



# City of Poulsbo Stormwater Management Program 2024 Update

As Required by the Western Washington Phase II  
Municipal Stormwater Permit  
State of Washington Department of Ecology



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## 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
SFDC	South Fork Dogfish Creek
SMAP	Stormwater Management Action Plan
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load

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## INTRODUCTION

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The federal Clean Water Act (CWA) of 1972 sets standards for water quality and aims to prevent, reduce, and eliminate pollution in our waterways. In 1987, Congress amended the CWA to address stormwater. To achieve the goals of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit program was created. In Washington state, the NPDES permit is under the authority of the Washington Department of Ecology (Ecology). The NPDES permit regulates stormwater discharges to all waters of the state, including lakes, rivers, ponds, streams, wetlands, and bays. The NPDES restricts discharges to waters of the state, enforces water quality monitoring, and contains other requirements that permittees must follow to prevent and reduce pollutants in stormwater.

There are two types of NPDES permits. Phase I permits cover large and medium-sized municipality separate storm sewer systems (MS4), construction sites larger than 5 acres, and large industrial sites. In 2000, the EPA finalized NPDES Phase II rules to regulate small MS4s, 1–5-acre construction sites, and some industrial activities. Phase II jurisdictions, such as Poulsbo (City), are those with populations less than 100,000 located within an urbanized area. 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 spans from August 1, 2019, to July 31, 2024.

Condition S.5 of the Western Washington Phase II NPDES Permit requires the city to release a Stormwater Management Program (SWMP) update annually. The SWMP includes all activities and programs that the City of Poulsbo has implemented to reduce the discharge of pollutants to the City's MS4. The SWMP is used together with the City's Stormwater Comprehensive plan (Comp Plan). The Stormwater Comp Plan is used to guide the City's stormwater utility and create level of service goals. Together with the City's Stormwater Comprehensive Plan, the SWMP aids the City in planning, funding, and implementing a comprehensive program for addressing various issues related to stormwater.

### **STORMWATER MANAGEMENT IN POULSBO**

Poulsbo has a population of approximately 12,400 (2023 Washington State OFM data) and an area of approximately 4.6 square miles. Fish bearing creeks, including South Fork Dogfish, Lemolo, Johnson and Bjorgen, are fully or partially located within the City. These creeks have historically supported populations of coho and chum salmon, as well as

steelhead trout. Urbanization, habitat loss, and pollutants have decreased their populations. Stormwater pollution is a significant contributor of pollutants in both Poulsbo's creeks, Liberty Bay, and the Puget Sound. Stormwater runoff carries pollutants from streets, parking lots, construction sites, industrial sites, and residential neighborhoods into waterways such as Liberty Bay. Stormwater is one of the leading sources of pollution in Puget Sound and the NPDES permit is essential to restore water quality and protect beneficial uses of waterways like fishing and swimming.

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 Public Works Director, but multiple departments are involved in implementation of the City's stormwater program, including:

- *Public Works Department*: responsible for managing and maintaining the City's Stormwater collection and conveyance system.
- *Engineering Department*: manages capital improvement project and reviews plans for proposed development and redevelopment. Inspectors in the engineering department inspect public and private construction sites to ensure that erosion control best management practices and stormwater facilities are properly installed and used.
- *Planning Department*: implements land use regulations related to stormwater management.

The City also cooperates and coordinates with neighboring jurisdictions and regional partners to maximize permit implementation opportunities.

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

## **SWMP ELEMENTS**

The 2024 Stormwater Management Plan is organized to correspond with the 10 main elements of the NPDES permit. Each permit element is identified by title and contains information about current activities as well as planned activities for 2024. The current activities subsections may contain programs or activities that were implemented in previous

years but are included because they are ongoing or to provide context to a current program. The 10 main elements of the NPDES permit are:

- **Stormwater Planning:** Policies and strategies for water quality management that protect receiving waters, including long range planning and low impact development codes.
- **Public Education and Outreach:** General awareness, stewardship, and behavior change programs to address and reduce impacts from stormwater runoff.
- **Public Involvement and Participation:** This section requires the City to provide opportunities for the public to be involved in the development and implementation of the City Stormwater utility program.
- **Mapping:** An ongoing program for mapping and documenting stormwater infrastructure and receiving waters in the City's MS4.
- **Illicit Discharge Detection and Elimination:** A program to prevent, detect, characterize, trace, and eliminate illicit connections and discharges to the City's MS4. The program must include a regulatory mechanism to prohibit non-stormwater discharges, field screening methodology, and an ongoing training program.
- **Controlling Runoff from New Development, Redevelopment, and Construction Sites:** This section requires the City to implement and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction sites.
- **Operations and Maintenance:** Requires maintenance of stormwater infrastructure owned by the City. In addition, this section requires the City to verify adequate long-term maintenance of privately owned stormwater infrastructure.
- **Source Control for Existing Development:** A program that enforces the use of best management practices (BMPs) at all sites that are potential pollutant sources.
- **Monitoring and Assessment:** A collective fund for regional monitoring of SWMP effectiveness and source identification as well as water quality status and trends.
- **Total Maximum Daily Load Requirements (TMDL):** The City is subject to a TMDL for Liberty Bay watershed's fecal coliform level. The City must implement a plan that provides a framework for meeting TMDL requirements.

For detailed permit requirements, please refer to the *Western Washington Phase II Municipal Stormwater Permit (Permit) 2019-2024*. The permit is available for viewing and downloading on the City of Poulsbo website:

<https://cityofpoulsbo.com/public-works-stormwater-management/>

or from the Department of Ecology website at:

<https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Municipal-stormwater-general-permits/Western-Washington-Phase-II-Municipal-Stormwater>



## 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 water quality management policies and strategies to protect receiving waters.

The minimum performance measures are:

- Convene an inter-disciplinary team to develop, implement, and influence the program.
- Coordinate with long-range plan updates to address and mitigate anticipated water quality impacts due to growth and transportation.
- 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 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 to improve the planning process and implementation of procedures or projects.

#### 1.2 CURRENT ACTIVITIES

The City's stormwater team includes the NPDES coordinator, public works director, utility engineer, public works superintendent, and water quality technician. The team works with other departments including planning, as well as consultants when needed to meet permit requirements.

The planning department works with our stormwater team to provide input in long-range planning. The 2024 Comprehensive Plan Update will be completed this year as a requirement of the Washington State Growth Management Act (RCW 36.70A). The Comprehensive Plan provides a framework for growth of the City that considers land use, housing, transportation, the environment, and economic development. The Comprehensive Plan includes goals for the City's stormwater utility and plans for new capital facilities.

As required by the NPDES permit, a Stormwater Management Action Plan (SMAP) was created in 2022 and submitted to Ecology in last year's annual report. The SMAP analyzed water quality, hydrology, habitat, shellfish and fish consumption, land use, and stormwater infrastructure of the receiving water basins in the City. The SMAP identified the South Fork Dogfish Creek (SFDC) basin as the highest priority basin. The SFDC basin has a high percentage of commercial, industrial, and high-density residential development, as well as the highest amount of total impervious area and highest average daily trip (ADT) road miles of all the sub-basins examined. The basin has historically supported runs of chum and coho salmon, but urban development has degraded habitat conditions and water quality. Designating the SFDC basin as the City's highest priority basin will guide stormwater utility management and financial planning.

### **1.3 PLANNED ACTIVITIES**

The SMAP for South Fork Dogfish Creek includes the following measures to improve water quality in the basin:

- Public Education and Outreach on pet waste and natural yard care
- Outfall and stream sampling to detect non-storm drain discharges
- Potential facility maintenance enhancements for existing publicly and privately owned stormwater facilities
- Stormwater facility retrofits
- Source Control inspections to targets sources of fecal coliform

These land management and development strategies, along with financial planning, will be used to guide future capital projects and permit compliance. The 2024 Comprehensive Plan update will provide further direction for low impact development and capital planning to maintain permit compliance as the City grows. The stormwater portion of the comprehension plan will be updated this year.

## 2. PUBLIC EDUCATION AND OUTREACH

### PERMIT REQUIREMENT S5.C.2

#### 2.1 PERMIT REQUIREMENTS

Develop a stormwater education and outreach program that builds general awareness about methods to address and reduce impacts from stormwater runoff, effect behavior changes to reduce practices that contribute to adverse stormwater impacts and create stewardship opportunities that encourages community engagement. Permittees may choose to meet these requirements individually or as a member of a regional group, however the program design shall be based on local water quality information and target audiences to identify high priority target audiences, subject areas, and/or BMPs.

The minimum performance measures are:

- Annual selection of at least one target audience and one subject area for a general awareness campaign.
- Annual selection of at least one target audience and one subject area for a campaign to affect behavior change.
- Behavior change campaigns must use social marketing practices and methods to tailor the campaign to the Permittee's community. The campaigns shall be evaluated to determine their effectiveness and develop recommendations for improvement. Evaluations of the campaigns must be utilized to improve the campaign, or if desired, develop a new target audience and/or behavior change campaign.
- No later than March 31<sup>st</sup>, 2024, the permittee shall evaluate and report the changes in understanding and adoption of target behaviors as well as any planned or recommended changes to the campaign to be more effective. Evaluation must be used to direct effective strategies in the ongoing behavior change campaign.
- Permittees must provide and advertise stewardship opportunities and/or partner with existing organizations 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 educational activities.

## 2.2 CURRENT ACTIVITIES

### *General Awareness and Behavior Change*

The cities of Poulsbo, Bainbridge Island, Port Orchard, Bremerton, Gig Harbor, and Port Angeles partnered with Kitsap County to create the West Sound Stormwater Outreach Group (WSSOG). WSSOG provides a mechanism to pool resources for the development, implementation, and funding of stormwater education and outreach. This partnership creates consistent messaging across city and county boundaries, while also increasing municipal resource efficiency. WSSOG fulfills multiple permit requirements through our public education and outreach campaigns such as:

*Natural Yard Care Campaign:* This behavior change program aims to reduce synthetic fertilizer use by hosting natural yard care webinars with Master Gardeners and providing a coupon for a natural fertilizer. The campaign pilot was conducted in Poulsbo in 2021 and expanded to all WSSOG partners in 2022. The priority audience of this campaign are families with kids/and or pets who live in single family homes and perform their own yard maintenance. The 2023 campaign generated 6,691 link clicks on Facebook, 103 webinar registrations, 30 webinar attendees, and 68 coupon redemptions.

*“Mutt Mitt” Program:* In this behavior change program, stations dispense pick-up bags for dog waste. The city owns and maintains stations in its parks, but stations can also be sponsored by volunteers such as neighborhood groups, homeowner’s associations, apartment complexes, and marinas. There are currently 48 volunteer stations, 15 city-owned stations, and 5 private stations in Poulsbo.

*Puget Sound Starts Here:* Kitsap County represents the City of Poulsbo and other WSSOG members at the Puget Sound STormwater Outreach for Regional Municipalities (STORM). STORM is a partnership of over 80 Puget Sound area cities with the goal of addressing polluted stormwater runoff. STORM created the broad-reaching Puget Sound Starts Here (PSSH) media campaign. The PSSH campaign raises general awareness of stormwater pollution as well as targets behavior changes for the people who live and work in the Puget Sound. Targeted behavior changes include the Don’t Wait to Inflate Campaign, natural yard care, car washing, and pet waste. By pooling resources with other Puget Sound cities, the PSSH campaigns ensures that regional stormwater outreach is effective, consistent, and cost-efficient.

The 2023 PSSH media campaign was held from September 1<sup>st</sup> - November 22<sup>nd</sup> and included ads on social media, print and digital media and movie theaters. The 2023 “Don’t Wait to Inflate” campaign focused on creating awareness to encourage people to learn more about proper tire pressure. The campaign asked viewers to check tire pressure monthly and add air as soon as possible to drive safer, save money, and

save coho salmon. Puget Sound Starts Here ads on Facebook, YouTube, and Instagram were viewed 4,219 times on devices within in the City.

*Pollution Prevention Assistance:* The City cooperates with the Pollution Prevention Assistance (PPA) program of the Kitsap Public Health District. The PPA program provides non-regulatory, technical assistance to businesses to incorporate BMPs that prevent pollution and responsibly manage waste.

### *Stewardship*

The City of Poulsbo Tree Board and the Fish Park Steering Committee provide multiple opportunities for community involvement and stewardship with a focus on tree planting and landscape mitigation in both upland and riparian locations. In 2023 20 work party events were held in Fish Park and 923.25 volunteer hours were logged.

Poulsbo's Fish Park Steering committee participated in two events in 2023 to provide outreach to citizens within the City. On June 3<sup>rd</sup>, the committee engaged with citizens in honor of National Trails Day. Approximately 75 citizens visited the Committee booth.

Poulsbo's Fish Park also participates in Kitsap County's Salmon Tours, an annual event that gives citizens the opportunity to view migrating salmon and cutthroat trout and take part in interactive activities that educate participants in environmental protection and water quality issues. In 2023, approximately 300 people attended Kitsap's Salmon Tours at Poulsbo's Fish Park.

### **2.3 PLANNED ACTIVITIES**

The City will continue to be involved in the PSSH Campaign, STORM, WSSOG, and stewardship activities throughout the city. Further stewardship activities will be considered as opportunities and funding allows.

WSSOG hired a consultant to conduct an evaluation of the Natural Yard Care Campaign, as required by the NPDES permit. The evaluation explored the campaign's impact on audience receptivity to the desired behavior change. 2,481 households were surveyed within WSSOG jurisdictions, in addition to in-person and phone interviews with nurseries and garden centers involved in the distribution of the organic fertilizer discount. The final report of the evaluation provided several recommendations to improve the Natural Yard Care campaign, including focusing future efforts on moving beyond awareness to skill building, identifying a behavior that is non-divisible (does not contain multiple steps), expanding the use of social marketing tools, and clarifying the purpose of the fertilizer discount. The WSSOG will be using the results of the evaluation to build upon and improve the 2025 Natural Yard Care campaign.

## 3. 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:

- 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 no later than May 31 each year. All other submittals shall be available to the public upon request.

#### 3.2 CURRENT ACTIVITIES

Opportunities for citizen comments are available at meetings of the City Council, Open House meetings, and stakeholder meetings. Public hearings are held for any legislative actions such as proposed rate structure revisions and Comprehensive Plan updates. The annual report, SWMP, and Comprehensive Land Use Plan are posted on the City's website and a comment form is posted with the SWMP.

In 2021, Kitsap County was awarded a \$42,000 Municipal Grant of Regional or Statewide Significance (GROSS) from the Department of Ecology. This grant was used to support WSSOG's efforts in providing overburdened communities meaningful opportunities for public involvement and participation. The County created a web-based story map designed to guide WSSOG partners towards meaningful, inclusive, and equitable outreach. The story map comprised of 23 demographic, socio-economic, and health/environment metrics and indicators. Metrics can be viewed down to a community level or census tract. The City provided stormwater utility information for this tool to inform future stormwater planning decisions.

In 2023, Kitsap county facilitated the final deliverable of the GROSS grant with the assistance of the community engagement and consultants with The Athena Group. The Athena Group hosted three action-oriented workshops to evaluate existing outreach programs and identify strategies to reach overburdened communities. The Athena group also created an *Outreach and Engagement Report and Implementation Plan* for Kitsap County and WSSOG members.

### **3.3 PLANNED ACTIVITIES**

All current activities in section 3.2 are planned to continue. Additional opportunities that may arise will be supported when appropriate and when funding, staffing, and partner resources are available.

The *Outreach and Engagement Report and Implementation Plan* provided guidance and implementation schedules for meaningful and authentic outreach. The WSSOG will use the plan to develop guiding principles for our work, develop engagement goals, and engage with partners in our community.

## 4. MAPPING AND DOCUMENTATION

### PERMIT REQUIREMENT S5.C.4

#### 4.1 PERMIT REQUIREMENTS

An ongoing program for mapping and documenting the MS4.

The minimum performance measures are:

- Permittees must map known MS4 outfalls, discharge points, receiving waters, stormwater facilities owned or operated by the permittee, tributary conveyances larger than 24 inches in diameter to all known outfalls and discharge points, associated drainage areas and land use, connections between the permittee's MS4 and other municipalities, and all connections to the MS4 made after February 16<sup>th</sup>, 2007, that has been authorized by the permittee.
- No later than August 1<sup>st</sup>, 2023, permittees must complete mapping of all known connections from the MS4 to a privately owned stormwater system.

#### 4.2 CURRENT ACTIVITIES

Mapping requirements have been completed, including all known connections from the MS4 to privately owned stormwater systems. Existing maps are updated as necessary to map new infrastructure or to revise incorrect information. Mapping data is collected and stored using asset management software.

#### 4.3 PLANNED ACTIVITIES

All current activities in section 4.2 are planned to continue. Updates to existing maps will be performed to include new infrastructure and revise incorrect information as it is discovered.



## 5. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

### PERMIT REQUIREMENT S5.C.5

#### 5.1 PERMIT REQUIREMENTS

Develop and implement an ongoing program designed to prevent, detect, characterize, trace, and eliminate illicit connections and discharges into the MS4.

The minimum performance requirements are:

- Develop procedures for reporting, correcting, and/or removing illicit connections, spills, and other illicit discharges when they are suspected or identified. Pollutants entering the MS4 from an interconnected, adjoining MS4 must also be addressed. Illicit connections and discharges must be identified through field screening, inspections, complaints/reports, construction inspections, maintenance inspections, source control inspections, and/or monitoring information.
- Inform public employees, businesses, and the general public of hazards associated with illicit discharges and improper waste disposal.
- Permittees must implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater discharges into the Permittee's MS4. The ordinance or regulatory mechanism must include escalating enforcement procedures and actions.
- Create an ongoing program designed to detect and identify non-stormwater discharges and illicit connections. The program must include procedures for conducting illicit discharge investigations, a field screening methodology appropriate to the characteristics of the MS4 and water quality concerns, an ongoing training program for all staff who might come into contact or observe an illicit discharge as part of their normal job responsibilities, and a publicly listed and publicized spill hotline.
- Implement an ongoing program designed to address illicit discharges into the MS4 which includes procedures whose actions meet timelines described in the Permit. The program must include procedures for tracing and elimination of the source of an illicit discharge.

- Track and maintain records of the activities conducted to meet the specific reporting requirements to Ecology for this permit section.

## **5.2 CURRENT ACTIVITIES**

Reports of spills and illicit discharges are investigated, and appropriate actions are taken depending on the nature of the event. Poulsbo Municipal Code (PMC) 13.18 gives the City legal authority to require illicit discharges to be corrected and penalize the responsible party, if warranted. Illicit discharges and enforcement actions are documented and tracked. The telephone hotline Kitsap1 (360-337-5777) is advertised throughout Kitsap County for reporting illicit discharges and spills. The City has also partnered with Kitsap County's SeeClickFix program. Reports of spills and illicit discharges within the City's MS4 that are reported to SeeClickFix or Kitsap1 are immediately forwarded to the City. Illicit discharges can be reported online at [www.kitsap.gov/dis/Pages/callkitsap1.aspx](http://www.kitsap.gov/dis/Pages/callkitsap1.aspx).

City employees are trained to identify and report illicit discharges. New and refresher training is provided when appropriate. Program guidance is provided by the *Illicit Connection and Illicit Discharge Field Screening and Tracing Guidance Manual*, prepared by Herrera Environmental Consultants. Additional field screening is implemented as required by the permit and is ongoing in association with the operations and maintenance (O&M) program for municipal facilities.

Public employees, businesses, and the public are informed of hazards associated with illegal discharges and improper disposal of waste in accordance with permit requirements. Magnets with information about Kitsap1 and spill reporting are available on the 2<sup>nd</sup> floor of City hall and businesses are informed of the hazards of illicit discharges during stormwater source control inspections.

The City has had an Inter Local Agreement (ILA) with Kitsap Public Health District since 2009 to perform water quality sampling. Sampling results are used to detect and investigate illicit discharges. Screenings were originally only performed at outfalls during dry-weather. In 2015 the City created a Total Maximum Daily Load (TMDL) Implementation Plan for fecal coliform in Liberty Bay. The TMDL implementation plan included two additional annual wet-weather screenings, as well as stream sampling.

To fulfill the permit requirement to detect and eliminate illicit connections and discharges from commercial properties and private stormwater facilities, the Private Facility

Maintenance (PFM) program was created. The PFM program requires owners of private stormwater facilities to inspect and maintain their facilities. Records of inspections and maintenance must be turned into the City annually. Under the NPDES permit, private stormwater facilities permitted after February 16<sup>th</sup>, 2010, must comply with this requirement. Poulsbo's PFM program exceeds the permit requirement by requiring inspection and maintenance for all properties with private stormwater facilities.

### **5.3 PLANNED ACTIVITIES**

All current activities will be continued and refined as necessary.

## 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, as well as 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<sup>th</sup>, 2022. This includes legal authority to inspect and enforce maintenance standards for private stormwater facilities that discharge to the Permittee's MS4. Records of inspections and enforcement must be kept.
- The permitting process must include site plan review, enforcement capabilities, and inspections before, during, and after construction.
- Permittees must verify that a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control BMPs/facilities.
- Electronic *Construction Stormwater General Permit* Notice of Intent (NOI) form and *Industrial Stormwater General Permit* NOI must be available to representatives of proposed new development and redevelopment. Permittees must continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permit issued by Ecology.
- All staff whose primary job duties are implementing this section's program must be trained to conduct these activities. Follow-up training must be provided as needed.

## **6.2 CURRENT ACTIVITIES**

The City's permitting process includes plan review, inspection, and enforcement capabilities in accordance with the permit. In May 2022 the *2019 Stormwater Management Manual for Western Washington (2019 SWMMWW)* was adopted to regulate standards for new development and redevelopment. The *2019 SWMMWW* is used to protect water quality and reduce the discharge of pollutants to the MS4 during development and construction. Developers must use the *2019 SWMMWW* to apply all known, available, and reasonable methods of prevention, control, and treatment (AKART) during site planning, BMP selection and design, and low impact development (LID) competing needs criteria.

Site plans are reviewed for the elements above to ensure that appropriate BMPs are selected and designed to the maximum extent practicable. Employees implementing permit requirements have training on erosion control, construction inspections, low impact development techniques, and stormwater design standards and practices. Staff that perform construction site inspections are also Construction Site Erosion and Sediment Control Lead (CESCL) certified. The City maintains records of inspections, enforcement, and maintenance activities.

Maintenance responsibility, standards, inspection requirements, and procedures for long term operation and maintenance of permanent stormwater control facilities is codified in City ordinance. The Private Facility Maintenance program (PFM) supports this effort by requiring commercial properties to inspect, their stormwater facilities, perform maintenance as required, and submit documentation to the City.

In 2023, City staff reviewed 8 site plans and did not grant any variances to the requirements in the *2019 SWMMWW*. 11 construction sites were inspected by City staff and 2 stop work orders were issued due to violations of the City's Stormwater Municipal Code.

## **6.3 PLANNED ACTIVITIES**

The activities described in section 6.2 will be continued as required by the permit, with refinements and adjustments made as necessary.

## 7. OPERATIONS AND MAINTENANCE

### PERMIT REQUIREMENT S5.C.7

#### 7.1 PERMIT REQUIREMENTS

Implement a program to regulate and conduct O&M activities 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 *2019 SWMMWW*.
- For 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.
  - Spot check potentially damaged stormwater treatment and flow control BMPs/ facilities after major storm events and take appropriate maintenance actions.
  - Inspect all catch basins and inlets owned or operated by the Permittee every two years. Clean as needed for compliance with maintenance standards.
- For stormwater facilities regulated by the Permittee:
  - Verify adequate long-term maintenance of stormwater facilities by implementing an ordinance or other enforceable mechanism that clearly identifies the party responsible for maintenance, requires annual inspection of facilities, and establishes enforcement procedures.
- By December 31<sup>st</sup>, 2022, document the practices, policies, and procedures implemented to reduce stormwater runoff from lands owned or maintained by the permittee.
- Conduct a training program for employees whose primary job functions may impact stormwater quality. Training shall address the importance of protecting water quality, operation and maintenance standards, relevant Stormwater Pollution Prevention Plans (SWPPP), selecting appropriate BMPs, ways to perform job

activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns.

- Create a SWPPP for all heavy equipment maintenance and storage yards, and material storage facilities owned or operated by the Permittee. SWPPPs must be updated no later than December 31<sup>st</sup>, 2022.
- Records of activities conducted to meet the requirements of this section must be maintained.

## **7.2 CURRENT ACTIVITIES**

In 2023, the City:

- Inspected 1,375 catch basins
- Maintained 585 catch basins
- Inspected 158 Stormwater facilities/ BMPs
- Maintained 16 Stormwater facilities/BMPs

Long-term operation and maintenance of permanent stormwater control facilities is codified in City ordinance. Maintenance responsibility, standards, inspection requirements, and procedures are addressed. Annual inspections and maintenance are required under the Private Facility Maintenance (PFM) program. In 2022, the private and public facility maintenance manual was updated to comply with maintenance standards in the *2019 SWMMWW*.

The City takes steps to minimize pollutants in runoff from City activities and on land owned or operated by the city. The following activities, as required by the permit, were evaluated for their contribution to run-off pollution: street cleaning, snow and ice control, utility installation, pavement striping maintenance, dust control, application of pesticides, sediment and erosion control, landscape maintenance, trash management, and stormwater conveyance maintenance. For each of these activities, fact sheets were created detailing the activity and required source control BMPs to be implemented when performing those activities (from the *2019 SWMMWW*). The fact sheets are used by supervisors to help train new employees and provide refresher training for current employees.

In addition to fact sheets for city activities, a Stormwater Pollution Prevention Plan (SWPPP) is in place for all facilities owned by the City that conduct heavy equipment maintenance and storage, as well as bulk material storage. Requirements in the SWPPP include monthly site inspections, annual inspections of stormwater facilities, and stormwater facility inspections after storm events. Records of inspections, maintenance, and repair activities are maintained.

### **7.3 PLANNED ACTIVITIES**

The above activities will be continued and refined as needed. The City will continue to inspect 50% of city-maintained catch basins and all stormwater facilities annually. The SWPPP for City owned properties is reviewed annually for any major revisions.



## 8. 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 must require the application of BMPs to pollutant generating sources associated with existing land uses and activities. Applicable sites include publicly and privately owned institutional, commercial, and industrial sites.

The minimum performance measures are:

- No later than August 1<sup>st</sup>, 2022, adopt and make effective an ordinance or other enforceable documents which requires the application of source control BMPs for pollutant generating sources associated with existing land uses and activities described in Permit Appendix 8.
- All pollutant generating sources shall be required to implement all applicable source control BMPs. Structural source control BMPs or treatment BMPs/facilities may be required if operational source control BMPs do not prevent illicit discharges or violations of surface water, groundwater, or sediment management standards.
- An inventory that identifies publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4 must be established by August 1<sup>st</sup>, 2022.
- No later than January 1<sup>st</sup>, 2023, Permittees shall implement the inspection program requiring application of BMPs at identified pollutant generating sites. The inspection program shall include:
  - Notification to all sites in the inventory about activities that may generate pollutants and source control requirements.
  - Annual inspections equal to 20% of the sites listed in the source control inventory. Follow-up compliance inspections at the same site, as well as inspections conducted after credible complaints, may be counted towards the 20%. It is not required to inspect 100% of sites within a 5-year period.
  - All sites identified through credible complaints will be inspected.
  - Enforcement of sites that fail to adequately implement BMPs after a follow-up inspection.

- Retention of records to demonstrate an effort to bring sites into compliance, including documentation of each site visit, inspection reports, warning letters, notices of violations, and any other enforcement records.
- Training for staff responsible for implementing the source control program to conduct these activities.

## **8.2 CURRENT ACTIVITIES**

Poulsbo Municipal Code (PMC) chapter 13.18 requires all properties within the City to implement source control BMPs and prevent non-stormwater discharges. PMC 13.18 has required the implementation of source control BMPs for several years, however, the code was refined in November 2022 to provide consistency with stormwater permit language and other Kitsap county municipalities' source control codes.

A site inventory for the source control program was completed in June 2022. The source control site inventory contains 160 privately and publicly owned sites that conduct activities that have the potential to contaminate stormwater, as defined in Appendix 8 of the NPDES permit. This includes, but is not limited to, food service, industrial activities, vehicle maintenance and washing, and manufacturing. The source control inventory was compiled using commercial stormwater utility accounts, business licenses, Washington Department of Revenue business look-up tool, and windshield surveys.

In October 2022, two City employees attended training for municipal source control, sponsored by the Washington Stormwater Center's Business Inspection Group (BIG). The in-person training addressed creating a source control program, implementing a progressive enforcement policy, site inspections, and best management practices. A source control program manual that utilizes resources from the BIG was developed for staff administering the program.

In 2023, all sites identified in the source control program were sent mailers about the program. The mailers included activity specific self-evaluations containing best management practices relevant to their site. Site managers and/or owners were asked to complete the self-evaluations and return them to the City. The self-evaluations were also accessible through a Survey123 survey form. These mailers satisfied permit requirements to notify sites of the program before the end of the permit cycle and gave owners an opportunity to ask questions or provide comments about the program. The City received 18 self-evaluations, responded to complaints at three sites in the program, and performed in-person source control inspections at nine businesses. No enforcement action was taken

at any of the sites. One site did receive a written warning letter regarding the illicit discharge of food service-related waste.

### **8.3 PLANNED ACTIVITIES**

The permit requires that 20% of all sites on the source control inventory be inspected annually. The City of Poulsbo's source control inventory contains 160 sites. The 32 inspections required annually can include initial inspections, follow-ups, and enforcement. Other program elements such as progressive enforcement policies and training will continue and be adjusted as necessary.

## 9. TOTAL MAXIMUM DAILY LOAD REQUIREMENTS (TMDL)

### PERMIT REQUIREMENT S7

#### 9.1 PERMIT REQUIREMENTS

The Total Maximum Daily Load (TMDL) is a water quality improvement metric to clean up polluted waters to meet state water quality standards. The federal Clean Water Act requires a TMDL plan for each waterbody on Washington State's polluted waters list, known as the 303(d) list. NPDES Permittees may be subject to applicable TMDLs for stormwater discharges from their MS4. For applicable TMDLs listed in Appendix 2 of the permit, affected Permittees shall comply with the specific requirements. The TMDL for Liberty Bay is not listed in Appendix 2 and no special requirements are necessary besides compliance with the NPDES permit.

#### 9.2 CURRENT ACTIVITIES

In 2013, Ecology prepared the *Liberty Bay Watershed Fecal Coliform Bacteria TMDL and Water Quality Implementation Plan*. The TMDL was created because bacterial contamination was affecting beneficial uses like shellfish harvesting and primary contact recreation in Liberty Bay. The City's TMDL is currently not included in the NPDES permit but the City has taken proactive steps to implement TMDL standards.

In 2016, the City received a grant from the Department of Ecology to develop an implementation plan to provide a framework to meeting TMDL requirements. The plan is available on the City's website (<https://cityofpoulsbo.com/wp-content/uploads/2017/04/libertybayTMDLplan.pdf>). The plan includes an assessment of the watershed that identified needs and opportunities for improving water quality in Liberty Bay. The TMDL plan sets to improve water quality in Liberty Bay through effectiveness monitoring, capital improvements, and operations and maintenance.

The TMDL focuses on IDDE efforts in the MS4 upstream of Liberty Bay sampling sites with Load/Waste Load Allocations. To support the TMDL, the City has undertaken the following actions:

- Doubled the frequency of catch basin inspections due to the requirements under the 2019-2024 NPDES permit.
- Conducted stormwater public outreach and education centered around Liberty Bay watershed pollution sources, as described in Section 2 of this document.

- Encouraged local stewardship and engagement with the public on pollution prevention practices through an ongoing Inter-Local Agreement (ILA) with the Kitsap Conservation District.
- Active seeking of supplemental grant funding to implement more capital improvement projects that support pollution prevention and habitat restoration/enhancement.

In response to the State requirement for managing the growth and development of the City, the Planning Department identified areas which require ecological protection. Maps have been developed to show areas in the City where there are critical aquifers, geological hazards, fish and wildlife habitat, wetlands, and shoreline. The adopted codes and maps support the TMDL requirement to identify areas with high potential to contribute bacteria and sediment to nearby surface waters.

The 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 in 2018-2019 coincided with the annual water quality sampling rounds and was used to provide additional direction for IDDE efforts.

In collaboration with Clean Water Kitsap and the Suquamish Tribe, the Liberty Bay growing area was re-established and 760 acres of shellfish beds were reopened in 2017 for the first time in several decades.

### **9.3 PLANNED ACTIVITIES**

The City will continue to support and develop a multi-faceted approach to meeting TMDL requirements. The Source Control Program (permit requirement S5.C.8) will prioritize businesses that have the potential to discharge fecal coliform bacteria, including restaurants or facilities that dispose of food waste in outdoor trash containers. The City will continue to explore opportunities in the Liberty Bay watershed to encourage citizen stewardship of the environment.

In 2023, the City received a grant from the Department of Ecology for construction of the West Poulsbo Storm Retrofit Project. This project will improve water quality in Liberty Bay through the construction of bioretention cells and a proprietary media Bioscape cell in Nelson Park. The 74-acre upstream basin is currently untreated and contains high ADT

roadways, commercial, residential, and industrial land uses. The basin's redevelopment potential is low, indicating that the project can provide a significant benefit to water quality in Liberty Bay and support TMDL goals. Construction is scheduled to occur this summer.

## 10. MONITORING AND ASSESSMENT

### PERMIT REQUIREMENT S8

#### 10.1 PERMIT REQUIREMENTS

To meet this permit requirement, permittees must implement stormwater monitoring assessment either individually or by paying into a collective fund to support regional monitoring in association with other permittees. Monitoring shall address 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. The collective, called the Stormwater Action Monitoring (SAM) group, conducts effectiveness studies, records water quality status and trends, and investigates regional solutions for source control. The Stormwater Working Group (SWG) solicits and selects SAM studies and manages the pooled resources contributed by members.

#### 10.3 PLANNED ACTIVITIES

The City will continue its participation in the regional collective. The 2024-2025 SAM workplan includes:

- Support, management and implementation of SAM.
- Overseeing the Department of Ecology's administration of the SAM pooled resources.
- Support the SWG 6-PPD subgroup in their efforts to advance stormwater management of 6-PPD.
- Engage in conversations about regional monitoring of runoff from agricultural sources.
- Bridge stormwater work with the implementation of the Health Environmental for All (HEAL) Act and regional environmental justice initiatives.

## 11. FINAL SUMMARY

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### 11.1 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.

### 11.2 CONTACT INFORMATION

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### 11.3 CREDITS

Front cover picture courtesy of Poulsbo Parks and Recreation Department