



**2019 STORMWATER MANAGEMENT PROGRAM PLAN
UPDATE**



Introduction:

This document has been prepared to meet the City of Brier Western Washington Phase II Municipal Stormwater Permit (Permit) requirement S5A.2 for written documentation of the City's Stormwater Management Program (SWMP).

The City's SWMP is intended to reduce the discharge of pollutants from the City's Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable (MEP), meet Washington State's All Known and Reasonable Treatment (AKART) requirements, and protect water quality. This goal will be accomplished by the inclusion of all Permit SWMP components and implementation schedules into the City's SWMP. In compliance with Permit requirements, where the city is already implementing actions or activities called for in this document, the City will continue those actions or activities regardless of the schedule called for in this document.

As part of the implementation of its SWMP, the City gathers, tracks, maintains and analyzes information on an on-going basis to evaluate Permit compliance; SWMP development and implementation; and set priorities for future activities.

This document is updated at least annually for submittal with the Annual Report to the Department of Ecology (DOE). This submittal includes the City's initial plans for complying with new requirements that would be applicable for the new permit expected to be effective August 01, 2019 (these items are noted with an asterisk).

Section 1 Stormwater Management Program

Permit Requirements:

Section S5.A requires the following:

- Develop and implement a SWMP with a set of actions and activities necessary to meet the permit requirements in S5 and any additional actions necessary to meet the requirements of applicable TMDLs (Total Maximum Daily Load).
- Coordinate with other Permittees when necessary to comply with conditions of the SWMP.
- S.5.C1 requires each Permittee to implement a Comprehensive Stormwater Planning program to inform and assist in the development of policies and strategies as a water quality management tool to protect aquatic resources. Each Permittee shall convene an interdisciplinary team to inform and assist the development, process, and influence of this program.*
- Permittees shall continue to require LID Principles and LID BMPs when updating, revising and developing new local development-related codes, rules, standards, or other enforceable documents, as needed.
- Stormwater Management Action Planning



S5.C.1c requires the City to document and assess existing information related to local receiving waters and contributing area conditions to identify receiving waters that will benefit from stormwater management planning.*

S5.C.1cii requires the City to develop a prioritization method and process to identify and rank areas where the receiving water receive a benefit from implementation of stormwater facility retrofits and management actions to reduce pollutant loading and address hydrologic impacts from existing development. No later than June 30, 2022 each Permittee shall develop and follow a prioritization process based on local and regional information.*

Continuing Activities:

The City conducts the activities described below on a regular basis. Program highlights for 2018 are indicated in bold.

- Make the SWMP and SWMP Plan available for public comment on the City's website. **The SWMP and SWMP Plan are available for comment on the website.**
- The City Planner and Public Works staff regularly attend regional coordination meetings and work informally with other jurisdictions. **The City coordinates with the City of Mountlake Terrace staff on TMDL testing.**
- Due to the City's small size and staff (18 full-time employees including police officers and administrative staff), Comprehensive Stormwater Planning is already an integral part of the City's planning and operations. **Planning and Public Works staff work closely with the City Engineer to consider stormwater planning in an all phases of our operations and long-term planning. Stormwater is being addressed as part of the 2019 sewer plan and capital facilities plan update process that the City is currently undertaking.** Staff regularly discuss stormwater issues and the NPDES requirements at staff meetings attended by the Mayor.* The City will continue to integrate Comprehensive Stormwater Planning into our future activities.
- The City adopted ordinances in 2016 to require LID BMPS and Principles. **These requirements were included in amendments to Brier Municipal Code (BMC) the Tree Protection (BMC 17.52) and Native Vegetation and Landscaping (BMC 17.50) Ordinances adopted in 2018.** The City Planner regularly consults with and the Building Official, City Engineer, and Public Works staff for recommendations on areas of the code that could be refined to better address these requirements. Updates to the development codes will be made as necessary to comply with these requirements*.
- City staff are gathering and reviewing the existing documentation on local receiving waters and developing a strategy to address requirements S5C.1.C i and ii. City staff plan to meet with Mountlake Terrace staff in 2019 to coordinate our activities.* City staff also anticipate using the regional coordination meetings as a forum to discuss these requirements and share resources.*



2019 Planned Compliance Activities:

The following table outlines the implementation plan for 2019 to achieve the goals and objectives of the Public Involvement Program and meet the compliance deadlines in the Permit.

Task Description	Schedule Notes & Due Dates
Post SWMP Plan, Annual Report, and other stormwater documents on website	All documents posted to the website by May 31, 2019
Attend regional meetings of stormwater groups	Ongoing
Coordinate with Mountlake Terrace and other jurisdictions on local receiving waters*	Ongoing
Review development regulations and make required updates to address LID requirements.	Ongoing
Include stormwater facilities and other planning concerns in 2019 Capital Facilities Plan and Sewer Plan Update*	August 2019
Locate and review documentation on receiving waters and area conditions*	December 2019
Conduct review of initial documentation and rank areas.*	December 2020

Lead Department and Support

The City Planner has the primary responsibility for developing the SWMP, preparing LID updates, coordinating with other agencies, and leading long-range planning required for the Permit.

Section 2: Public Education and Outreach

Permit Requirements:

Section S5C.1 requires the following:

- Provide an education and outreach program for the area served by the MS4. The program shall be designed to educate target audiences about stormwater and provide specific actions they can follow to minimize the problem.
- Create stewardship opportunities and/or partner with existing organizations to encourage residents to participate in activities such as storm drain marking, volunteer monitoring, riparian plantings and education activities.
- Measure the understanding and adoption of the targeted behaviors for at least one target audience in at least one subject area. No later than February 2, 2016, the resulting measurements shall be used to direct education and outreach most effectively, as well as to evaluate changes in adoption of targeted behaviors.
- 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. Permittees shall target at a minimum one target audience and one BMP(s).*
- No later than July 1, 2020 each Permittee shall conduct a new evaluation of the effectiveness of the ongoing behavior change program. Permittees shall document lessons learned and recommendations.*
- Based on the evaluation by February 1, 2021, each Permittee shall follow social marketing practices and methods and develop a program tailored to the community.* No later than April 2021 begin to implement the strategy.*
- No later than March 31, 2024 evaluate and report on the changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy.*

Continuing Activities

The City is implementing an education program aimed at residents, businesses, elected officials, policy makers, planning staff and other employees. The goal of the program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. The program was developed in conjunction with other local and regional stormwater programs. The City also coordinates with the Snohomish Conservation District (SCD) to implement portions of the program. The City tracks and maintains records of public education and outreach activities. Program highlights for 2018 are indicated in bold.

In 2013, the City partnered with Snohomish County and other municipalities on a county-wide Natural Yard Program to provide classroom trainings for residential homeowners. Participants took surveys before and after each training to measure their understanding of natural yard care techniques. **Based upon the initial evaluation of the program and its compatibility with the semi-rural, single-family residential lots that comprise nearly 100% of the city, the City cosponsored additional classes on natural yard care with SNO-ISLE Libraries. The classes were by SCD during 2018. The City is working with SCD to develop a work plan for future classes and activities related to implementation of the 2019-2024 Permit.***

The following table summarizes the continuing activities that are part of the Education and Outreach program including target audience and activities.

Audience	Activity
General public	<ul style="list-style-type: none"> • A pamphlet describing general impacts of stormwater flows into surface waters is available. • Articles published in the City's biannual newsletter. • Information table staffed at city events. • The City signed an interlocal agreement with the SCD to provide classroom lessons in the local schools regarding stormwater subjects. In 2018 SCD provided 12 surface water classes. The classes reached 314 students and 9 adults. In 2018 the City also partnered with SCD and the Sno-Isle Library to offer a Spring Gardening series. Three



Audience	Activity
	<p>classes were offered, including Natural Yard Care. The classes were well attended with 9-15 attendees at the classes and one follow up site visit.</p>
<p>General public, businesses, including home-based and mobile businesses</p>	<ul style="list-style-type: none"> • Posters for responsible automotive care including use and disposal of hazardous chemicals are available at City Hall and public events. • A brochure detailing the effects of illicit discharges and how to report them has been distributed and information is on the City's website. • Promote stormwater education activities sponsored in neighboring communities.
<p>Homeowners, landscapers and property managers</p>	<ul style="list-style-type: none"> • A brochure profiling yard care techniques protective of water quality is available at City Hall. • A brochure detailing BMPs for use and storage of pesticides and fertilizers is available at City Hall. • A brochure detailing BMPs for auto repair and maintenance are available at City Hall. • Low Impact Development (LID) techniques, including site design, raingardens, retention of native vegetation, are available on the City's website and at City Hall. LID is required under BMC and applications from developers and potential developers are reviewed for their compliance with these codes.
<p>Engineers, contractors, developers, review staff and land use planners</p>	<ul style="list-style-type: none"> • LID is required under BMC and applications from developers and potential developers are reviewed for their compliance with these codes. • A Surface Water Management Program was created to educate this audience on technical standards for stormwater site and erosion control plans. • Materials describing LID techniques, including site design, pervious paving, retention of forests and mature trees, are available on the City's website and at City Hall. • A brochure providing information on stormwater treatment and flow control Best Management Practices (BMPs) is available at City Hall.

2019 Planned Compliance Activities

Task Description	Schedule Notes & Due Dates
Update brochures and website content	Ongoing
Snohomish Conservation District led classes in Middle school	Coordination with SCD ongoing. Classes planned for Spring 2019
Snohomish Conservation District led Natural Yard Care Classes	Coordination with SCD is ongoing to evaluate the previous program and establish new goals and programs to meet the 2019 Permit requirements for S5.C.2.ii*
Provide supplies for pet waste stations in city parks	Ongoing



Lead Department and Support

The City Planner has the primary responsibility for implementing Public Education and Outreach activities required for Permit compliance.

Section 3: Public Involvement and Participation

Permit Requirements:

Section S5.C.2 of the Permit requires the City to:

- Create opportunities for the public involvement and participation.
- Post the SWMP Plan and the annual report to the City's website no later than May 31 each year. All other submittals shall be available to the public upon request.

Continuing Activities:

The City conducts the activities described below on a regular basis. Program highlights for 2018 are indicated in bold.

- Make the SWMP and SWMP Plan available for public comment on the City's website. **The SWMP and SWMP Plan are available for comment on the website.**
- Encourage citizen participation through:

A program with local citizens and/or the local Boy Scout troop to label catch basins and detention facilities throughout the area. **City staff coordinated with local citizens on a program to label catch basins. Labelling began in 2018 and will continue in 2019.**

Posting the SWMP Plan, the Annual Report required under S5A2 of the Permit, and all other submittals required by the Permit, on the City's website. **The Annual Report was uploaded in March 2018. The SWMP Plan was uploaded in March 2018. Updated versions of both of these documents were added in October 2018 in response to comments from DOE. On March 27, 2019 the Annual Report and SWMP Plan were uploaded to the DOE website.**

Pursuing other public participation opportunities such as adopt-a stream programs. **To date the City has not identified a group interesting in leading this effort but will continue to look for a potential partner.**

Promoting stormwater education activities and events in larger, neighboring municipalities by posting notices and flyers in City Hall and on the website.



Local volunteers participated in a catch basin labelling program

2019 Planned Compliance Activities:

The following table outlines the implementation plan for 2018 to achieve the goals and objectives of the Public Involvement Program and meet the compliance deadlines in the Permit.

Task Description	Schedule Notes & Due Dates
Catch basin labelling	Coordination with citizen group early 2019. Labelling as weather permits Summer/Fall 2019
Post SWMP Plan, Annual Report, and other stormwater documents on website	All documents posted to the website by May 31, 2019
Encourage comments on SWMP Plan and other activities	Ongoing
Promote training and educational opportunities in neighboring jurisdictions	Ongoing

Lead Department and Support

The City Planner has the primary responsibility for implementing Public Involvement and Participation activities required for the Permit.

Section 4: Illicit Discharge Detection and Elimination (IDD&E)

Permit Requirements

Section S5.C.3 of the Permit requires the City to:

- Implement an ongoing program designed to prevent, detect, characterize, trace, and eliminate illicit discharges and illicit connections into the permittee’s MS4. An illicit discharge means “any discharge to a MS4 that is not composed entirely of stormwater or of non-stormwater discharges allowed as specified in this permit (S5.C.3)” and illicit connection means “any infrastructure connection to the MS4 that is not intended, permitted or used for



collecting and conveying stormwater or non-stormwater discharges allowed as specified in this permit (S5.C.3). Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the MS4.”

- Maintain a storm sewer system map that includes stormwater system information identified in the Permit (e.g., outfalls, receiving waters, etc.).
- Beginning January 01, 2021, map size and material, where known, for all known MS4 outfalls.*
- No later than August 01, 2021, complete mapping of all known connection from the MS4 to a privately owned stormwater system.* Beginning August 1, 2021, the required format for mapping is electronic.
- Implement ordinances that prohibit illicit discharges and illicit connections and which contain escalating enforcement procedures and actions. The ordinances or other regulatory mechanisms shall be revised, if needed to meet new Permit requirements, no later than February 2, 2018.
- Develop procedures for and complete field screenings of at least 40 percent of the MS4 no later than December 31, 2017, and on average 12 percent each year thereafter.
- Publicly list and publicize a hotline or other local telephone number for public reporting of spills and other illicit discharges.
- Track through closeout illicit discharge and connection reports and the actions taken in response to them, including enforcement actions. Beginning January 1, 2014, include individual descriptions of actions taken for each illicit discharge found by or reported to the permittee and attach to the annual compliance report.
- Maintain an ongoing training program for city staff that may come into contact with or respond to illicit connections or discharges. Train program staff on proper IDDE response procedures and processes and train municipal field staff to recognize and report illicit discharges.
- Inform public employees, businesses, and general public of hazards associated with illegal discharges and improper disposal of waste.
- Summarize all illicit discharges and connections reported to the City and include a description of the response actions taken for each illicit discharge and connection according to the Permit-specified timeline, including enforcement actions, in the Annual Report.

Continuing Activities:

The City continuously strives to detect and remove illicit connections, discharges and improper disposal, including any spills not under the purview of another responding authority, into the municipal separate storm sewers owned or operated by the City. The City has taken the following measures (program highlights for 2018 are indicated in bold):

Mapping

The City updated and will continue to update its MS4 map. The map is available at City Hall. **The city provided GIS data to DOE in November 2017 and will continue to make available, upon request, the municipal storm sewer system map.** Upon



request, and to the extent appropriate, the City provides mapping information to co-Permittees and secondary Permittees. The map shows locations of city owned stormwater systems and includes the following information:

- The location of all known municipal separate storm sewer outfalls and receiving waters and structural stormwater BMPs owned, operated, or maintained by the city. The City has mapped the attributes listed below for all storm sewer outfalls:

Tributary conveyances (indicating type, material, and size where known).

Associated drainage areas.

Land use.

As part of the building permitting process, the City maintains a map of all connections to the MS4 authorized or allowed by the City after February 16, 2007.

IDD&E Ordinance:

In December 2016 the City revised its ordinance to prohibit non-stormwater, illegal discharges, and/or dumping into the City’s municipal separate storm sewer system to the maximum extent allowable under State and Federal law. The ordinance, Chapter 14.04 of the BMC, includes enforcement provisions for IDD&E. Reports of illicit discharges are investigated by the Code Enforcement Officer and referred to the City Prosecutor when appropriate. IDD&E enforcement actions are tracked in a spreadsheet and included in the Annual Report to DOE. **In 2018 city staff investigated five incidents.**

Ongoing IDD&E Program:

Public Works staff developed a program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping into the City’s municipal separate storm sewer system. The City tracks the number and type of spills or illicit discharges identified; inspections made; and any feedback received from public education efforts. The program includes:

- Screening for illicit connections is conducted using: “Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments”, Center for Watershed Protection, October 2004. The presence of sewage/septic system sources is investigated as part of all screenings.
- Beginning August 2019 conduct screening using “Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual, Herrera Environmental Consultants, Inc.,(May 2013).*
- Desktop screening using GIS, maps, and staff knowledge of the areas likely to have illicit discharges, including: evaluating land uses and associated business/industrial activities present; areas where complaints have been registered in the past; and areas with storage of large quantities of materials that could result in spills. The desktop screening revealed the city has a low risk for IDDE problems, due to its small size, lack of commercial or agricultural operations, and relatively recent development age (the majority of the development in the city occurred after its founding in 1965).
- Field assessments, including visual inspection of priority outfalls during dry weather and for the purposes of verifying outfall locations, identifying previously unknown outfalls, and detecting illicit discharges.



- Scriber Creek, a tributary of Swamp Creek, was been identified as a priority receiving water and was visually inspected by February 16, 2010. **Field assessments on the creek have been made annually each year after. Staff also inspect the areas near the outfalls as part of the City's TMDL testing program (Section 6).**
- Other screening includes observation during inspections of stormwater facilities on private properties and inspection of public structures such as catch basins, ditches, channels, and ponds. Public works staff also actively look for the presence of oils and sheen and evidence of debris from dumping during their regular inspection circuits (typically by vehicle) through the city and in conjunction with other project activities. Tracing the source of an illicit discharge; includes visual inspections, followed by opening manholes, tracing the path to nearby waterbodies, photographing the affected area, collecting and analyzing water samples, and/or other detailed inspection procedures. **In 2018, these screenings resulted in 5 investigations. Additional information on these investigations is provided in the Annual Report. Information on the illicit discharges is currently tracked using Microsoft Excel. Beginning August 2019, the City will use the WQWebIDDE to track and submit information to DOE.***
- The City provides information on its website and distributes appropriate information including brochures, handouts, and referrals to target audiences (See Section 1, Public Education and Outreach for more information).
- The City has a hotline, 425-775-5440, connected to its automated answering system for public reporting of spills and other illicit discharges. The City keeps a record of calls received and follow-up actions taken. **As indicated in the Annual Report, zero (0) hotline calls were received in 2018.**
- **The City has trained municipal field staff, including 5 full-time public works employees**, responsible for identification, investigation, termination, cleanup, and reporting illicit discharges, including spills, improper disposal and illicit connections to conduct these activities. Follow-up training is provided as new staff are hired and as necessary to address changes in procedures, techniques or requirements. IDDE topics are discussed with seasonal employees to familiarize them with the issues. Seasonal employees have instructions to contact a full-time staff member if a potential IDDE is observed. IDDE topics are also discussed during staff meetings and safety trainings. The City documents and maintains records of the training provided and the staff trained. **In 2018, the City hired one new public works employee. This individual was familiar with IDD&E procedures from previous employment and was briefed on the City of Brier procedures as part of his orientation.**
- The City also cross trains other field and office staff including police officers and administrative personnel, who, as part of their normal job responsibilities, might receive a report of, come into contact with, or otherwise observe an illicit discharge or illicit connection to the storm sewer. They receive information on how to identify a potential illicit discharge/connection and the proper procedures for reporting and responding to the illicit discharge/connection. Follow-up training is provided as needed to address changes in procedures, techniques or requirements. The City documents and maintains records of the training provided and the staff trained. **In 2018 five new police officers were hired who received this training.**



2019 Planned Compliance Activities

Task Description	Schedule Notes & Due Dates
Update GIS system	Update stormwater mapping as new connections are identified
Update mapping with size and material, where known, for MS4 outfalls.*	Beginning January 1, 2020/ ongoing
Continued work to complete mapping of all known connections from the MS4 to a privately owned stormwater system.*	August 1, 2021
Annual inspection of Scriber Creek	Annual inspection
Field assessment to identify illicit discharges	Once during the dry season. Additional inspections to coincide with TMDL testing.
Field screen on average 12% of the MS4 each year. Track total percentage of the MS4 screened beginning August 1, 2019 through December 31, 2023.*	December 2019 (12%)
Investigations and enforcement actions for hotline calls and other notifications of potential illicit discharges.	Report to DOE (ERTS) within 24 hours
Track information on illicit discharges.*	Ongoing. Beginning August 2019 use WQWebIDDE.
Continue to evaluate ordinances and update if necessary.*	Ongoing
Maintain website	Ongoing
Provide supplies for pet waste stations in city parks	Ongoing
Training for Public Works new hire(s)	Ongoing
Training for new police officers and office personnel	Ongoing

Lead Department and Support

The Public Works Department has the primary responsibility for implementing the IDDE program and compliance with this portion of the Permit.

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

Permit Requirements

The Permit (Section S5.C.4) requires the City to:

- Implement and enforce an updated program to reduce pollutants in stormwater runoff to the MS4 from new development, redevelopment, and construction site activities no later than December 31, 2016. The program must apply to private and public development projects, including roads, and address construction and development-related pollutant sources.
- Adopt new stormwater development regulations (codes and standards) specified in the Permit and the Stormwater Management Manual for Western Washington (Stormwater Manual), including vesting requirements and new LID BMPs by December 31, 2016. Implement new plan review, inspection, and escalating enforcement processes and



procedures necessary to implement the program in accordance with Permit conditions by December 31, 2016.

- Conduct a review and revision process of city-wide land use and development-related policies, codes, and standards or other enforceable documents to implement LID principles that minimize impervious surfaces, native vegetation loss and stormwater runoff by December 31, 2016. The range of issues outlined in *Integrating LID into Local Codes: A Guidebook for Local Governments* (Puget Sound Partnership, 2012) is to be considered.
- Prepare a summary of the LID Principles review and revision process and include the summary in the Annual Report no later than March 31, 2017. The intent of the LID Principles and LID BMP requirements is to make LID the preferred and commonly used approach to site development.
- Adopt regulations (codes and standards) to verify adequate long-term operations and maintenance (e.g., post-construction) of new, private, permanent stormwater facilities and BMPs (i.e., private drainage system inspections) in accordance with Permit conditions, including an annual inspection frequency and/or approved alternative inspection frequency and maintenance standards for private drainage systems as protective as those in Chapter IV of the Stormwater Manual by December 31, 2016.
- Perform annual inspections of private, permanent stormwater treatment and flow control facilities that were permitted and constructed in accordance with the Permit requirements effective January 1, 2010.
- Participate in a watershed-scale stormwater planning process led by a Phase I county if the Phase II jurisdiction is located within the selected watershed. NOTE: Brier is not located within a selected watershed.
- Provide copies of the Notice of Intent (NOI) for construction or industrial activities to representatives of the proposed new development and redevelopment.
- Provide training to staff on updated codes, standards, and procedures, and create public education and outreach materials.
- Summarize annual activities for the “Controlling Runoff” component of the Annual Report.

Continuing Activities:

The City has in place and enforces a program to reduce pollutants in stormwater runoff to its MS4 from new development, redevelopment and construction site activities. The City adopted the Stormwater Manual. This manual meets or exceeds the thresholds identified in appendix 1 of the Permit. The City has taken the following measures (program highlights for 2018 are indicated in bold):

Ordinance:

- As part of BMC Chapter 14.04, the City adopted and adheres to the provisions of the Stormwater Manual throughout the permitting process.
- **Revised in 2016, the ordinance clearly identifies the party responsible for maintenance, requires inspection of facilities, and establishes enforcement procedures.**



Permitting Process:

The City's permitting process includes plan review, inspection and enforcement, for both private and public projects, using qualified personnel. This process is applied to all development resulting in two thousand feet or more of new impervious surface on previously undeveloped or developed property.

- The City contracts with a consulting engineering firm that works with the Public Works Department to review all stormwater site plans for proposed development/redevelopment activities. **In 2018, twenty-six (26) site plans were reviewed.**
- The Public Works Department inspects, prior to clearing and construction, all known development sites that have high potential for sediment transport. **In 2018, twenty-six (26) sites were inspected.**
- The Public Works Department inspects all known permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. The City conducts enforcement actions when necessary based on inspection. **In 2018, twenty-six (26) sites were inspected.**
- The Public Works Department inspects all permitted development sites upon completion of construction and prior to final approval or certificate of occupancy to ensure proper installation of permanent stormwater controls such as stormwater facilities and structural BMP's. A maintenance plan is required as part of the permit review process and responsibility for maintenance is assigned. The City enforces when necessary based on inspection. The City maintains a log to track proper installation and inspection of permanent stormwater controls.
- The City responds to the issues of non-compliance with regulations of stormwater site plans with investigations by Public Works Staff and/or the Code Enforcement officer as appropriate.

Long-term Operation and Maintenance:

Brier Public Works staff verify adequate long-term operation and maintenance (O&M) of post-construction stormwater facilities and BMPs that are permitted and constructed within the city. These provisions include:

- The City adopted the Stormwater Manual and City staff inspect based upon the maintenance standards in volume V chapter 4. Residents are advised of these standards in annual mailings and information posted to the City's website.
- Annual inspections of all stormwater treatment and flow control facilities (other than catch basins) permitted by the City that were permitted and constructed in accordance with the Permit requirements effective January 1, 2010 unless there are maintenance records to justify a different frequency. **As of December 31, 2018, there were 13 such facilities in the City of Brier. The City achieved a 92% completion rate for 2018.**
- Public Works Staff inspect all new flow control and water quality treatment facilities, including catch basins, for new residential developments that are a part of a larger common plan of development or sale, that requires inspection every 6 months during the period of heaviest house construction (i.e., 1 to 2 years following subdivision approval) to identify maintenance needs and enforce compliance with maintenance standards as needed. These inspections are typically accomplished through daily inspection circuits of the city and in conjunction with inspections of other construction activities. A final inspection occurs prior to



final plat approval, release of performance and maintenance bonds, and issuance of certificates of occupancy.

- The City maintains records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records.
- The City retains records of maintenance inspections and activities using paper and GIS.
- The City provides copies of the "Notice of Intent for Construction Activity" and copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment. The City will continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by DOE.
- All staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Follow-up training will be provided as needed to address changes in procedures, techniques or staffing. The city documents and maintains records of the training provided and the staff trained. **In 2018, the City hired one new public works employee. This individual does not conduct inspections but received general training on the inspection program so that he is able to identify any issues with stormwater runoff from construction sites during the course of his work. City staff regularly discuss and refine review and inspection procedures.**
- **The City completed a review and revision of its development-related codes, rules, standards to incorporate and require LID principles in 2016.** The revisions include measures to minimize impervious surfaces; minimize the loss of native vegetation; and minimize stormwater runoff. **LID principles were incorporated into 2018 revisions to the City's tree protection (BMC 17.52) and Native Vegetation and Landscaping (BMC17.50) ordinances. Staff continue to educate property owners, consultants, and developers on the new codes and standards during pre-application meetings, review process, and onsite inspections.**

2019 Planned Compliance Activities:

The following table outlines the activities planned for 2018 to control runoff from new development, redevelopment, and construction sites and meet the Permit deadlines.

Task Description	Schedule Notes & Due Dates
Review and update of Stormwater Ordinance and related development codes	Completed December 2016. Ongoing review to clarify requirements and plan for future updates.
Review of stormwater plans for private development	Ongoing
Pre and Post Inspections of construction sites	Ongoing
Inspection of construction sites	Ongoing
Inspection of Private Stormwater Facilities	City staff directly inspect private facilities for which it has a maintenance responsibility. Annual



Task Description	Schedule Notes & Due Dates
	notification of property owners with maintenance responsibilities by mail with follow-up correspondence by mail, telephone, and in-person as necessary.
Training for Public Works and Planning Staff	Ongoing

Lead Department and Support

The Public Works Department has the primary responsibility for implementing the program to control runoff from new development, redevelopment, and construction sites required under the Permit.

Section 6: Pollution Prevention and Operation and Maintenance for Municipal Operations

Permit Requirements:

The Permit (Section S5.C.5) requires the City to:

- Implement an Operations and Maintenance (O&M) program with the ultimate goal of preventing or reducing pollutants in stormwater runoff from MS4 and municipal O&M activities.
- Implement maintenance standards for the MS4 that are at least as protective as those specified in the 2012 DOE Manual, no later than December 31, 2016.
- Perform inspections of stormwater flow control and treatment facilities and catch basins in accordance with Permit requirements, unless previous inspection data show that a reduced frequency is justified.
- Inspect all municipally owned or operated catch basins and inlets once no later than August 1, 2017 and every two years thereafter.
- Perform spot checks of potentially damaged stormwater treatment and flow control BMPs and facilities after major storm events.
- Implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands maintained by the City and from municipal O&M activities, including but not limited to streets, parking lots, roads, or highways owned or maintained by the City. Train staff to implement the processes and procedures and document that training.
- Implement Stormwater Pollution Prevention Plans (SWPPPs) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the city.
- Summarize annual activities for the “Municipal Operations and Maintenance” portion of the Annual Report.



Continuing Activities

The City has developed and implemented an O&M program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. The City adopted the most recent version of the Stormwater Manual including the maintenance standards in Volume V Chapter 4. The program includes standard practices to reduce impacts from O&M activities such as the application of fertilizers and pesticides as well as impacts from maintenance of roads and other municipal facilities. The city has taken the following measures (program highlights for 2018 are indicated in bold):

General Inspections:

Public Works staff perform annual inspections of all stormwater treatment and flow control facilities that are city owned and operated and take appropriate maintenance actions in accordance with the adopted Stormwater Manual. Records of inspections are tracked on paper and using GIS. The City is investigating the use of additional software and tracking systems. **In 2018, Public Works staff inspected all 85 of the known municipally owned or operated stormwater treatment and flow control BMPs/facilities. 60 facilities were identified as requiring maintenance. The City is in the process of prioritizing the more complex maintenance projects.**

City staff inspects and arranges for cleaning and/or maintenance of municipally owned/operated catch basins. **City staff inspected 741 of the 1383 known catch basins during 2018. 331 catch basins were cleaned in 2018.**

Post-Storm Inspections:

City staff perform spot checks of potentially damaged permanent treatment and flow control facilities after major storm events. If spot checks indicate widespread damage/maintenance needs, all facilities that may be affected are then inspected. Repairs and maintenance action is taken immediately upon inspection when required. **Cleaning was performed as necessary but no other maintenance needs were identified in 2018 as a result of these inspections.**

Special Facility Requirements:

Public Works staff follow the BMPs and other procedures included in the SWPPP that was prepared for the Public Works Facility.

Training:

City employees whose construction, operations or maintenance job functions may impact stormwater quality are trained on BMPs and other procedures to reduce to stormwater impacts and maintain facilities. **The Public Works staff includes four (4) employees who have CESL certification.** The importance of protecting water quality, the requirements of the Permit, operation and maintenance standards, inspection procedures, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns, including potential illicit discharges are regularly discussed at Public Works team meetings. Training on these topics is provided to new employees. Follow-up



training is provided as needed to address changes in procedures, techniques or requirements. The City documents and maintains records of training provided. **In 2018, the City hired a new Public Works employee who has CESL certification and is familiar with stormwater procedures. During his orientation he received briefings on city stormwater management procedures.**

2019 Planned Compliance Activities:

The following table outlines the implementation plan for 2019 to achieve the goals and objectives of the Municipal Operations and Maintenance and meet the Permit deadlines.

Task Description	Schedule Notes & Due Dates
Grate clearing, street sweeping, and other maintenance	Ongoing
Perform routine maintenance on stormwater treatment and flow control facilities owned and operated by the City with identified maintenance needs.	By December 31, 2019
Prioritize and develop strategy for repairs of stormwater treatment and flow control facilities owned and operated by the City requiring maintenance.	By December 31, 2019
Perform annual inspections of all stormwater treatment and flow control facilities owned and operated by the City.	By December 31, 2019
Perform checks of potentially damaged permanent treatment and flow control facilities after major storm events.	Ongoing after storm events
Implement BMPs to reduce stormwater impacts from O&M.	Ongoing
Inspect all catch basins and inlets owned or operated by the City at least once before the end of the Permit term.	Complete – perform inspections of 719 catch basins by December 31, 2019
Continue to refine maintenance and inspection procedures.	Ongoing
Maintain records of inspection, maintenance, and repair activities.	Ongoing
Maintain CESL and other certifications	Every 3 years for CESL or as necessary for other certifications
Conduct training for new hires and seasonal employees	Ongoing



Lead Department and Support

The Public Works Department has the primary responsibility for implementing the program to control runoff from municipal operations.

Section 7. Compliance with Total Maximum Daily Load Requirements/Bacterial Pollution Control Plan

Permit Requirements

Section S7 of the permit requires the following activities related to TMDL And Bacterial Pollution Reduction:

- **Business Inspections:** Each Permittee shall inspect commercial animal handling areas and commercial composting facilities to ensure implementation of source control BMPs for bacteria.
- **Public Education and Outreach:** Each Permittee shall conduct public education and outreach activities to increase awareness of bacterial pollution problems and promote proper pet waste management behavior.
- **Operations & Maintenance:** Each Permittee shall install and maintain animal waste collection and/or education stations at municipal parks and other Permittee owned and operated lands reasonably expected to have substantial domestic animal (dog and horse) use and the potential for pollution of stormwater.
- **IDDE:** Permittees conducting IDDE-related field screening under S5.C.8 of the Phase I permit or S5.C.3 of the Western Washington Phase II permit shall screen for bacteria sources in any screened MS4 subbasins which discharge to surface waters in the TMDL area.
- **Targeted Source Identification & Elimination:** By February 2, 2014, each Permittee shall review the fecal coliform data collected per approved QAPPs under the 2007 Permit. The purpose of this review is to identify a minimum of one high priority area (such as a tributary or a stream segment) that will be the focus of source identification and elimination efforts during this permit cycle. Each Permittee shall prepare written documentation of this review and the identified high priority area; documentation shall be submitted with the Annual Report for 2014. Permittees shall begin to implement source identification and elimination efforts in the MS4 subbasins discharging to the identified high priority area no later than August 1, 2014. Permittees are encouraged to address potential bacteria pollution sources not associated with the MS4. Stormwater quality sampling for bacteria sources is required as part of this focused source identification and elimination effort. Permittees shall implement the schedules and activities identified in S5.C.8 of the Phase I permit or S5.C.3 of the Western Washington Phase II permit in response to any illicit discharges found. Each Annual Report's TMDL summary shall include qualitative and quantitative information about the source identification and elimination activities, including procedures followed and sampling results, implemented in the selected high priority area(s).
- **Surface Water Monitoring:** Each Permittee shall review the fecal coliform data collected per approved QAPPs under the 2007 Permit and select surface water monitoring location(s) as appropriate for continued characterization and long term trends evaluation of fecal coliform.



Each Permittee shall submit a draft revised QAPP to DOE for review and approval, no later than February 2, 2015. At a minimum, the monitoring program shall:

- Begin by August 1, 2015.
- Collect 12 samples in at least one location per calendar year.
- Submit available data to the Environmental Information Management (EIM) database by May 31 of each year.
- Provide data summaries and narrative evaluation of the data in each annual report's TMDL summary.
- Be documented in a QAPP which follows Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, July 2004, Ecology Publication No. 04-03-030.

Continuing Activities:

There is one TMDL, the Swamp Creek TMDL, listed in Appendix 2 of the Permit that is applicable within the City of Brier. The TMDL addresses fecal coli form bacteria in Swamp Creek. The coverage of this TMDL includes all areas of the city that eventually drain to Swamp Creek prior to its confluence with the Sammamish River in King County. The City has taken the following measures (program highlights for 2018 are indicated in bold):

Business inspections:

The City completed a desktop review of businesses in its jurisdiction and determined inspections of businesses related to TMDL is not necessary as:

- There are no commercial animal handling areas or commercial composting facilities.
- There are no known composting or animal waste handling facilities within the city.

Operations & Maintenance:

The City maintains waste stations at its equestrian arena and in all public parks.

Public Education

The City provides brochures on its website and at City Hall regarding property disposal of pet waste.

IDDE activities:

The City conducts additional IDD&E activities within the areas of the City affected by the TMDL. Water bodies addressed by the Swamp Creek Tributaries TMDLs have been designated as high priority water bodies (see permit condition S.5.C.3.(c)(ii)) and receive field assessments and screening prior to other receiving water bodies. The presence of sewage/septic system sources is investigated as part of all screenings.

Water Quality Monitoring

Within the area covered by the Swamp Creek TMDL, the City performs water quality monitoring in accordance with Option 2 of the Swamp Creek TMDL. The Quality Assurance Project Plan (QAPP) was approved by DOE on February 28th, 2008 and final



signed copies were delivered to Mountlake Terrace and Brier in March 2008. Sampling began on April 15th, 2008. The City will also use continuous flow monitoring at a representative location as approved by DOE, to determine if a sampling event is affected, or dominated, by storm flows. The QAPP was updated to meet the requirements of the 2012 NPDES Permit and incorporate protocols to prevent the spread of the New Zealand Mud Snail. The updated QAPP was approved by DOE in 2015. **The results of the sampling are provided to Mountlake Terrace for use in its reporting and compliance. The City collected samples in 8 locations 12 times during 2018. The results were included in the Annual Report submitted in March 2019.**

2019 Planned Compliance Activities:

The following table outlines the implementation plan for 2019 to achieve the goals and objectives of the TMDL portion of the SWMP and meet the Permit deadlines.

Task Description	Schedule Notes & Due Dates
Conduct sampling	3 rd Wednesday of each month
Coordinate with Mountlake Terrace on sampling	Ongoing
Maintain records of sampling	Ongoing
Provide education materials on proper disposal of pet waste	Ongoing
Maintain pet waste stations in parks	Ongoing
Maintain waste station at the equestrian arena	Ongoing
Include summary of sampling in Annual Report	By March 31, 2019

Lead Department and Support

The Public Works Department has the primary responsibility for compliance with the TMDL requirements of the Permit.



Section 8. Monitoring and Assessment

Permit Requirements

The Permit (Section S8) requires municipalities to conduct water quality sampling and program assessments during this Permit cycle, or to participate in State-conducted programs to meet these requirements:

Continuing Activities:

The City conducts the following activities to meet the monitoring and assessment component of the permit (program highlights for 2017 are shown in bold):

- **Regarding status and trends monitoring in Puget Sound, the City selected Option 1, requiring payment into a collective fund to implement a Regional Stormwater Monitoring Program (RSMP) for small streams and marine nearshore status trends; annual payments to DOE began August 15, 2014. The City plans to continue this option and will notify DOE in writing by December 1, 2019 if it intends to continue this option.***
- **Regarding effectiveness studies, the City selected Option 1, requiring payment into a collective fund to implement RSMP effectiveness studies; annual payments to DOE began August 15, 2014.**
- **The City pays into a collective fund to implement the RSMP Source Identification Information Repository (SIDIR); annual payments to DOE began August 15, 2014.**
- **Submit records of SWMP activities tracked and/or maintained in accordance with S5 and/or S9 in response to requests from the Stormwater Action Coordinator for information associated with effectiveness and source identification studies.***

2019 Planned Compliance Activities:

The following table outlines the implementation plan for 2019 to achieve the goals and objectives of the Monitoring and Assessment portion of the SWMP Plan and meet the Permit deadlines.

Task Description	Schedule Notes & Due Dates
Notify DOE of selected options for status and trends monitoring	Completed December 2013/ notify DOE in writing by December 1, 2019 of option for 2019-2024 Permit Cycle.*
Respond to requests from the Stormwater Action Coordinator to the extent the data is available.*	Ongoing/as requested*
Continued payment into the Status and Trends Fund for small streams and marine nearshore.	By August 2019
Notify DOE of the selected option for SWMP effectiveness and source identification studies.	December 01, 2019*



Task Description	Schedule Notes & Due Dates
Continue payment into RSMP for effectiveness studies	By August 2019
Continue payment into RMP for Source Identification Information Repository	By August 2019

Lead Department and Support

The City Clerk /Treasurer has the primary responsibility for ensuring payment into the appropriate funds for status and trends monitoring.

Section 9 Reporting and Record Keeping

Permit Requirements

The Permit (Section S9) requires municipalities to provide annual reporting on its compliance activities. Each permittee is also required to maintain records related to the permit and SWMP for at least 5 years.

Continuing Activities

Annual Reporting

The city reported its 2018 activities to DOE on March 29, 2019. The submittal includes the following:

- A copy of the City's current SWMP Plan documentation.
- Annual Report Form for Cities, Towns, and Counties.

Record Keeping

The City maintains all records related to the Permit and the SWMP for at least five years. Except for the requirements of the Annual Reports described in this permit, records are submitted to DOE only upon request,

- The City makes all records related to the Permit and the City's SWMP available to the public at reasonable times during business hours. The City will provide a copy of the most recent Annual Report to any individual or entity, upon request.
- A reasonable charge may be assessed by the City for making photocopies of records.
- The City may require reasonable advance notice of intent to review records related to this Permit.



2019 Planned Activities:

The following table outlines the implementation plan for 2019 to achieve the goals and objectives of the Reporting and Record Keeping portion of the SWMP Plan and meet the Permit deadlines.

Task Description	Schedule Notes & Due Dates
Submit 2019 Annual Report	March 31, 2019
Maintain Records	Ongoing
Provide copy of the SWMPP on the website and to the public on request	Ongoing

Lead Department and Support

The City Planner has the primary responsibility for reporting on the SWMP Plan and the Permit.

Section 10 Source Control Program for Existing Development

Permit Requirements

The Permit (Section S5.C.8) requires each permittee to implement a program to prevent and reduce pollutants in runoff from areas that discharge to MS4s. No later than August 1, 2022 permittees shall adopt an ordinance(s) requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities to identify pollutant generating sources.*

No later than August 1, 2022 the permittees shall establish an inventory that identifies publically and privately owned commercial and industrial properties which have the potential to generate pollutants of the Permittee’s MSR. No later than January 1, 2023, permittees shall implement an inspection program for these sites.*

No later than January 2, 2023 implement a progressive enforcement policy that requires sites to comply with stormwater requirements within a reasonable time period (as specified in S1.A.iv.*

Continuing Activities

The City is reviewing the 2019-2024 Permit requirements and will review the guidance from DOE once the new Permit is issued to establish a more detailed schedule and implementation program.* The majority of the city is zoned single-family residential with a small commercial area and a limited number of home-occupations with a potential to generate pollution into the MS4.



2019 Planned Activities:

The following table outlines the implementation plan for 2019 to achieve the goals and objectives of the Source Control portion of the SWMP Plan and meet the Permit deadlines.

Task Description	Schedule Notes & Due Dates
Review existing IDDE ordinance and establish schedule for code changes (if necessary).	December 2019
Establish initial inventory criteria	December 2019
Develop and update inventory	Ongoing
Implement enforcement strategy	January 2, 2023

Lead Department and Support

The City Planner has the primary responsibility for reviewing the ordinance and making changes. The City Planner will work closely with the code enforcement officer to develop and implement the enforcement strategy.