools to assist in the City’s Water Quality Monitoring Program. Staff makes school presentations upon request, provides “Dump No Waste – Drains to Stream” stenciling kits for classrooms, and helps to coordinate volunteer work such as noxious weed removal and native planting on City property/parks. Opportunities for public involvement in clean-up and restoration projects organized by local organizations will be published on the website.

**Target Audience: Engineers, contractors, developers, and land use planners**

**Subject Areas:**

- Technical standards for stormwater site and erosion control plans
- LID principles and LID BMPs
- Stormwater treatment and flow control BMPs/facilities

*Plans for 2019:*

Staff will work with engineers, contractors, developers, and land use planners during the development permit and construction processes to enforce the stormwater ordinances and continue education and assistance regarding erosion control, and Low Impact Development Best Management Practices.

**SPECIFIC BEHAVIOR CHANGE:**

**Target Audience: General public (which may include school age children), businesses (including home-based and mobile businesses):**

**Subject Areas:**

- Use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials
- Equipment maintenance
- Prevention of illicit discharges

*Plans for 2019:*

Staff will work to raise awareness among local businesses of measures to reduce illicit discharges and pollutant runoff to the storm system by engaging with Whatcom County Health Department Source Control staff to provide voluntary Pollution Prevention Assistance visits. The City's Charity Carwash Kit Loan Program is promoted on the City's website.

**Target Audience: Residents, landscapers, and property managers/owners:**

**Subject Areas:**

- Yard care techniques protective of water quality
- Use and storage of pesticides and fertilizers and other household chemicals
- BMPs for carpet cleaning and auto repair and maintenance
- Carpet cleaning and auto repair and maintenance
- Vehicle equipment and home/building maintenance
- Pet waste management and disposal
- LID principles and LID BMPS
- Stormwater facility maintenance
- Dumpster and trash compactor maintenance
- Litter and debris prevention
- Sediment and Erosion Control
- Audience specific Source control BMPs

*Plans for 2019:*

Staff maintains links to resources on these topics on the City's stormwater page. Much of the education for residents is through the annual stormwater facility inspections conducted by City staff, or voluntary assistance visits for property managers/owners. An emphasis on pet waste management and disposal will continue in 2019 to track understanding of the impacts on storm and surface waters, and behavior changes from increased awareness.

### **S5.C.2 Public Involvement and Participation**

### **S5.C.3 Public Involvement and Participation**

The City provides opportunities to participate in the decision-making process involving the development, implementation, and update of the SWMP. In addition, public hearings are held for all ordinances adopted by City Council. The annual report and the SWMP are available online and in City Hall.

### **S5.C.4 MS4 Mapping and Documentation**

This section of the permit will be separate from the Illicit Discharge Detection and Elimination requirement in the 2019-2024 Municipal Permit and will address:

- a. Ongoing Mapping
- b. New Mapping
- c. Electronic map format with fully described mapping standards

### **S5.C.3 Illicit Discharge Detection and Elimination**

#### **S5.C.5 Illicit Discharge Detection and Elimination**

The City's program to detect and remove illicit connections and discharges into the municipal separate storm sewers owned or operated by the City is ongoing.

The program includes:

#### **Ferndale Stormwater System Map (S5.C.3.a)**

The Municipal Separate Storm Sewer System (MS4) map will be periodically updated and will include the following:

- Known MS4 outfalls and known MS4 discharge points
- Receiving waters, other than ground water
- Stormwater treatment and flow control BMPS/facilities owned or operated by the Permittee
- Tributary conveyances to all known outfalls and discharge points with a 24 inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems. The following attributes are mapped:
  - Tributary conveyance type, material and size where known
  - Associated drainage areas
  - Land use
- All connections to the MS4 authorized or allowed by the Permittee after February 16, 2007

- Connections between the MS4 owned or operated by the Permittee and other municipalities or public entities
- Geographic areas served by the Permittee's MS4 that do not discharge stormwater to surface waters

*Plans for 2019:*

Staff will continue to fill in existing data gaps in the stormwater inventory and update the stormwater layers of the City's GIS as development/redevelopment occurs, and will begin the process of moving to electronic field inspection forms and inventories utilizing mobile technology and GIS applications.

Prohibited Discharge Ordinance (S5.C.3.b)

This ordinance was developed to prohibit non-stormwater or other illegal or illicit discharges to the City's storm sewer system and includes enforcement provisions.

Illicit Discharge Detection and Elimination Program Manual (S5.C.3.c)

The City developed an Illicit Discharge Detection and Elimination Program Manual (available upon request) in 2011 to assist City staff in implementing the IDDE program.

Procedures:

The purpose of the procedures outlined in the manual is to detect and address non-stormwater discharges, including spills, and illicit connections into the City's storm sewer system.

The City has publicly listed and publicized an illicit discharge hotline for public reporting of spills and other illicit discharges. That number is 360-685-2357. The City keeps records of calls received and follow-up actions taken.

The City ensures that all municipal field staff responsible for identification, investigation, termination, cleanup, and reporting illicit discharges, including spills, improper disposal, and illicit connections are trained to conduct these activities. Follow-up training shall be provided as needed to address changes in procedures, techniques or requirements. The City documents and maintains records of the training provided and the staff trained.

*Plans for 2019:*

Staff will update the Illicit Discharge Detection and Elimination Program manual as necessary, and provide training to, and solicit feedback from, operations and maintenance staff during field work and investigation. Staff will attend the IDDE Programs and Field Methods feedback workshop for updates to the Illicit Connection and Illicit Discharge Field Screening Manual. **In order to provide consistent data, the City will implement the mandatory WQWebIDDE Water Quality Portal application for reporting responses to illicit discharge reports.**

The City shall inform public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste.

#### **S5.C.4 Controlling Runoff from New Development, Redevelopment and Construction Sites**

#### **S5.C.6 Controlling Runoff from New Development, Redevelopment and Construction Sites**

The goal of this program is to reduce pollutants in stormwater runoff in the City from new development, redevelopment, and construction site activities. The program applies to private and public development, including roads.

The program includes:

##### Stormwater Control Ordinance (S5.C.4.a)

The ordinance addresses runoff from new development, redevelopment, and construction site projects. The City has adopted the current Department of Ecology Stormwater Management Manual for Western Washington, as amended by Sections 1-6 of Appendix 1 of the Western Washington Phase II Municipal Stormwater Permit, as the City's technical stormwater reference manual.

##### Procedures

The program includes a permitting process with plan review, inspection, and enforcement capability to meet the standards, which is detailed in the ordinance. The program also includes keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities are maintained. Copies of the "Notice of Intent for Construction Activity" and "Notice of Intent for Industrial Activity" available through the City's website to representatives of proposed new development and redevelopment. The City continues to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.

The City ensures that all staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Follow-up training will be provided as needed to address changes in procedures, techniques, or staffing.

##### *Plans for 2019:*

City staff will continue to review all development and redevelopment, and inspect all construction sites to ensure compliance. Ongoing training will be provided to staff regarding permitting, plan review, construction site inspections, enforcement, best management practices, and Low Impact Development.

## **S5.C.5 Municipal Operations and Maintenance**

### **S5.C.7 Operations and Maintenance**

The goal of this program is preventing or reducing runoff from City facilities.

The program includes the following procedures:

Annual inspection of all City-owned or operated permanent stormwater treatment and flow control facilities, and taking appropriate maintenance actions in accordance with the adopted maintenance standards. The annual inspection requirement may be reduced based on inspection records.

Spot checks of potentially damaged permanent treatment and flow control facilities (other than catch basins) after major (greater than 24-hour-10-year recurrence interval rainfall) storm events. If spot checks indicate widespread damage/maintenance needs, inspect all stormwater treatment and flow control facilities that may be affected. Conduct repairs or take appropriate maintenance action in accordance with maintenance standards as required.

Cleaning of all catch basins and inlets owned or operated by the City once before the end of the NPDES Permit term. Visual inspection during cleaning will determine if maintenance action is necessary.

Practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways owned or maintained by the City, and road maintenance activities conducted by the City. The following activities are addressed by our Public Works crew:

- Pipe cleaning
- Cleaning of culverts that convey stormwater in ditch systems
- Ditch maintenance
- Street cleaning
- Road repair and resurfacing, including pavement grinding
- Snow and ice control
- Utility installation
- Pavement striping maintenance
- Maintaining roadside areas, including vegetation management
- Dust control

Policies and procedures to reduce pollutants in discharges from all lands owned or maintained by the City, include but not limited to:

- Parks
- Open space
- Road right-of-way
- Maintenance yards
- Stormwater treatment and flow control facilities

Policies and procedures address, but are not limited to:

- Application of fertilizer, pesticides, and herbicides, including the development of nutrient management and integrated pest management plans
- Sediment and erosion control
- Trash management
- Building exterior cleaning and maintenance
- Landscape Management and Vegetation Disposal

On-going training program for employees of the City whose construction, operations, or maintenance job functions may impact stormwater quality. Follow-up training will be provided as needed to address changes in procedures, techniques, or requirements.

The City of Ferndale developed a Stormwater Pollution Prevention Plan (SWPPP) for the Public Works Operations Shop, Parks Yard, and Vactor Decant Area. A schedule for implementation of structural BMPs is included in the SWPPP. The SWPPP includes periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMPs.

*Plans for 2019:*

City Public Works staff will continue to clean the stormwater system in zone areas by vactoring catch basins, jetting conveyance, and maintaining ditches. All stormwater facilities receive routine inspection and maintenance in the summer and the Thornton Street bioswale is maintained monthly by a consultant. A contract has been executed to design a covered structure for the stormwater decant with grant assistance from the Washington State Department of Ecology.

**S5.C.8 Source Control Program for Existing Development**

Implement a program to prevent and reduce pollutants in runoff from areas that discharge to the City's municipal separate storm system (MS4). This shall include:

- a. An ordinance requiring the application of source control best management practices (BMPs) for identified pollutant generating sources associated with existing land uses
- b. The identification, inventory, and inspection of publicly and privately owned commercial and industrial properties which have the potential to generate pollutants to the City's MS4
- c. A program to provide information about activities that may generate pollutants and the source control requirements applicable to those activities



- d. A progressive enforcement policy that requires sites to comply with stormwater requirements in a reasonable period of time

### **S7. Compliance with Total Maximum Daily Load Requirements (TMDL)**

*Name of TMDL:* Nooksack River Watershed Bacteria

*Area where TMDL Requirements Apply:* TMDL coverage includes areas draining to the Nooksack River or its tributaries between Cedarville and Marine Drive.

*Parameter:* Fecal coliform

*Action Required:*

1. Once the City of Ferndale reduces fecal coliform bacteria below state water quality standards in the current outfall sampling area, the City of Ferndale should designate a new representative area for continued fecal coliform sampling at MS4 outfalls.
2. With each annual report, the City of Ferndale shall submit an up to date Stormwater Capital Improvement plan to address existing deficiencies in the stormwater treatment and conveyance system.

*Plans for 2019:*

The City will continue to execute the Quality Assurance Project Plan (QAPP) for Stormwater Quality Monitoring for Fecal Coliform Bacteria. Staff will continue with enforcement as necessary (see Illicit Discharge Detection and Elimination). Each year staff works to develop and implement the stormwater capital improvements plan.

### **S8. Monitoring and Assessment**

The City conducts water quality monitoring required for compliance with TMDLs, pursuant to section S7 Compliance with Total Maximum Daily Load Requirements.

The City provides the following information in each annual report:

- A description of any stormwater monitoring or studies conducted by the City during the reporting period.

*Plans for 2019:*

The City will continue to execute the QAPP via the Water Quality Monitoring Program. The City has paid into the collective fund to implement the following Regional Stormwater Monitoring Programs (RSMPs):

- Status and Trends Monitoring in small streams and marine nearshore status and trends monitoring in Puget Sound

- Effectiveness Studies including source identification and diagnostic monitoring/Source Identification Information Repository (SIDIR)

The City will continue to pay into a collective fund to implement regional receiving water status and trends (S8.A.2.a), and into the collective fund to implement effectiveness studies and source identification studies (S8.B.1).