



2023
City of Bremerton
Stormwater Management Program
(SWMP)
Western Washington NPDES Phase II
Municipal Stormwater Permit
WAR04-5507

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Stormwater Management Program Summary

Introduction

The City of Bremerton (City) is surrounded by water, forest lands, and scenic mountain views to the east and west, with majestic Mt. Rainier to the southeast. An average of 54" of rain falls on Bremerton every year which fills local lakes, wetlands, streams, and recharges our aquifers that provide drinking water. Shallow aquifers are recharged by rainfall and provide year around base flow in our streams.

Rainfall is a great asset for the area but our daily activities leave traces of pollution on the ground that mix with stormwater to be carried to local surface waters as runoff. Impervious surfaces such as paved streets, parking lots, building rooftops, and gravel areas are not able to infiltrate rainwater into the ground, so stormwater systems are constructed to collect and convey water to streams, lakes, and marine water ways to prevent flooding and keep roads open for use. Runoff also picks up pollutants like trash, chemicals, oils, dirt, and sediment that can harm our streams, lakes, and Puget Sound. To protect these resources, best management practices (BMPs) were developed and are being implemented. Correct use of BMPs prevents erosion, eliminates potential pollutants through behavior change, removes pollutants in runoff, and protects water quality.

The Environmental Protect Agency (EPA) developed the National Pollutant Discharge Elimination System (NPDES) Permit, to regulate discharges from small Municipal Separate Storm Sewers Systems (MS4s). Washington State Department of Ecology was delegated authority to implement this program and to issue the stormwater permit to counties, cities, and the Washington State Department of Transportation. Bremerton is designated a Phase II Municipal Stormwater Permittee, population less than 100,000.

Program activities for 2023 are summarized in this Stormwater Management Program (SWMP) Plan. Required activities are addressed in the same order listed in the Permit. Each section has a short description of minimum performance measures, a summary of the existing program, and planned program components to fulfill Permit requirements. The Stormwater Program complies with the Growth Management Act, City's Comprehensive Plan, Shoreline Master Plan, and supports the City's Stormwater Comprehensive Plan which provides long range operational and capital improvement guidance for the Utility.

Bremerton's Stormwater Utility manages system assets, budget, capital improvements, operation, maintenance, construction, street sweeping, environmental monitoring, restoration, private system inspections, stormwater code enforcement, and public education. Education and outreach provide the community with knowledge and tools to prevent and reduce stormwater pollution by implementing practices to help reduce pollution at the source. The city uses and promotes low impact development (LID) practices to minimize the impact of stormwater from the urban landscape. Stormwater treatment is included in city capital project where practicable. This includes

transportation projects, facility improvement projects, Parks redevelopment, and standalone retrofits in targeted areas to improve the quality of runoff.

The Stormwater Program supports Park's Department redevelopment projects and partners with them to help improve water quality from their properties when possible. New and re-development that meet the LID threshold are required to include these practices and BMPs in their plans or provide evidence that LID is not feasible. This does not relieve the developer of water quality, or quantity control requirements.

The broad-ranging Permit regulates activities that impact stormwater quality and quantity from the City's stormwater system. These requirements affect businesses, residents, development, and city activities. Bremerton's Public Works & Utilities (PW&U) Department coordinates, implements, provides compliance oversight, and performs required reporting for the Permit.

City of Bremerton Stormwater Management Program (SWMP)

The goals of the Stormwater program are:

- Comply with NPDES Stormwater Permit requirements,
- Comprehensive Stormwater Management Planning,
- Implement Asset Management system to effectively and proactively manage, operate, and maintain the stormwater system, and financial health of the utility,
- Strive to effectively manage stormwater runoff within the city limits,
- Provide education and outreach to staff and the public,
- Encourage public involvement with stormwater program activities,
- Provide acceptable levels of service which include:
 - Prevent flooding,
 - System condition evaluation and monitoring,
 - Upgrade and replace older and failing assets,
- Protect environmental resources by:
 - Protecting and improving water quality,
 - Reducing stormwater runoff quantity,
 - Restoring streams and eliminating fish barriers,
 - Address climate change concerns.
- Promote pollution prevention through education and inspections,
- Maintain and update stormwater GIS system mapping,
- Assess and prioritize watershed water quality goals,
- Identify and prioritize water quality improvement retrofit sites,
- Install, monitor, and maintain water quality retrofit treatment systems,
- Comply with Total Maximum Daily Load (TMDL) requirements,
- Maintain a balanced budget for the program.

Legal Authority

Bremerton established the Stormwater Utility in 1994 pursuant to Ordinance 4454 as codified in the Bremerton Municipal Code (BMC) 15.04 - Stormwater. Funding for the Stormwater Utility is provided by user fees as codified in Bremerton Municipal Code (BMC) Title 3.01 Rate and Fees. Bremerton's SWMP is updated annually as required by the Stormwater Permit and as codified in BMC 15.04.050 - Stormwater Management Program (SWMP).

Bremerton Municipal Code

Bremerton Municipal Code (BMC) section 15.04-Stormwater establishes regulations to prevent or reduce stormwater pollution from human activities. Bremerton adopted Ecology's Stormwater Management Manual for Western Washington (SWMMWW) as the guidance to establish the minimum requirements for stormwater pollution prevention in existing and new or redevelopment. A portion of Bremerton's stormwater system is combined with the sanitary sewer system, but the same rules are applied to all areas of the system to provide consistency in regulating activities.

Bremerton was reissued the Stormwater Permit (Permit) on August 1, 2019, by the Washington State Department of Ecology (DOE). Regulatory statutes governing the Permit are the State of Washington Water Pollution Control Law, Chapter 90.48 Revised Code of Washington (RCW) and the Federal Water Pollution Control Act (The Clean Water Act) Title 33 United States Code, Section 1251 *et seq.*

Implementation of the SWMP is tracked and evaluated to improve the program and to fulfill Permit requirements. Cost for development and implementation of the SWMP is tracked as required by the Permit, and is being improved with the implementation of an asset management system. Bremerton has partnered with other agencies and cities to coordinate stormwater related policies, public education, programs, and projects through interlocal agreements and coordination groups.

Implementation of this SWMP is expected to reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable (MEP) and will protect beneficial uses of local receiving waters. The Program meets state requirements for use of all known, available, and reasonable methods of prevention, control, and treatment (AKART) to protect water quality.

S5.C.1 Stormwater Planning

The objective of watershed-scale stormwater planning is to identify a stormwater management strategy or strategies that result in hydrologic and water quality conditions that fully support "existing uses," and "designated uses," as those terms are defined in WAC 173-201A-020, throughout the stream system.

The 2019 Permit included a Stormwater Management Action Planning (SMAP) effort, with a focus on protecting and improving water quality. The plan identifies receiving waters that will benefit from upland operational BMP activities such as increased street

sweeping and MS4 cleaning, and/or where treatment retrofits would provide significant improvement.

The SMAP planning effort identified the Kitsap Lake, Oyster and Ostrich Bay's drainage basins as the top priority areas. In 2016, the city started a similar evaluation process and identified Oyster Bay and Ostrich Creek Basins as the highest priority areas where water quality improvement could be achieved with specific projects. Ostrich Creek is one of the most polluted streams in Kitsap County and can benefit from further evaluation that would include a wastewater collection system extension into the West Hills area. Projects to improve water quality and address some quantity issues were identified with some completed and listed below:

1. Planning project for Ostrich and Oyster Bay watersheds are underway in the SMAP effort. Projects planned and completed include:
 - a. New fish passible structure under Kitsap Way, constructed in 2022,
 - b. Ostrich Creek Stormwater Treatment Retrofit construction with 14 treatment systems, completed in 2022,
 - c. Price Road and Brentwood Drive fish barriers removal, began construction in 2022 and will be finished in 2023 using bridges to eliminate the barriers,
 - d. Marine Drive and Kitsap Way Stormwater Treatment Retrofits, completed in 2020,
 - e. Kitsap Way at Oyster Bay Ave N. treatment retrofit preliminary design will be completed and grant application for final design submitted in 2023,

Kitsap Lake is a priority drainage basin due to elevated phosphorus and fecal coliform levels that affect recreational use and contribute to poor water quality of the lake. Projects to improve water quality of the lake and remove a fish barrier are listed below:

- a. Kitsap Lake stormwater treatment design project is completed for four locations. A construction grant will be awarded in 2023 for work we will complete in 2024. The project will improve water quality with direct benefit to the lake, Kitsap Creek, and Dyes Inlet where the stream discharges.
- b. Kitsap Lake algae control and aquatic vegetation harvesting is an ongoing program to reduce phosphorus in the lake water to reduce algae blooms. The lake discharges to Kitsap Creek, flows into Chico Creek which enters Dyes Inlet next to conditionally approved shellfish beds.
- c. Preliminary design to replace the culvert under Northlake Way, the lake's discharge conveyance, was completed in 2021. Funding for the final design and construction is actively being sought to support this project.
- d. Stormwater treatment on Francis Drive at Kitsap Lake, preliminary design completed in early 2023 with final design grant application being submitted in fall of 2023,

Planning to be completed in 2023 includes:

1. Completion of Oyster and Ostrich Bay Watershed preservation and restoration plan, with additional projects to finish the retrofit efforts in these basins. Many of the identified projects are under construction or on the 6-year CIP.
2. Kitsap Lake Watershed Restoration and Management Plan will be completed and have new projects identified for implementation over the next 10 years.

Stormwater Management Action Planning (SMAP) is an ongoing effort that will identify new priority basins and specific projects that will be added to the CIP. This effort follows Ecology's guidance.

S5.C.1.a Convene an Inter-Disciplinary Team

Bremerton's team consists of staff and management from Public Works divisions including Engineering, Stormwater Operations, Maintenance, Facilities, Community Development, and the Parks Departments, as well as Kitsap Public Health. Bremerton works closely with Kitsap County to coordinate stormwater pollution prevention activities and treatment retrofits to improve water quality. In 2019-22, ad hoc meetings were held with individual groups, and staff, related to their areas of responsibility within the city's organization. Topics reviewed included Permit required stormwater actions, pollution prevention, land use and zoning, buildable lands inventory, density, road cover, development pressure, existing areas with minimal water quality and flow control treatment, and existing water quality data.

In 2023, group meetings will be held to review and share consolidated data, gather input on proposed actions, and to continue coordination efforts with Kitsap County and Port Orchard to support regional opportunities where MS4's intermingle.

S5.C.1.b Coordination with Long-Range Plan Updates

Describe how stormwater management needs and protection/improvement of receiving water health are (or are not) informing the planning update processes and influencing policies and implementation strategies. Develop a report that describes water quality and watershed protection policies, strategies, codes, and other measures intended to protect and improve local receiving water health through planning or taking into account stormwater management needs or limitations.

Bremerton's MS4 is an older system that was originally built as a combined sewer system (collected and conveyed both stormwater and wastewater to the discharge point) from the early 1900's through the 1950's when wastewater treatment plants and interceptor pump stations were constructed. The primary purpose of the system was to provide safe ingress and egress throughout the city and protect property from flooding using collection and conveyance systems. The combined system would regularly overflow combined sewage (CSOs) into Puget Sound when it rained. By 2009, approximately 90% of the stormwater system had been separated from the sanitary

sewer system, but some areas are still combined. Areas still combined are in the Stormwater CIP as separation projects in the long-range capital improvement plan.

The CSO Reduction program achieved a 99.9% reduction in frequency and volume of overflows which significantly improved water quality in the region. Stormwater that used to be treated at the WWTP now needs to be treated prior to discharge to receiving waters. Several stormwater treatment retrofit projects have been completed and many more are planned over the next 20 years.

Stormwater pollution reduction efforts have been ongoing for more than three decades with CSO reduction, and private property separation (separating private stormwater systems from the sanitary sewer). Installation of stormwater treatment retrofits has been a focus of the past 10 years.

A report will be developed in 2023 to summarize how the City's program has focused on improving water quality in the highest need areas and how successful the approach has been.

S5.C.1.c Low Impact Development (LID) Code-Related Requirements

Bremerton is required to use LID Principles and LID BMPs when updating, revising, and developing new local development-related codes, rules, standards, or other enforceable documents, as needed. The intent is to make LID the preferred and commonly-used approach to site development. The local development-related codes, rules, standards, or other enforceable documents shall be designed to minimize impervious surfaces, native vegetation loss, and stormwater runoff in all types of development situations, where feasible.

Bremerton Municipal code 15.04.100 requires the use of Low Impact Development (LID) best management practices (BMPs) to manage stormwater runoff for new and redevelopment. The City's Comprehensive Plan, sub-area plans, and related land development code, BMC 20 – Land Use, require and encourage use of LID as the preferred method to manage stormwater. Reduction of impervious areas is encouraged where possible and balanced with public safety concerns in areas such as access road width for emergency and maintenance vehicles.

A city-wide infiltration assessment was completed to identify where infiltration is most likely to be a successful method for stormwater onsite management. The assessment will assist our development engineering staff when evaluating new applicant plans.

Pervious pavement is incorporated into Public Works and Park's projects where feasible. However, maintenance and longevity of these surface systems is a concern. Concrete is more durable and pervious pavement HMA tends to be compacted by vehicles during hot weather, and spalls in parking areas from tire movement. Options for reasonable maintenance are limited and if the pervious surface is not regularly cleaned

the surface pours will plug and not infiltrate rainfall. Moss tends to grow on sidewalk surfaces which is a public safety concern. Better maintenance options will be researched in 2023 to extend the life of this surface treatment.

Stormwater treatment is included in transportation projects and provides efficiency in completing retrofits to improve stormwater quality from the MS4. Bioswales are incorporated into road projects where practicable and land is available. The Perry Avenue and East 11th street project will install treatment systems to improve water quality discharged from this area.

In 2023, BMC 15.04 will be updated to include specific requirements that promote retention of native vegetation, it is already encouraged in critical areas, to further protect natural resources. Appropriate members of the coordination group will be used to identify areas where processes, alternatives selection, and implementation can be improved to support developers and capital projects in the city. Improved tracking of allowed variations related to LID being used in new and redevelopment projects will be implemented.

S5.C.1.d Stormwater Management Action Planning (SMAP)

Conduct Stormwater Management Action Planning per Ecology guidance (Ecology, 2019; Publication 19-10-010). SMAP requirements at a watershed scale must be completed for at least one priority catchment located within the city's jurisdiction.

The City of Bremerton is completing Stormwater Management Action Planning as outlined in the Stormwater Management Action Planning Guidance provided by Ecology (Ecology, 2019; Publication 19-10-010). The effort collected a wide range of existing data to determine which watershed(s) would benefit most from targeted actions to restore water quality and improve overall habitat.

The program included development of a watershed inventory table that was deliverable to Ecology in March 2022, along with a prioritized list of receiving waters in June 2022. Development of a SMAP for two high priority catchment areas has been completed and submitted to Ecology in March 2023.

These are components of the SMAP effort:

Develop Supplemental Water Quality and Flow Data to Inform Receiving Water Assessment:

- Pollutant loading analysis of watersheds (GIS Desktop Analysis)
- Link pollutant loading to receiving water impacts (GIS Desktop Analysis)
- Nearshore and deep marine water sediment pollutant potential analysis (Existing reports analysis, Black, Lanksbury and Coastal Data)

- Link nearshore and deep marine water sediment pollutant analysis to stormwater outfall pollutant potential (GIS Desktop Analysis)
- Identify local beneficial uses and desired water quality conditions

Assess Stormwater Management Impacts for Each Basin (GIS Desktop Analysis)

- Impervious area, as a percent of each basin
- Land use
- Density
- Road Cover
- Development pressure
- Existing areas with minimal water quality and flow control treatment

Prioritize Watersheds

- Visualize water quality and flow data for each basin,
- Visualize stormwater management impacts for each basin,
- Develop basin prioritization and ranking process,
- Solicit stakeholder input,
- Identify and document basin ranking and prioritization outcomes,
- Select high priority basin,
- Select high priority catchment,

Action Plan for High Priority Catchment

- Identified three potential retrofit projects,
- Performed analysis of cost-effectiveness in terms of expected receiving water benefit for each project,
- Developed preliminary design for top two (2) retrofit projects, to 30% design,
- Identify, evaluate, and select non-structural stormwater management actions for optimum benefit for the highest priority beneficial use and water quality problem (Desktop analysis, internal process, narrative report, in the SMAP).

Grant funding will be applied for in 2023 to move the project forward to final design.

S5.C.2 Public Education and Outreach

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, and create stewardship opportunities that encourage community engagement in addressing the impacts from stormwater runoff.

Bremerton's education program goal is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. Brochures, signs on street sweepers, utility bill inserts, school and other public presentations, e-news, display

booths at community events, and targeted business-specific mailings are methods used to provide information to residents, businesses, industries, elected officials, and policy makers.

S5.C.2 Provide an education and outreach program

The City of Bremerton will provide the Bremerton School District with \$211K (in 2023) in discounted stormwater charges to provide environmental education content to K-12 students. The approved curriculum covers science, biology, and environmental topics covering water and climate, salmon, soil erosion, plants, insects, stormwater, pollution, human impact on the environment. This program provides local students with a well-rounded knowledge base that supports our environmental restoration and preservation efforts for future generations. This program started in 1995 and will continue for the foreseeable future.

Bremerton partners with Kitsap County, through an inter-local agreement, and other regional agencies to form the West Sound Stormwater Outreach Group (WSSOG). The WSSOG collaborative effort develops, implements, and funds stormwater education, outreach messages, materials, activities, and program assessment tools for the public, businesses, and other target audiences.

This regional program provides education and outreach with a consistent message through sharing of resources and ideas. WSSOG educational materials are used within Bremerton's existing programs including pet waste management, outreach to the automotive industry, vehicle maintenance, paint and household hazardous chemical disposal, the regional spills reporting hotline, and natural yard care. Bremerton promotes the use of the Kitsap County Moderate Risk Waste Facility.

Pet waste bag dispensers have been placed throughout Bremerton to raise awareness of the impact from pet waste left on the sidewalks and in our parks, and to promote behavior change. The pet waste management program is used to meet permit requirement S5.C.2.a.ii, Behavior Change, to affect behavior change in the target audience, and to meet Bremerton's TMDL requirement in the Permit. More than 50 City owned and maintained dispensers are installed in parks, public right-of-way, and on City-owned properties. Residents in Bremerton can request pet waste bag dispensers through the WSSOG ILA program and will maintain the unit under the terms of the agreement they must sign. There are several throughout the city that are maintained through this program. Additional dispensers are at the Port of Bremerton Marina and on private properties around Bremerton. Bremerton provided 248,000 bags in 2022 and will continue this service in 2023.

Several large educational signs were posted at city-owned facilities including parking garages, police and fire stations, and Public Works facilities that support the "Puget Sound Starts Here" campaign and promote spills reporting. Other opportunities will be looked for in the upcoming year. A natural yard care campaign has been implemented through WSSOG and will be evaluated in 2023.

A residential rain garden program was implemented in 2017 for a targeted area to separate stormwater from the sanitary sewer. In 2019 Bremerton implemented an interlocal agreement with Kitsap Conservation District to continue the program city-wide through 2022, which will be extended through 2026. The expanded rain garden program provides stormwater management, pollution prevention, and water conservation educational and outreach information to all areas within the city.

WSSOG members evaluated the Work Plan to guide 2023's activities. The primary focus for the upcoming year will be to continue expanding and evaluating a social marketing campaign to assess its effectiveness at promoting the desired Natural Yard Care behavior change. Due to the ongoing concerns with COVID-19, partnering with the Master Gardeners to conduct online webinars will be critical to the success of the program. Additional tasks will include maintaining the existing Mutt Mitt (pet waste), Spills Happen, and Puget Sound Starts Here (PSSH) programs.

S5.C.2.a.ii.(e) Evaluate and report on behavior changes

Public education activities are tracked and coordinated with WSSOG, and through information provided at events. The next key activity for the permit is the Natural Yard Care program evaluation and reporting no later than March 31, 2024. WSSOG is working towards this, and the campaign is being evaluated through a variety of mechanisms including pre- and post-surveys, follow up phone calls made by Master Gardeners, and metrics such as type and number of coupons used.

Bremerton provides additional education and outreach efforts as opportunities arise and will continue this effort in 2023.

S5.C.3 Public Involvement and Participation

The City of Bremerton recognizes the inherent value of public involvement and participation in the Stormwater Program and encourages the public to become involved. Bremerton solicits ideas and opinions through the City's website, Utility bill messages, e-News emails to customers, and has provided a survey specific to stormwater on its website.

Bremerton coordinates a portion of the "Sinclair Inlet Cleanup", a volunteer cleanup effort supported by local agencies, business, and residents that was established in 1995. Stormwater educational materials and program information is provided and displayed at this event. The cleanup volunteers collect trash and discarded objects from the shorelines and many local streets, and installs storm drain markers when teams are available. Storm drain markers are also provided to Bremerton's schools and local neighborhoods upon request.

Public access TV and social media will be used again in 2023 to encourage participation in program development, and give residents ideas of how they can make a difference. Public involvement, participation, and partnerships for the Stormwater

Program include LID guidance, assistance, and site assessments to identify opportunities for business and residents.

S5.C.3.a Public Participation for development and implementation of SWMP

Create opportunities for the public to participate in the decision-making processes involving the development, implementation, and update of the Permittee's entire SWMP.

Public comment and participation are encouraged and accepted through Bremerton's website, customer email list, direct contact, customer response calls, the Permit Center, and the Utility's customer service division. There is an online stormwater survey, and the public can email comments or suggestions about Bremerton's stormwater program to the Stormwater Permit Coordinator. Efforts to get more public involvement will continue in 2023.

S5.C.3.b Post the Stormwater Management Plan (SWMP) on the City's website

This 2023 SWMP is posted on Bremerton's website at:

<https://www.bremertonwa.gov/489/Stormwater-Management-NPDES-Phase-II> along with the 2022 annual Stormwater Report. The Stormwater Comprehensive Plan update will be posted for review and virtual open house will be setup for public comments and questions.

S5.C.4 MS4 Mapping and Documentation

Must have an ongoing program for mapping and documenting of the MS4.

Bremerton's stormwater system GIS map includes the entire geographic area served, including areas of adjacent jurisdictions, watersheds, outfalls, receiving waters, stormwater treatment facilities, tributary areas, conveyance types, material, size, land use, and other items as required by the Permit. All connections between the city's MS4 and other agencies are in the mapping system. The GIS map includes the systems of neighboring agencies that discharge into Bremerton's MS4, and where Bremerton discharges into adjacent systems. System data are shared between the city and neighboring agencies per the Memorandum of Understanding (MOUs) between Kitsap County and the City of Port Orchard. These MOUs are renewed as needed. New stormwater assets, including collection, treatment, and flow control BMPs, are added as construction is completed. New data are instantly available on handheld tablets for field staff to use when needed.

All known public and private stormwater facilities and conveyances within the city limits are in the map or on various layers that can be turned on and off to allow the user to view the information as needed. The GIS map interface can add layers for land use, topography, associated drainage areas, and areas that do not drain to surface waters which aides in illicit discharge detection and elimination. Drainage basins and sub-basin areas were updated in 2022.

S5.C.4.a Ongoing Mapping

Improvements to the maps, layers, and functionality of the system will continue in 2023.

S5.C.4.b 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.

This requirement has been completed and the locations of all outfall sizes are clearly identified on GIS maps. Pipe size, and material are included in the attribute table and updated as new systems are constructed or errors are discovered.

The 2019 Permit has requirements for system mapping that include identifying all discharges from the MS4 to privately owned systems, having data in an all-electronic format that includes GIS, CAD drawing, or other software that can map and store points, lines, polygons, and associated attributes, and fully described mapping standards. All new Permit requirements have been met including:

- Mapping all known MS4 outfalls and MS4 discharge points (system interconnections).
- Receiving waters, other than groundwater.
- Stormwater treatment and flow control BMPs/facilities owned or operated by the Permittee.
- Geographic areas served by the MS4 that do not discharge stormwater to surface waters.
- Tributary conveyances to all known outfalls and discharge points with an 8" inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems.

The following features or attributes (or both) are also mapped:

- Tributary conveyance type, material, and size.
 - Associated drainage areas.
 - Land use.
 - Connections between the MS4 owned or operated by Bremerton, and other municipalities, or public entities.
 - All connections to the MS4 authorized or allowed by the Permittee after February 16, 2007.

In 2023 GIS map layers will continue to be reviewed and updated with any missing attribute data, and standards will be reviewed and updated as needed to improve new system entry.

S5.C.4.c Electronic Format Mapping

The stormwater system is mapped with ESRI ArcMap (GIS) on an internal network server. Remote access is provided for field staff who can edit layer details and add new data as needed. New development, and new system details are continually added to the layers of the map by GIS technicians and field staff. This is an ongoing project, and an important part of the Stormwater Utility functions.

In 2023, system development and support will continue along with system upgrades to consolidate and streamline the system to improve performance, reduce complexity, and standardize data entry options. The asset management system being developed is a primary leader of these improvements.

S5.C.4.e Providing Mapping to Other Permittees

Upon request, and to the extent appropriate, the City shall provide mapping information to federally recognized Indian Tribes, municipalities, and other Permittees. This Permit does not preclude Permittees from recovering reasonable costs associated with fulfilling mapping information requests by federally recognized Indian Tribes, municipalities, and other Permittees.

Bremerton shares stormwater system data on an annual basis with neighboring agencies per the MOU with Kitsap County and the City of Port Orchard. This was set up to provide support for ongoing stormwater system map sharing that includes system details, features, and general information where systems merge. The MOU includes support for reporting spills, TESC incidents, IDDE tracing, and source control issues.

S5.C.5 Illicit Discharge Detection and Elimination (IDDE)

The SWMP shall include an ongoing program designed to prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the MS4.

Illicit discharges violate water quality or sediment standards and are significant contributors of pollution that enter waters of the United States. This may include a discharge to any conveyance or system of conveyances used for collecting and conveying storm water runoff or a system of discharges from MS4's, including any spills not under the purview of another responding authority, into the City's MS4.

The City has an ongoing program to detect and remove illicit connections and discharges. Some of the oldest areas in Bremerton have combined sewers so stormwater goes to the sanitary sewer system and is treated at the wastewater treatment plant before being discharged into Sinclair Inlet. Regardless of this fact, the consistent message in Bremerton is, "Only Rain Down the Drain" to deliver a clear

directive to prevent illicit discharges and enforce consistent behavior. The spill reporting hotline phone number and email address are prominently displayed on the sides of Bremerton's large street sweepers, and on handouts and brochures provided to the public. The Illicit Discharge Detection and Elimination (IDDE) program started in 1995 has continued to evolve as techniques and regulations change to comply with Permit requirements.

Bremerton developed its own software application, Bremerton1, that can be downloaded from the Apple® or Google® stores, for use on cell phones or desktop computers. The application can be used by the public to submit reports of spills, accidents, and various issues the city addresses. All reported issues are recorded in the Customer Response database for use in various analysis and reports.

In 2023, the program will continue to monitor water quality at outfalls, using the dry weather sampling plan, and will respond to notifications, complaints, and reports when they are submitted.

Environmental Tracking Systems Reports (ERTS) from Ecology are recorded in the Customer Response database and dispatched to trained staff from Public Works, or Fire Department as needed. Procedures are in place to provide staff guidance on how to proceed with each type of incident.

Spills occur and are reported in various ways to Public Works. The incident report and the amount of material dictate the City's response level. Response is a coordinated effort with Public Works staff as lead responders for most events. Bremerton's Fire Department responds to larger incidents with Puget Sound Naval Shipyard Hazmat Unit and Washington State Department of Transportation as backup resources. Bremerton distributes and maintains spill kits in all city vehicles, service trucks have larger kits, and city owned facilities have significant cleanup supplies. A portable vacuum system was purchased and installed on a trailer for quick dispatch to incidents where vacuuming materials is needed. Public Works and Utilities staff are trained to operate this equipment.

[S5.C.5.c Prohibit non-stormwater and illicit discharges to the MS4](#)

Implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illicit discharges into the MS4 to the maximum extent allowable under State and Federal law.

Bremerton has an ordinance to effectively prohibit non-stormwater, illicit discharges into the MS4 to the maximum extent allowable under state and federal law. Bremerton Municipal Code (BMC) 15.04.190 PROHIBITED ACTS includes a list of "Prohibited Discharges, BMC 15.04 190(b)", including non-stormwater, illegal discharges, and actions such as dumping, damaging, or removing facilities of the MS4. Violations under this section are punishable as a misdemeanor and escalating enforcement is authorized pursuant BMC Title 1.12 General Provisions, Code Enforcement.

In 2023, BMC 15.04 will have a significant update to meet Permit requirements, and to clarify stormwater program requirements for compliance and enforcement actions.

S5.C.5.c.iii Address discharges identified as significant sources of pollutants

The Permittee shall further address any category of discharges in (i) or (ii) above if the discharges are identified as significant sources of pollutants to waters of the State.

Bremerton's IDDE program monitors the MS4 for potential cross connections and enforces corrective actions as authorized by BMC 15.04. The water quality and sediment standards compliance requirements in the Permit defines parameters that are used to support enforcement actions. Standard operating procedures for City Staff, along with public education of residents and businesses, work to prevent these discharges from occurring.

In 2023, staff will continue their effort to prevent contamination of runoff, identify illicit discharges, and take corrective actions.

S5.C.5.c.iv Escalating enforcement procedures and actions

The ordinance or other regulatory mechanism shall include escalating enforcement procedures and actions.

BMC section 15.04.210 Violation Enforcement – Penalty, provides an escalating enforcement strategy up to and including civil financial penalties, BMC Title 1.04 Code Enforcement, and/or confinement in Jail per BMC Title 1.12 General Provisions, Code Enforcement.

In 2023, Escalating enforcement procedures and actions will be updated to be more effective and clear for enforcement personnel and the public.

S5.C.5.d Implement an IDDE Program

Implement an ongoing program to detect and address non-stormwater discharges, including spills, and illicit connections into the MS4.

Bremerton has an Illicit Discharge Detection and Elimination (IDDE) program that inspects portions of the MS4 and private stormwater systems annually. This program is a key component to reduce stormwater pollution and sources that impact local waters.

Bremerton's IDDE program actively looks for non-stormwater discharges, spills, illicit connections, and illegal dumping into the MS4. The Program has identified priority urban areas likely to have illicit discharges and has defined field assessment activities. Outfall locations have been documented and are screened annually for illicit discharges.

Bremerton has had an ongoing dry weather outfall reconnaissance inventory program since 1997. All outfalls discharging to marine and fresh waters have been inventoried, inspected, and screened.

In 2023, stormwater outfalls will be inspected during dry weather and screened for illicit connections.

Bremerton promotes and advertises its Customer Response Line (360-473-5920), responds to calls from 911 for emergencies, the “Bremerton1” application, and the regional hotline KITSAP1 (360-337-5777), and Kitsap County’s *SeeClickFix* which is monitored by Kitsap County. Bremerton’s response staff are dispatched by a central operator based on information provided by the caller, emailed report, or the Bremerton1 application. If the call is non-specific, the Customer Response staff will go to the site and determine who needs to be dispatched for incident control, or containment, and follow-up, in accordance with PW&U’s policies. The responder’s investigation report and resolution are recorded in a database with the call information to help identify areas of concern in the MS4. This system provides quick response for incidents involving the MS4 by dispatching the appropriate staff for the situation. All reports are logged and tracked from the initial report through resolution in a database.

For incidents that are beyond City capabilities, Bremerton alerts hazmat responders through 911 and other responsive agencies such as the Department of Ecology, Kitsap Department of Emergency Management, PSNS Emergency Response crew, and Kitsap Public Health District.

Investigations follows the Ecology 2013 Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual. Bremerton staff are trained to recognize illicit discharge to the stormwater system and procedures are in place to report, investigate, document, and resolve incidents when found or reported.

The “Spills Happen, Help Us Find Them” graphic with reporting phone number is on City Street sweepers, large signs at public facilities, and used in public outreach materials.

[S5.C.5.d.i.\(a\)](#) Complete an average of 12% field screening of the MS4 annually

All Permittees shall complete field screening for an average of 12% of the MS4 each year. Permittees shall annually track total percentage of the MS4 screened beginning August 1, 2019.

In 2023, sampling and system inspections will work up into the Stephenson Canyon, and cover Trenton Avenue basin’s stormwater systems to look for water quality issues and will respond as needed.

[S5.C.5.e.](#) Implement a program designed to address illicit discharges

Implement an ongoing program designed to address illicit discharges, including spills and illicit connections, into the Permittee’s MS4.

Bremerton's program includes:

Procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges found by or reported to the Permittee. Procedures address the evaluation of whether the discharge must be immediately contained and the steps to be taken for containment of the discharge.

Procedures for tracing the source of an illicit discharge follow the Ecology 2013 Illicit Connection guidance manual. The program includes visual inspections, opening manholes, using mobile cameras, collecting samples and contracted laboratory services to analyze water samples. Where practical, field equipment and kits are used for basic water quality parameters, and surfactants. Staff who complete inspections are trained to follow the inspection process, and are encouraged to think outside of the box to resolve issues.

Procedures are in place for eliminating the discharge, including notification of appropriate authorities (including owners or operators of interconnected MS4s); technical assistance; follow-up inspections; and use of the compliance strategy developed pursuant to S5.C.5.c.iv, including escalating enforcement and legal actions if the discharge is not eliminated. Compliance with the provisions above is achieved by meeting the following timelines:

- Immediately respond to all illicit discharges, including spills, which are determined to constitute a threat to human health, welfare, or the environment, consistent with General Condition G3.
- Investigate (or refer to the appropriate agency with the authority to act) within 7 days, on average, any complaints, reports, or monitoring information that indicates a potential illicit discharge.
- Initiate an investigation within 21 days of any report or discovery of a suspected illicit connection to determine the source of the connection, the nature and volume of discharge through the connection, and the party responsible for the connection.
- Upon confirmation of an illicit connection, use the standard operating procedures to document the issue and effort to eliminate the illicit connection within 6 months. All known illicit connections to the MS4 shall be eliminated.

S5.C.5.f Permittees shall train IDDE staff

Bremerton staff are responsible for identification, investigation, reporting, cleanup of illicit discharges, and termination, including spills and illicit connections. Staff involved in this program are trained to conduct these activities. Presentations, round table discussions, training videos, and classes are tools employed to train staff. Follow-up training is provided as needed to address changes in procedures, techniques, requirements, or staffing. New City staff complete Stormwater training, which includes information on how to identify and report possible illicit discharges, as part of their

onboarding process. Training records are kept to document which staff are trained and who needs refresher training.

In 2023, IDDE Staff training will be reviewed and provided as needed.

S5.C.5.g Record Keeping

The City shall track and maintain records of the activities conducted to meet the requirements of this Section. Records shall be submitted for illicit discharges, spills and illicit connections including those that were found by, reported to, or investigated by the city during the previous calendar year in the annual report. Data shall include the information specified in (NPDES permit) Appendix 12 and WQWebIDDE.

Recordkeeping: Each incident is tracked, and records of the activities conducted to meet the requirements are maintained in the Customer Response database. Data for illicit discharges, spills and illicit connections including those that were found by, reported to, or investigated by the city during the previous calendar year are included in the annual report. The data include information specified in Appendix 12 and WQWebIDDE which is manually entered into the portal spreadsheet. Final submittals follow the instructions, timelines, and format as described in Appendix 12 of the SW Permit.

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

Implement and enforce a program to reduce pollutants in stormwater runoff to a regulated MS4 from new development, redevelopment, and construction site activities. The program shall apply to private and public development, including transportation projects.

Bremerton adopted Ecology's Stormwater Management Manual for Western Washington (SWMMWW) per BMC 15.04.020 – Adopted Manuals. Site development planning requires an application which is reviewed by staff for acceptance and approval.

Bremerton has developed, implemented, and enforces a program to reduce pollutants in stormwater runoff that enters the municipal separate storm sewer system from new development, redevelopment, and construction site activities. The program applies to both private and public projects.

S5.C.6.a The minimum performance measures are:

Implement an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects. Each Permittee shall adopt and make effective a local program, no later than June 30, 2022, that meets the requirements of S5.C.6.b(i) through (iii), below, and shall apply to all applications submitted:

- *On or after July 1, 2022.*
- *Prior to January 1, 2017, that have not started construction by January 1, 2022*
- *Prior to July 1, 2022, that have not started construction by July 1, 2027.*

New and redevelopment must meet current stormwater regulations within a specified period of time from the date of project submission/approval. If the project is delayed beyond the accepted period of time, the stormwater portion will need to be updated to meet current requirements. See Phase II Municipal Stormwater Permit section C5.C.6, Controlling Runoff from New Development, Redevelopment, and Construction Sites for timeframe.

S5.C.6.c Permitting and Site Plan Review, and Inspection Program

Bremerton Municipal Code includes the adopted and implemented codes that provide legal authority for site plan review, inspection, and escalating enforcement procedures necessary to implement the program in accordance with Permit conditions, including the minimum technical requirements in the 2019 Ecology SWMMWW.

Regulations are in place with provisions to verify adequate long-term operations and maintenance (O&M) of new post-construction permanent stormwater facilities and best management practices (BMP) in accordance with Permit conditions. The program includes an annual inspection and/or approved alternative inspection frequency and maintenance standards for private drainage systems that are outlined in the 2019 Ecology SWMMWW.

A process is in place to record and track all inspections, maintenance, and enforcement actions by staff for inclusion in the Annual Report.

Appropriate information is provided to permit applicants regarding NDPEs Construction and Industrial permits and the notice of intent (NOI) requirement.

Bremerton has a comprehensive land-use and development permit program. The program includes a permit review and inspection process that addresses areas as follows:

- Continued to implement all existing stormwater codes and programs in compliance with Section S5.C.6 of the Permit.
- Continued to inspect all new development for permit compliance.
- Continued to provide stormwater training for staff and external partners in the development community.

Development Engineering works with Community Development to update workflow including tracking total and allowable impervious surface per site.

In 2023, Bremerton will conduct the following activities required under this section of the Permit:

- Update codes and policies to maintain, improve and adapt programs as necessary to meet permit and program objectives.
- Continue annual inspection of all privately-owned stormwater facilities.
- Implement and review Bremerton codes updated after December 31, 2016, to ensure consistency with LID requirements.
- Update the Stormwater Maintenance Manual to reflect changes to the Ecology Manual and add more proprietary treatment systems in 2023.
- Continue to implement the enforcement process for Bremerton staff to align with the updated stormwater code.

S5.C.7 Pollution Prevention and O&M for Municipal Operations

Each Permittee shall implement and document a program to regulate maintenance activities and to conduct maintenance activities by the Permittee to prevent or reduce stormwater impacts.

Bremerton has an Operation and Maintenance (O&M) program with the goal of preventing or reducing pollutant runoff from municipal operations. The maintenance program is divided into three groups: Stormwater, Facilities, and Parks Maintenance. Each group has their own system components and stormwater facilities to operate and maintain. The groups are trained to provide maintenance service for each of their facilities and features. A digital tracking system is being used to track activity using a web-based browser to provide a centralized record of all activities and outcomes.

S5.C.7.a Establish Maintenance Standards

Permittee shall implement maintenance standards that are as protective, or more protective, of facility function than those specified in Chapter 4 of Volume V of the Stormwater Management Manual for Western Washington, or a Phase 1 program approved by Ecology. For facilities which do not have maintenance standards, the Permittee shall develop a maintenance standard. No later than June 30, 2022, Permittees shall update their maintenance standards as necessary to meet the requirements of this Section.

Bremerton has adopted and enforces the July 2019 edition of the SWMMWW which meets this requirement. Bremerton's Operation and Maintenance Manual was updated in 2022 and will continue to evolve as new technologies are developed and approved. The O&M Manual is provided to private system owners when requested and is available as a downloadable document from the City's website under Public Works and Utilities in the Stormwater section.

S5.C.7.a.ii Maintenance Requirements Identified During Inspections

Unless there are circumstances beyond the Permittee's control, when an inspection identifies an exceedance of the maintenance standard, maintenance shall be performed:

- *Within 1 year for typical maintenance of facilities, except catch basins.*
- *Within 6 months for catch basins.*
- *Within 2 years for maintenance that requires capital construction of less than \$25,000.*

Bremerton completes maintenance on its permanent stormwater treatment and flow control BMPs/facilities annually or as needed based on inspection results. When deficiencies are found they are corrected immediately or within the next 30 days.

S5.C.7.b Maintenance of Stormwater Facilities Regulated by the Permittee

The program shall include provisions to verify adequate long-term O&M of stormwater treatment and flow control BMPs/facilities that are permitted and constructed pursuant to S.5.C.6.c and shall be maintained in accordance with S5.C.7.a.

Bremerton's development codes include provisions and mechanisms that require new stormwater facilities O&M responsibilities to be clearly identified. Maintenance is conducted in accordance with maintenance standards established in the SWMMWW and Bremerton's O&M Manual, and private system owners are compelled to keep their systems in good operating condition.

Review of the manual was completed in 2022 and the guidance was updated to clarify requirements and expectations.

All stormwater treatment and flow control BMPs/facilities that discharge to Bremerton's MS4, regardless of when they were constructed, are inspected, and maintenance is required when needed. Inspections and correspondence with property owners are documented.

S5.C.7.c Maintenance of Stormwater Facilities Owned or Operated by the Permittee

City owned and operated stormwater treatment and flow control BMPs/facilities are inspected and appropriately maintained on an annual basis. Stormwater ponds are inspected after major storms to ensure they are fully functional and operating as designed. Repairs and appropriate maintenance actions are completed in accordance with maintenance standards in Bremerton's Stormwater O&M Manual, based on the results of the inspections and/or as needed to keep the facilities operating as designed.

S5.C.7.c.i Annual Inspection Program

Each Permittee shall implement a program to annually inspect all municipally owned or operated stormwater treatment and flow control BMPs/facilities and taking appropriate maintenance actions in accordance with the adopted maintenance standards.

An annual inspection program ensures these sites are operating and in good working condition. Maintenance of all municipally owned or operated stormwater treatment and flow control BMPs/facilities is completed in accordance with the adopted maintenance standards.

S5.C.7.c.ii Spot Check Inspection After Major Storm Events

Bremerton routinely checks permanent stormwater treatment and flow control BMPs/facilities during and after large storms to verify facility function and integrity. Maintenance and/or repairs are completed as needed to maintain facility operation and functionality.

S5.C.7.c.iii Inspection of catch basins and inlets owned by the Permittee

Inspect all catch basins and inlets owned or operated by the Permittee every two years. Clean catch basins if the inspection indicates cleaning is needed to comply with maintenance standards established in the Stormwater Management Manual for Western Washington. Decant water shall be disposed of in accordance with Appendix 6 Street Waste Disposal.

Prior to 2022, catch basins and inlets owned and operated by Bremerton were cleaned annually as the method for managing the system. Beginning in 2023, catch basin inspections will determine maintenance needs, and cycle through the system on a 2-year basis.

Decant water is disposed of in accordance with Appendix 6 – Street Waste Disposal, at the Oyster Bay Public Works complex decant facility. Sediment in decant water settles in the basin and water is discharged to the sanitary sewer system where it is treated at the wastewater treatment plant. All catch basin sediment, debris, and street sweeping spoils are disposed of in accordance with Department of Ecology's Dangerous Waste Regulations (Chapter 173-303-016 WAC) with a disposal permit through Waste Management. The decant facility is operated under a permit and annually inspected by the Kitsap Public Health District.

S5.C.7.c.iv Compliance with inspection requirements criteria

Compliance with the inspection requirements in S5.C.7.c.i-iii, above, shall be determined by the presence of an established inspection program achieving at least 95% of required inspections.

Inspection of the MS4 is completed during regular maintenance operations and recorded in the City's GIS map throughout the year since 2007. In 2023, assigned

maintenance staff will inspect stormwater batch basins for sediment load and damage. Results of the inspection will provide a list of sites in need of cleaning or identify deficiencies that need repairs. Work will be scheduled to complete needed maintenance and repair, prioritized based on significance of the issue.

A GIS based map of all city stormwater assets is available to staff on desktop computers, laptops, smart phones, and handheld tablets. In 2023, maintenance, inspections, correspondence documentation, and tracking will continue to be incorporated into the GIS system databases via the Asset Management system.

Facilities Division and Parks Department stormwater assets are inspected and documented in a cloud-based system to centralize data archiving. Private stormwater systems are inspected by the Public Works Compliance Division. All correspondence and reports from these private inspections are kept in both paper and electronic files attached to a GIS layer. These are being moved to the Asset Management System in 2023.

S5.C.7.d Implement practices to reduce stormwater impacts from City properties

Implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. No later than December 31, 2022, document the practices, policies, and procedures. Lands owned or maintained by the Permittee include, but are not limited to, streets, parking lots, roads, highways, buildings, parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control BMPs/facilities. The following activities shall be addressed:

- *Pipe cleaning*
- *Cleaning of culverts that convey stormwater in ditch systems*
- *Ditch maintenance*
- *Street cleaning*
- *Road repair and resurfacing, including pavement grinding*
- *Snow and ice control*
- *Utility installation*
- *Pavement striping maintenance*
- *Maintaining roadside areas, including vegetation management*
- *Dust control*
- *Application of fertilizers, pesticides, and herbicides according to the instructions for their use, including reducing nutrients and pesticides using alternatives that minimize environmental impacts*
- *Sediment and erosion control*
- *Landscape maintenance and vegetation disposal*
- *Trash and pet waste management*
- *Building exterior cleaning and maintenance*

Bremerton is a member of the Regional Road Maintenance Endangered Species Act (RRMP ESA) Program, since December 2001, and has implemented the program

elements in its transportation activities. The program includes activities listed under section S5.C.7.d and has a training element.

Bremerton has policies and procedures in place for building and grounds maintenance, including parks, trash management, and sediment control. Only qualified personnel, in compliance with policies, may use fertilizers, pesticides, and herbicides. Good housekeeping practices are in place at all City owned properties and facilities. Municipal operations and maintenance staff are trained to use pollution prevention techniques and practices to help reduce and prevent pollution of stormwater runoff. All city streets are swept at least twice per year with major roadways being swept twice per week. Sweeping spoils are disposed of in accordance with Department of Ecology's Dangerous Waste Regulations (Chapter 173-303-016 WAC). During the fall months and into the winter, sweepers are actively collecting leaves and debris 16 hours a day, five days per week or more if necessary. This keeps catch basins clear for stormwater, helps protect water quality, and keeps the system functioning.

Bremerton collected existing plans and policies to complete a review of above referenced tasks and has made several updates to the internal policies.

S5.C.7.e Implement an ongoing training program for employees

Implement an ongoing training program for employees of the Permittee whose primary construction, operations, or maintenance job functions may impact stormwater quality. The training program shall address the importance of protecting water quality, operation and maintenance standards, inspection procedures, relevant SWPPPs, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing. Permittees shall document and maintain records of training provided. The staff training records to be kept include dates, activities or course descriptions, and names and positions of staff in attendance.

In 2023, staff will attend the Regional Road Maintenance Program BMP training being provided by WSDOT to update staff knowledge and provide new staff with the information and experience needed to perform their duties. Several staff will renew their CESCL, and new staff will receive their certification. Bremerton has a comprehensive training program that provides a well-trained workforce. This program reduces or prevents pollution of stormwater runoff and degradation of water quality from City operations and maintenance activities.

Staff are provided with training opportunities that cover basic stormwater pollution prevention, IDDE, spill response, Temporary Erosion and Sediment Control BMP installation and maintenance, and good housekeeping measures. Training resources are available to staff that include intranet video training for: IDDE; construction site stormwater control and BMPs; stormwater pollution prevention; and on-demand webinars covering many stormwater subjects. All Bremerton inspectors are CESCL

certified as well as Public Works supervisors and specific Parks Department staff. A new training system was implemented in 2021 to further improve staff education opportunities and tracking. Training modules are assigned to city staff and management that includes a video and test. Personnel are assigned training based on their job function to expand stormwater knowledge.

S5.C.7.f Implement a SWPPP for all equipment maintenance or storage yards

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 in areas subject to this Permit 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.

SWPPPs have been developed and implemented for all maintenance, and material storage facilities. City owned facilities and Parks have SWPPPs to define requirements for good housekeeping measures, inspections, and maintenance. Stormwater system inspection and maintenance are included in SWPPPs activities which are documented by assigned staff. The Oyster Bay Public Works Facility SWPPP was updated in 2022 and was issued a Conditional No-Exposure exemption. SWPPPs will continue to be reviewed and updated in 2023 and as needed due to changes in staff and/or requirements.

S5.C.7.g Record of inspections and maintenance requirements

Maintain records of the activities conducted to meet the requirements of this section.

Facilities, Parks, Compliance, and Stormwater divisions complete inspections and document the results for their locations. Work orders are submitted to the Stormwater Maintenance group by Facilities and Parks staff for assistance beyond their abilities. Tracking is being documented in a cloud-based system to improve the program, and in the GIS database.

In 2023, the Asset Management System (AMS) will be updated to include site inspection and maintenance documentation. The AMS is being developed as the central point for all inspection and maintenance records.

S5.C.8 Source Control Program for Existing Development

The Source Control Program was implemented in January of 2023. A regional approach to program content is being used to assure that all local jurisdictions provide similar educational materials and guidance.

S5.C.8.a Implement a Program to Prevent and Reduce Pollutants in Runoff from Areas That Discharge to the MS4

Source Control Program began inspections in January of 2023. A regional working group collaborated to produce educational outreach material to provide guidance for both operational source control measures and structural source control BMPs. Staff will work with business owners to ensure BMPs are in place and provide assistance at potential pollution generating properties. City codes support program implementation, and updates will be considered in 2023 to provide clarity where needed.

S5.C.8.b Minimum Performance Measures of Source Control Program

Applicable operational source control BMPs will be required for all pollutant generating businesses per Permit requirements. Structural source control BMPs and/or treatment BMPs/facilities, will be required for pollutant generating sources if operational source control BMPs do not prevent illicit discharges or violations of surface water, groundwater, or sediment management standards because of inadequate stormwater controls. Implementation of source control requirements will use education and technical assistance programs to support formal enforcement as needed.

Bremerton established an inventory of public and private institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4. The inventory includes:

- (a) Businesses and/or sites identified based on the presence of activities that are pollutant generating (refer to Appendix 8 of the 2019 Municipal Phase II Stormwater Permit for Standard Industrial Codes).
- (b) Other pollutant generating sources, based on complaint response, such as: home-based businesses and multi-family sites.

The inspection program was implemented on January 1, 2023 for sites identified pursuant to Appendix 8 of the Permit.

S5.C.8.b.i Source Control (SC) BMPs

Bremerton SC program requires the application of source control BMPs for pollutant generating sources associated with existing land uses and activities (see NPDES permit Appendix 8 to identify pollutant generating sources).

S5.C.8.b.iv Progressive Enforcement Policy for Non-Compliance

Bremerton has a progressive enforcement policy that requires sites to comply with stormwater requirements within a reasonable time period. However, the current level of penalties is being reviewed for regional consistency, and changes may be made in 2023.

S5.C.8.b.v Source Control Program Staff Training

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. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staff. Permittees shall document and maintain records of the training provided and the staff trained.

Staff training for the source control program was provided in 2022 by WSU Puyallup and Herrera Environmental Consultants. Ongoing training will be provided as it becomes available.

Activities Planned for 2023

Stormwater Comprehensive Plan Update

Bremerton will complete the Stormwater Comprehensive Plan update. The plan includes:

- Updated 6 & 20 year capital improvement plan with treatment retrofit opportunities,
- Inventory of surface waters and known water quality problems,
- Inventory of salmon migration and habitat barriers within the city limits,
- Stormwater Permit compliance program elements,
- Overall review of Bremerton's stormwater program,
- Water quality restoration activities as required by the Sinclair Dyes Inlets Fecal Coliform TMDL.

In 2023, BMC 15.04, the Stormwater code, will be updated to address existing deficiencies, clarify the permitting process, adopt new programs, and enhance escalating enforcement measures.

Asset Management Program

The City will continue the development of the Asset Management Program in 2023 for the Stormwater Utility. The program will become the center point used for implementing and tracking work orders for maintenance and repair, inspection scheduling, records and documentations, as well as financial tracking.

S5.C.1 Stormwater Planning

Stormwater Management Action Planning (SMAP) will continue. The City will complete the following plans:

3. Oyster and Ostrich Bay Watershed Plan with additional projects to finish the retrofit effort in these basins. Many of the identified projects are under construction, or on the 6-year CIP. These projects are being implemented to

protect and restore receiving waters with the goal of meeting water quality standards necessary to reopen shellfish harvesting.

4. Kitsap Lake Watershed Restoration and Management Plan will be completed and have new projects identified for implementation over the next 10 years.

SMAP is an ongoing effort to identify new priority basins and specific projects that will be added to the CIP. This effort follows Ecology's guidance and will be completed over the coming years.

S5.C.2 Public Education and Outreach

The public education and outreach program is the cornerstone to gaining citizen support and helps to develop a foundation for the stormwater program. Pollution prevention education identifies activities and actions that have a negative impact on our environment and local waters. Bremerton will continue to partner with West Sound Stormwater Outreach Group (WSSOG), a regional organization of Kitsap County and local cities.

The residential rain garden program will continue in 2023. The rain garden program provides stormwater management, pollution prevention, and water conservation educational and outreach information support to all areas within the city.

The pet waste bag dispensers program will be supported in 2023 to raise awareness of the impact from pet waste left on the sidewalks and in our parks and to promote behavior change.

The primary focus for the upcoming year will be to continue expanding and evaluating a social marketing campaign to address its effectiveness at promoting the desired Natural Yard Care behavior.

S5.C.3 Public Involvement and Participation

Bremerton provides opportunities for the public to participate in SWMP decision-making and responds to questions and concerns when presented. The SWMP is posted on the City's website along with the annual report for the previous calendar year.

Cleanup events, such as the Sinclair Inlet Cleanup and other ad hoc cleanup efforts, will be coordinated with public groups who are interested in helping this year.

The Stormwater Comprehensive Plan Update will be presented to the public for reviewed and comment and be completed in 2023.

S5.C.4 MS4 Mapping and Documentation

Improvements to the maps, layers, and functionality of the system will continue in 2023. This includes updating missing attribute data for stormwater assets, and review of standards which will be updated as needed.

S5.C.5 Illicit Discharge Detection and Elimination (IDDE)

The city will continue to promote the “Spills Happen, Help Us Find Them” message and customer response hotline in 2023. Stormwater system, other utility, land use, and transportation GIS maps are accessible to Public Works staff via tablets.

In 2023, the program will continue to monitor water quality at outfalls, using the dry weather sampling plan, and will respond to notifications, complaints, and reports when they are submitted. This year, Bremerton will continue systematic screening of the MS4 in the Pine Road and Pacific Avenue Basins.

IDDE refresher training will be provided to staff whose job is to identify illicit discharges, track and correct these problems.

S5.C.6 Control Runoff from New Development, Redevelopment & Construction Sites

Development Engineering and Community Development will continue to review plats, short plats, new site development and redevelopment. Projects that trigger various thresholds will be required to provide stormwater control measures, install/use BMPs, use LID techniques and practices to meet Permit requirements.

Active construction sites will be inspected once per week (at minimum), during and after large rain events or as needed to enforce compliance with the approved Temporary Erosion Sediment Control (TESC) plan. Exceedance of water quality or sediment standards will require modification of BMPs through the adaptive management process or the project will be stopped by notice from the city. Projects that hold a Construction Stormwater General Permit, issued by Ecology, will be checked for appropriate installation and maintenance of BMPs, and good housekeeping practices. TESC inspections that identify BMP deficiencies will be provided to the site developer’s CESCL or site manager to be corrected. If they are unresponsive, the city will notify Ecology of the issue/s through the Environmental Report Tracking System (ERTS). It is expected that the Ecology inspectors will respond to the report and work with the developer to correct these issues, with Bremerton’s support, until the issue is resolved. Bremerton strives to work with developers to meet all permit requirements using the most cost-effective approaches.

Good housekeeping practices are enforced for construction sites and all locations in Bremerton through inspections and code enforcement. Division 2 of Bremerton’s Engineering Design and Construction Standards was updated to reflect these requirements and provides a good tool for developers. Refresher training and program review will be completed in 2023.

S5.C.7 Pollution Prevention and Operation and Maintenance for Municipal Operations

Three divisions are responsible for stormwater system maintenance and operation: Public Works Stormwater (PWS), Facilities, and Parks Department. PWS maintains all stormwater infrastructure in the right-of-way and provides services for Facilities and Parks when requested. Facilities inspects and maintains all city owned properties with

the of exception rights-of-way, and Parks' facilities. Parks inspects and maintains their stormwater systems. When maintenance is needed that requires vacuum truck, jetting, or repairs that these divisions/departments can't complete, a work order request is submitted to PWS who will complete the requested work.

Facilities and Parks have their own facility SWPPPs. These include the following:

- Site map of the stormwater system, with spill kit locations, inventory of stormwater facilities and maintenance requirements,
- Documents to track inspections and maintenance activities,
- Spill control correction and countermeasures (SCCC) plan,
- Good housekeeping measures.

Bremerton operates two jet vacuum trucks and two sweepers throughout the year to maintain the stormwater system and protect runoff water quality. Collection of leaves, sediment, and trash from the road surface is an efficient method to protect water quality by reducing contaminants at the source.

Beginning in 2023, city owned catch basins, ditches, and treatment facilities within the right-of-way will be inspected and cleaned based on inspections results to implement a 2 year cycle for cleaning requirements.

2023 will be an active year with continued implementation of MS4 maintenance, annual inspections of stormwater treatment and flow control BMPs/facilities, spot checks, and implementation of SWPPPs for municipal properties, and facilities. Staff training will focus on changes in Permit requirements, associated municipal code updates, proprietary treatment system maintenance, and LID requirements.

S5.C.8 Source Control Program for Existing Development

In 2023 the city will continue to update Stormwater codes through ordinances and develop the program to comply with the new requirement. Application of source control BMPs will be required for pollutant generating sources associated with existing land uses and activities identified in Appendix 8 of the Permit. The existing list of properties that meet the referenced Standard Industrial Classification (SIC) codes has been updated and prioritized to gain the most immediate benefit from the program.

Efforts will focus on meeting published deliverable dates established in the Permit.

Compliance with Total Maximum Daily Load (TMDL) Requirements

Designate any previously unscreened areas discharging via the MS4 to the TMDL area as the highest priority for illicit discharge detection and elimination routine field screening. Screen for bacteria sources when conducting illicit discharge detection and elimination field screening activities in these areas. Implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit for response to any illicit discharges found.

- In 2023, sampling and system inspections will work up into the Stephenson Canyon and Trenton Avenue basin's stormwater systems to look for water quality issues and will respond as needed.

Install and maintain pet waste education and collection stations at municipal parks and other Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on locations where people commonly walk their dogs.

- Pet waste bag dispensers and trash cans have been installed throughout the city at sensitive locations for a total of 50 city-owned stations and approximately 18 additional units that are maintained by private citizens. Additional dispensers may be installed this year in ROW and city-owned properties as needed. The city provided 248,000 pet waste bags in 2022 and will continue to supply these at designated dispenser stations.

City of Bremerton TMDL Requirements per the Stormwater Permit

Western Washington Phase II Municipal Stormwater Permit Appendix 2	
Total Maximum Daily Load (TMDL) Requirements	
Name of TMDL	Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load
Document(s) for TMDL	<i>Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load (TMDL) Water Quality Implementation Plan</i> , In Draft, Ecology Publication No. 11-10-051. https://fortress.wa.gov/ecy/publications/publications/1110051.pdf
Location of Original 303(d) Listings	Dyes Inlet & Port Washington Narrows (WA-15-0020) Gorst Creek (WA-15-4000), Blackjack Creek (WA-15-4200) Annapolis Creek (WA-15-4400), Beaver Creek (WA-15-4900) Clear Creek (WA-15-5000), Barker Creek (WA-15-5100) Sinclair Inlet (WA-15-0040)
Area Where TMDL Requirements Apply	These requirements apply to areas served by MS4s listed below within the TMDL coverage area.
Parameter(s)	Fecal coliform bacteria
EPA Approval Date	July 5, 2012
MS4 Permittee:	Phase II Permit: City of Bainbridge Island, WAR04-5503; City of Bremerton, WAR04-5507; City of Port Orchard, WAR04-5536; Kitsap County, WAR04-5546

City of Bremerton (requirement language from the NPDES Permit)

- Designate any previously unscreened areas discharging via the MS4 to the TMDL area as the highest priority for illicit discharge detection and elimination routine field screening. Screen for bacteria sources when conducting illicit discharge detection and elimination field screening activities in these areas. Implement the schedules and activities identified in S5.C.5 of the Western Washington Phase II Permit for response to any illicit discharges found.
- Install and maintain pet waste education and collection stations at municipal parks and other Permittee owned and operated lands adjacent to stream and marine shorelines. Focus on locations where people commonly walk their dogs.