

CITY OF POULSBO

2018 Update

Stormwater Management Program (SWMP)



AS REQUIRED BY

The Western Washington Phase II Municipal Stormwater Permit
State of Washington Department of Ecology

PERMIT # WAR 04-5537

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Introduction to the Stormwater Management Program (SWMP)



1.1 Purpose

This document describes the *City of Poulsbo Stormwater Management Program - 2018 Update* (SWMP) as required under condition S.5 of the Western Washington Phase II Municipal Stormwater Permit (permit). The SWMP is designed to reduce the discharge of pollutants from the City's municipal separate storm sewer system (MS4) to the maximum extent practicable and to protect the water quality of local streams and Liberty Bay which receive stormwater runoff from the MS4.

The permit requires the creation and implementation of a Stormwater Management Program which addresses five required program elements and, when applicable, Total Maximum Daily Load requirements for the receiving waters.

Together with the City's Comprehensive Stormwater Management Plan, the SWMP is used to assist the City in planning, funding, and implementing a comprehensive program for addressing various issues related to stormwater.

1.2 Background

The federal Clean Water Act (CWA) of 1972 established water quality goals for the surface waters of the United States. In 1987, Congress amended the CWA to address stormwater. One of the mechanisms for achieving the goals of the act is the National Pollutant Discharge Elimination System (NPDES) permit program, which is administered by the Environmental Protection Agency (EPA). The agency delegated responsibility to administer the NPDES permit program to most states, including the State of Washington Department of Ecology.

[The NPDES Program](#)

The National Pollutant Discharge Elimination System (NPDES) was created to protect and restore water quality in surface waters such as bays, lakes, rivers, and streams to support “beneficial uses” such as fishing and swimming. Governmental and private entities wishing to discharge water or wastewater to surface waters regulated by the Federal Government (Waters of the United States) must obtain permits and comply with certain conditions or face fines and other penalties.

The CWA established a two-phase permit program. Phase I covered large and medium-sized municipalities and counties, construction sites ≥ 5 acres, and major industrial sources. Later, Phase II covered smaller jurisdictions, construction sites ≥ 1 acre, and certain other industrial runoff. In 2000, the Environmental Protection Agency finalized the NPDES Phase II rules regulating "small" municipal separate stormwater sewer systems. The Phase II small jurisdictions, such as Poulsbo, are those with populations less than 100,000 located within, or partially within, an urbanized area and that operate a municipal separate storm sewer system which discharges to a water of Washington State.

In Washington, the Phase I permit was issued in 1995 to the cities of Seattle and Tacoma, as well as King, Pierce, Snohomish and Clark (in 1999) counties. On January 17th, 2007, the Department of Ecology issued a new Phase I permit and two new Phase II permits, one each for Western and Eastern Washington.

[The Western Washington Phase II Municipal Stormwater Permit](#)

The permit is intended to reduce the impacts from both point source and non-point source pollution carried by stormwater. Non-point source pollution, unlike point source pollution from sewage treatment and industrial plants, comes from many diffuse sources. Non-point source pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even underground sources of drinking water. Some non-point source pollutants that occur in urban areas include:

- Excess fertilizers, herbicides, and insecticides from lawns, gardens, or other landscaped areas
- Oil, grease, and toxic chemicals in runoff from city streets
- Sediment from improperly managed construction sites and eroding stream banks
- Soaps and pollutants from car washing
- Bacteria and nutrients from pet wastes and faulty septic systems

An NPDES permit allows municipalities to discharge stormwater from municipal systems into "waters of the state" subject to specific terms and requirements. The permit requires programs to be established and implemented which reduce pollutants in stormwater to the "maximum extent practicable".

The first Phase II Municipal Stormwater Permit for Poulsbo became effective on February 16, 2007 with a term of 5 years. Legislative changes and delays in reissuance by the Department of Ecology resulted in a one-year permit from August 1, 2012 through July 31, 2013. A new five-year permit was issued with an effective

date beginning on August 1, 2013. The Department of Ecology has extended the expiration date to July 31, 2019.

The permit requires development and implementation of a Stormwater Management Program (SWMP) which is described in this document.

1.3 SWMP Requirements

The permit outlines stormwater program activities and implementation milestones that permittees must follow to comply with the federal Clean Water Act. Permittees must:

- Develop a Stormwater Management Program (SWMP) that includes all the required activities in the permit and is designed to reduce the discharge of pollutants to the maximum extent possible;
- Implement those activities within the required timeframes of the permit term;
- Submit annual reports to the Department of Ecology by March 31st of each year to document program implementation in the previous calendar year;
- Submit an annual SWMP update to the Department of Ecology;
- Post the Annual Report and SWMP on the City's website. Provide an opportunity for the public to comment on the SWMP.

1.4 Stormwater Management in Poulsbo

Poulsbo has a population of approximately 10,510 (2017 Washington State OFM data) and an area of approximately 4.6 square miles. The natural drainage system consists of portions of the creek basins for Dogfish, Lemolo, Johnson and Bjorgen creeks, as well as several other drainage courses that discharge directly to Liberty Bay.

The City established a dedicated funding mechanism for stormwater management with the creation of a stormwater utility in 1981 (ORDINANCE 81-25). As part of the City's Comprehensive Plan, a Capital Improvement Plan (CIP) for stormwater is developed and routinely updated to address needed stormwater infrastructure improvements.

The permit and the SWMP are administered under the supervision of the City Engineer but multiple departments are involved in implementation. The Stormwater Operations and Maintenance Division of the Public Works Department manages and maintains the City's stormwater collection and conveyance system. The Engineering Department manages Capital Improvement Projects and reviews plans and inspects the construction of stormwater facilities associated with both public and private

development. The Planning Department implements land use regulations that are related to stormwater management. The City also cooperates and coordinates with neighboring jurisdictions and regional partners to maximize permit implementation opportunities.

The document will continue to evolve to reflect future permit requirements as well as current and planned activities. The inclusion of planned activities in the SWMP does not guarantee that they will be implemented exactly as described; however, the City of Poulsbo is committed to maintain compliance with the permit through current activities and implement future activities to the maximum extent possible with available funding and staff resources.

1.5 SWMP Elements

The permit requires the City to conduct activities and implement programs in the following areas:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment, and Construction Sites
- Pollution Prevention and Operations and Maintenance for Municipal Operations
- Total Maximum Daily Load Requirements (TMDL)
- Monitoring and Assessment

1.6 Document Organization

This document is organized to correspond with the sequence of the permit elements. Each permit element is identified by title and permit element number and is followed by the permit requirements and the City's current and planned activities. Current activities may include ongoing activities that were implemented in previous years.

2

Public Education and Outreach

Permit Requirement S5.C1



2.1 Permit Requirements

- Develop education and outreach programs that are designed 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 program may be developed and implemented locally or regionally.
- Target audiences and subject areas shall be selected from the permit to build general awareness about stormwater issues and effect behavior changes. Audiences can include the general public (including school age children), businesses, engineers, contractors, developers, land use planners, residents, landscapers, and property managers.
- Create stewardship opportunities or provide for them by partnering with existing organizations.
- Measure changes in the understanding and adoption of behaviors of targeted audiences. Use the resulting information to evaluate the changes and direct resources most effectively.

2.2 Current Activities

- Since 2008, the City of Poulsbo has partnered with Kitsap County (as the lead agency), the cities of Bremerton, Port Orchard, and Gig Harbor, and local Navy bases through an Inter-Local Agreement (ILA) to provide a mechanism for the members to pool resources for the development, implementation, and funding of stormwater education and outreach. Coordination among permittees with adjoining or shared geographic areas is encouraged by the Department of Ecology and enhances access to federal, state, and other financial and technical support. Kitsap peninsula residents share media sources and benefit from consistent messaging across city and county boundaries. The ILA allows an increase in municipal resource efficiency and cost savings through the sharing of expertise, expenses, and staff time. The ILA supports an economy of scale and avoids a duplication of efforts.

In 2012, the cities of Bainbridge Island and Port Angeles joined the partners and the group name changed from the Kitsap Peninsula Clean Runoff Collaborative to the West Sound Stormwater Outreach Group (WSSOG). The name change better represents the regional scope of the members and is consistent with the naming of other Stormwater Outreach Groups (SOGs) throughout the Puget Sound region.

- As the lead agency of WSSOG, Kitsap County represents the City of Poulsbo and the other WSSOG members in the Puget Sound STORM (STormwater Outreach for Regional Municipalities) coalition. STORM is a partnership of over 80 Puget Sound area cities and counties that have worked together since 2008 to address polluted stormwater runoff by advancing broad-scale behavior changes by the people who live and work in the Puget Sound basin and to ensure that regional and local stormwater education outreach efforts are effective, consistent, and cost efficient.

STORM received a Department of Ecology grant to implement a broad-reaching media campaign, called Puget Sound Starts Here (PSSH), to raise citizen awareness of stormwater issues such as yard care, pet waste, and car care. The regional education efforts of STORM and the local education efforts of the WSSOG are designed and implemented to coordinate with, and complement, each other.

Promotion of the Puget Sound Starts Here program has included distribution of drink coasters and coffee-sleeves to local restaurants, bars, and coffee shops since 2012. This promotion has been well-received and is continuing. Video messaging continues to be shown prior to movies at various theaters, including in Poulsbo, during the summer.

- Local outreach efforts continue to be informed by groundwork efforts which began in 2008 when the WSSOG contracted with Elway Research, Inc. to conduct a random-sample telephone survey of Kitsap peninsula residents to assess their awareness, attitudes, and behaviors regarding various water quality issues. The results of the survey are used to prioritize topics and systematically target public education efforts and provide a baseline for the evaluation of program effectiveness. Periodic follow-up surveys are used to evaluate changes in the attitudes and behaviors of residents and to gain a better understanding of the effectiveness of the education and outreach. WSSOG educational efforts are designed to allow for measurement of improvements in the target audience's understanding and actions regarding stormwater pollution prevention.
- When appropriate, focus groups are conducted to discover how best to communicate about stormwater issues. For example, focus groups were conducted on how to best communicate the phone number and use of a telephone hotline to report pollution.

- A storm drain marker program is on-going with the intent to install markers throughout the City. The markers indicate that the storm drain flows to Puget Sound and provides the phone number for the pollution reporting hotline.
- Development, adaptation, expansion, and/or revision of educational print documents is on-going. For example, a pressure washing brochure was expanded to specifically address roof cleaning, a prevalent pollution source in our region.
- Outreach for pet waste continues and the City participates in the "Mutt Mitt" program administered by the Kitsap County Public Works and the *Clean Water Kitsap* program. Mutt Mitt stations which dispense pick-up bags for dog waste can be sponsored by:
 - Neighborhood groups, homeowner's associations, & apartment complexes
 - Volunteer or non-profit groups with maintain public trails, beaches, or other public facilities
 - Port districts and marinas

The City also owns and maintains stations in its parks. There are currently 41 stations in Poulsbo.

- In addition to the distribution of educational materials associated with WSSOG campaigns, materials are also provided to individuals and groups in response to inquiries or water quality incidents. Information distribution takes numerous forms such as mailings, print and digital media, displays & kiosks, outdoor banners, signage on buses and ferries, workshops, events, and giveaways with messaging (such as pet leash bag dispensers, magnets, pens, flashlights, bandanas, and paint sticks).
- The City's website contains information about stormwater and the stormwater program. Maintenance and expansion of information is on-going.
- The Local Source Control (LSC) programs of the Kitsap County Solid Waste Division and the Kitsap County Health District have provided technical assistance to businesses that will help them prevent pollution and properly manage any waste they generate. The City cooperates with the LSC programs by providing requested information and recommendations for contacts.
- The message area on utility bills provide an on-going opportunity for stormwater education messages as well as on the City's Facebook page.
- As part of the ILA with WSSOG, stormwater education specialists from Kitsap County Public Works present accredited lessons in the Poulsbo schools.

- An ILA with the Kitsap Conservation District encourages local stewardship and supports opportunities for engagement with the public.

2.3 Planned Activities

- The current activities described in the previous section are expected to continue.
- The WSSOG 2018 Work Plan includes the following:

Sustain successful efforts:

- Continue Pet Waste Outreach
 - ▲ Continue to implement Backyard Pet Waste Education & Outreach Plan
 - ▲ Continue to implement updated Mutt Mitt Education & Outreach Plan
- Sustain Mutt Mitt Program and increase number of stations
- Plan for sustained Hotline Outreach
- Track illicit discharge detection and elimination campaign research and development from STORM, participate if appropriate and update WSSOG plan as applicable
- Continue to implement paint stick distribution for pollution prevention and spill hotline messaging

New education campaign development:

- Create and implement a Natural Yard Care Outreach Plan
- Participate in STORM's Natural Yard Care workgroup and implement to the extent applicable and appropriate for WSSOG
- Monitor the progress of other jurisdictions' Natural Yard Care campaigns and adapt elements as appropriate
- Participate in STORM's Mobile Business workgroup and implement to the extent applicable and appropriate for WSSOG
- Monitor the progress of other jurisdictions' mobile business campaigns and adapt as appropriate

Other opportunities:

- Puget Sound Starts Here (PSSH) Month in May with possible additional fall campaign and evaluation
- Don't Drip and Drive campaign

- Cinema ads
 - School lessons
 - Pilot field monitoring programs with High School and Elementary students
 - Create and implement messaging for developers about new LID requirements
 - Strengthen coalition and represent WSSOG on regional efforts
 - Capacity building/training as needed
 - STORM & PSSH support and participation
 - Provide feedback to STORM on the PSSH website
-
- Add and update stormwater information pages and links on the City's website.
 - Expand the storm drain marker program to additional neighborhoods and commercial properties.
 - Continue participation in the Puget Sound Starts Here regional education program as administered through the STORM coalition (SStormwater Outreach for Regional Municipalities.) Participate, as appropriate with STORM workgroups such as the Mobile Business Outreach, Low Impact Development/Green Stormwater Infrastructure, and Dumpster workgroups
 - Provide outreach to the local business community informing business owners and their employees of their responsibilities related to water quality protection. Development of a Best Management Practices Manual for Businesses is planned to facilitate this effort.
 - Look for opportunities to develop partnerships with existing organizations to provide stewardship opportunities locally.
 - Participate in events such as the annual Kitsap Humane Society PetsWalk or Salmon Viewing Day by providing educational materials and/or activities.

3

Public Involvement and Participation

Permit Requirement S5.C.2



3.1 Permit Requirements

- Provide opportunities for public involvement through advisory councils, public hearings, watershed committees, participation in developing rate structures, or other similar activities. Opportunities shall be created for the public to participate in the decision-making processes involving the development, implementation, and update of the SWMP.
- Make the SWMP document and Annual Report to the Department of Ecology available to the public, including posting on the City's website. All other submittals shall be available to the public upon request.

3.2 Current Activities

- Public hearings are held for any legislative actions such as proposed stormwater utility rate structure revisions and Comprehensive Plan updates or amendments.
- Opportunities for citizen comments are available at meetings of the City Council, Planning Commission, Public Works Committee (a sub-committee of City Council members and staff), Open House meetings, and stakeholder meetings.
- The Annual Report, SWMP, and Comprehensive Land Use Plan are posted on the City's website. Notice is given on the website requesting comments on the SWMP.

3.3 Planned Activities

- Develop additional public involvement and participating opportunities when appropriate or applicable and when funding and staffing resources are available.

4

Illicit Discharge Detection and Elimination (IDDE)

Permit Requirement S5.C.3



4.1 Permit Requirements

- Develop an ongoing program to detect and identify non-stormwater discharges and illicit connections into the municipal stormwater system. The program must:
 - Include procedures for conducting investigations of the stormwater system, including field screening and methods for identifying potential sources
 - Include procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges found by, or reported to, the City
 - Include procedures for tracing the source of an illicit discharge
 - Include procedures for eliminating the discharge, including notification of appropriate authorities, notification of property owners, technical assistance, follow-up inspections, and use of the compliance strategy developed as required by the permit
 - Response and investigation of illicit discharges, spills, and illicit connections shall be initiated within the timelines established in the permit
 - Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste, and publicize a hotline phone number for the public to report spills and other illicit discharges
 - Provide training, and any necessary follow-up training, for municipal field staff on the identification, reporting, and response to illicit discharges/connections into the stormwater system
- Maintain a municipal storm sewer map that identifies outfalls, receiving waters, stormwater treatment and flow control Best Management Practices (BMPs) or facilities owned or operated by the City, and connections to the stormwater system authorized by the City after February 16, 2007.
- Implement an ordinance (or other regulatory mechanism) to effectively prohibit non-stormwater, illicit discharges into the stormwater system. The ordinance may allow conditional discharges specified by the permit. The ordinance must include escalating enforcement procedures and actions.

- Implement a compliance strategy that includes informal compliance actions such as public education and technical assistance as well as the enforcement provisions of the ordinance. The compliance strategy must be effective and shall be codified in the ordinance if necessary for effectiveness.
- Track and maintain records of all activities conducted to meet the requirements of the permit section.

4.2 Current Activities

- The Kitsap County Health District received a Stormwater Management Implementation Grant from the Department of Ecology which enabled the Health District to partner with the City, through an Inter-Local Agreement (ILA), to assist with development of the City's IDDE program for commercial property illicit discharge inspection, detection, elimination, and education. Program development activities began in September 2009 and were complete in 2011. The work done with this project was continued and expanded under the post construction maintenance program in 2012. Known as the "Private Facility Maintenance" (PFM) program and instituted under the Stormwater Management Ordinance (ORDINANCE 2010-01, EFFECTIVE 2-3-2010), the PFM helps to satisfy the permit requirement to prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the municipal stormwater system. Further, the PFM program exceeds the maintenance requirements under Section S5.C.4, Controlling Runoff from New Development, Redevelopment, and Construction Sites, as it captures properties permitted before February 16, 2010 (2007-2012 NPDES PERMIT, S5.C.4.c). The PFM program also supports efforts to reduce fecal coliform bacteria under the City's Total Maximum Daily Load (TMDL) and Water Quality Implementation Plan.
- The IDDE Program Manual was completed in October 2010. Revisions and updates are on-going.
- Annual dry-weather outfall screening has been performed since 2009. In 2015, in response to the TMDL (TOTAL MAXIMUM DAILY LOAD) Implementation Plan, two additional wet-weather screenings occur annually, and stream sampling has been added.
- The stormwater system has been mapped using GIS (Geographic Information System) technology. Updates and corrections are on-going.
- Reports of spills and illicit discharges are investigated. Appropriate actions are taken depending on the nature of the event.

- The IDDE ordinance enacted in 2009, in accordance with permit requirements, provides a mechanism for enforcement against dischargers (ORDINANCE 2009-4, EFFECTIVE 3-18-2009).
- A spill and illicit discharge documentation and tracking system is in place.
- A telephone hotline for reporting spills and illicit discharges has been instituted, advertised, and is in operation [KITSAP ONE HOTLINE: 360-337-5777].
- Public employees, businesses, and the general public have been, and will continue to be, informed of hazards associated with illegal discharges and improper disposal of waste in accordance with permit requirements.
- Employee training has been instituted for the identification and reporting of illicit discharges and connections. New, additional, or refresher training is provided when appropriate.
- Additional field screening has been implemented as required by the permit and is on-going in association with the operations and maintenance program for municipal flow control, treatment, and conveyance facilities.

4.3 Planned Activities

- Maintain program elements already implemented.
- Review and refine procedures as appropriate.
- Implementation of a Hotline Education and Outreach Plan in association with the WSSOG outreach and education collaborative.
- Plan, develop, and proceed with tasks and projects associated with TMDL (Total Maximum Daily Load) compliance. See Section 7 for details.
- The City has received grant funding for two projects which will improve water quality in the south fork of Dogfish Creek. Those projects are scheduled to be implemented in 2018-2019. The City is also actively seeking grant funds for three additional projects which will target water quality in Dogfish Creek and along a portion of the Liberty Bay shoreline.



5 Controlling Runoff from New Development, Redevelopment, and Construction Sites

Permit Requirement S5.C.4



5.1 Permit Requirements

- Implement, and enforce a program to reduce pollutants in stormwater runoff to the municipal stormwater system from new development, redevelopment, and construction site activities.
- Implement an ordinance that addresses runoff from new developments, redevelopment and construction sites which includes the following:
 - The Minimum Requirements, thresholds, and definitions in Appendix 1 of the permit
 - A site planning process and Best Management Practice (BMP) selection and design criteria that protects water quality, reduces pollutant discharges to the maximum extent practicable, and applies all known, available, and reasonable methods of prevention, control, and treatment prior to discharge
 - The legal authority, through the approval process for new development and redevelopment, to inspect private stormwater facilities that discharge to the City's stormwater system
- No later than December 31, 2016, local development codes, rules, standards, or other enforceable documents shall incorporate and require Low Impact Development (LID) principles and Best Management Practices (BMPs) for the purpose of minimizing the creation of impervious surfaces, native vegetation loss and stormwater runoff in all types of development situations.
- Implement a program to review plans, inspect construction sites, and take enforcement action against those failing to meet the required standards.
- Adopt an ordinance that addresses the party responsible for maintenance, inspection requirements and procedures, and enforcement provisions to insure the long-term operation and maintenance of permanent stormwater control facilities constructed after the effective date of the ordinance.
- Establish maintenance standards equal to, or greater than, those specified by the Department of Ecology.

- Annually inspect all stormwater treatment and flow control facilities permitted by the City after February 16, 2010. Additional inspections are required for new residential developments.
- Keep records of inspection, enforcement, and maintenance activities associated with new development, redevelopment, and construction sites.
- Make copies of the "Notice of Intent for Construction Activity" and "Notice of Intent for Industrial Activity" available to representatives of proposed new development and redevelopment.
- Continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by the Department of Ecology.
- Provide training for staff on new and revised regulations, standards, processes, and procedures.

5.2 Current Activities

- Stormwater runoff from new development, redevelopment, and construction sites is controlled in accordance with the *2012 Stormwater Management Manual for Western Washington, as Amended in 2014* and with Poulsbo Municipal Codes 12.02, 13.16, 13.17, 15.35, 16.20, and 18. (ORDINANCE 2016-20, EFFECTIVE 12-31-16)
- Site plans are reviewed for elements that show that Best Management Practice (BMP) selection and design criteria have been applied that protects water quality, reduces pollutant discharges to the maximum extent practicable, and applies all known, available, and reasonable methods of prevention, control, and treatment prior to discharge. (ORDINANCE 2010-01, EFFECTIVE 2-3-10)
- Long-term operation and maintenance of permanent stormwater control facilities is provided for by ordinance whereby maintenance responsibility, standards, inspection requirements, and procedures are addressed. (ORDINANCE 2010-01, EFFECTIVE 2-3-10)
 - Although not required by the permit, an annual inspection and maintenance program is in place for commercial/private facility sites which were approved prior to those sites which are subject to permit requirements. The program is a continuation of the commercial property inspection and maintenance project that began with a Kitsap County Health District grant project for IDDE (see Section 4.2, paragraph 1). This program supports IDDE efforts and the goals of the TMDL (TOTAL MAXIMUM DAILY LOAD) Plan.

- Legal authority for the inspection of privately-maintained facilities is provided for through the development review process. (ORDINANCE 2010-01, EFFECTIVE 2-3-10)
- Provisions for Low Impact Development to be the preferred and commonly-used approach to site development and redevelopment is codified by ordinance. (ORDINANCE 2016-20, EFFECTIVE 12-31-16)
- The City's permitting process includes plan review, inspection, and enforcement capabilities in accordance with the permit. (ORDINANCE 2010-01, EFFECTIVE 2-3-10)
- The City maintains records of inspection, enforcement, and maintenance activities.
- Information for the on-line application for the "Notice of Intent for Construction Activity" and copies of the "Notice of Intent for Industrial Activity" are available to representatives of proposed new development and redevelopment at the City Hall Engineering Department office. The requirement for the permits is also made known to applicants via pre-application summary letters.
- All appropriate staff members have training on erosion control, construction inspections, low impact development techniques, and stormwater design standards and practices. Appropriate staff are also CESL-certified (Construction Site Erosion and Sediment Control Lead).

5.3 Planned Activities

- Continue with the current activities as required by the permit.
- Comply with the ordinance updates and LID code requirements.



Municipal Operations and Maintenance

Permit Requirement S5.C.5.



6.1 Permit Requirements

- Establish maintenance standards that are as protective, or more protective, as those in the Stormwater Management Manual for Western Washington specified in the permit.
- Perform inspections of municipally owned or operated water quality treatment and flow control facilities and catch basins at the frequencies specified by the permit.
- Establish and implement practices to reduce stormwater impacts associated with runoff from municipally owned or maintained lands and from road maintenance activities.
- Establish and implement practices to reduce pollutants in runoff from all lands owned and maintained by the City.
- Develop and implement an on-going training program for City staff whose job functions may impact stormwater quality.
- Develop and implement a Stormwater Pollution Prevention Plan for all heavy equipment maintenance or storage yards and material storage and material storage facilities owned or operated by the City.
- Maintain records of inspections and maintenance or repair activities.

6.2 Current Activities

- The maintenance standards specified in the *2012 Stormwater Management Manual for Western Washington as Amended in 2014* are applied to all maintenance activities.
- A program has been implemented and is on-going for the inspection and maintenance of water quality treatment and flow control facilities and catch basins.

- The City's Operations and Maintenance (O&M) Program takes steps to minimize pollutants in runoff from City activities as prescribed in the Endangered Species Act (ESA) Regional Road Maintenance Program guidelines for Best Management Practices (BMPs) and in procedures adopted by the City.
- Training is achieved through on-the job skill training by peers/supervisors, classroom-type O&M training, and related education associated with Illicit Discharge Detection and Elimination training.
- A Stormwater Pollution Prevention Plan (SWPPP) is in place for all heavy equipment maintenance or storage yards and material storage facilities owned or operated by the City.
- Records of inspections, maintenance, and repair activities are maintained.

6.3 Planned Activities

- Review of inspection, maintenance, repair, and record-keeping practices is ongoing. If necessary, revisions or enhancements will be made for improved program function and/or permit compliance.
- Lands owned or maintained by the City will be periodically evaluated for their contribution to run-off pollution. Reduction practices will be established and implemented as necessary. Procedures and policies will be updated as necessary.
- The City has adopted the O&M standards of the *2012 Stormwater Management Manual for Western Washington as Amended in 2014*. The City of Poulsbo Stormwater Facility Maintenance Manual will be reviewed, and revised as necessary, for conformance with the *2012 Stormwater Management Manual for Western Washington as Amended in 2014*.
- Additional training of staff will be provided when appropriate or necessary.
- Obtain stormwater facility maintenance management software that can be associated with the GIS-based mapping.



Compliance with Total Maximum Daily Load Requirements (TMDL)

Permit Requirement S7



7.1 Permit Requirements

- The following requirements apply if an applicable TMDL is approved for stormwater discharges from MS4s owned or operated by the Permittee. Applicable TMDLs are TMDLs which have been approved by EPA on or before the issuance date of this Permit or prior to the date that Ecology issues coverage under this permit, whichever is later.
 - For applicable TMDLs listed in Appendix 2 of the NPDES permit, affected Permittees shall comply with the specific requirements identified in Appendix 2. Records of actions applicable to the TMDL shall be kept. Annual reports shall include TMDL implementation status and a summary of relevant activities.
 - For applicable TMDLs not listed in Appendix 2, compliance with the Permit constitutes compliance with those TMDLs.
 - For TMDLs that are approved by EPA after this Permit is issued, Ecology may establish TMDL related permit requirements through future permit modification if Ecology determines implementation of actions, monitoring or reporting necessary to demonstrate reasonable further progress toward achieving TMDL waste load allocations, and other targets, are not occurring and shall be implemented during the term of this Permit or when this Permit is reissued. Permittees are encouraged to participate in development of TMDLs within their jurisdiction and to begin implementation.
- The City of Poulsbo is subject to a TMDL for “Liberty Bay Watershed Fecal Coliform Bacteria Total Maximum Daily Load.” Although the TMDL is not listed in Appendix 2 of the permit, the City has taken proactive steps in the implementation of its requirements. The City received a grant from the Department of Ecology to develop an implementation plan for the purpose of providing a framework for meeting TMDL requirements. The plan was completed in early 2016. Plan elements include:
 - A Watershed Assessment
 - A Needs and Opportunities Assessment to identify both structural and non-structural opportunities and constraints for achieving water quality improvements

- An Effectiveness Monitoring Plan for projects identified in the needs and opportunities assessment
 - A Capital Improvement Plan (CIP) that identifies specific potential stormwater facility construction projects
 - An Operation and Maintenance Plan that identifies measures and costs to optimize operations and maintenance practices
 - Identification of potential updates to City development codes that will help address TMDL requirements
 - A Financial Plan that identifies costs, revenue requirements, and potential funding sources for addressing TMDL requirements
 - An Implementation Plan that describes, priorities, milestones, actions, and schedules for meeting TMDL requirements
- The TMDL directs a focus of IDDE efforts on parts of the MS4 upstream of Liberty Bay sampling sites with Load/Waste Load Allocations by the following actions:
 - Optimize frequency of operations and maintenance (O & M) inspections of MS4 infrastructure upstream of Liberty Bay monitoring sites with LAs/WLAs.
 - Include a focus on Liberty Bay watershed pollution sources as part of stormwater public outreach and education. Key topics may include pet waste education and management. Stormwater education of business owners could include improved maintenance of trash compactors and dumpsters to prevent food waste from becoming an attraction for wildlife.
 - Explore opportunities in the Liberty Bay watershed to encourage citizen stewardship of the environment.
 - Inventory and educate businesses/land uses that have potential to discharge FC bacteria, including restaurants or facilities that dispose of food waste in outdoor trash containers.
 - Because of the potential for growth in this watershed, the city should develop incentives for small development projects (those not triggering MS4 thresholds) to retain stormwater on site.

7.2 Current Activities

- Frequency of operations and maintenance inspections of catch basins was increased 100% as a result of the requirements of the NPDES permit reissued after the TMDL issuance.
- Liberty Bay watershed pollution sources as part of stormwater public outreach and education are described in Section 2 of this document.

- An ILA with the Kitsap Conservation District encourages local stewardship and supports opportunities for engagement with the public on pollution prevention practices.
- The City routinely and actively seeks supplemental grant funding to implement more capital improvement projects which support pollution prevention and habitat restoration/enhancement. Grant funding has been received for two projects for construction in 2018-2020. The City participates in the Puget Sound Partnership's development of Near Term Actions for Puget Sound recovery which supports opportunities for the City to receive grant funding for projects. Three projects are proposed for the 2018-2022 term.
- In response to the State requirement for managing the growth and development of the City, the City Planning Department has identified areas which require ecological protection. The adopted codes and maps support the TMDL requirement to identify areas with high potential to contribute bacteria and sediment to nearby surface waters and provide incentives for avoiding development in those areas or for eliminating impacts to surface waters.

Maps have been developed and adopted for the following areas: Critical Aquifers, Geological Hazards, Fish and Wildlife Habitat Conservation (with DNR Hydrology Water Typing), Wetlands, & Shoreline.

- Effectiveness of the City's pollution prevention practices is investigated through tri-annual water quality sampling, once during the dry season and twice during specific wet weather conditions.

7.3 Planned Activities

- Explore additional opportunities in the Liberty Bay watershed to encourage citizen stewardship of the environment.
- Inventory and educate businesses/land uses that have potential to discharge FC bacteria, including restaurants or facilities that dispose of food waste in outdoor trash containers. A possible partnership with the Kitsap Public Health District may provide an opportunity for education on commercial dumpster area housekeeping for the prevention of illicit discharges.
- Determine feasibility of developing incentives for small development projects (those not triggering MS4 thresholds) to retain stormwater on site.
- Continue developing and implementing capital improvement projects which produce water quality benefits.

- Develop a Microbial Source Tracking (MST) project in partnership with the EPA laboratory at Manchester. During the tri-annual water sampling activities, additional water samples will be collected to identify, or rule-out, certain specific Fecal Coliform bacteria sources.



Monitoring

Permit Requirement S8



8.1 Permit Requirements

- Permittees shall conduct stormwater monitoring in accordance with the requirements stated in the permit or shall participate in the Regional Stormwater Monitoring Program.
- The Regional Stormwater Monitoring Program (RSMP) is a cumulative regional monitoring effort collectively funded by the Phase I and II Municipal Stormwater Permittees. The program will run from September 2013 through June 2019. The RSMP is divided into three main program components: S8.B Status and Trends, S8.C Effectiveness Studies, and S8.D Source Identification Information Repository.

8.2 Current Activities

- The City of Poulsbo is fulfilling its permit obligation by participating in the Regional Stormwater Monitoring Program. The City has entered into an agreement with the Department of Ecology and pays annual fees for monitoring activities to be performed on its behalf.

8.3 Planned Activities

- Continue participation in the RSMP for the duration of the permit term.



Conclusion



9.1 Summary

This SWMP has been prepared to demonstrate compliance with the requirements of the Western Washington Phase II Municipal Stormwater Permit. It is updated annually to reflect the status of the implementation of the City's stormwater management program.

9.2 Request for Comments

The public is encouraged to participate in the development of the SWMP. Please contact the Public Works Department with questions, comments, or suggestions. Comments may be submitted at any time. The SWMP may be viewed at the Public Works office at City Hall or on-line at:

www.cityofpoulsbo.com/publicworks/publicworks_stormwater_management.htm

9.3 Resources

Links to the current Annual Report, Stormwater Management Program, and Phase II NPDES permit can be found on the stormwater management page of the City's website. Printed copies are available for a per-page cost.

www.cityofpoulsbo.com/publicworks/publicworks_stormwater_management.htm

8.4 Contact Information

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