

CITY OF POULSBO

2020 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)



Purpose

This document describes the *City of Poulsbo Stormwater Management Program - 2020 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 (MEP), to meet State requirements to use all known available and reasonable methods of prevention, control, and treatment (AKART), and to protect the water quality of local streams and Liberty Bay which receive stormwater runoff from the MS4.

Permit section S5 requires the creation and implementation of a SWMP which addresses the components listed in that section and, when applicable, includes Total Maximum Daily Load requirements for the receiving waters.

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

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 to those existing Phase I permittees 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 or sewage 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. Subsequent permits have been issued upon expiration of a previous permit. The current permit term is August 1, 2019 to July 31, 2024.

The permit requires development and implementation of a SWMP as described in this document.

SWMP Requirements and Elements

Requirements: The permit details stormwater program activities and implementation milestones that permittees must follow to comply with the Permit and the Federal Clean Water Act. Permittees must:

- Develop a SWMP that includes all the required activities in the Permit and is designed to reduce the discharge of pollutants to the maximum extent possible;
- Gather, track, maintain, document, and use information associated with the SWMP components in order to evaluate SWMP development, implementation, permit compliance, and priorities;
- Implement SWMP activities within the required timeframes of the Permit term;
- Continue implementation of existing SWMPs during development of an updated SWMP;
- 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
- Coordinate, as appropriate, with other Permittees;
- Develop and document coordination mechanisms among departments within each jurisdiction to eliminate barriers to compliance with the terms of the Permit.

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

- Stormwater Planning
- Public Education and Outreach
- Public Involvement and Participation
- Mapping
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment, and Construction Sites
- Operations and Maintenance
- Source Control for Existing Developments
- Monitoring and Assessment
- Total Maximum Daily Load Requirements (TMDL)

Stormwater Management in Poulsbo

Poulsbo has a population of approximately 11,180 (2019 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. 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. Other permit elements, such as Illicit Discharge Detection and Elimination and Public Education and Outreach, are addressed by Public Works and/or Engineering. The City also cooperates and coordinates with neighboring jurisdictions and regional partners to maximize permit implementation opportunities and funding advantages.

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.

Acronyms

BMP	Best Management Practice
IDDE	Illicit Discharge Detection and Elimination
LID	Low Impact Development
MS4	Municipal Separate Storm Sewer System
O&M	Operations and Maintenance
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load

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 an overview* of the permit requirements and the City's current and planned activities. Current activities may include ongoing activities that were implemented in previous years.

***Please Refer to the Permit
for Detailed Requirements**

1

Stormwater Planning

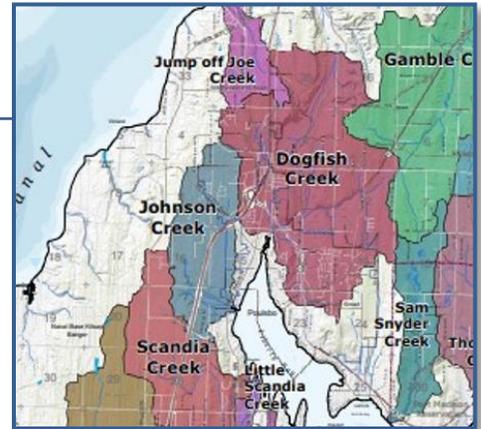
Permit Requirement S5.C.1

1.1 Permit Requirements

Implement a Stormwater Planning program to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters.

The program includes these performance measures:

- Convene an inter-disciplinary team to develop, implement, and influence the program.
- Coordinate with long-range plan updates.
- Continue to require Low Impact Development (LID) principles and best management practices. Annually assess and document any newly identified administrative or regulatory barriers to LID implementation and the measures developed to address the barriers.
- Develop a Stormwater Management Action Plan (SMAP) which identifies at least one high-priority catchment area of focus for facility retrofits, land management strategies, and permit-based stormwater management actions. Identify implementation schedules, budget sources, changes needed to long-range plans, and a process and schedule for future assessment and feedback in order to improve the planning process and implementation of procedures or projects.



1.2 Current Activities

- Planning for implementation of the performance measures identified in the permit.
- On-going Comprehensive Plan development and adoption in accordance with the Washington State Growth Management Act (GMA) under RCW 35.63. The plan includes capital facilities and stormwater utility elements which respond to permit requirements.

1.3 Planned Activities

- Planning program development and implementation in accordance with permit requirements.



Public Education and Outreach

Permit Requirement S5.C.2

2.1 Permit Requirements

The SWMP shall include an education and outreach program designed 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.
- Create stewardship opportunities that encourages community engagement in addressing the impacts from stormwater runoff.



Permittees may choose to meet these requirements individually or as a member of a regional group. Regional collaboration on general awareness or behavior change programs, or both, includes Permittees developing a consistent message, determining best methods for communicating the message, and when appropriate, creating strategies.

The minimum performance measures are:

- Each Permittee shall implement an education and outreach program for the area served by the MS4. The program design shall be based on local water quality information and target audience characteristics to identify high priority target audiences, subject areas, and/or BMPs (Best Management Practices).
 - To build general awareness, Permittees shall annually select, at a minimum, one target audience and one subject area as described in the permit.
 - To affect behavior change, Permittees shall select, at a minimum, one target audience and one BMP as described in the permit.
- No later than July 1, 2020, each Permittee shall conduct a new evaluation of the effectiveness of an ongoing behavior change campaign as required in the 2013 Permit. Permittees shall document lessons learned and recommendations for which next-step option to select from the 2019 permit.
- No later than April 1, 2021, begin to implement the strategy developed from the 2019 permit options.
- No later than March 31, 2024, evaluate and report on:
 - The changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy; and

- Any planned or recommended changes to the campaign in order to be more effective; describe the strategies and process to achieve the results.
- Use results of the evaluation to continue to direct effective methods and implementation of the ongoing behavior change program.
- Provide and advertise stewardship opportunities and/or partner with existing organizations (including non-permittees) to encourage residents to participate in activities or events planned and organized within the community, such as: stream teams, storm drain marking, volunteer monitoring, riparian plantings, and education activities.

2.2 Current Activities

- Since 2008, the City of Poulsbo and other West Sound jurisdictions have partnered with Kitsap County (as the lead agency) 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. The ILA supports the partners, known as the West Sound Stormwater Outreach Group (WSSOG), with:
 - 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.
 - Consistent messaging across city and county boundaries because Kitsap peninsula residents share media sources.
 - 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.
- As the lead agency of WSSOG Kitsap County represents the City of Poulsbo and the other WSSOG members in the Puget Sound STormwater Outreach for Regional Municipalities coalition (STORM). STORM is a partnership of over 80 Puget Sound area cities and counties that have worked together since 2008 to address polluted stormwater runoff through the broad-reaching Puget Sound Starts Here (PSSH) media campaign. STORM seeks to:
 - Raise citizen awareness of stormwater pollution prevention for everyday activities at home and at work.
 - Advance broad-scale behavior changes by the people who live and work in the Puget Sound basin.
 - Ensure that regional and local stormwater education outreach efforts are effective, consistent, and cost efficient.

- Education and outreach materials are presented to varied audience types which can include any type whose activities may affect water quality, such as the general public, residents with yards, dog owners, businesses, mobile service providers, contractors, and numerous others.

Materials and methods used include city website, utility billing messages, social media, mailings, print and digital media, video via movie theaters and cable TV, displays and kiosks, outdoor banners, signage on buses and ferries, workshops, events, school classroom lessons, and giveaways with messaging (such as pet leash bag dispensers, garbage can stickers, magnets, pens, flashlights, bandanas, paint sticks, coasters, and coffee sleeves).

- Telephone and on-line surveys are used to assess awareness, attitudes, and behaviors about various water quality issues. Periodic follow-up surveys are used to evaluate changes in the attitudes and behaviors and to gain a better understanding of the effectiveness of the education and outreach. When appropriate, focus groups are conducted to discover how best to communicate about stormwater issues.
- A storm drain marker program has been initiated 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.
- On-going outreach for pet waste continues and the City participates in the volunteer "Mutt Mitt" program with Kitsap County Public Works. Mutt Mitt stations which dispense pick-up bags for dog waste can be sponsored by volunteers such as neighborhood groups, homeowner's associations, apartment complexes, and marinas. The City owns and maintains stations in its parks. There are currently 39 volunteer stations. 15 city-owned stations, and 4 private stations in Poulsbo.
- The Local Source Control (LSC) program of the Kitsap Public Health District provides technical assistance to businesses that will help them prevent pollution and properly manage any waste they generate. The City cooperates with the LSC program by providing requested information and recommendations for contacts.
- An ongoing Inter-Local Agreement (ILA) with the Kitsap Conservation District encourages local stewardship and supports opportunities for engagement with the public.
- The City of Poulsbo Tree Board and the Fish Park Steering Committee provide multiple opportunities, including on-going activities, for community involvement and stewardship with a focus on tree planting and landscape mitigation in both upland and riparian locations. Both groups participate in salmon viewing educational activities which include information about stormwater.

2.3 Planned Activities

- The current activities described above are expected to continue.
- The WSSOG 2020 Work Plan includes the following activities:

Sustain successful efforts (Objective 2, Task 2.2)

1. Continue Pet Waste outreach
 - Distribution of Backyard Pet Waste stickers
 - Consider outreach to vets on Backyard Pet Waste
 - Continue to implement updated Mutt Mitt E&O Plan
 - Sustain Mutt Mitt Program through an increase in the number of tracked stations
 - Participate in the regional STORM Pet Waste workgroup as appropriate
2. Continue to implement Hotline outreach opportunities, including but not limited to:
 - Distribution of paint sticks
 - Promotion of the See Click Fix application
 - Advertise via a variety of channels as appropriate: digital, print or other media

New behavior campaign development (Objective 3, 4 & 5)

3. Continue Natural Yard Care campaign development
 - Participate with consultant in the implementation of a pilot campaign to address the selected target behavior and audience. Pilot to include 2-5 retail events in partnership with the WSU Master Gardeners in spring 2020; including outreach, staffing, and a product discount (coupon)
 - Participate with consultant to draft an evaluation plan with specific, measurable and achievable outcomes
 - Participate with consultant on reporting out on pilot campaign as appropriate
4. Monitor the progress of other jurisdictions' behavior change campaigns and adapt elements as appropriate

Other opportunities (Objective 6) – including optional activities with participation varying by jurisdiction

5. Continue to participate in *Puget Sound Starts Here* outreach
 - Promote PSSH Month in May
 - Distribute PSSH-branded merchandise, including but not limited to coffee sleeves, coasters and pet waste bag holders
 - Explore evaluation of PSSH outreach

6. Provide lessons for school aged children
7. Advertise via a variety of channels as appropriate: digital, print or other media
8. Pilot field monitoring programs with High School and Elementary students
9. Consider partnerships on stewardship opportunities as appropriate

Strengthen coalition and represent WSSOG on regional efforts (Objectives 6 & 7)

10. Participate on the STORM Strategic Planning Committee and PSSH Committee
11. Participate in STORM's regional Natural Yard Care and Mobile Business workgroups as appropriate
12. Provide STORM and PSSH support and attend Quarterly meetings
13. Promote capacity building as needed
14. Provide annual summary of activities and report out on programs as appropriate



Public Involvement and Participation

Permit Requirement S5.C.3



3.1 Permit Requirements

Permittees shall provide ongoing opportunities for public involvement and participation through advisory councils, public hearings, watershed committees, participation in developing rate-structures or other similar activities. Each Permittee shall comply with applicable state and local public notice requirements when developing elements of the SWMP and SMAP.

The minimum performance measures are:

- Permittees shall create opportunities for the public, including overburdened communities, to participate in the decision-making processes involving the development, implementation and update of the Permittee's SMAP and SWMP.
- Each Permittee shall post on their website their SWMP Plan and the annual report, required under S9.A, no later than May 31 each year. All other submittals shall be available to the public upon request. To comply with the posting requirement, a Permittee that does not maintain a website may submit the updated SWMP in electronic format to Ecology for posting on Ecology's website.

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

- Provide on-going opportunities for public involvement and participation when appropriate, and when applicable, when funding, staffing, and partner resources are available.

4

Mapping and Documentation

Permit Requirement S5.C.4



4.1 Permit Requirements

The SWMP shall include an ongoing program for mapping and documenting the MS4.

The minimum performance measures are:

- Ongoing Mapping
 - Known MS4 outfalls and known MS4 discharge points. Receiving waters, other than groundwater.
 - Stormwater treatment and flow control BMPs/facilities owned or operated by the Permittee.
 - Geographic areas served by the Permittee’s MS4 that do not discharge stormwater to surface waters.
 - 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 features or attributes (or both) shall be mapped:
 - Tributary conveyance type, material, and size where known.
 - Associated drainage areas.
 - Land use.
 - Connections between the MS4 owned or operated by the Permittee and other municipalities or public entities.
 - All connections to the MS4 authorized or allowed by the Permittee after February 16, 2007.
- New Mapping:
 - No later than January 1, 2020, begin to collect size and material for all known MS4 outfalls during normal course of business (e.g. during field screening, inspection, or maintenance) and update records.
 - No later than August 1, 2023, complete mapping of all known connections from the MS4 to a privately owned stormwater system.

4.2 Current Activities

- On-going updating of existing maps.

4.3 Planned Activities

- Implementation of “New Mapping” requirements.



Illicit Discharge Detection and Elimination (IDDE)

Permit Requirement S5.C.5



5.1 Permit Requirements

Develop an ongoing program to detect and identify non-stormwater discharges and illicit connections into the municipal stormwater system.

The minimum performance measures are:

- Implement procedures for reporting and correcting or removing illicit connections, spills and other illicit discharges when they are suspected or identified. The program shall also include procedures for addressing pollutants entering the MS4 from an interconnected, adjoining MS4.
- Inform public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste.
- Implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater illicit discharges into the Permittee's MS4 to the maximum extent allowable under state and federal law. The ordinance or other regulatory mechanism shall include escalating enforcement procedures and actions.
- Implement an ongoing program designed to detect and identify non-stormwater discharges and illicit connections into the Permittee's MS4 which includes components described in the permit.
- Implement an ongoing program designed to address illicit discharges, including spills and illicit connections, into the MS4 which includes procedures whose actions meet timelines described in the permit.
- Train staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, and illicit connections, to conduct these activities. Follow-up training shall be provided as needed.
- Track and maintain records of the activities conducted to meet the specific reporting requirements to Ecology for this permit section.

5.2 Current Activities

- From 2009 to 2011 the Kitsap Public Health District assisted the City with development of the City's IDDE program for commercial property illicit discharge inspection, detection, elimination, and education. The work done with this project was continued and expanded under the post-construction maintenance section of the permit in 2012. Known as the "Private Facility Maintenance" (PFM) program and instituted under the Stormwater Management Ordinance, 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 minimum maintenance requirements for 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.
- Program guidance is provided by the City's IDDE Program Manual and the Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual prepared by Herrera Environmental Consultants for the Washington State Department of Ecology.
- Annual dry-weather outfall screening has been performed since 2009. In 2015, in response to the TMDL Implementation Plan, two additional wet-weather screenings occur annually, and stream sampling has been added.
- In August of 2018, a microbial source tracking (MST) project was initiated in partnership with the EPA Manchester Laboratory and Kitsap Public Health District. Sampling is complete and analysis of results is pending.
- 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 provides a mechanism for enforcement against dischargers.
 - 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]. In addition, the City has partnered with Kitsap County's SeeClickFix program and reports of spills or illicit discharges received by the County are immediately forwarded to the City when the geographic location being reported is within the city limits.

- 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 ongoing in association with the O&M program for municipal facilities.
- Although not a permit requirement, the City actively plans and budgets for capital improvement projects which will improve water quality in local streams and Liberty Bay. The City actively seeks grant funds to help initiate projects as soon as feasible. In general, one or more projects are in the planning, design, or construction stage each year.

5.3 Planned Activities

- Maintain program elements already implemented.
- Review and refine procedures and activities as appropriate.
- Continue to implement Hotline education and outreach opportunities as stated in the work plan for the WSSOG outreach and education collaborative (SWMP section 2.2).
- Continue with tasks and projects associated with TMDL compliance.

6

Controlling Runoff from New Development, Redevelopment, and Construction Sites

Permit Requirement S5.C.6



6.1 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. The program shall apply to private and public development, including transportation projects.

The minimum performance measures are:

- Implement an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects no later than June 30, 2022 that meets the requirements, thresholds, and criteria of this permit section.
- Implement a permitting process with site plan review, inspection (including post-construction maintenance inspections), and enforcement capability which meets the criteria of this section.
- Verify that a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control BMPs/facilities.
- The program shall include a procedure for keeping records of inspections and enforcement actions.
- The program shall make available links to the electronic *Construction Stormwater General Permit* Notice of Intent (NOI) form for construction activity and *Industrial Stormwater General Permit* NOI form for industrial activity 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 Ecology.
- Ensure that all staff whose primary job duties are implementing this section's program are trained to conduct these activities. Provide follow-up training as needed. Document the training provided and the staff trained.

6.2 Current Activities

- Stormwater runoff is controlled in accordance with the *2012 Stormwater Management Manual for Western Washington, as Amended in 2014* and with the Poulsbo Municipal Code.
- Site plans are reviewed for elements that provide appropriate BMP selection and design to the maximum extent practicable.
- Long-term operation and maintenance of permanent stormwater control facilities is provided for by ordinance where maintenance responsibility, standards, inspection requirements, and procedures are addressed. 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. 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.
- Provisions for Low Impact Development to be the preferred and commonly used approach to site development and redevelopment is codified by ordinance.
- The City's permitting process includes plan review, inspection, and enforcement capabilities in accordance with the permit.
- 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" is provided to representatives of proposed new development and redevelopment via pre-application summary letters.
- 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).

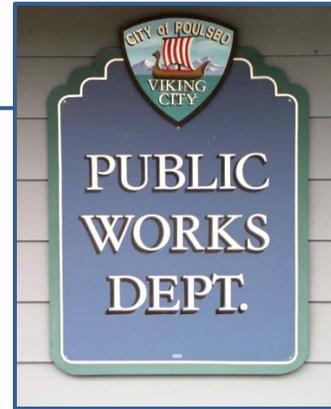
6.3 Planned Activities

- Continue with the current activities as required by the permit, with refinements and adjustments as necessary.
- Comply with the requirements for ordinance updates.



Operations and Maintenance (O&M)

Permit Requirement S5.C.7



7.1 Permit Requirements

Implement and document a program to regulate O&M activities and to conduct maintenance activities by the Permittee to prevent or reduce stormwater impacts.

The minimum performance measures are:

- Implement maintenance standards that are as protective, or more protective, of facility function than those specified in the *Stormwater Management Manual for Western Washington*. Develop and implement maintenance standards for facilities which do not have maintenance standards designated in the Manual.
- Perform maintenance within the time frames specified in the permit.
- Maintenance of stormwater facilities regulated by the permittee: Insure adequate long-term maintenance of stormwater facilities regulated by the Permittee by implementing an ordinance or other enforceable mechanism that:
 - Clearly identifies the party responsible for maintenance in accordance with maintenance standards established under the permit
 - Requires inspection of facilities annually, unless a reduced frequency is substantiated as described in the permit
 - Establishes enforcement procedures.

The inspection program shall be designed to inspect all facilities and achieve a minimum of 80% of required inspections. Procedures and records of maintenance inspections and maintenance activities shall be maintained and include all types of enforcement records.

- Maintenance of stormwater facilities owned or operated by the Permittee:
 - Implement a program to annually inspect all municipally owned or operated stormwater treatment and flow control BMPs/facilities and take appropriate maintenance actions. Frequencies may be reduced if substantiated as described in the permit.
 - Spot check potentially damaged stormwater treatment and flow control BMPs/facilities after major storm events. Take maintenance actions based on the results of the inspections.

- Inspect all catch basins and inlets owned or operated by the Permittee every two years. Clean as needed for compliance with maintenance standards. Dispose of decant water in accordance with the permit.
 - Alternatives to the standard approach of inspecting all catch basins every two years may be applied when based on criteria specified in the permit,
 - The inspection program shall achieve at least 95% of required inspections.
- Implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and from road maintenance activities under the functional control of the Permittee. No later than December 31, 2022, document the practices, policies, and procedures.
- Implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee that are not required to have coverage under the *Industrial Stormwater General Permit* or another NPDES permit that authorizes stormwater discharges associated with the activity. Update SWPPPs no later than December 31, 2022, to include the elements identified in this permit section.
- Implement an ongoing training program for employees whose primary construction, operations, or maintenance job functions may impact stormwater quality.
 - Address the importance of protecting water quality, operation and maintenance standards, inspection procedures, relevant SWPPPs, selecting appropriate BMPs, ways to perform job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns.
 - Provide follow-up training as needed to address changes in procedures, techniques, requirements, or staffing.
 - Document and maintain records of training which includes dates, activities or course descriptions, and names and positions of staff in attendance.
- Maintain records of the activities conducted to meet the requirements of this permit section.

7.2 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.
- Programs have been implemented and are on-going for the inspection and maintenance of stormwater treatment, flow control, and conveyance facilities which are regulated by the City and owned or operated by the City.

- Long-term operation and maintenance of permanent stormwater control facilities is provided for by ordinance where maintenance responsibility, standards, inspection requirements, and procedures are addressed.
 - 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 sites which are subject to permit requirements. This program also supports IDDE efforts and the goals of the TMDL (Total Maximum Daily Load) Plan.
- The City's O&M Program takes steps to minimize pollutants in runoff from City activities.
- Training is achieved through on-the job skill training by peers/supervisors, classroom 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.
- Asset management software is in place and used for stormwater facility mapping and management of O&M activities.

7.3 Planned Activities

- Review of inspection, maintenance, repair, and record-keeping practices is on-going. 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 documented by December 31, 2022 as required in this permit section.
- Maintenance standards will be updated no later than June 30, 2022 per this permit section.
- Additional training of staff will be provided when appropriate or necessary.
- Expand use of asset management software for road O&M activities.



Source Control Program for Existing Development

Permit Requirement S5.C.8

8.1 Permit Requirements

Implement a program to prevent and reduce pollutants in runoff from areas that discharge to the MS4.

The program shall include:

- Application of operational source control BMPs, structural source control BMPs and/or treatment BMPs/facilities, to pollution generating sources associated with existing land uses and activities.
- Inspections of pollutant generating sources at publicly and privately owned institutional, commercial and industrial sites to enforce implementation of required BMPs to control pollution discharging into the MS4.
- Application and enforcement of local ordinances at site types described in this permit section, including sites with discharges authorized by a separate NPDES permit. Permittees that are in compliance with the terms of this Permit will not be held liable by Ecology for water quality standard violations or receiving water impacts caused by industries and other Permittees covered, or which should be covered under an NPDES permit issued by Ecology.
- Practices to reduce polluted runoff from the application of pesticides, herbicides, and fertilizers from the sites subject to this permit section.

Minimum performance measures:

- Adopt and make effective an ordinance(s), or other enforceable documents, no later than August 1, 2022 which requires the application of source control BMPs for pollutant generating sources associated with existing land uses and activities described in Permit Appendix 8.
- Use source control BMPs from the Stormwater Management Manual for Western Washington or a Phase I Program approved by Ecology. In cases where the manual(s) lack guidance for a specific source of pollutants, the Permittee shall work with the owner/operator to implement or adapt BMPs based on the best professional judgement of the Permittee.
- Applicable operational source control BMPs shall be required for all pollutant generating sources. Structural source control BMPs, or treatment BMPs/facilities, or both, shall be required if operational source control BMPs do not prevent illicit discharges or violations of surface water, groundwater, or sediment management standards. Implementation of source control requirements may be done through education and technical assistance programs, provided that formal enforcement authority is available to the Permittee and is used as determined necessary by the Permittee, in accordance with this permit section.



- No later than August 1, 2022, the Permittees shall establish an inventory that identifies publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4. The inventory shall include:
 - Businesses and/or sites identified based on the presence of activities that are pollutant generating
 - Other pollutant generating sources, based on complaint response, such as home-based businesses and multi-family sites.

- No later than January 1, 2023, Permittees shall implement an inspection program for sites identified in this permit section.
 - All identified sites with a business address shall be provided information about activities that may generate pollutants and the source control requirements applicable to those activities. This information shall be provided by mail, telephone, electronic communications, or in person. This information may be provided all at one time or spread out over the permit term to allow for tailoring and distribution of the information during site inspections.
 - Annually complete the number of inspections equal to 20% of the businesses and/or sites listed in their source control inventory to assess BMP effectiveness and compliance with source control requirements. The Permittee may count follow-up compliance inspections at the same site toward the 20% inspection rate. The Permittee may select which sites to inspect each year and is not required to inspect 100% of sites over a 5-year period. Sites may be prioritized for inspection based on their land use category, potential for pollution generation, proximity to receiving waters, or to address an identified pollution problem within a specific geographic area or sub-basin.
 - Each Permittee shall inspect 100% of sites identified through credible complaints.
 - Permittees may count inspections conducted based on complaints, or when the property owner denies entry, to the 20% inspection rate.

- No later than January 1, 2023, implement a progressive enforcement policy that requires sites to comply with stormwater requirements within a reasonable time period as specified below:
 - If the Permittee determines, through inspections or otherwise, that a site has failed to adequately implement required BMPs, the Permittee shall take appropriate follow-up action(s), which may include phone calls, reminder letters, emails, or follow-up inspections.
 - When a Permittee determines that a site has failed to adequately implement BMPs after a follow-up inspection(s), the Permittee shall take enforcement action as established through authority in its municipal codes or ordinances, or through the judicial system.
 - Each Permittee shall maintain records, including documentation of each site visit, inspection reports, warning letters, notices of violations, and other enforcement records, demonstrating an effort to bring sites into compliance. Each Permittee shall also maintain records of sites that are not inspected because the property owner denies entry.
 - A Permittee may refer non-emergency violations of local ordinances to Ecology, provided, the Permittee also makes a documented effort of progressive enforcement. At a minimum, a Permittee's enforcement effort shall include documentation of inspections and warning letters or notices of violation.

- Permittees shall train staff who are responsible for implementing the source control program to conduct these activities. The ongoing training program shall cover the legal authority for source control, source control BMPs and their proper application, inspection protocols, lessons learned, typical cases, and enforcement procedures, techniques, requirements, or staff. Permittees shall document and maintain records of the training provided and the staff trained.

8.2 Current Activities

- All properties within the City are subject to the City's Illicit Discharge Detection and Elimination ordinance. Refer to Section 5 of this document.

8.3 Planned Activities

- Implement a source control program in accordance with the permit requirements.



Compliance with Total Maximum Daily Load Requirements (TMDL)

Permit Requirement S7



9.1 Permit Requirements

Permittees may be subject to an applicable TMDL which is approved for stormwater discharges from their MS4. 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 permit, affected Permittees shall comply with the specific requirements identified in Appendix 2. For applicable TMDLs not listed in Appendix 2, compliance with the Permit constitutes compliance with those TMDLs.

9.2 Current Activities

- 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 and Poulsbo’s compliance with the permit constitutes compliance with the TMDL, the City has taken proactive steps to implement TMDL 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 and is available on the City’s website. Plan elements include assessments of the watershed, needs, and opportunities and plans for effectiveness monitoring, capital improvements, financing, and O&M.

- The TMDL directs a focus of IDDE efforts on parts of the MS4 upstream of Liberty Bay sampling sites with Load/Waste Load Allocations. In response, the City has undertaken the following actions:
 - Frequency of catch basin inspections was doubled 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 ongoing Inter-Local Agreement (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 2019. 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 additional projects are proposed for the 2018-2022 Action Agenda.
- 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 water quality sampling each year, once during the dry season and twice during specific wet weather conditions.
- A Microbial Source Tracking (MST) project is in progress in partnership with the EPA laboratory at Manchester. During 3 rounds of annual water sampling activities, additional water samples were collected for analysis to identify, or rule-out, certain specific Fecal Coliform bacteria sources. Analysis of the results is pending. The results will be used to provide additional direction for Illicit Discharge Detection and Elimination efforts.

9.3 Planned Activities

- 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. This activity also falls under Section S5.C.8, Source Control.
- Consider 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.

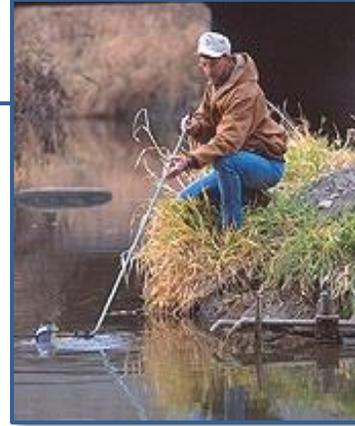


Monitoring and Assessment

Permit Requirement S8

10.1 Permit Requirements

Permittees shall implement stormwater monitoring and assessment either individually or by paying into a collective fund to support regional monitoring in association with other permittees. Monitoring shall be for (1) Status and Trends and for (2) SWMP Effectiveness and Source Identification.



10.2 Current Activities

- The City of Poulsbo pays annual fees into the collective fund for regional monitoring to be performed on its behalf.

10.3 Planned Activities

- Continue participation in the regional collective.

11

Conclusion

11.1 Summary

This SWMP has been prepared for 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.



11.2 Resources and Request for Comments

The current Annual Report, SWMP, SWMP comments form, and Phase II NPDES permit can be viewed on the Public Works stormwater management page of the City's website at: <https://cityofpoulsbo.com/public-works-stormwater-management/>

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.

11.3 Contact Information

Mail: City of Poulsbo Public Works | 200 NE Moe Street | Poulsbo, WA 98370

Phone: 360-779-4078

E-mail: publicworks@cityofpoulsbo.com **Website:** www.cityofpoulsbo.com

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