

City of Ferndale
2018 Stormwater Management Program

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.

S5.C.1 Public Education and Outreach

The goal of the education and outreach program is 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 2018:

Staff will continue to update the City’s website and mail the “Stormwater Solutions” newsletter on a semi-annual basis. The City of Ferndale is a member of the Whatcom Water Alliance (WWA), Stormwater Outreach for Regional Municipalities (STORM), and Education Communication Network (ECO Net). Staff will continue to attend meetings which include

brainstorming and implementing ways to involve and educate the public on water quality and quantity issues. 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 2018:

Staff will continue to work with this audience during the development permit and construction processes to enforce the stormwater ordinances and continue education and assistance regarding 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 2018:

The City will continue to partner with the Whatcom County Health Department and Ferndale Prevention Network to promote the Pharmaceutical Take Back Program and specific “Take Back” Events. The City’s Charity Carwash Kit Loan Program is promoted on the City’s website.

Staff will continue to partner with the Nooksack Salmon Enhancement Association and Windward High school in our Water Quality Monitoring Program. Staff makes school presentations upon requests, provides stenciling kits for classrooms, and helps to arrange volunteer work such as noxious weed removal and native planting on City property/parks.

Staff will continue to work with local businesses to avoid contaminating the storm system via the Prohibited Discharge Ordinance and partner with the Whatcom County Health Department Source Control staff to bring businesses into compliance through voluntary Pollution Prevention Assistance visits and enforcement action.

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

Plans for 2018:

Staff maintains references on the City's stormwater page. Much of the education for this target audience is done through the required annual stormwater facility inspections done in the spring of each year. Staff will continue to educate applicants and owners about Low Impact Development.

S5.C.2 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.3 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.3a)

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 2018:

Staff will continue to update the map as development/redevelopment occurs. City staff will continue to use the GPS purchased partially with Ecology grant funds in 2016 to fill in existing data gaps in the stormwater inventory.

Prohibited Discharge Ordinance (S5.C.3b)

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.3c)

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 360-685-2375. 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 2018:

Staff will update the Illicit Discharge Detection and Elimination Program manual as necessary, and engage with staff to provide training and encourage feedback from operations and maintenance during field work and investigation.

S5.C.4 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.4a)

The ordinance addresses runoff from new development, redevelopment, and construction site projects. The City has adopted the current Department of Ecology's 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 2018:

City staff will implement an infiltration feasibility study technical report to provide information regarding subsurface geology and infiltration potential for Low Impact Development infiltrating Best Management Practices.

S5.C.5 Municipal Operations and Maintenance

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 best practices and Low Impact Development.

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 has a Stormwater Pollution Prevention Plan (SWPPP) for the Public Works Operations Shop 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 2018:

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.

The design of a covered structure for the stormwater decant is scheduled to begin with grant assistance from a WA Department of Ecology.

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 2018:

The City will continue to execute the QAPP. 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 2018:

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)