CITY OF BAINBRIDGE ISLAND

2019 Stormwater Management Program (SWMP) Plan

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INTRODUCTION

The City of Bainbridge Island (City) is an owner/operator of a regulated small municipal separate storm sewer system (MS4). The MS4 discharges stormwater directly into streams and Puget Sound, which are Waters of the United States protected by the Federal Clean Water Act. Thus, the City's MS4 is regulated by State and Federal law under the National Pollutant Discharge Elimination System (NPDES).

NPDES is a permit-based water quality program implemented under the authority of the Federal Clean Water Act, administered by the United States Environmental Protection Agency (EPA). In Washington, NPDES permitting is regulated by Washington State Department of Ecology (DOE) under the authority of the EPA.

The NPDES permit program is intended to reduce the discharge of pollution to Waters of the United States to protect and restore waters for beneficial uses such as swimming and fishing.

Different general and individual NPDES permits are required for many types of businesses and industries that discharge stormwater including quarry operations, construction, industrial, boatyards, animal feed operations, fresh fruit packing, wineries, water treatment, etc. The general stormwater NPDES permit that the City is required to obtain and comply with is the Western Washington Phase II Municipal Stormwater Permit (the permit). The City Public Works Department oversees and coordinates NPDES permit compliance for the City.

NPDES Phase II Municipal Stormwater Permit

Under the NPDES municipal stormwater general permit program in Washington State, cities and counties that own or operate an MS4 serving a population of more than 100,000 (based on the 1990 Census) are required to be covered under the Phase I permit. MS4 owners and operators serving populations of 1,000 to 100,000 (based on the 1990 Census) are required to be covered under the Phase II Permit. The City of Bainbridge Island is a Phase II jurisdiction.

The City must comply with all sections and general conditions of the permit (2013-2018*extended by DOE into 2019). Principally, the permit requires the City to comply with standards to protect water quality, reduce the discharge of pollutants from the MS4 to the maximum extent practicable, and meet Washington State's All Known and Reasonable Treatment (AKART) requirements. The permit provides general and prescriptive guidance for accomplishing permit compliance. Section 5 (S5) of the permit requires the City to develop and implement a Stormwater Management Program (SWMP) for its

jurisdiction. Planned SWMP actions and activities for the upcoming year must be updated and documented annually as the Stormwater Management Program (SWMP) Plan, which is this document.

In addition to the SWMP Plan, the City is required to complete an annual report with DOE that documents the City's compliance with the permit. Compliance as demonstrated by the annual report constitutes successful implementation of the SWMP Plan.

S5: STORMWATER MANAGEMENT PROGRAM PLAN

The City's Public Works Director is responsible for the overall development and implementation of the Stormwater Management Program (SWMP). Under the direction of the Public Works Director, the NPDES Permit Coordinator prepares and manages the SWMP Plan, and permit compliance for the city.

The City of Bainbridge Island SWMP remains flexible and adaptive as staff must be creative and resourceful in accomplishing both NPDES permit requirements as well as City Comprehensive Plan goals. The City collaborates and coordinates within and throughout all City Departments, as well as with other Permittees to accomplish the SWMP Plan.

This SWMP Plan is being prepared in accordance with the City's current permit (2013-2018*2019) which is set to expire and be replaced by a new five-year permit in August 2019. After the new permit is issued, the City will reassess and make any necessary updates to the City's SWMP and this 2019 SWMP Plan to ensure compliance with the new permit.

This SWMP Plan is generally organized to follow and address five specific SWMP requirements as outlined in Section 5 (S5) of the permit:

- Public Education and Outreach (S5.C.1)
- Public Involvement and Participation (S5.C.2)
- Illicit Discharge Detection and Elimination (S5.C.3)
- Controlling Runoff from New Development, Redevelopment and Construction Sites (S5.C.4)
- Municipal Operations and Maintenance (S5.C.5)

S5.C.1: Public Education and Outreach

The City's stormwater public education and outreach program strives to build awareness and effect change that will ultimately reduce pollutants in stormwater and improve water quality in waters of the state.

The City continues to try to increase availability and accessibility of resources for information, services, and activities that may help people on Bainbridge Island better understand and cooperate in stormwater best management practices. In doing so, the City fosters a more knowledgeable and

engaged community that is enthusiastic and willing to adopt more desirable attitudes and behaviors that decrease detrimental influences on water quality.

The following subsections detail the specific strategies and tactics the City utilizes to meet its goals as well as fulfill the minimum performance measures outlined in permit subsection S5.C.1:

- Educate and Engage Target Audiences (S5.C.1.a)
- Build General Awareness with the General Public and Businesses (S5.C.1.b)
- Measure Understanding and Adoption of Targeted Behaviors (S5.C.1.c)

S5.C.1.A – EDUCATE AND ENGAGE TARGET AUDIENCES

The City continues to improve awareness and involvement in stormwater management with target audiences, primarily: the general public, businesses, engineers, contractors, developers, land use planners, residents, landscapers, and property managers and owners.

The City utilizes local and regional resources, campaigns, and programs to provide opportunities for education and stewardship for target audiences on Bainbridge Island.

The following measures are intended to support information sharing and compel desired action from each audience in the various subject areas surrounding stormwater.

S5.C.1.a.i.a – Build General Awareness with the General Public and Businesses

The City supports building general awareness with the general public and businesses in the following five subject areas outlined in the permit:

1. **General impacts of stormwater on surface waters.**
2. **Impacts from impervious surfaces.**
3. **Impacts of illicit discharges and how to report them.**
4. **Low impact development (LID) principles and LID best management practices (BMPs).**
5. **Opportunities to become involved in stewardship activities.**

The following list is generally how and where the City achieves compliance in these five subject areas for building general awareness with the public and businesses. The list concisely comprises some of the activities the City accomplishes and supports, and how the City publicizes and makes available and accessible various guidance, services, and activities for people. Please contact the City if you want more detailed information for any of these items.

- *City of Bainbridge Island Stormwater Management Program (SWMP) Plan [this document]*
- *City of Bainbridge Island Design and Construction Standards and Specification*
- *2012 Stormwater Management Manual for Western Washington, as Amended in December 2014*
- Bainbridge Island Municipal City Code
- *2012 Low Impact Development Technical Guidance Manual for Puget Sound*
- *Rain Garden Handbook for Western Washington*

- Enforcement of state, county, and city standards, laws, and codes
- Participation in West Sound Stormwater Outreach Group (regional coordination though an Interlocal Agreement)
- Participation in Stormwater Outreach For Regional Municipalities (STORM) (regional coordination group)
- Personal interactions (via phone, email, and face-to-face)
- Letters and notices mailed or emailed to property owners as needed
- City of Bainbridge Island website: www.bainbridgewa.gov/stormwater
- City of Bainbridge Island spill hotline:
    - Phone: 360-337-5777
    - Online: pollution.kitsapgov.com
- National Marine spill hotline: 1-800-OILS-911
- Response to found and reported spill reports
- Response to found and reported drainage concerns
- Stormwater infrastructure inspections
- Source control inspections
- Operations and Maintenance activities
- Project permitting procedures
- Regular newsletter from City Hall
- Puget Sound Starts Here (PSSH) regional campaign and promotional materials
- Social media outlets: Facebook, Twitter, Nextdoor, LinkedIn
- City of Bainbridge Island Green Team events and newsletters
- Special Events such as:
    - Annual Puget Sound Starts Here month in May [2019 is "Orca Health Starts Here" month]
    - Association of Bainbridge Communities Annual Conference [2019 is "Wells to Whales"]
    - Water Festival
    - Annual Harvest Fair
    - Capital Improvement Project (CIP) grand openings
    - Annual Boater's Fair at Waterfront Park
    - Farmer's Market at Town Square
    - Fourth of July celebration and parade
    - Halloween Walk
    - Arbor Day
    - Pollution Prevention Week
    - Public Works Appreciation Week

        - Annual Drug Take Back event
        - Kitsap County Household Hazardous Waste Program collection events
        - Beach cleanups
        - Annual spawning salmon monitoring
    - Drug Take Back Station
    - Kitsap County Solid Waste & Household Hazardous Waste Programs
    - Kitsap County Public Health Department
    - Kitsap County Conservation District (coordination also occurs through an Interlocal Agreement for agricultural assistance)
    - Mutt Mitt Stations
    - Washington State University (WSU) Master Gardeners & Bainbridge Island Rain Garden Mentors
    - Participation and volunteering opportunities with the City, and with various community groups including:
        - Water Quality and Flow Monitoring Program (WQFMP)
        - Student internships
        - Bainbridge Island Land Trust
        - Association of Bainbridge Communities
        - Sustainable Bainbridge Community Groups: Watershed Council, Weed Warrior, Zero Waste, Bainbridge Beach Naturalists
    - Bainbridge Island Metro Park & Recreation District
        - Student Conservation Corps program
    - City Council, Committee, and Ward Meetings
    - Citizen Advisory Committee Meetings
    - Public information meetings
    - Public Land Use Notices
    - Educational materials including brochures, posters, and stickers
    - Storm drain “No Dumping” markers
    - Educational signs in parks, at road ends, and at stormwater facilities
    - City Hall Public Works Front Counter
    - Friends of The Farms
    - Nature Nuts Educational Program for school-aged children

S5.C.1.a.i.b – Build General Awareness with Engineers, Contractors, Developers and Land Use Planners

The City fosters building general awareness with engineers, contractors, developers and land use planners in the three following subject areas outlined in the permit:

1. **Technical standards for stormwater site and erosion control plans**
2. **LID principles and LID BMPs**
3. **Stormwater treatment and flow control BMPs/facilities**

The City achieves compliance with these three subject areas by providing and promoting the services, activities, and guidance listed below. Please contact the City if you want more detailed information for any of these items.

- *City of Bainbridge Island Stormwater Management Program (SWMP) Plan [this document]*
- *City of Bainbridge Island Design and Construction Standards and Specification*
- *2012 Stormwater Management Manual for Western Washington, as Amended in December 2014*
- *2012 Low Impact Development Technical Guidance Manual for Puget Sound*
- *Rain Garden Handbook for Western Washington*
- Bainbridge Island Municipal City Code
- City of Bainbridge Island website: www.bainbridgewa.gov/stormwater
- Temporary and permanent stormwater best management practices (BMPs) inspection reports
- Personal interactions (via phone, email, and face-to-face)
- Letters and notices mailed or emailed to property owners as needed
- Project permitting procedures
    - Project review by Development Engineers
    - Pre, during, and post-construction meetings and inspections
    - Temporary erosion and sediment control plan review and inspections
    - Permanent stormwater facility inspections
    - Building inspections
- Certified Erosion and Sediment Control Lead (CESCL) training
- WA Department of Ecology approved LID training courses
- Professional conferences and events
- Professional certifications and continued education
- Onsite presentations of new and existing stormwater and LID solutions by manufacturers and sellers
- Enforcement of state, county, and city standards, laws, and codes

S5.C.1.a.ii.b – Effect Behavior Change with Residents, Landscapers and Property Managers/Owners

In 2019, the City endeavors to effect behavior change with residents and property owners regarding yard care techniques protective of water quality. The City, as a participating member of the West Sound Stormwater Outreach Group (WSSOG), is working with the other WSSOG members on a regionally coordinated behavior change and social marketing campaign to try to eliminate and replace non-protective of water quality yard care techniques. WSSOG hired a local social marketing company to assist with the effort that is planned to continue through 2020.

S5.C.1.B – CREATE STEWARDSHIP OPPORTUNITIES

The City encourages stormwater stewardship by offering opportunities through the City as well as by promoting and sometimes supporting stewardship opportunities offered through local and regional initiatives. The City is very fortunate to have many active individuals and community groups that are dedicated to environmental and water quality stewardship.

Some of the stewardship opportunities offered by the City, partner agencies, and community groups that are supported and promoted by the City are:

- City of Bainbridge Island Water Quality and Flow Monitoring Program (WQFMP)
- City of Bainbridge Island Green Team waste collection events
- Drug Take Back Station and annual collection event
- Sustainable Bainbridge Community Groups: Watershed Council, Weed Warrior, Zero Waste, Bainbridge Beach Naturalists
    - Spawning salmon monitoring
    - Beach monitoring
    - Beach cleanups
    - Waste monitoring and control at local events
    - Invasive and noxious species removal
- Association of Bainbridge Communities
- Kitsap County Household Hazardous Waste Program collection events
- Kitsap County Conservation District
- Mutt Mitt Stations located around the entire island
- Washington State University (WSU) Master Gardeners & Bainbridge Island Rain Garden Mentors
- Bainbridge Island Metro Park & Recreation District
- Friends of the Farms
- Nature Nuts Educational Program for school-aged children

S5.C.1.C – MEASURE UNDERSTANDING AND ADOPTION OF TARGETED BEHAVIORS

The City continues to examine and reflect on its efforts in public education and outreach and is dedicated to revising and improving programming through adaptive management.

To achieve greater awareness of the effectiveness of the City's public education and outreach program, the City utilizes methods of measurement, such as questionnaires, quizzes, and contests. Results of such are used to evaluate a level of understanding and measure behaviors adopted by individuals and groups. The City uses the valuable information obtained through methods of measurement to review and formulate successful resources for education and outreach. The City then incorporates this into the SWMP Plan.

In 2019, the City will participate in a coordinated regional campaign effort to effect behavior change with residents and property owners regarding yard care techniques protective of water quality. This campaign is being developed, implemented, and adapted utilizing metrics of understanding. Refer to previous SWMP Plan section S5.C.1.a.ii.b for more information.

S5.C.2: Public Involvement and Participation

The City encourages and values public engagement in the Stormwater Management Program (SWMP) Plan because the public is both the primary investor and beneficiary of SWMP actions and outcomes. The SWMP is mostly funded through the surface and stormwater utility fee, an annual fee paid by Bainbridge Island property owners.

The City facilitates public involvement and participation in the SWMP through various means, and the permit requires the City follow and address these minimum performance measures for public involvement and participation:

- Create Opportunities for Public Participation in SWMP (S5.C.2.a)
- SWMP Plan and Annual Report on Bainbridge Island Website (S5.C.2.b)

S5.C.2.A – CREATE OPPORTUNITIES FOR PUBLIC PARTICIPATION IN SWMP

The City creates opportunities for public involvement and participation in the development and implementation of the SWMP primarily by soliciting feedback through public notice regarding the annual update to the SWMP Plan when it is posted online on the City website and available in print at the Public Works front counter at City Hall and upon request. The following are the many ways the public may review and provide comment on SWMP documents, actions, and activities:

- Online:
    - City of Bainbridge Island website: www.bainbridgewa.gov/stormwater
    - City of Bainbridge Island Facebook Page: www.facebook.com/citybainbridgeisland
    - City of Bainbridge Island Nextdoor Page: www.nextdoor.com/profile/30067103
    - City of Bainbridge Island SeeClickFix: https://en.seeclickfix.com/bainbridge-island
- Email: waterresources@bainbridgewa.gov

- Phone: 206-842-2016 (Public Works Main Line)
- Mail posted to: City of Bainbridge Island, Public Works Department, Engineering-NPDES, 280 Madison Ave N, Bainbridge Island, WA 98110
- In Person: City Hall Public Works Front Counter
- City Council, Committee, and Ward Meetings
    - Meeting Calendar: https://www.bainbridgewa.gov/calendar.aspx?CID=14
- Citizen Advisory Committee Meetings
    - Meeting Calendar: https://www.bainbridgewa.gov/calendar.aspx?CID=14

S5.C.2.B – SWMP PLAN AND ANNUAL REPORT ON BAINBRIDGE ISLAND WEBSITE

The City will make the 2019 SWMP Plan and Annual Report available to the public on City of Bainbridge Island's website, www.bainbridgewa.gov/stormwater, no later than May 31, 2019, as required by the permit. The 2018 SWMP Plan will remain available on the website until the 2019 SWMP Plan is available. Public notice shall be given when the SWMP Plan is online and available for review and comments. A hard copy of the SWMP Plan is also available at the Public Works front counter at City Hall and upon request.

S5.C.3: Illicit Discharge Detection and Elimination

Preventing and eliminating illicit discharges and connections to the MS4 is a necessary and integral part of the SWMP to help reduce and remove pollutants from entering and exiting the MS4. The City asks for and appreciates the help of everyone in identifying pollution and reporting it so the City may address it.

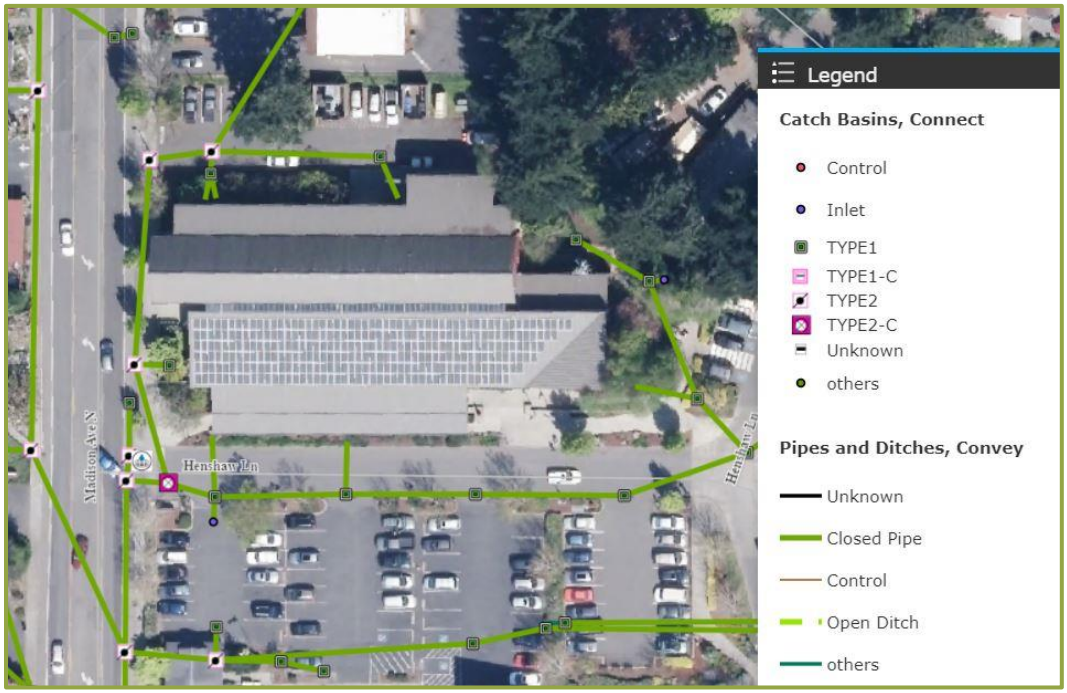
The City has developed and implemented a program for illicit discharge detection and elimination (IDDE) to effectively prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the municipal separate storm sewer system (MS4). The City's IDDE program includes the activities described in this section which address the minimum performance measures outlined in permit subsection S5.C.3:

- Mapping the MS4 (S5.C.3.a)
- Illicit Discharges Ordinance (S5.C.3.b)
- Detection Program (S5.C.3.c)
- Addressing Illicit Discharges (S5.C.3.d)
- Training (S5.C.3.e)
- Recordkeeping (S5.C.3.f)

S5.C.3.A – MAPPING THE MS4

The City continues to map the MS4 and connections to the MS4 by adding and updating features as necessary, and the map continues to be a useful tool for stormwater infrastructure asset management and water quality monitoring.

The MS4 map is how the City primarily tracks where public stormwater infrastructure is known to exist, how it is connected, and where it ultimately flows to. It also shows us where private stormwater systems are permitted to connect to the MS4 system.



For IDDE, the MS4 map provides valuable information that aids investigation staff in upstream and downstream tracing efforts for source detection and elimination of found or reported illicit discharges (spills) and connections of non-stormwater discharges (pollution).

MS4 mapping is done electronically through computer software utilizing a Geographic Information System (GIS). Essentially the map is an electronic database of all known City owned or operated stormwater infrastructure including collection points (i.e. inlets and catch basins), conveyance lines (e.g. pipes and ditches), treatment and flow control facilities (e.g. ponds and rain gardens), discharge points and outfalls, and non-groundwater receiving waters (e.g. streams and Puget Sound). Additionally, drainage basins (watersheds) and land use information has also been collected in GIS so it can be incorporated into the MS4 map to help staff and Council with future watershed scale planning efforts.

The MS4 map database is managed between Information Technology staff and Public Works staff who collaborate on keeping this map as up-to-date and as accessible as possible. The database is updated as needed to reflect verified new or altered stormwater infrastructure based upon submittals of map update requests by field and inspection staff and as-built construction plans received from all approved construction projects.

The MS4 map is available upon request to DOE, federally-recognized Indian Tribes, municipalities, and other Permittees. The City may consider adding the MS4 map to the public maps available through the City website.

S5.C.3.B – ILLICIT DISCHARGES ORDINANCE

The regulatory mechanism used to prohibit non-stormwater, illicit connections, and discharges into the City's MS4 to the maximum extent allowable is the Illicit Discharge Detection and Elimination Ordinance No. 2008-14 (effective November 3, 2008) codified in Bainbridge Island City Code (BIMC) 15.22 – Illicit Discharges Detection And Elimination.

The ordinance is very specific about what is allowed and what is not allowed to be discharged into the MS4 or waters of the state within City of Bainbridge Island's jurisdiction. The ordinance supports actions for compliance through inspections, monitoring, and required use of Best Management Practices (BMPs) to remove and prevent pollutants and non-stormwater from entering the MS4 and waters of the state. A copy of the Illicit Discharges Ordinance is always available to the public online through code publishing and upon request.

S5.C.3.b.i – Allowable Discharges

Under the general provisions of Illicit Discharge Detection and Elimination Ordinance No. 2008-14, the following discharges are allowed by this chapter if the discharges do not contain pollutants. The administrator may evaluate and remove any of the exemptions if it is determined that they are causing an adverse impact:

a. Diverted stream flows (i.e., channeled or piped streams);
b. Rising ground waters and springs;
c. Flows from riparian habitats and wetlands;
d. Uncontaminated ground water infiltration (as defined in 40 CFR 35.2005(20));
e. Uncontaminated pumped ground water;
f. Foundation and footing drains;
g. Air conditioning condensation;
h. Irrigation water from agricultural sources that is commingled with urban storm water;
i. Water from crawl space pumps;
j. Non-storm water discharges covered by another NPDES permit;
k. Discharges from emergency fire fighting activities;
l. Discharges specified in writing by the administrator as being necessary to protect public health and safety.

S5.C.3.b.ii – Conditionally Allowable Discharges

Under the general provisions of Illicit Discharge Detection and Elimination Ordinance No. 2008-14, the following types of discharges shall only be permitted if the stated conditions are met:

a. Discharges from potable water sources, including water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water; planned discharges shall be dechlorinated to a concentration of 0.1 parts per million or less, pH-adjusted if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments in the storm drainage system;

b. Discharges from lawn watering and other irrigation runoff; these shall be minimized through water conservation efforts;
c. Dechlorinated spa or swimming pool discharges; the discharges shall be dechlorinated to a concentration of 0.1 parts per million or less, pH-adjusted and reoxygenized if necessary, volumetrically and velocity controlled to prevent resuspension of sediments in the storm drainage system. The temperature of the discharge water shall not exceed 65 degrees Fahrenheit. Spa or swimming pool cleaning wastewater and filter backwash shall not be discharged to the storm drainage system;
d. Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents; the amount of street wash, dust control, and building wash water shall be minimized. At active construction sites, street sweeping must be performed prior to washing the street;
e. Dye testing with verbal notification to the city at least 24 hours prior to the time of the test;
f. Discharges resulting from maintenance, repair, or operation of fire fighting equipment and facilities that are not directly associated with public fire fighting, including discharges from public fire fighting training exercises, unless city-approved best management practices are implemented.

S5.C.3.b.iii – Other Discharges

The City shall further address any category of the discharges if the discharge is identified as a significant source of pollutant to the waters of the State.

Discharge prohibitions shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Environmental Protection Agency or Washington State Department of Ecology; provided, that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations; and provided, that written approval has been granted for any discharge to the storm water drainage system.

S5.C.3.b.iv and v – Escalating Enforcement Procedures & Compliance Strategy

The City's enforcement procedures and compliance strategy for IDDE may be informal and/or formal depending on risk level and cooperation of the responsible party.

In many cases, illicit connections and discharges are accidental, and the responsible parties are willing to work with the City to promptly resolve the issue. This type of voluntary compliance is the preferred method of IDDE enforcement because it typically requires utilizing less City resources. In cases where a responsible party intentionally discharged pollutants or is uncooperative with the City's efforts to abate the illicit connection or discharge, the City will employ a more formal approach through escalating enforcement actions. In all cases, the City

requires abatement of the illicit discharge and/or connection while providing education and technical assistance to prevent future illicit discharges or connections.

S5.C.3.C – DETECTION PROGRAM

To detect and identify non-stormwater discharges and illicit connections to the MS4, the City relies on trained City staff, the public, and those doing business in the city to recognize and report suspect, real, or potential issues of pollution. Therefore, the detection program is focused on educating, training, and providing technical assistance to City staff, the public, and businesses. Detection is achieved by people using the City's spill hotline or other means of reporting, and City Staff investigating reports and by conducting field screening.

S5.C.3.c.i – Field Screening

MS4 field screening is performed by Public Works Engineering and Operations & Maintenance (O&M) staff. Staff utilize a methodology that is linked to the operations and maintenance inspections of catch basins and of flow control and water quality treatment facilities, a methodology comparable to the method recommended in the permit: *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, October 2004*. For additional information regarding the operations, maintenance, and inspections of catch basins and of flow control and water quality treatment facilities, refer to SWMP Plan section S5.C.5.

Pursuant to the obligations of the permit, the City has an anticipated goal of conducting field screening of at least 12% of the MS4 in 2019.

S5.C.3.c.ii – Spill Reporting Hotline

To facilitate easier reporting of spills (illicit discharges) by the public so the City may promptly respond to spills, the City adopted the regional spill hotline number called Kitsap1: 360-337-5777. Reports to Kitsap1 are forwarded to the City for investigation and are logged and documented.

In addition to Kitsap1, other spill reporting methods advertised on and around Bainbridge Island include a Pacific spill hotline number: 1-800-OILS-911 (1-800-645-7911). Reports to this number are routed to DOE, then DOE will route further if needed.

S5.C.3.c.iii and iv – Detection, Reporting, and Response Training, Education, and Outreach

The City provides training for illicit discharge and illicit connection detection to City staff and the City informs businesses and general public of the hazards associated with

illicit discharges and improper disposal of waste as needed or as requested. This topic is also integrated into other education and outreach efforts.

City staff, who, as part of their normal job responsibilities, might come into contact with or observe an illicit discharge and/or connection are trained on the proper procedures for reporting and responding to suspected and found illicit discharges and/or connections. Staff also receive follow-up training as needed to address changes in procedures, techniques, requirements, or staffing. Training is documented pursuant to permit requirements S5.C.3.e and f.

City staff who interact with members of the public, property owners, and business managers while completing field screening or other work will take the opportunity to educate on general hazards associated with illicit discharges and improper waste disposal if needed or requested.

S5.C.3.D & E – ADDRESSING ILLICIT DISCHARGES & TRAINING

To address illicit discharges, the City follows DOE recommendations from, *Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual,* Herrera Environmental Consultants, 2013. The City has developed and implemented a program to respond to all suspected spills and illicit discharges and that is outlined in the *City of Bainbridge Island Illicit Discharge Detection and Elimination Manual* (IDDE manual).

The IDDE manual and staff training covers procedures and tracking as required by the permit:

- Procedures for the characterization and abatement of any public or environmental threat posed by any illicit connections/discharges
- Procedures and methods for tracing the source of an illicit discharge
- Procedures for eliminating spills and illicit discharges
- Minimum response timelines
- Recordkeeping

S5.C.3.F – RECORDKEEPING

The City uses a database to track all IDDE reports and investigations. The database helps the City keep and maintain records of how IDDE reports are received and the information and activities related to each investigation.

S5.C.4: Controlling Runoff from New Development, Redevelopment, and Construction Sites

City of Bainbridge Island has an ongoing development review and inspection program to reduce pollutants discharged to the MS4 from new development, redevelopment, and construction site activities. The program applies to all private and public development, including roads.

The program is generally organized to follow and address the minimum performance measures outlined in permit:

- Enforceable Mechanisms Addressing Runoff (S5.C.4.a)
- Permitting Process with Site Plan Review (S5.C.4.b)
- Long-term Operation and Maintenance (S5.C.4.c)
- Notice of Intent (NOIs) (S5.4.d)
- Training (S5.4.e)
- Low Impact Development (LID) (S5.C.4.f)
- Watershed-scale Stormwater Planning (S5.C.4.g)

S5.C.4.A – ENFORCEABLE MECHANISMS ADDRESSING RUNOFF

The City utilizes a combination of city codes, city standards, and adopted standards to establish authority and administer requirements for controlling runoff. This combination of components for standards and authority are outlined below. Copies of these codes and standards are always available to the public online through code publishing and upon request.

S5.C.4.a.i – Minimum Requirements

The City requires all new development and redevelopment in the city to meet stormwater management standards that are substantively equivalent to the "Minimum Technical Requirements for New Development and Redevelopment" in Appendix 1 of the permit. These standards apply, at a minimum, to all new development and redevelopment projects that will or may impact surface water, groundwater, or stormwater.

S5.C.4.a.ii – Local Requirements

The following local requirements include limitations, and criteria that, when used to implement the minimum requirements in Appendix 1 of the permit will protect water quality, reduce the discharge of pollutants to the maximum extent practicable and satisfy the State requirement under Chapter 90.48 RCW to apply all known, available and reasonable methods of prevention, control and treatment prior to discharge.

✓ Bainbridge Island Municipal Code 15.16 – Flood Damage Protection

The purpose of the chapter is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas.

✓ Bainbridge Island Municipal Code 15.19 – Site Assessment Review

The purpose of this chapter is to ensure that the provisions in Chapter 15.20 Bainbridge Island Municipal Code (BIMC), including BIMC 15.20.010, are understood and effectively adhered to as part of the planning related to development or redevelopment of a site, and prior to the undertaking of clearing and grading that occurs in advance of construction activities on a site. All development and redevelopment within the thresholds established in Chapter 15.20 BIMC shall be subject to low impact development (LID) standards regarding surface water and stormwater in order to mimic natural hydrology and to limit pollution of the Puget Sound.

✓ Bainbridge Island Municipal Code 15.20 – Surface Water And Stormwater Management

The provisions of this code chapter establish the minimum requirements that must be met to permit a property to be developed, redeveloped or proceed with construction activities within the city. The purpose of the chapter is to:

A. Preserve and enhance the suitability of waters for contact recreation, fishing, and other beneficial uses;
B. Minimize water quality degradation and sedimentation in streams, ponds, lakes, wetlands and other water bodies;
C. Minimize the impact of increased runoff, erosion and sedimentation caused by land development and poor maintenance practices;
D. Maintain and protect groundwater resources;
E. Minimize adverse impacts from projects on ground and surface water quantities, locations and flow patterns;
F. Decrease potential landslide, flood and erosion damage to public and private property;
G. Establish site planning and construction practices that are consistent with natural topographical, vegetational and hydrological conditions and that limit the extent of land disturbing activities;
H. Maintain and protect the city stormwater management infrastructure and downstream systems and properties.

This code chapter also establishes the City's adoption of:

- *2012 Stormwater Management Manual for Western Washington, as Amended in December 2014*
- *2012 Low Impact Development (LID) Technical Manual for Puget Sound*

- ✓ Bainbridge Island Municipal Code 15.21 – Stormwater Facilities Maintenance Program

  The purpose of this chapter is to ensure maintenance of all stormwater facilities within the city and to set minimum standards for the inspection and maintenance of stormwater facilities. The provision of the chapter are intended to:

  A. Provide for inspection and maintenance of stormwater facilities in the city to provide for effective and functional stormwater drainage systems.
  B. Authorize the city, through the public works department, to require that stormwater facilities be operated, maintained and repaired in conformance with this chapter.
  C. Establish the minimum level of compliance.
  D. Guide and advise all who conduct inspection and maintenance of stormwater facilities.

- ✓ Bainbridge Island Municipal Code 15.22 – Illicit Discharge Detection and Elimination

  The purpose of this chapter is to regulate the city's municipal separate storm sewer system ("MS4" or "stormwater drainage system") regarding the introduction of pollutants that would adversely impact surface and ground water quality of the state of Washington in order to comply with requirements of the city's National Pollutant Discharge Elimination System ("NPDES") permit. The intent of this chapter is to:

  A. Control the introduction of pollutants to the storm water drainage system by any person and/or entity.
  B. Prohibit illicit connections and discharges to the storm water drainage system and receiving waters.
  C. Establish legal authority to carry out all inspections, surveillance and monitoring procedures necessary to ensure compliance with this chapter.

  Refer to previous SWMP Plan section S5.C.3.b for more information on IDDE.

- ✓ Bainbridge Island Municipal Code 16.20 – Critical Areas

  This chapter strengthens requirements related to erosion and flood management and water quality protection and preservation.

- ✓ City of Bainbridge Island Design and Construction Standards

  The design and construction standards further establish the standards adopted from the Department of Ecology 2012 (as amended in 2014) Stormwater Management Manual for Western Washington and provides guidance on any deviation or exceedance of those adopted standards.

S5.C.4.a.iii – Legal Authority

Legal authority to inspect and enforce maintenance standards for private stormwater facilities is established in the above codes, standards, and permitting processes.

S5.C.4.B – PERMITTING PROCESS WITH SITE PLAN REVIEW

City of Bainbridge Island's permitting process includes site plan review, inspection, and enforcement-capability provisions to ensure projects meet all the minimum and local requirements outlined in S5.C.4.a. The permitting process includes:

- Review of all stormwater site plans for proposed development activities. (S5.C.4.b.i)
- Inspection, prior to clearing and construction, of all known development sites that have a high potential for sediment transport based on definitions and requirements in Appendix 7 of the permit, *Determining Construction Site Sediment Damage Potential*; and enforcement as necessary based on inspection. (S5.C.4.b.ii)
- Inspection of all known permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls; and enforcement as necessary based on inspection. (S5.C.4.b.iii)
- Inspection of all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater controls such as stormwater facilities and structural BMPs; and enforcement as necessary based on inspection. (S5.C.4.b.iv)
- Development of a maintenance plan which assigns responsibility for the maintenance for stormwater facilities and infrastructure, commonly documented through legal documents (e.g.: Performance Bonds, Easements, Plats, Declaration of Stormwater Facility Maintenance Covenants, or documented operations and maintenance plan). (S5.C.4.b.iv)

All inspection visits and outcomes are documented and recorded. In accordance with permit obligations, no less than 80% of scheduled compliance inspections shall be completed during this permit period. (S5.C.4.b.v)

An enforcement strategy is in place to respond to issues of non-compliance. (S5.C.4.b.vi) Enforcement actions may include:

- Stop-work orders;
- Denial or revocation of engineering plan approvals and permits;
- Withholding of release of financial guarantees;
- Delay of final inspection;
- Delay or denial of final approval;
- Denial of occupancy certificates (temporary and permanent);
- Notice to surety or other financial institution and/or legal action for forfeiture of financial guarantees;
- Code enforcement and/or other penalties as provided by law

S5.C.4.C – LONG-TERM OPERATION AND MAINTENANCE

The City verifies long-term operation and maintenance (O&M) of permanent stormwater treatment and flow control BMPs/facilities through enforceable mechanism and standards.

S5.C.4.c.i – Enforceable Mechanism to Identify Responsible Parties

The City utilizes code and standards (refer to previous SWMP Plan section S5.C.4.a) as enforceable mechanisms to identify responsible parties for maintenance of constructed stormwater treatment and flow control BMPs/facilities, and establish enforcement procedures. Also, per BIMC 15.21, new stormwater facilities shall have a declaration of covenant associated with maintenance and operation of stormwater drainage facilities.

S5.C.4.c.ii – Maintenance Standards

City of Bainbridge Island's stormwater facility maintenance standards are equivalent to those specified in Chapter V-4 of Volume V of the *2012 Stormwater Management Manual for Western Washington, as Amended in December 2014*

For facilities for which no maintenance standards exist, the City shall develop maintenance standards.

S5.C.4.c.iii; iv; and v – Maintenance Inspection Frequency

Annual inspections will be completed for all stormwater treatment and flow control BMPs/facilities that discharge into the MS4 and were permitted according to the permitting process (S5.C.4.b). Inspection frequency will be performed annually unless there are maintenance records to justify a different frequency.

Furthermore, inspections of all new permanent stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments shall be inspected every 6 months until 90% of the lots are constructed (or when construction is stopped and the site is fully stabilized) to identify maintenance needs and enforce compliance with maintenance standards as needed. Inspection visits and outcomes are documented and recorded. Pursuant to permit obligations, no less than 80% of scheduled compliance inspections shall be completed during this permit period.

S5.C.4.c.vi – Maintenance Performance Timelines

When an inspection identifies an exceedance of the maintenance standard, maintenance will 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.

Maintenance inspection frequency will be performed according to the schedules above unless there are maintenance records to justify a different frequency. For each exceedance of the above time frames for maintenance the City will document the circumstances and remedy.

S5.C.4.c.vii – Record Keeping

Inspections, maintenance activities, and enforcement actions by staff will be documented and recorded.

S5.C.4.D – AVAILABILITY OF NOTICES OF INTENT

The City makes available 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 Ecology.

S5.C.4.E – TRAINING

City of Bainbridge Island 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 maintains records of the training provided and the staff trained.

S5.C.4.F – LOW IMPACT DEVELOPMENT CODE-RELATED REQUIREMENTS

Municipal code chapters encourage, and in some cases will require, the use of non-structural preventive actions and source reduction approaches such as Low Impact Development (LID) techniques, measures to minimize the creation of impervious surfaces, and measures to minimize the disturbance of native soils and vegetation.

- ✓ BIMC 18.18.020 – (Design Standards And Guidelines) Promoting sustainable development
- ✓ BIMC 15.20 – Surface Water and Stormwater Management

The City recognizes that LID techniques are not practical for all locations, depending on site suitability. Approval for LID techniques will be on a case-by-case basis.

S5.C.4.G – WATERSHED-SCALE STORMWATER PLANNING

The City of Bainbridge Island doesn't share watershed boundaries with any other Permittee, and thus was not selected by a Phase I Permittee to participate in watershed-scale stormwater basin planning. Yet, the City is beginning to establish a baseline level of watershed-scale understanding for stormwater and surface water on the island through the Water Quality and Flow Monitoring Program (WQFMP). The activities performed and the data collected through the program helps the City and local partners working toward water quality to be able to make more thoughtful management proposals and decisions that are based on science and desired outcome. The City also participates in the regional Stormwater Action Monitoring (SAM) Program to stay engaged in collective collaboration toward higher level stormwater planning.

S5.C.5: Municipal Operations and Maintenance

The City works diligently to operate and maintain its MS4 for efficient conveyance, storage, and, in some cases, treatment of stormwater before it is discharged to surface or ground waters, to reduce localized flooding, decrease instances of erosion, and allow treatment processes to function properly. As a result, the City continues to ensure a full-functioning and properly maintained MS4 that will prevent and/or reduce pollution from municipal operations.

This section is generally organized to follow and address the minimum performance measures outlined in permit subsection S5.C.5:

- Maintenance Standards (S5.C.5.a)
- Inspections of Flow Control and Treatment Facilities (S5.C.5.b)
- Spot Inspections (S5.C.5.c)
- Catch Basin Inspections, Maintenance and Cleaning (S5.C.5.d)
- 95% Minimum Compliance (S5.C.5.e)
- Best Management Practices (S5.C.5.f)
- Stormwater Management Training Program (S5.C.5.g)
- Stormwater Pollution Prevention Plan (S5.C.5.h)
- Maintain Records of Activities (S5.C.5.i)

S5.C.5.A – MAINTENANCE STANDARDS

For all municipally owned stormwater treatment and flow control BMPs/facilities, catch basins, and inlets, the City adheres to maintenance standards specified in Chapter 4 of Volume V of the *Stormwater Management Manual for Western Washington*. These standards establish criteria for identifying maintenance deficiencies and needs. Maintenance deficiencies are discovered through an inspection process. When an inspection identifies maintenance is needed, the City makes every effort to perform the work and return the facility to standard within the following timelines:

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

For each exceedance of the above timeline for maintenance, the City will document the circumstances and remedy.

S5.C.5.B – INSPECTIONS AND MAINTENANCE OF STORMWATER TREATMENT AND FLOW CONTROL BMPS/FACILITIES

In accordance with permit requirements S5.C.5.b and S5.C.5.e, the City will annually inspect at least 95% of all municipally owned permanent stormwater treatment and flow control BMPs/facilities, other than catch basins. Inspection frequency will continue to be performed annually unless there are maintenance records to justify a different frequency. Inspections and maintenance activities are tracked.
The City addresses the maintenance deficiencies discovered during the inspection process within the timelines stated above (S5.C.5.a). The most common and routine maintenance, such as vegetation

maintenance and inlet and outlet structure maintenance, is completed by O&M staff. However, for facilities that require excessive maintenance that is beyond routine, the City may hire contractors to complete the work.

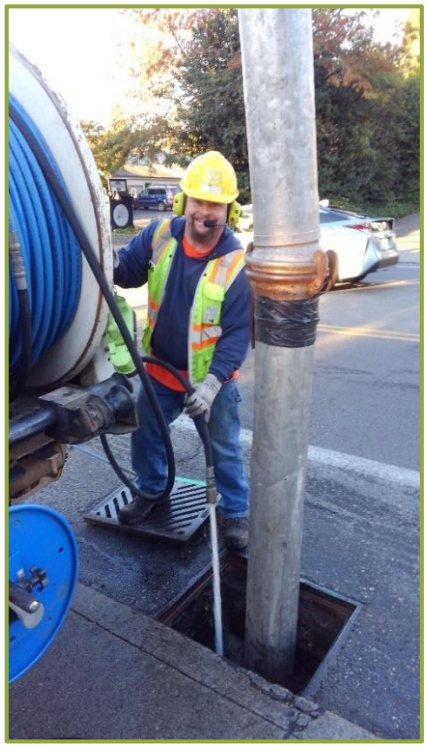
S5.C.5.C – SPOT CHECK INSPECTIONS

Spot check inspections of potentially damaged public stormwater flow control and treatment facilities are conducted after, and sometimes during, major storm events (10-year 24-hour event). Public Works staff inspect facilities for structural damage and/or localized flooding. Spot checks may be performed for lesser storm events at the discretion of the Public Works Director or O&M Manger. If spot checks indicate widespread damage or maintenance needs, all treatment and flow control facilities in the area that may have been affected will be inspected and maintenance performed where necessary. Blockages and debris may be immediately removed if it is safe to do so. This work is done in accordance with all relevant safety and environmental requirements.

S5.C.5.D – CATCH BASIN AND INLET INSPECTION, MAINTENANCE, AND CLEANING

Pursuant to permit requirements S5.C.5.d and S5.C.5.e, inspections of at least 95% of all publicly owned catch basins and inlets in the city shall occur at least once between August 1, 2017 and July 31, 2019. database entry methods.

The City addresses cleaning needs and maintenance deficiencies discovered during the inspection process within the timelines stated in S5.C.5.a. Most common and routine maintenance and cleaning is completed by O&M staff. However, for facilities that require excessive maintenance or cleaning that is beyond routine, the City may hire contractors to complete the work.



S5.C.5.E – 95% MINIMUM COMPLIANCE

Compliance with the requirements of permit sections, S5.C.5.b, S5.C.5.c, and S5.C.5.d, shall be achieved with an inspection rate of at least 95%.

S5.C.5.F – BEST MANAGEMENT PRACTICES

The City makes all known and reasonable efforts through policy, procedure, and practices to reduce stormwater impacts associated with runoff from all lands owned and/or maintained by the City, such as parking lots, streets, roads, buildings, open space, and maintenance yards. While performing maintenance activities, Best Management Practices (BMPs), as provided in the *2012 Stormwater Management Manual for Western Washington, as Amended in December 2014,* are utilized to prevent stormwater runoff. The City of Bainbridge Island O&M Manual addresses the following activities pursuant to the permit.

- Pipe Cleaning and Maintenance
- Culvert Cleaning and Ditch Maintenance
- Road Repair and Resurfacing
- Snow and Ice Control
- Street Cleaning
- Utility Installation
- Pavement Striping Maintenance
- Maintenance of Roadside Areas
- Dust Control
- Application of fertilizer, pesticides, and herbicides
- Sediment and Erosion Control
- Landscape Maintenance and Vegetation Disposal
- Trash Management
- Building Exterior Cleaning and Maintenance

S5.C.5.G – STORMWATER MANAGEMENT TRAINING PROGRAM

The City of Bainbridge Island implements an on-going training program for employees whose construction, operations, or maintenance job-functions may impact stormwater quality. The training program addresses the importance of protecting water quality, the requirements of applicable NPDES permits, 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. Follow-up training is provided as-needed to address changes in procedures, techniques, or requirements. Training efforts are tracked and documented.

S5.C.5.H – STORMWATER POLLUTION PREVENTION PLAN

A Stormwater Pollution Prevention Plan (SWPPP) has been developed and implemented for the Public Works Operations & Maintenance Facility and Decant Facility. All structural and operational BMPs listed

in the SWPPP are currently being implemented or are scheduled for implementation as soon as practicable. This SWPPP shall be modified and applied at any other sites that meet the need for a SWPPP in the future. The SWPPP includes periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMPs. These facilities are also inspected annually to ensure proper functioning of stormwater infrastructure and implementation of the SWPPP.

S5.C.5.I – MAINTAIN RECORDS OF ACTIVITIES

Records of inspections and maintenance or repair activities conducted by the City are maintained in accordance with the permit S9 reporting requirements.

FINAL SUMMARY

This Stormwater Management Program (SWMP) Plan outlines the many ways that the City of Bainbridge Island complies with NPDES regulations to uphold the Clean Water Act. Yet, the SWMP Plan provides only a cursory illustration of how the City of Bainbridge Island plans for and prioritizes water resources and water quality for island residents, businesses, and visitors.

As islanders, encompassed by water and reliant on a sole source aquifer system for drinking water, water plays a vital role in the quality of life on Bainbridge. This is reflected in the culture of the community and exemplified in the City Comprehensive Plan goals and policies that prioritize water resources, environment, and utilities.

Stormwater management is challenging for many reasons but mainly because much education and training is still needed for everyone. The City strives diligently to continue to educate City staff and the general public on stormwater management and water resources in general so we all may make more informed and thoughtful decisions in our lives and daily activities that will prevent pollution.

Everyone plays a role in helping or hindering water resources and water quality whether we realize it or not. We benefit ourselves and future generations when we consider and respect our water resources in everything we do.