



2016 Stormwater Management Program (SWMP) Update for
City of Battle Ground, Washington

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In compliance with the provisions of
the State of Washington RCWs,
the Clean Water Act, and
Title 33 of the United States Code

TABLE OF CONTENTS

1. INTRODUCTION	1
1.1 Overview and Background	1
1.2 Department Implementation Responsibilities.....	2
1.3 Document Organization	2
2. PUBLIC EDUCATION AND OUTREACH	3
2.1 Permit Requirements	3
2.2 Current Activities	3
2.3 Planned Activities for 2017	5
3. PUBLIC INVOLVEMENT	6
3.1 Permit Requirements	6
3.2 Current Activities	6
3.3 Planned Activities For 2017	6
4. ILLICIT DISCHARGE DETECTION AND ELIMINATION.....	7
4.1 Permit Requirements	7
4.2 Current Activities	8
4.3 Activity Schedule.....	8
5. CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT AND CONSTRUCTION SITES	10
5.1 Permit Requirements	10
5.2 Current Activities	11
5.3 Planned Activities for 2017	11
6. POLLUTION PREVENTION AND OPERATION AND MAINTENANCE FOR MUNICIPAL OPERATIONS	14
6.1 Permit Requirements	14
6.2 Current Activities	15
6.3 Planned Activities for 2017	15
7. TOTAL MAXIMUM DAILY LOAD REQUIREMENTS.....	16
7.1 Permit Requirements	17
8. MONITORING AND ASSESSMENT	17
8.1 Permit Requirements	17
8.2 Current Activities	17
8.3 Activity Schedule.....	18
9. LOW IMPACT DEVELOPMENT	19
9.1 Permit Requirements	19

9.2 Current Activities	19
10. REPORTING	20
10.1 Permit Requirements.....	20
10.2 Activity Schedule.....	20
11. CONCLUSION.....	22
ATTACHMENTS.....	23
Education & Outreach Tracking Form.....	24
Illicit Discharge Program Tracking.....	29
Illicit Discharge Investigation Notes.....	32
Illicit Discharge Investigation Notes.....	33
Illicit Discharge Investigation Notes.....	34
Illicit Discharge Investigation Notes.....	35
Illicit Discharge Investigation Notes.....	36

CITY OF BATTLE GROUND, WASHINGTON STORMWATER MANAGEMENT PROGRAM

I. INTRODUCTION

I.1 Overview and Background

The *National Pollutant Discharge Elimination System and State Waste Discharge General Permit for Discharges from Small Municipal Separate Storm Sewers in Western Washington*, hereafter referred to as the Permit, outlines stormwater program activities and implementation milestones that Permittees must follow to comply with the federal Clean Water Act.

The Phase II Permit applies to cities with populations less than 100,000 located within or partially within, an urbanized area and that operate a municipal separate storm sewer system (MS4) which discharges to a water of Washington State. Urbanized areas are defined as population centers with greater than 50,000 people and densities of at least 1,000 people per square mile, and are based on the 2000 census. The City of Battle Ground has been designated by Ecology as a Phase II Permittee based on the population and location within the Urban Area of Clark County.

The Permit was originally issued by Ecology on January 17, 2007, and became effective on February 16, 2007. The permit was reissued on August 1, 2012 and became effective August 1, 2013 and is effective until July 31, 2018. The reporting requirements for the permit cover a calendar year from January 1 to December 31.

All Phase II communities are required to develop a Stormwater Management Program (SWMP) that includes all the required activities, implement those activities, and submit annual reports to Ecology by March 31st each year to document progress toward complete program implementation.

The City of Battle Ground is located in Clark County about 10 miles northeast of Vancouver. The City's population is around 19,640. The City combines a small town feel with peaceful country living and outstanding recreational opportunities. Since 1990, the City has experienced steady growth and the population has increased over 400 percent. The City provides municipal services including police, fire, planning, building, streets, parks, and utilities (Water, Sewer, and Storm Drainage). The City operates on a budget of approximately \$50 million and has approximately 85 full-time employees.

The City operates under a Council-Manager form of Government. In this form of government the City Manager is responsible for the operations of the City and is appointed by the City Council. The City Council is responsible for establishing public policy and has fiscal responsibility for the City including budget authority, power to set fees and charges, levying of taxes, and issuance of debt consistent with provisions of state laws. The citizens of Battle Ground elect the seven Council members and, biennially, the Council selects one of their members to serve as Mayor.

The Public Works Division is responsible for operating and maintaining public facilities and utilities

within the City of Battle Ground, including streets, sewer, water, parks, street lights, and drainage systems. The Operations Division works hard to provide for the maintenance and operation of the City's storm drainage facilities. This Enterprise fund receives its revenues mostly from user fees.

1.2 Department Implementation Responsibilities

Within the City organization, many staff members contribute toward meeting Permit requirements. Currently, the stormwater management program is primarily the responsibility of the Public Works Department. Support is provided by the City Manager's office as well as the Finance Department for accounting, utility billing, and information services and the Community Development Department for development review, code enforcement, and erosion control inspections for building projects.

1.3 Document Organization

This report comprises written documentation of the City's SWMP that is required to be submitted with the Annual Report. In accordance with the Permit terms, the SWMP has been designed to reduce the discharge of pollutants to the maximum extent practicable (MEP), meet state AKART (All Known Available and Reasonable Treatment) requirements, and protect water quality. The following sections describe the actions that Battle Ground has, or will, take to comply with the requirements of the Permit.

To aid in tracking NPDES permit requirements, this document has been organized into sections that correspond with the Special Conditions in the Permit and are outlined as follows:

- Section 2.0 - Public Education and Outreach, Special Condition S5.C.1
- Section 3.0 - Public Involvement and Participation, Special Condition S5.C.2
- Section 4.0 - Illicit Discharge Detection and Elimination (IDDE), Special Condition S5.C.3
- Section 5.0 Controlling Runoff from New Development, Redevelopment, and Construction Sites, Special Condition S5.C.4
- Section 6.0 Pollution Prevention and Operation and Maintenance for Municipal Operations, Special Condition S5.C.5

Note that compliance with Special Conditions S7, S8 and S9 is not required to be included in the SWMP although S7 and S8 compliance activities must be included in the Annual Report. Additional permit conditions, such as Special Conditions S1 through S4 and General Conditions G1 through G20, also apply to Permit holders, though they do not result in specific program activities, nor is the SWMP required to document compliance with these activities. These additional conditions cover topics such as who is covered by the Permit, what discharges are authorized under the Permit, and legal guidelines for transferring, revoking, and appealing the Permit. Penalties for non-compliance are also included in these conditions. Compliance with Special Condition S6 is not required by the City.

2. PUBLIC EDUCATION AND OUTREACH

This section describes the Permit requirements, current city activities, and planned actions to be implemented.

2.1 Permit Requirements

Section S5.C.1 requires the following:

- Provide an education and outreach program for the area served by the storm sewer system.
- Create stewardship opportunities and or partner with existing organizations to encourage residents to participate in activities such as stream teams, 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.
- Track and maintain records of public education and outreach activities.

2.2 Current Activities

In previous years, City staff operated a stormwater education booth at a variety of public events. With budget cuts eliminating many of these events, other options for public education and outreach are being explored.

With the assistance of a grant from the Department of Ecology, and in combination with Clark County and the Cities of Camas, La Center, Ridgefield, Vancouver and Washougal, the City of Battle Ground continued the work of the Stormwater Partners of Western Washington. The primary goal of this partnership is to offer the public information and education on issues related to stormwater runoff. Initially the Partners targeted home and business-owners with guidance on pollution prevention and how to maintain private stormwater facilities. The Stormwater Partners program was expanded to educate the public, local engineers and developers about Low Impact Development. By working together, the county and six cities combine resources to provide a consistent message that crosses jurisdictional boundaries and increases the program's overall effectiveness.

City staff also use contact with the public, including response to complaints and enforcement, as an educational activity whenever possible. Additionally, the City of Battle Ground is currently providing the following educational information to the community through the City's Website and at the front counter:

- "Take the Stormwater Runoff Challenge" – Crossword Placemat
- "Clean Water Everybody's Business" – Bookmark
- "Stormwater and the Construction Industry" – Contractor handout

- “After the storm: A citizen’s Guide to Understanding” – Handout
- Bucky the Beaver stormwater coloring page
- “Report Stormwater Pollution” Magnet listing stormwater pollution reporting hotline information
- Stormwater educational brochure
- Stormwater “fact sheets” including BMPs on the following topics:
 - Animal waste
 - Auto maintenance
 - Auto washing
 - Composting
 - Erosion Control
 - Household hazardous materials
 - Landscape design
 - Pool maintenance
 - Street and building washing
 - Yard maintenance
- Low Impact Development Tour Guide
- Stormwater Facility Maintenance Manual, BG02.01, May 2014

The City’s stormwater webpage can be accessed by going to the City’s website at www.cityofbg.org and clicking Departments, Public Works, Engineering and then Stormwater Management Program. In addition, the information above the stormwater webpage contains information about the NPDES permit, illicit discharge information, engineering design requirements including details and flowcharts, and information on the maintenance of the stormwater system.

City staff have also given presentations to students and coordinated with the Battle Ground School District to conduct water sampling from a local stormwater pond.

The City of Battle Ground developed a stormwater survey to measure the understanding and adoption behaviors related to Stormwater Education and Outreach. The City of Battle Ground met the NPDES Phase II Permit requirement of Section S5.C1.c with this study.

The survey was posted online November 19, 2015 on the City’s Facebook page without links to any educational materials. The City received 15 completed surveys during the pre-test period. A second post was made to the City’s Facebook page on December 7, 2015 with links to the online survey and to online educational materials. The City received 9 completed surveys after the second posting.

The City also worked with Maple Grove School in Battle Ground to give the survey to several fourth grade classes. Forty-three students took the survey before any information was given to them in class. The instructor gave the students information from stormwater fact sheets available on the City of Battle Ground’s website. Thirty-seven students took the survey again after they were given instruction about best practices related to stormwater.

Results generally showed a very good understanding and adoption of best practices in the pre-tests and an improved understanding and adoption after information on best practices was given online and to the students.

In 2016, the City also worked with Clark Public Utilities and Battle Ground Public Schools to plant a restoration area along Woodin Creek. Maintenance of this area will continue in 2017.

2.3 Planned Activities for 2017

The City of Battle Ground will continue to work with the Battle Ground Public Schools to provide education and outreach opportunities in 2017 and will promote stewardship opportunities when available. The following table outlines the implementation plan to achieve the goals and objectives of the Public Education and Outreach Program and meet the compliance deadlines in the Permit.

Table 2-1			
Public Education and Outreach			
Purpose: Develop an education program to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.			
Applicability: Target audiences as identified. May include general public, businesses, landscapers and property managers, engineers, contractors, developers, and/or City staff.			
2007 NPDES Phase II Permit Goals			
Task ID	Permit Section	Task Description	Schedule Notes
EDUC-1	S5.C.1.a	Create public education and outreach program.	Due Date: <u>February 15, 2009</u> Status: Complete
EDUC-2	S5.C.1.a	Develop and distribute educational materials.	Due Date: <u>February 15, 2009</u> Status: Complete, Ongoing
EDUC-3	S5.C.1.c	Develop a system to track and maintain records of public education and outreach activities.	Due Date: <u>February 15, 2009</u> Status: Complete
EDUC-4	NA	Develop education program with Stormwater Partners of Clark County.	Due Date: <u>June 30, 2011</u> Status: Complete
EDUC-5	NA	Track effectiveness of private facility maintenance classes developed with Stormwater Partners.	Due Date: <u>June 30, 2011</u> Status: Complete
EDUC-6	NA	Develop a stormwater education program within the Battle Ground School District.	Due Date: <u>December 31, 2010</u> Status: Complete
2012 NPDES Phase II Permit Goals			
Task ID	Permit Section	Task Description	Schedule Notes
EDUC-7	S5.C.1.a	Provide educational and outreach program.	Due Date: <u>August 1, 2013</u> Status: Complete
EDUC-8	S5.C.2.b	Create stewardship opportunities.	Due Date: <u>August 1, 2013</u> Status: Ongoing

EDUC-9	S5.C.3.c	Measure understanding and adoption behaviors.	Due Date: February 2, 2016 Status: Complete
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3. PUBLIC INVOLVEMENT

This Section describes the Permit requirements, and current and planned compliance activities.

3.1 Permit Requirements

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

- Create opportunities for the public to participate in the decision-making process involving the development, implementation and update of the Stormwater Management Plan.
- Make the Stormwater Management Plan, annual report and other submittals to the Department of Ecology available to the public. The annual report and Stormwater Management Plan submitted with the latest annual report shall be posted on the City webpage no later than May 31 each year.

3.2 Current Activities

City of Battle Ground staff often conduct presentations at City Council meetings regarding the stormwater program. The public is encouraged to attend these meetings to provide input to the City Council regarding the program through citizen communications and public hearings. Presentations have been made on the changes to the 2007 Phase II permit, as well as the changes that were adopted in the re-issued 2012 Phase II permit and implementation of the LID code updates in 2016 and the Stormwater Management Plan update in 2015.

3.3 Planned Activities For 2017

The City provided opportunities to comment on the Stormwater Management Plan update in 2015 and the stormwater code update in 2016. The following table outlines the implementation plan to achieve the goals and objectives of the Public Involvement Program and meet the compliance deadlines in the Permit.

Table 3-1**Public Involvement**

Purpose: Create opportunities for the public to participate in the decision making processes involved in the development, implementation and update of the City's SWMP.

Applicability: Applies to general public as well as advisory councils, watershed committees, stewardship programs, and other similar groups.

2007 NPDES Phase II Permit Goals

Task ID	Permit Section	Task Description	Schedule Notes
PI-1	S5.C.2	Develop a stormwater flyer/brochure for distribution.	Due Date: <u>February 15, 2008</u> Status: Complete
PI-2	S5.C.2	Set-up public comment period during an upcoming City Council meeting to provide an opportunity for the public to respond to the stormwater program distributed via the flyer/brochure.	Due Date: <u>February 15, 2008</u> Status: Complete
PI-3	S5.C.2.b	Post the SWMP, the Annual Report, other required information on the City's website, and make them available at City Hall.	Due Date: <u>March 31, 2008</u> Status: Complete
PI-4	S5.C.2.a	Provide opportunities for public input on stormwater management program.	Due Date: <u>February 15, 2012</u> Status: Complete, Ongoing

2012 NPDES Phase II Permit Goals

Task ID	Permit Section	Task Description	Schedule Notes
PI-5	S5.C.2.a	Create opportunities for public to participate in decision making process.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
PI-6	S5.C.2.b	SWMP and annual report webposting.	Due Date: <u>May 31 (Annually)</u> Status: Ongoing

4. ILLICIT DISCHARGE DETECTION AND ELIMINATION

This section describes the Permit requirements, programs, and planned activities related to Illicit Discharge Detection and Elimination (IDDE).

4.1 Permit Requirements

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

- Develop and maintain a map of the Municipal Storm Sewer System.
- Create and implement an ordinance to prohibit non-stormwater, illicit discharges to the Storm

Sewer System.

- Develop and implement an ongoing program to detect, identify and address non-stormwater discharges and illicit connections to the storm sewer system.
- Provide training and follow-up training for staff who are responsible for the identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills and illicit discharges, to conduct these activities.
- Adopt and implement procedures for program evaluation and assessment including tracking reported illicit discharges, investigation results and actions taken.

4.2 Current Activities

The City currently maintains a storm sewer map in CAD format. The map is updated regularly with new facilities. Updates and field verification of this map was completed in 2011. During field verification of the map City staff GPS tagged all storm structures and pulled manhole covers and catch basin covers to screen for evidence of illicit discharges and confirm pipe routing. No evidence of illicit discharges or cross-connections was found. The City continues to update this map as new development occurs.

Battle Ground Municipal Code chapter 13.126 regulates discharges to the storm sewer system and prohibits illicit discharges. The City currently responds to citizens' reports of illicit discharges or illicit dumping via the illicit discharge hotline (360-342-5070) which connects the caller to the engineering department general phone number. City staff are also continually on the lookout for illicit discharges while performing their other duties. All reported illicit discharges are investigated and tracked. Copies of all illicit discharge cases from 2016 can be found in the Attachments section of this document.

City staff responsible for the identification, investigation, termination and reporting of illicit discharges, as well as staff that may encounter illicit discharges during normal work activities have been trained. Follow-up training will be provided as needed based on changes in procedures, techniques, requirements or staffing.

The City relies upon the Street/Storm division of Public Works, the Fire Department, and Ecology for assistance with spill response. The Engineering Department, in conjunction with Public Works and the Police Department are responsible for correcting any illicit discharges.

In 2015/2016 the City completed outfall mapping and screening all known outfalls. In 2017, the City will screen a minimum of 12% of the known outfalls. The City has cleaned 20% of its catch basins annually through 2015. In 2016, the City inspected the final 20% of its catch basins and cleaned those that needed maintenance (approximately 25%). In 2017, the City will inspect 50% of the City's catch basins and will maintain those that need maintenance. The City will continue this procedure in future years.

The City has provided IDDE training to its staff and will continue to do so as new information becomes available or as City staff changes.

4.3 Activity Schedule

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

Table 4-1

Illicit Discharge Detection and Elimination

Purpose: Detect and remove illicit connections, illicit discharges, and improper disposals (including spills) into the MS4.

Applicability: Applies to the City’s municipal separate storm sewer system (MS4).

2007 NPDES Phase II Permit Goals

Task ID	Permit Section	Task Description	Schedule Notes
IDDE-1	S5.C.3.a.ii	Continue efforts to update all maps associated with outfalls, tributary areas, and stormwater facilities in electronic mapping format.	Due Date: <u>February 15, 2011</u> Status: Complete, Ongoing
IDDE-2	S5.C.3.b	Create and adopt an ordinance to prohibit illicit discharges including an enforcement strategy.	Due Date: <u>February 15, 2009</u> Status: Complete
IDDE-3	S5.C.3.c	Document and implement a program for detecting and eliminating illicit discharges.	Due Date: <u>February 15, 2011</u> Status: Complete
IDDE-4	S5.C.3.d.ii	Identify a phone number and advertise the hotline to allow the public to report spills and illicit discharges.	Due Date: <u>February 15, 2009</u> Status: Complete
IDDE-5	S5.C.3.d.ii	Develop a system to track and maintain records on calls received and enforcement actions taken in response to calls.	Due Date: <u>February 15, 2009</u> Status: Complete
IDDE-6	S5.C.3.f	Conduct training for Public Works staff (Engineering and O& M) who would respond to illicit discharge complaints.	Due Date: <u>February 15, 2009</u> Status: Complete
IDDE-7	S5.C.3.d	Provide education to public about hazards of illicit discharges.	Due Date: <u>August 19, 2011</u> Status: Complete

2012 NPDES Phase II Permit Goals

Task ID	Permit Section	Task Description	Schedule Notes
IDDE-8	S5.C.3.a	Ongoing Stormwater Mapping.	Due Date: <u>August 1, 2013</u> Status: Ongoing
IDDE-9	S5.C.3.a.v	Map all new connections since February 16, 2007.	Due Date: <u>August 1, 2013</u> Status: Ongoing, Complete
IDDE-10	S5.C.3.b	IDDE Ordinance Update.	Due Date: <u>August 1, 2013</u> Status: Complete
IDDE-11	S5.C.3.c	Implement Illicit Discharge, Detection and Elimination Program.	Due Date: <u>August 1, 2013</u> Status: Ongoing, Complete
IDDE-12	S5.C.3.c.i	Field screen 40% of MS4 by 12/31/17 – 12%/yr thereafter.	Due Date: <u>December 31, 2017</u> Status: Complete, Ongoing

IDDE-13	S5.C.3.c.i	Document field screening methodology in annual report.	Due Date: <u>March 31, 2015</u> Status: Complete
IDDE-14	S5.C.3.c.ii	Publicly list phone number for reporting spills.	Due Date: <u>August 1, 2013</u> Status: Ongoing, Complete
IDDE-15	S5.C.3.c.iii	Ongoing training program for all municipal field staff.	Due Date: <u>August 1, 2013</u> Status: Ongoing
IDDE-16	S5.C.3.c.iv	IDDE Education.	Due Date: <u>August 1, 2013</u> Status: Ongoing
IDDE-17	S5.C.3.d	Implement ongoing program to address illicit discharges, spills, and illicit connections.	Due Date: <u>August 1, 2013</u> Status: Ongoing
IDDE-18	S5.C.3.e	Provide ongoing training for IDDE staff.	Due Date: <u>August 1, 2013</u> Status: Ongoing
IDDE-19	S5.C.3.f	Recordkeeping	Due Date: <u>August 1, 2013</u> Status: Ongoing

5. CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT AND CONSTRUCTION SITES

This section describes the Permit requirements, programs, and planned activities related to Controlling Runoff from New Development, Redevelopment and Construction Sites.

5.1 Permit Requirements

Section S5.C.4 of the Permit requires the City to:

- Develop and implement a program to reduce pollutants in stormwater runoff that enters the municipal separate storm sewer system from new development, redevelopment and construction site activities. The program must apply to both private and public projects.
- Create an ordinance that provides the legal authority for this program.
- Establish a permitting process with plan review, inspection, and enforcement.
- Ensure adequate long-term operation and maintenance of constructed stormwater facilities.
- Establish maintenance standards equivalent to those in the Western Washington Manual.
- Maintain records of projects reviewed, inspections and enforcement measures.
- Make copies of “Notice of Intent for Construction Activity” and “Notice of Intent for Industrial Activity” available to representatives of proposed new development and redevelopment.
- Train staff responsible for implementation of program.
- Implement Low Impact Development requirements.
- Incorporate LID into codes, rules, standards, and enforcement documents, making LID the preferred/commonly used approach.

5.2 Current Activities

The City has adopted the 2014 Stormwater Management Manual for Western Washington to guide stormwater management of new development and redevelopment projects. Battle Ground Municipal Code chapter 18.250 describes the stormwater requirements for projects within the City. Staff responsible for review of stormwater engineering plans have attended training on the requirements of the Western Washington Manual. Follow-up training will be provided as needed based on changing requirements or staffing.

To control erosion from new development and redevelopment projects, the City has adopted the 2014 Western Washington Manual, Volume II, Construction Stormwater Pollution Prevention to guide clearing, grading and construction activities. Battle Ground Municipal Code chapter 18.255 describes erosion control requirements. The City requires and completes construction and stormwater site inspections during construction and post-construction phases.

With the assistance of Department of Ecology Staff, the City revised the erosion control inspection and enforcement program. The City has a written erosion control policy that has resulted in the City applying enforcement more uniformly and giving fewer warnings before resorting to enforcement. Contractors or owners who are receiving their first violation, or have not had a violation in the past 12 months will receive a warning documenting the actions needed for compliance and a timeframe to complete these actions. Those who have received a violation in the past 12 months, or those that do not comply with the warning will be issued a stop work order or issued a citation and fine.

The City has established maintenance standards for stormwater facilities based on the 2014 Western Washington Manual for public and private facilities and published the standards in the City of Battle Ground Stormwater Facility Maintenance Manual (BG02.01, May 2014). The Maintenance Manual is available electronically on the City's Stormwater website or in print from the Engineering Department. All public and private stormwater facilities are inspected annually. Inspections are documented on an inspection sheet with photos. Owners of private facilities not in compliance receive a written notice of corrections to be made.

The City conducts regular erosion control inspections of 90% or more of the sites under construction each week. Inspectors follow up regularly with the owner or contractor for any site not in compliance with the established erosion control standards. All inspections are documented in writing and with photographs as necessary.

All projects are reviewed according to the current Stormwater Management Manual for Western Washington. In 2017, erosion control inspections will continue at least weekly and all projects will be reviewed according to the 2014 Stormwater Management Manual for Western Washington. A summary of the LID update process will be submitted with the Annual Stormwater Report to the Department of Ecology.

5.3 Planned Activities for 2017

The following table outlines the implementation plan to achieve the goals and objectives of the program to control runoff from New Development, Redevelopment, and Construction Sites and meet the compliance deadlines in the Permit.

Table 5-1			
Controlling Runoff From New Development, Redevelopment, and Construction Sites			
Purpose: Establish a program to reduce pollutants in stormwater runoff from new development projects, redevelopment projects, and construction sites. Apply the minimum technical requirements of Appendix 1 of the Phase II Permit (or equivalent).			
Applicability: All new development, redevelopment, and construction sites.			
2007 NPDES Phase II Permit Goals			
Task ID	Permit Section	Task Description	Schedule Notes
CTRL-1	S5.C.4.a	Revise the existing stormwater management ordinance to bring it into compliance with NPDES Phase II requirements.	Due Date: <u>February 16, 2010</u> Status: Complete
CTRL-2	S5.C.4.b	Increase site plan review, construction and post-construction inspections, enforcement activities, and enhance permitting process where needed to handle full implementation of Phase II requirements.	Due Date: <u>February 16, 2010</u> Status: Complete
CTRL-3	S5.C.4.c	Revise existing stormwater facilities maintenance standards to bring it into compliance with NPDES Phase II requirements.	Due Date: <u>February 16, 2010</u> Status: Complete
CTRL-4	S5.C.4.d	Establish procedures for tracking and keeping records of development projects, inspections, enforcement actions, and maintenance inspections.	Due Date: <u>February 16, 2010</u> Status: Complete
CTRL-5	S5.C.4.f	Provide training for staff in permitting, plan review, inspection and enforcement procedures consistent with NPDES Phase II requirements.	Due Date: <u>February 16, 2010</u> Status: Complete
2012 NPDES Phase II Permit Goals			
Task ID	Permit Section	Task Description	Schedule Notes
CTRL-6	S5.C.4.a	Update construction site runoff ordinance.	Due Date: <u>December 31, 2016</u> Status: Complete
CTRL-7	S5.C.4.a.i	Adopt Appendix 1 or approved Phase I Program.	Due Date: <u>December 31, 2016</u> Status: Ongoing
CTRL-8	S5.C.4.a.i	Adopt variance criteria equivalent to Appendix 1.	Due Date: <u>December 31, 2016</u> Status: Ongoing
CTRL-9	S5.C.4.a.iii	Adopt ordinance giving legal authority to inspect.	Due Date: <u>December 31, 2016</u> Status: Complete

CTRL-10	S5.C.4.b	Implement permit process for site plan review and inspection within new thresholds.	Due Date: <u>December 31, 2016</u> Status: Complete
CTRL-11	S5.C.4.b.i	Review all stormwater site plans for proposed development.	Due Date: <u>December 31, 2016</u> Status: Ongoing
CTRL-12	S5.C.4.b.ii	Conduct pre-construction site inspections.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
CTRL-13	S5.C.4.b.ii	Inspect all sites for erosion and sediment controls.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
CTRL-14	S5.C.4.b.iii	Enforce ESC as necessary.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
CTRL-15	S5.C.4.b.iv	Conduct final ESC inspection.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
CTRL-16	S5.C.4.b.iv	Verify maintenance plan is completed for all new facilities.	Due Date: <u>December 31, 2016</u> Status: Complete, Ongoing
CTRL-17	S5.C.4.b.iv	Enforce maintenance plan (bond program).	Due Date: <u>December 31, 2016</u> Status: Ongoing
CTRL-18	S5.C.4.b.v	Inspect at least 80% of sites.	Due Date: <u>December 31, 2016</u> Status: Ongoing
CTRL-19	S5.C.4.b.vi	Implement enforcement strategy.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
CTRL-20	S5.C.4.c	O&M for private stormwater facilities and BMPs - Long term maintenance – Treatment and flow control BMPs.	Due Date: <u>August 1, 2013</u> Status: Complete
CTRL-21	S5.C.4.c.i	Implement enforcement mechanism identifying responsibility for O&M.	Due Date: <u>August 1, 2013</u> Status: Complete
CTRL-22	S5.C.4.c.ii	Establish maintenance standard equal to Chapter 4, Volume V of 2014 SMMWW.	Due Date: <u>December 31, 2016</u> Status: Complete
CTRL-23	S5.C.4.c.ii	Conduct annual inspection of private facilities approved after 2/15/10.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
CTRL-24	S5.C.4.c.iv	Inspect bonded residential facilities every 6 months until 90% of lots are constructed and lots are fully stabilized.	Due Date: <u>December 31, 2016</u> Status: Complete, Ongoing
CTRL-25	S5.C.4.c.v	Comply with inspection requirements of inspection of at least 80% of facilities.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
CTRL-26	S5.C.4.c.vi	Perform timely maintenance.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
CTRL-27	S5.C.4.c.vii	Track inspections, enforcements, etc. (All notices).	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
CTRL-28	S5.C.4.d	Make NOI for construction and industrial sites available and enforce local regulations on NPDES construction sites.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing

CTRL-29	S5.C.4.e	Train all applicable staff on above activities and track.	Due Date: <u>December 31, 2016</u> Status: Complete, Ongoing
CTRL-30	S5.C.4.f	Implement Low Impact Development requirements.	Due Date: <u>December 31, 2016</u> Status: Complete, Ongoing
CTRL-31	S5.C.4.f.i	Incorporate LID into codes, rules, standards, and enforcement documents, making LID the preferred/commonly used approach.	Due Date: <u>December 31, 2016</u> Status: Ongoing
CTRL-32	S5.C.4.f.ii	Submit summary of LID update process.	Due Date: <u>March 31, 2017</u> Status: Pending

6. POLLUTION PREVENTION AND OPERATION AND MAINTENANCE FOR MUNICIPAL OPERATIONS

This section describes the Permit requirements, programs, and planned activities related to Pollution Prevention and Operation and Maintenance for Municipal Operations.

6.1 Permit Requirements

Section S5.C.5 of the Permit requires the following from the City:

- Develop and implement an operations and maintenance (O&M) program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations.
- Establish maintenance standards for the municipal separate stormwater system that are at least as protective as those specified in the 2014 Stormwater Management Manual for Western Washington.
- Conduct inspections of stormwater flow control and treatment facilities and catch basins according to required frequencies, unless previous inspection data show that a reduced frequency is justified.
- Conduct spot checks of potentially damaged permanent stormwater treatment and flow control BMPs/facilities after major storm events. Conduct repairs or take appropriate maintenance action if necessary.
- Inspection all catch basins in inlets owned or operated by the Permittee at least once no later than August 1, 2017 and every two years thereafter.
- Ensure 95% compliance for Operations and Maintenance inspections.
- Establish and implement procedures to reduce stormwater impacts associated with runoff from municipal operation and maintenance activities including but not limited to streets, parking lots, roads or highways owned or maintained by the City, and to reduce pollutants in discharges from all lands owned or maintained by the City.
- Develop and implement an ongoing training program for staff whose job functions may impact stormwater quality. Document the training program.
- Prepare Stormwater Pollution Prevention Plans (SWPPP) for all heavy equipment maintenance

or storage yards and material storage facilities owned or operated by the City that are not covered by an Industrial Stormwater General Permit.

- Maintain records of inspections and maintenance or repair activities conducted by the Permittee.

6.2 Current Activities

Currently, the City operates an operations and maintenance (O&M) program with the goal of minimizing pollutant runoff from municipal operations. City crews have a program in place for street and gutter sweeping and stormwater facility maintenance. Over the past summer additional temporary workers were hired using Department of Ecology Stormwater Capacity grant funds to assist with stormwater facility maintenance.

This year City staff inspected all publicly owned stormwater facilities and maintained each of the City's publicly owned stormwater facilities at least 2-3 times. Inspection records and photographs are maintained for each facility. The City also inspected 20% of the City's catch basins and cleaned all that needed to be cleaned (approximately 25% of those inspected). The City has a program in place to inspect critical locations after major storm events.

In 2017, the City will inspect all public facilities and will maintain each facility a minimum of 2 to 3 times. The City will continue its program to re-construct facilities in need to major repair. The City plans to inspect 50% of the City's catch basins and to maintain those that need to be cleaned or repaired. The City will continue its regular street sweeping program. The SWPPP for the Operations Center will be updated as needed in 2017.

6.3 Planned Activities for 2017

The following table outlines the implementation plan to achieve the goals and objectives of the Operations and Maintenance Program and meet the compliance deadlines in the Permit.

Table 6-1			
Pollution Prevention and Operations and Maintenance			
Purpose: Develop an O&M program to prevent or reduce pollutant runoff from municipal operations.			
Applicability: All stormwater treatment and flow control facilities, catch basins, streets and roadways, and non-roadway public properties managed by the City.			
2007 NPDES Phase II Permit Goals			
Task ID	Permit Section	Task Description	Schedule Notes
O&M-1	S5.C.5.a	Establish maintenance standards as, or more, protective as those in the Western Washington Manual.	Due Date: <u>February 15, 2010</u> Status: Complete
O&M-2	S5.C.5.g	Establish and implement policies and procedures to reduce pollutants from municipal operations.	Due Date: <u>February 15, 2010</u> Status: Complete

O&M-3	S5.C.5.b	Establish inspection program for publicly owned inlets, stormwater treatment and flow control facilities including a tracking mechanism.	Due Date: <u>February 15, 2010</u> Status: Complete
O&M-4	S5.C.5.h	Create training for all employees whose job functions may impact stormwater quality.	Due Date: <u>February 15, 2010</u> Status: Complete
O&M-5	S5.c.5.i	Develop SWPPP for all publicly owned equipment and material storage yards.	Due Date: <u>February 15, 2010</u> Status: Complete
2012 NPDES Phase II Permit Goals			
Task ID	Permit Section	Task Description	Schedule Notes
O&M-6	S5.C.5.a	Update maintenance standards = Chapter 4, Volume V of 2014 SMMWW.	Due Date: <u>December 31, 2016</u> Status: Complete
O&M-7	S5.C.5.a.ii	Perform timely maintenance.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
O&M-8	S5.C.5.b	Annually inspect all treatment and flow control facilities.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
O&M-9	S5.C.5.c	Perform spot check inspections after major storms (10 year – 24 hour).	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
O&M-10	S5.C.5.d	Inspect and maintain all catch basins by August 2017, then every 2 years thereafter.	Due Date: <u>August 1, 2017</u> Status: Complete, Ongoing
O&M-11	S5.C.5.e	Ensure 95% compliance for O&M inspections.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
O&M-12	S5.C.5.f	Establish and implement practices to reduce stormwater impacts.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
O&M-13	S5.C.5.g	Implement O&M training program to train to standards.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
O&M-14	S5.C.5.h	SWPPPs for all heavy equipment maintenance and storage yards.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing
O&M-15	S5.C.5.i	Maintain records of inspections and maintenance or repair activities.	Due Date: <u>August 1, 2013</u> Status: Complete, Ongoing

7. TOTAL MAXIMUM DAILY LOAD REQUIREMENTS

This section describes the Permit requirements, programs, and planned activities related to Total Maximum Daily Load Requirements (TMDLs) for TMDLs listed in Appendix 2 of the Phase II Permit. For all other applicable TMDLs, compliance with the Phase II Permit is considered compliance with the TMDL and no additional SWMP documentation is required.

7.1 Permit Requirements

Section S7 of the Permit requires the City to comply with the requirements of applicable TMDLs as follows:

- For applicable TMDLs listed in Appendix 2 of the Permit, comply with the specific requirements identified in Appendix 2. Maintain records of all required actions that are relevant to applicable TMDLs. TMDL implementation shall be included as part of the annual report submitted to Ecology.
- Where monitoring is required in Appendix 2 of the Permit, conduct the monitoring according to a Quality Assurance Project Plan (QAPP) approved by Ecology.
- For applicable TMDLs not listed in Appendix 2 of the Permit, compliance with the Permit shall constitute compliance with those TMDLs.
- For TMDLs that are approved by EPA after the Permit was issued, Ecology may establish TMDL related Permit requirements through future Permit modification if Ecology determines implementation of actions, monitoring or reporting necessary to demonstrate reasonable further progress toward achieving TMDL waste load allocations, and other targets, are not occurring and shall be implemented during the term of this Permit or when this Permit is reissued. The City is encouraged to participate in development of TMDLs within their jurisdiction and to begin implementation.

The City of Battle Ground is not affected by any TMDLs listed in Appendix 2 of the permit.

8. MONITORING AND ASSESSMENT

This section describes the Permit requirements and planned activities related to water quality monitoring and assessment.

8.1 Permit Requirements

Section S8 of the Permit requires water quality sampling or other testing only if TMDLs apply or testing is required for characterizing illicit discharges. However, the Annual Report must include the following items:

- Provide a description of stormwater monitoring or studies conducted during the reporting period. If stormwater monitoring was conducted on behalf of the City, or if studies or investigations conducted by other entities were reported to the City, a brief description of the type of information gathered or received shall be included in the Annual Report.

8.2 Current Activities

The City chose Option #1 to meet the requirements of Section S8, Monitoring and Assessment and pays an annual fee to the Department of Ecology. To prepare for future monitoring the City has worked with other Southwest Washington permittees on a regional monitoring program. In 2010, to meet the permit requirements for preparation for future long term monitoring, the City in partnership with the City of Washougal, put together a plan as preparation for future monitoring

efforts. This document covers sites selected for monitoring activities and details two plans for monitoring locally important constituents of concern.

The City has opted to pay a fee to the Department of Ecology to participate in a Regional Stormwater Management Program (RSMP), rather than conduct its own independent stormwater monitoring. The City will pay annual fees into a collective fund to implement RSMP effectiveness studies and the RSMP Source Identification Information Repository (SIDIR).

The City is currently investigating starting a small monitoring program in 2017. If implemented, this program will collect data at several sites throughout Battle Ground on a regular basis to begin to build a base for future monitoring requirements.

8.3 Activity Schedule

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

Table 8-1			
Monitoring and Assessment			
Purpose: Participate in a Regional Stormwater Management Program or conduct monitoring.			
Applicability: Stormwater Monitoring and Assessment applies to all Phase II Permittees.			
2007 NPDES Phase II Permit Goals			
Task ID	Permit Section	Task Description	Schedule Notes
MON-1	S8.C.1.a.iv	Select Monitoring Sites for next Permit Cycle.	Due Date: <u>December 31, 2010</u> Status: Complete
MON-2	S8.C.1.b.iii	Develop two monitoring plans.	Due Date: <u>December 31, 2010</u> Status: Complete
MON-3	S8.C.1	Participate in development of regional monitoring program.	Due Date: <u>N/A</u> Status: Ongoing
2012 NPDES Phase II Permit Goals			
Task ID	Permit Section	Task Description	Schedule Notes
MON-4	S8.A	Submit monitoring or stormwater studies.	Due Date: <u>March 31, 2016</u> Status: N/A
MON-5	S8.C.1	Effectiveness Monitoring Notification and Contribution.	Due Date: <u>Notify by December 1, 2013</u> <u>Payment by August 15, 2014,</u> <u>then annually</u> Status: Complete, Ongoing

MON-6	S8.D	Source Identification and Diagnostic Monitoring (Information Repository).	Due Date: <u>Annual payments begin August 15, 2014</u> Status: Complete, Ongoing
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9. LOW IMPACT DEVELOPMENT

This section describes the Permit requirements and planned activities related to Low Impact Development (LID).

9.1 Permit Requirements

Section 5.C.4.f of the Permit requires the following of the City:

- Permittees shall review, revise and make effective their local development-related codes, rules and standards, or other enforceable documents to incorporate and require LID principles and LID BMPs.
- Permittees shall submit a summary of the results of the review and revision process with the annual report.

9.2 Current Activities

In 2016, the City updated its municipal code to incorporate and require LID principles and LID BMPs. City rules, standards and other enforceable documents will be updated by December 31, 2016.

The City of Battle Ground encourages developers to utilize LID wherever feasible. LID Best Management Practices (BMPs) are allowed by the City’s Stormwater Code. The City has also adopted street standards that include LID practices such as reduced pavement areas. The City has identified the main barriers to the use of LID in Battle Ground. The barriers identified, as well as potential solutions are discussed below. Additionally, the City has prepared a report describing the use of LID in the City (City of Battle Ground LID Preparation, March 2011).

The primary barrier to the use of LID in Battle Ground is poor soil conditions. Most of the City is comprised of tight clay soils with very poor infiltration capacity. This barrier can be addressed by limiting the use of infiltration-dependent LID BMPs to the areas of the City that allow infiltration, and utilizing non-infiltration BMPs in the remainder of the City.

Another barrier to the use of LID is the perceived additional cost of LID BMPs. This cost reflects not only the cost of materials, but also the larger area that some LID BMPs may require; which to a developer means reduced profits. This barrier can be addressed by educating developers and engineers on effectively using LID. When effectively designed, LID can be an asset to the development and can potentially raise profits. Additionally, using the LID philosophy of treating stormwater in several small facilities dispersed throughout the development, rather than in one large facility, space that would otherwise be wasted can be used to treat stormwater and

potentially increase the area available for buildings. Other LID BMPs such as pervious pavement may cost more than typical construction techniques, but will also save costs by reducing the amount of support infrastructure such as storm sewer and stormwater treatment facilities required.

The final major barrier to the use of LID in Battle Ground is regulatory. When the revised stormwater code was written, staff identified LID BMPs that would be specifically allowed by the City in the code. These included bioretention areas, amended soils, permeable paving, and vegetated roofs. The code also allows other LID BMPs to be used with the approval of the Public Works Director. Other LID BMPs, such as minimal excavation foundation systems and roof rainwater collection systems, were not included in the stormwater code because they may be difficult to implement under current building codes. As these techniques become more common and better understood, building codes can be revised to allow their use.

10. REPORTING

This section describes the Permit requirements and planned activities related to water quality monitoring.

10.1 Permit Requirements

Section S9 of the Permit requires the following of the City:

- Submit an annual report to Ecology by March 31, 2017. The Annual Report shall include the SWMP, Annual Report form, and notification of jurisdictional boundary changes that affect the geographic area of Permit coverage, together with any implications for the SWMP.
- Plan to keep all records related to the Permit and SWMP for at least five years. Submit records to Ecology upon request.
- Make records related to the Permit and SWMP available to the public at reasonable times during business hours. Provide a copy of the most recent annual report to any individual or entity upon request.

10.2 Activity Schedule

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

Table 10-1**Reporting****Purpose:** Document SWMP activities and submit annual reports to Ecology.**Applicability:** All City stormwater program activities related to Permit compliance.**2007 NPDES Phase II Permit Goals**

Task ID	Permit Section	Task Description	Schedule Notes
RPT-1	S9.A	Submit First Annual Report and copy of initial 2007 SWMP.	Due Date: <u>March 31, 2008</u> Status: Complete
RPT-2	S9.A	Submit Second Annual Report and copy of current SWMP.	Due Date: <u>March 31, 2009</u> Status: Complete
RPT-3	S9.A	Submit Third Annual Report and copy of current SWMP.	Due Date: <u>March 31, 2010</u> Status: Complete
RPT-4	S9.A	Submit Fourth Annual Report and copy of current SWMP.	Due Date: <u>March 31, 2011</u> Status: Complete
RPT-5	S9.A	Submit Fifth Annual Report and copy of current SWMP.	Due Date: <u>March 31, 2012</u> Status: Complete
RPT-6	S9.A	Submit Sixth Annual Report and copy of current SWMP.	Due Date: <u>March 31, 2013</u> Status: Complete
RPT-7	S9.A	Submit Seventh Annual Report and copy of current SWMP.	Due Date: <u>March 31, 2014</u> Status: Complete

2012 NPDES Phase II Permit Goals

Task ID	Permit Section	Task Description	Schedule Notes
RPT-8	S9.A	Submit annual report and copy of current SWMP.	Due Date: <u>March 31, 2015</u> Status: Complete
RPT-9	S9.A	Submit annual report and copy of current SWMP.	Due Date: <u>March 31, 2016</u> Status: Complete
RPT-10	S9.A	Submit annual report and copy of current SWMP.	Due Date: <u>March 31, 2017</u> Status: Pending
RPT-11	S9.A	Submit annual report and copy of current SWMP.	Due Date: <u>March 31, 2018</u> Status: Pending

II. CONCLUSION

This SWMP has been prepared to demonstrate compliance with the requirements of the NPDES Phase II Permit. The implementation tables indicate planned activities as of November 2016. This SWMP is a living document that will be updated annually to reflect progress with implementing the stormwater management program components required for compliance with the Permit.

ATTACHMENTS



Stormwater Management Program

Education & Outreach Tracking Form

Program/Event	Component	Activity Type	Date
Illicit Discharge Ordinance	Planning Commission Public Hearing	Presentation	07/22/2009
	City Council Public Hearing	Presentation	08/17/2009
Website	Website	Website Online	07/23/2009
National Night Out	Brochures and Fact Sheets	Distributed	08/04/2009
	Stormwater Quiz	Distributed/collected	08/04/2009
	Stormwater Magnets	Distributed	08/04/2009
Dog Days of Summer	Canines for Clean Water pledge	Distributed/collected	08/22/2009
Parade of Homes	Brochures and Fact Sheets	Distributed	08/29/2009
	Stormwater Quiz	Distributed/collected	08/29/2009
	Stormwater Magnets	Distributed	08/29/2009
Runoff Open House	Brochures and Fact Sheets	Distributed	10/28/2009
	Stormwater Magnets	Distributed	10/28/2009
	Draft Code	Distributed	10/28/2009
	Brochures and Fact Sheets	Distributed	11/30/2009
Runoff Ordinance	Stormwater Magnets	Distributed	11/30/2009
	Draft Code	Distributed	11/30/2009
	Planning Commission Public Hearing	Presentation	12/09/2009
Runoff Ordinance	City Council Public Hearing	Presentation	01/04/2010
	City Council Meeting	Presentation	01/19/2010
	City Council Meeting	Presentation	02/16/2010
	Planning Commission Public Hearing	Presentation	02/24/2010
	City Council Meeting	Presentation	01/19/2010
	City Council Meeting	Presentation	02/01/2010

	City Council Meeting	Presentation	03/15/2010
	City Council Meeting	Presentation	06/21/2010
	City Council Meeting	Presentation	09/06/2011
Stormwater Management Plan Update	Planning Commission Meeting	Presentation	08/12/2015
	Planning Commission Meeting	Presentation	08/26/2015
	City Council Meeting	Presentation	08/17/2016
	City Council Meeting	Presentation	09/08/2015
	City Council Meeting	Presentation	09/21/2015
Student Education	Career Day	Presentation	02/09/2012
	Student Water Sampling	Facilitator	01/13/2014
	Student Water Sampling	Facilitator	02/25/2014
	Student Water Sampling	Facilitator	03/24/2014
	Student Water Sampling	Facilitator	05/08/2014
	Watershed Congress	Facilitator	05/23/2014
	Student Water Sampling	Facilitator	10/13/2014
	Student Water Sampling	Facilitator	11/10/2014
	Classroom Presentation	Presentation	12/04/2014
	Classroom Presentation	Presentation	12/05/2014
	Student Water Sampling	Facilitator	12/08/2014
	Student Water Sampling	Facilitator	01/09/2015
	Student Water Sampling	Facilitator	02/09/2015
	Student Water Sampling	Facilitator	03/09/2015
	Student Water Sampling	Facilitator	04/13/2015
	Student Water Sampling	Facilitator	09/25/2015
	Student Water Sampling	Facilitator	10/15/2015
	Student Water Sampling	Facilitator	11/13/2015
	Student Water Sampling	Facilitator	12/18/2015
	Student Water Sampling	Facilitator	01/15/2016
	Student Water Sampling	Facilitator	02/12/2016
	Student Water Sampling	Facilitator	03/11/2016
	Student Water Sampling	Facilitator	04/29/2016
	Watershed Congress	Facilitator	05/20/2016
	Student Water Sampling	Facilitator	10/11/2016

	Student Water Sampling	Facilitator	11/08/2016
City Staff Education	Illicit Discharge Detection and Elimination	In-house Training	07/02/2009
	Illicit Discharge Detection and Elimination	In-house Training	07/24/2009
	Illicit Connection and Illicit Discharge Field Screening and Source Tracing Manual Training	Attendee (1)	05/29/2013
	WWHM2012 Training	Attendees (3)	05/30/2013
	Western Washington Low Impact Development (LID) Operation and Maintenance (O&M) Training	Attendee (1)	06/21/2013
	STORM Symposium	Attendee (1)	11/04/2013
	Washington State Municipal Stormwater Conference	Attendee (1)	11/5-6/2013
	Certified Erosion and Sediment Control Lead (CESCL) Training	Attendee (1)	05/07/2015
	Certified Erosion and Sediment Control Lead (CESCL) Re-Certification Training	Attendee (1)	12/02/2015
	Erosion Control Training for Building Department	Presentation	12/07/2015
	SWPPP Training to Operations Department	Presentation	12/10/2015
	Intermediate LID Design - Bioretention Videos Part 1	Attendees (4)	1/11/2016
	Intermediate LID Design - Bioretention Videos Part 2	Engineering (4 attendees)	1/13/2016
	NPDES Phase I and Phase II Permit Requirements	Engineering (3 attendees)	1/15/2016
	3.2 Intermediate LID Design: Bioretention	Engineering (4 attendees)	1/19/2016
	3.6 LID Intermediate Modeling	Engineering (4 attendees)	1/22/2016
	3.4 Intermediate LID Topics: Site Assessment, Planning, and Layout (Western Washington) (Videos)	Engineering (3 attendees)	2/5/2016
	3.4 Intermediate LID Topics: Site Assessment, Planning, and Layout (Western Washington)	Engineering (4 attendees)	2/17/2016

	3.5 Intermediate LID Design: Rainwater Collection Systems and Green Roofs (Videos)	Engineering (3 attendees)	2/19/2016
	3.5 LID Green Roofs	Engineering (3 attendees)	3/1/2016
	CESCL Training	Engineering (1 attendee)	4/21-22/2016
	6.2 LID Advanced Bioretention Media	Engineering (2 attendees)	5/17/2016
	Operations Standard Operating Procedures	Ops (15 attendees)	5/19/2016
	IC/IDDE and CB Sampling Videos	Ops (17 attendees)	5/26/2016
	Private Stormwater Facilities: Inspection, Partnerships and Assuming the Work Video	Ops (18 attendees)	10/13/2016
Stormwater Partners	Stormwater Partners Website Live	Website	02/15/2011
	Facility Maintenance Workshop	Workshop	03/08/2011
	Flash Drives with Maintenance info	Distributed	05/03/2011
	Stormwater Medallions	Ordered	05/18/2011
	Stormwater Facility Signs	Ordered	06/05/2011
	Stormwater Survey Completed	Online Survey	06/09/2011
	Realtor information brochure	Distributed	06/10/2011
Illicit Discharge Education	Automotive spill posters	Distributed	08/19/2011
Permit Re-issuance	City Council Meeting	Presentation	03/05/2012
Citizen Education	Wetland	Meeting	02/03/2012
	Drainage	Meeting	03/15/2012
	Drainage	Meeting	03/15/2012
	Detention Pond	Meeting	04/20/2012
	Drainage	Meeting	05/15/2012
	Illicit discharge	Meeting	06/6/2012
	Drainage	Meeting	08/31/2012
	Drainage	Meeting	09/11/2012
	Riparian Areas	Meeting	09/27/2012

Stewardship	Storm Drain Stenciling	Coordination	09/19/2015
	Woodin Creek Restoration Planting	Coordination	03/24-25/2016
	Woodin Creek Restoration Planting	Coordination	03/29-30/2016

Illicit Discharge Program Tracking

Date	type	Description
09/03/2009	ID 1	Painter dumping wash water into Catch Basin
11/19/2009	ID 2	Bus spilled oil after damaging oil pan on RR crossing
12/11/2009	ID 3	Used cooking oil leaking into parking lot
04/08/2010	ID 4	Reported neighbor washing/pressure washing car in driveway.
04/16/2010	ID 5	Floor cleaner dumping waste water into storm drain
06/18/2010	Screening	Mapping and screening Manholes
07/21/2010	ID 6	Pressure washing trucks at Dairy
08/09/2010	ID 7	Oil reported leaking into yard. "Oil" turned out to be black algae
09/15/2010	Screening	Mapping and screening Manholes
09/21/2010	ID 8	Large amount of oil in pond at NW 5th St and 20th Ave
09/21/2010	ID 9	Individual drained gas tanks of 2 junk cars onto ground
10/06/2010	ID 10	Oil dumped into catch basin at apartment complex on N. Parkway
10/12/2010	Screening	Mapping and screening Manholes
01/03/2011	Screening	Screened Outfalls to Railroad Ditch
01/07/2011	Screening	Mapping and screening Manholes
02/07/2011	Screening	Screened outfalls to Mill Creek
02/08/2011	Screening	Mapping and screening Manholes
02/15/2011	Screening	Mapping and screening Manholes
03/24/2011	Screening	Screened outfalls to south Woodin Creek
05/18/2011	ID 11	Oil dumped on ground at house.
05/16/2011	ID 12	Old car leaking transmission fluid in driveway
07/20/2011	ID 13	Power washing company filling truck from hydrant and dumping tank into gutter
08/17/2011	Screening	Screening manholes
08/17/2011	ID 14	Homeowner had been dumping concrete wash water into gutter
08/19/2011	Education	Distributed Spill prevention education posters to Automotive Businesses
08/22/2011	Screening	Screening manholes
09/14/2011	ID 15	Neighbor reported oil dumped into catch basin. No evidence of oil could be found.
09/17/2011	ID 16	Granite Countertop Company discharging cutting slurry into parking lot.
03/25/2012	ID 17	Citizen report of Oil dumping from auto repair shop. Forwarded to Clark County.
03/30/2012	ID 18	Oil Sheen on road leading to parked car. Spoke with car owner.
04/09/2012	Screening	Completed screening of Woodin Creek.
04/17/2012	ID 19	Home owner call to report a paint spill. Assisted owner with cleanup.
04/20/2012	Screening	Completed re-screening of Rail Road Ditch.
06/06/2012	Meeting	Met with Dairy about industrial permit and reports of milk in creek.
05/22/2013	ID 20	Oil/fuel spill on NW 20 th Ave., NW 9 th St., NW 21 st Ave., and NW 5 th St. City applied sand to heavy areas and installed absorbent pads in catch basins.

06/14/2013	ID 21	Cooking grease dumped into private catch basin. Owner used shop vacuum and shovel to remove grease and sediment and clean pipe.
09/30/2013	ID 22	High turbidity discharge to mitigation lot. Coordinated with DOE and two contractors to correct problem.
10/07/2013	ID 23	50 gallon sewage spill to ditch. City used Vac Truck to clean out ditch and repaired broken air ejection station.
11/07/2013	ID 24	Report of smell and something on ground around catch basin at Albertsons. Investigated and determined to not be a contaminant.
03/07/2014	ID 25	Sheen on roadway. Followed to residence and notified owner. Owner cleaned up driveway.
03/27/2014	ID 26	Sheen on roadway. Followed to edge of town but unable to determine source.
04/09/2014	ID 27	Notified by DOE about concerns of high water and erosion. Investigation found a beaver dam on private property. No further action.
05/13/2014	ID 28	White, powdery substance on roadway. Notified adjacent granite shop of spill and stone cuttings in their parking lot. Owner to clean up parking lot.
05/20/2014	ID 29	Grease dumping in catch basin. Notified business complex leasing office who had catch basins and lines cleaned.
05/29/2014	ID 30	Sewer manhole leaking sewage into Woodin Creek. City crews removed debris from manhole and cleaned up surrounding area.
06/10/2014	ID 31	White, cloudy substance in Woodin Creek. Investigated with DOE and met with dairy and other businesses. Unable to trace to source because it had dissipated.
06/12/2014	ID 32	White, cloudy substance in Woodin Creek. Investigated with DOE, but unable to determine source.
10/21/2014	ID 33	Grain dumping in catch basin at distillery. Met with owners to refrain from washing into catch basin.
12/10/2014	ID 34	Followed sheen on roadway to Wells Fargo Bank. Found vehicle with oil leak and cleaned up parking lot and around catch basin.
05/07/2015	ID 35	Foam in Woodin Creek at Central Park. Determined to be organic.
06/12/2015	ID 36	Vehicle leaking fluids in driveway. Made several visits to residence and mailed a letter asking them to fix the leak and clean up the leaked fluids.
08/12/2015	ID 37	ERTS # 658770. Approximately 2,000 gallons of sewage leaked from sewer force main. Contractor hired under emergency contract to repair leak and clean up contaminated soil.
11/05/2015	Screening	Mapping and screening outfalls on Woodin Creek and Mill Creek.
11/23/2015	Screening	Mapping and screening outfalls on Jewel Creek, Mill Creek and WSDOT ditch.
11/24/2015	Screening	Mapping and screening outfalls on Woodin Creek.
11/25/2015	Screening	Mapping and screening outfalls on Woodin Creek.
11/30/2015	Screening	Mapping and screening outfalls on Mill Creek and unnamed tributary to Salmon Creek.
12/01/2015	Screening	Mapping and screening outfalls on Mill Creek.
12/02/2015	Screening	Mapping and screening outfalls on Mill Creek.
12/03/2015	Screening	Mapping and screening outfalls on Mill Creek and WSDOT ditch.
12/04/2015	Screening	Mapping and screening outfalls to wetlands.
12/06/2015	Screening	Mapping and screening outfalls to Mill Creek.

12/07/2015	Screening	Mapping and screening outfalls to Railroad Ditch and Mill Creek.
12/09/2015	Screening	Mapping and screening outfalls to Mill Creek and Railroad Ditch.
12/15/2015	Screening	Mapping and screening outfalls to Jewel Creek and Gardiner Ditch
12/16/2015	Screening	Mapping and screening outfalls to Gardiner Pond/wetland, Railroad Ditch, WSDOT ditch and Woodin Creek.
03/18/2016	Screening	Outfall Mapping and Screening
04/13/2016	Screening	Outfall Mapping and Screening
04/14/2016	Screening	Outfall Mapping and Screening
04/15/2016	Screening	Outfall Mapping and Screening
04/19/2016	Screening	Outfall Mapping and Screening
04/25/2016	Screening	Outfall Mapping and Screening
04/26/2016	Screening	Outfall Mapping and Screening
04/27/2016	Screening	Outfall Mapping and Screening
04/28/2016	Screening	Outfall Mapping and Screening
05/02/2016	Screening	Outfall Mapping and Screening
05/05/2016	Screening	Outfall Mapping and Screening
05/09/2016	Screening	Outfall Mapping and Screening
05/12/2016	Screening	Outfall Mapping and Screening
05/19/2019	Screening	Outfall Mapping and Screening
06/20/2016	Screening	Outfall Mapping and Screening
06/30/2016	Screening	Outfall Mapping and Screening
07/19/2016	ID 38	Vehicle oil leak
08/19/2016	ID 39	Broken hydraulic hose on garbage truck
08/31/2016	ID 40	ERTS #667664 Wash water, roof runoff, street runoff
10/04/2016	ID 41	Diesel spill from uncapped truck fuel tank
10/12/2016	ID 42	Used motor oil dumped on mailbox, sidewalk and driveway (vandalism)

Illicit Discharge Investigation Notes

Incident ID: 038

Call Date: 3:00 PM

Initial investigation date: 07/18/2016

Investigators: Chad Schwatka

<input type="checkbox"/> No investigation made	Reason:
<input type="checkbox"/> Referred to different department/agency:	Department/Agency:
<input type="checkbox"/> Investigated: No action necessary	
<input checked="" type="checkbox"/> Investigated: Requires action	Description of actions:

Odor	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Rancid/Sour	<input type="checkbox"/> Petroleum (gas)
	<input type="checkbox"/> Sulfide (rotten eggs); natural gas	<input type="checkbox"/> Other: Describe in "Notes" section		
Appearance	<input type="checkbox"/> "Normal"	<input checked="" type="checkbox"/> Oil sheen	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Suds
	<input type="checkbox"/> Other: Describe in "Narrative" section			
Floatables	<input checked="" type="checkbox"/> None:	<input type="checkbox"/> Sewage (toilet paper, etc.)	<input type="checkbox"/> Algae	<input type="checkbox"/> Dead fish
	<input type="checkbox"/> Other: Describe in "Notes" section			

Notes:

Lube oil discharge of ~ 2 qts over a several day period to pavement. Discharge is due to a vehicle needing mechanical repair.

CS Stopped by ■ NW 16th St this afternoon (7/19/16). Took some pictures of the spots on the road and the suspected vehicle. Spoke with the oldest daughter at the residence as the mother or father were not home. CS asked that she pass on the message to have her parents make an attempt to clean the roadway. CS left her with a package of factual material and my card and asked her parents to call. CS also mentioned that COBG personnel will be driving by in the next couple days to confirm some type of action has been taken.

No discharge to the storm system at this time.

Hours between call and investigation: 0	Hours to close incident: 24
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Date case closed: 07/19/2016

Illicit Discharge Investigation Notes

Incident ID: 039

Call Date: 08/19/2016

Initial investigation date: 08/19/2016

Investigators: Schwatka / Uhacz

<input type="checkbox"/> No investigation made	Reason:
<input type="checkbox"/> Referred to different department/agency:	Department/Agency:
<input type="checkbox"/> Investigated: No action necessary	
<input checked="" type="checkbox"/> Investigated: Requires action	Description of actions: [REDACTED] hired [REDACTED] to conduct sweeping and cleaning of pavement. No catch basins impacts were present. Cleanup is occurring the afternoon and evening of 08/19/2016.

Odor	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Rancid/Sour	<input type="checkbox"/> Petroleum (gas)
	<input type="checkbox"/> Sulfide (rotten eggs); natural gas	<input checked="" type="checkbox"/> Other: Describe in "Notes" section		
Appearance	<input checked="" type="checkbox"/> "Normal"	<input type="checkbox"/> Oil sheen	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Suds
	<input type="checkbox"/> Other: Describe in "Narrative" section			
Floatables	<input checked="" type="checkbox"/> None:	<input type="checkbox"/> Sewage (toilet paper, etc.)	<input type="checkbox"/> Algae	<input type="checkbox"/> Dead fish
	<input type="checkbox"/> Other: Describe in "Notes" section			

Notes:
 [REDACTED] blew a hydraulic hose on normal garbage rounds. Product was carried ~75 yds. before the spill could be secured. [REDACTED] provided cleanup with litter and has hired [REDACTED] to conduct further cleanup. Spill quantity appeared to be between 5 and 10 gallons hydraulic oil. No catch basin impacts. ECY and PW Directory briefed. Notified via Curt Piecsh from Ecology.

Hours between call and investigation: 10 mins -	Hours to close incident: 2 hours
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Date case closed: 08/19/2016

Illicit Discharge Investigation Notes

Incident ID: 040

Call Date: 08/31/2016

Initial investigation date: 08/31/2016

Investigators: Schwatka / Uhacz

<input type="checkbox"/> No investigation made	Reason:
<input type="checkbox"/> Referred to different department/agency:	Department/Agency:
<input type="checkbox"/> Investigated: No action necessary	Description of actions:
<input checked="" type="checkbox"/> Investigated: Requires action	

Odor	<input type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Rancid/Sour	<input type="checkbox"/> Petroleum (gas)
	<input type="checkbox"/> Sulfide (rotten eggs); natural gas	<input type="checkbox"/> Other: Describe in "Notes" section		
Appearance	<input checked="" type="checkbox"/> "Normal"	<input type="checkbox"/> Oil sheen	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Suds
	<input type="checkbox"/> Other: Describe in "Narrative" section			
Floatables	<input checked="" type="checkbox"/> None:	<input type="checkbox"/> Sewage (toilet paper, etc.)	<input type="checkbox"/> Algae	<input type="checkbox"/> Dead fish
	<input type="checkbox"/> Other: Describe in "Notes" section			

Notes:
 Incident was referred to City by DOE, ERTS #667664

Caller reported wash water from adjacent business running onto his parking lot, as well as downspout runoff and street runoff.

City installed asphalt berm to divert street runoff from street past driveway entrance. Adjacent building capped downspout to prevent downspout runoff from running onto property at [REDACTED] Main Street.

Adjacent building also has hired a service to exchange and wash floor mats.

Hours between call and investigation: 0	Hours to close incident: 2 months
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Date case closed: 11/4/2016

Illicit Discharge Investigation Notes

Incident ID: 042

Call Date: 10/12/2016

Initial investigation date: 10/12/2016

Investigators: Schwatka

<input type="checkbox"/> No investigation made	Reason:
<input type="checkbox"/> Referred to different department/agency:	Department/Agency:
<input type="checkbox"/> Investigated: No action necessary	
<input checked="" type="checkbox"/> Investigated: Requires action	Description of actions: Ops and Engineering Technician swept absorbent and cleaned up.

Odor	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Sewage	<input type="checkbox"/> Rancid/Sour	<input type="checkbox"/> Petroleum (gas)
	<input type="checkbox"/> Sulfide (rotten eggs); natural gas	<input type="checkbox"/> Other: Describe in "Notes" section		
Appearance	<input type="checkbox"/> "Normal"	<input type="checkbox"/> Oil sheen	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Suds
	<input checked="" type="checkbox"/> Other: Describe in "Narrative" section			
Floatables	<input checked="" type="checkbox"/> None:	<input type="checkbox"/> Sewage (toilet paper, etc.)	<input type="checkbox"/> Algae	<input type="checkbox"/> Dead fish
	<input type="checkbox"/> Other: Describe in "Notes" section			

Notes:
 Time of arrival – 0937.

Product intentionally discharged was used motor oil. Cory and Chad (CS) swept around absorbent litter to pick up any free product; unfortunately the product stained the concrete fairly heavily. CS spoke with the home owner or home owner's older son and expressed that in terms of cleanup there wasn't much else that could be done. CS mentioned he should try using simple green and a scrub brush in the days to come and contain the product with a shop vac to prevent any runoff into the street. The concrete will most likely remain stained.

The mailbox cleaned up well and needs no further attention.

Additional vandalism in the area involved the stealing of several large pumpkins and placing of tires and wheels on top of vehicles.

Hours between call and investigation: <1	Hours to close incident: 1
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Date case closed: 10/12/2016