



# **2018 STORMWATER MANAGEMENT PROGRAM (SWMP) PLAN**

**March 27, 2018**

**Prepared by  
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**Note:**

Some pages in this document have been purposely skipped or blank pages inserted so that this document will copy correctly when duplexed.

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# EXECUTIVE SUMMARY

The City of Snoqualmie (City) has obtained coverage under the National Pollution Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit (Phase II permit) issued by the Washington State Department of Ecology. The Phase II permit is a federal requirement under the Clean Water Act that regulates the discharge of stormwater to surface waters and to ground waters of the State. The Phase II permit requires all permitted municipalities to create and implement a Stormwater Management Program (SWMP), which address five required program elements. These elements include:

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

Green boxes note items due in 2018.

Beige boxes note items that must be continued, or that are due annually.

This document was prepared to meet the City's Phase II permit requirement for annual revision and development of a SWMP Plan to address these five required program elements. In addition, this SWMP Plan also addresses requirements in S7, S8, and S9 of the Phase II permit which cover:

- Compliance with Total Maximum Daily Load Requirements (section S7)
- Monitoring and Assessment (section S8)
- Reporting Requirements (section S9)

Finally, this SWMP Plan outlines all the requirements of the Phase II permit and provides a summary of the City's progress towards meeting those requirements.

## THE GOAL

The goal of this SWMP Plan is to reduce the discharge of pollutants from the City's Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable to protect water quality.

## SUMMARY OF 2018 PHASE II PERMIT REQUIREMENTS

- Fully develop and implement the SWMP.
- Map known MS4 outfalls, known MS4 discharge points, receiving waters, stormwater treatment best management practices (BMPs)/facilities, flow control BMPs/facilities, and tributary conveyances with a 24-inch nominal diameter or larger.
- Implement an ongoing program designed to detect and identify non-stormwater discharges and illicit connections into the MS4.
- Implement an ongoing program designed to address illicit discharges, including spills and illicit connections, into the MS4.
- Inspect and, if needed, clean all catch basins and inlets owned or operated by the City (once during the Phase II permit term).
- Ongoing staff training for IDDE.
- Ongoing response to spill and illicit discharge hotline calls.

## SUMMARY OF 2017 HIGHLIGHTS

### Public Education

- Approximately 250 participants volunteered in streamside planting events in 2017.
- The City evaluated its pet waste program in 2017. Approximately 190,000 pet waste bags were purchased and used in 2014; 190,000 in 2015; 200,000 in 2016; and 220,000 in 2017 at pet waste bag dispensers.

### Public Participation

- The City launched a redesigned website in late 2017. Major updates to the City's website included a new, more user-friendly look and additional resources for residents and businesses.

### Illicit Discharge Detection and Elimination (IDDE)

- Ongoing mapping, illicit discharge ordinance implementation, and field screening of catch basins for illicit discharges occurred in 2017.
- The spill reporting hotline received zero calls in 2017.



## Controlling Runoff from Development and Construction

- Adopted the 2016 King County Surface Water Design Manual in December 2017.
- Conducted permitting and plan review for new development and redevelopment projects.
- Updated code language that identifies the responsible party for maintenance of stormwater facilities, requires inspections, and establishes enforcement procedures.
- Reviewed and revised multiple sections of the municipal code to facilitate implementation of low impact development (LID) principles and LID best management practices (BMPs); revisions were adopted in December 2017.

## Municipal Operations and Maintenance

- Adopted the 2016 King County Surface Water Design Manual in December 2017, which includes maintenance standards.
- Conducted annual inspections of 46 stormwater ponds.
- Inspected and cleaned 1,981 catch basins since 2013. A total of 503 catch basins were inspected and cleaned in 2017.
- Developed and implemented a Stormwater Pollution Prevention Plan (SWPPP) for the City's Public Works Operations Facility (City Shop).



# INTRODUCTION

## PURPOSE

This document was prepared to meet the City of Snoqualmie's (City) requirement for development of a Stormwater Management Program (SWMP) Plan as required under condition S5 of the National Pollution Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit (Phase II permit).

This SWMP Plan outlines the requirements in the Phase II permit and summarizes the City's work program for the upcoming calendar year, January 1, 2018, through and December 31, 2018.

The SWMP Plan must include a written description of department coordination mechanisms to eliminate permit barriers, and opportunities for public participation in the SWMP Plan development and decision-making process, which were required starting August 1, 2014.

The City must post the SWMP Plan to its website, and the annual report required under S9.A, no later than May 31 each year.

While not stipulated in the Phase II permit, this SWMP Plan also reviews previous activities (January 1, 2015, through December 31, 2017) that have helped maintain compliance with Phase II permit conditions.

## THE NPDES PROGRAM

The National Pollutant Discharge Elimination System (NPDES) program was created under the Federal Clean Water Act with the intent of protecting and restoring water quality in lakes and streams so that they can support "beneficial uses" such as fishing and swimming. Governmental and private entities wishing to discharge water or wastewater to surface waters regulated by the Federal Government (Waters of the US) must obtain permits and comply with certain conditions or face fines and other penalties.

In Washington State, the United States Environmental Protection Agency has delegated the authority over NPDES permits to the Washington State Department of Ecology (Ecology). Ecology has issued several general permits for stormwater system discharges that apply to municipalities with different population sizes. The Phase II permit refers to those municipalities with a population of less than 100,000 according to the 1990 census.

## PHASE II PERMIT

The City has a population of 13,110 and must comply with the Phase II permit as issued by Ecology under a 5-year term starting August 1, 2012, effective August 1, 2013, and modified January 16, 2015. The Phase II permit is set to expire on July 31, 2018, but will be extended for 1 year to July 31, 2019. The Phase II permit allows cities, counties, and secondary permittees to discharge stormwater from municipal systems into “waters of the state” such as rivers, lakes and streams, as long as they implement programs to reduce stormwater pollutants to the “maximum extent possible” by conducting activities in the following program areas:

- Public Education and Outreach
- Public Involvement
- Illicit Discharge Detection and Elimination (IDDE)
- Controlling Runoff from New Development, Redevelopment, and Construction Sites
- Municipal Operations and Maintenance
- Monitoring and Assessment

## PHASE II PERMIT REPORTING

Progress on implementing this SWMP Plan should be documented annually and submitted to Ecology on March 31. The Annual Report, current SWMP Plan, and associated documents are also posted on the City web site.

Specific Phase II permit requirements are summarized in the following sections along with planned activities and previously conducted activities for each specific element of the SWMP.

## DEPARTMENT RESPONSIBILITIES

The Phase II permit broadly applies to many city activities, including maintenance and operations of city facilities, permitting and inspections of new development and redevelopment, and other activities conducted in different City departments and divisions, including:

- The Parks and Public Works (P/PW) Department.
- The Community Development (CD) Department.

P/PW acts as the coordinator between City departments to verify that all Phase II permit requirements are being implemented. These tasks will be further refined each year in accordance with specific Phase II permit conditions.

## PUBLIC COMMENTS

The City appreciates public input in the ongoing development and implementation of this document. Comments or concerns regarding this SWMP Plan may be sent to the following address:

City of Snoqualmie  
Parks and Public Works Department  
Attention: Todd Saxberg, Operations Manager  
38624 SE River Street  
P.O. Box 987  
Snoqualmie, WA 98065



# PUBLIC EDUCATION AND OUTREACH

## OVERVIEW

The City's stormwater education program is oriented to persons and entities with the potential to affect surface water quality within city limits. This target audience includes city residents, students, businesses, industries, elected officials, policy makers, planning staff, operational staff and other City employees. The education program goal is to reduce or eliminate behaviors and practices that contribute to adverse stormwater impacts. The program is intended to achieve measurable improvements in the target audience's understanding of surface water pollution, and what they can do to prevent it. Although this City program is currently local, in future years the City intends for it to be developed and deployed collaboratively with other jurisdictions and regulatory agencies.

- The Phase II permit (Section S5.C.1) requires the City to provide a stormwater education and outreach program that will:
  - Prioritize and address Phase II permit target audiences and subject areas most relevant to current City stormwater issues and practices.
  - Develop education and outreach programs designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.
  - Create opportunities for, and/or partner with organizations encouraging residents to participate in, stewardship 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. As a New Permittee, the City must begin using resulting measurements to direct education and outreach resources most effectively, as well as evaluate changes in targeted behaviors, by August 1, 2017.

According to S5.C.1, the City was required to develop and begin to implement its Public Education and Outreach Program no later than August 1, 2015. The Phase II permit lists target audiences and subject areas for education, and target audiences and Best Management Practices (BMPs) with a goal of behavior change.

## PLANNED ACTIVITIES

The City currently implements and participates in stormwater outreach and environmental education programs. The education program to date has consisted of activities such as providing on-line and print material, classroom education, direct target audience outreach, and coordination with regional agencies. Past stormwater education activities are summarized in the following section. The Phase II permit public education program is developed jointly between the Parks and Public Works, and Community Development Departments. Outreach activities, funding sources, and implementation schedule are planned annually for future years. Highlights of the 2018 plan include:

- Continued publication and promotion of spill reporting hotline.
- Continued coordination with Ecology staff and other NPDES jurisdictions.
- The City increased community involvement and promoted stream, habitat and water resource health by partnering with Green Snoqualmie, Mountains to Sound Greenway, and King County to provide support for several streamside planting events in 2017.

Ongoing public education activities include:

- Publication and promotion of spill reporting hotline
- Volunteer stewardship projects
- Participation in regional stormwater education campaigns

Table 1 summarizes the planned 2018 City programming, with target audiences, activities and behaviors. See Table A-1 in Appendix A for potential program options that have not been selected for 2018, but may be viable for roll-out in future years.

<b>Table 1. Planned Education and Outreach Programs and Activities for 2018.</b>			
<b>Item</b>	<b>Target Audience</b>	<b>Goal/Behavior/Activity</b>	<b>Cost (estimate)</b>
<b>City Website</b>	General Public	The City's website has been used to promote community activities and educational opportunities. The City's website was redesigned in late 2017 and the City will be working on fixing links, formatting, and adding resources in 2018.	N/A
<b>Spill Response</b>	General Public	Continue to monitor water quality complaints, spill reporting and illicit discharge reporting hotline, and publicize it via news releases and the City website. Businesses and citizens who are found to be causing illicit discharges receive education, and potentially enforcement actions, if they refuse to voluntarily correct the problem.	N/A



**Table 1 (continued). Planned Education and Outreach Programs and Activities for 2018.**

<b>Item</b>	<b>Target Audience</b>	<b>Goal/Behavior/Activity</b>	<b>Cost (estimate)</b>
<b>Newsletter E-Notices</b>	General Public	The City will continue to e-notice in the City News to promote classes, stewardship opportunities, and water-related best management practices. The Newsletter reaches ~700 persons in the City e-mail list, ~1,200 in the Yahoo group, and ~1,900 Facebook followers.	N/A
<b>Promotional Material</b>	General Public and Homeowners	Continue to distribute promotional material on Public Outreach topics developed at; Earth Day, Snoqualmie Railroad Days, Ridge Block Party, and other events. Will continue at various events scheduled for 2018.	\$1,000
<b>Volunteer Stewardship Projects</b>	General Public	The City will be partnering with the Green Snoqualmie Partnership, Mountains to Sound Greenway, and King County on several streamside planting events in 2018. A Green Snoqualmie Partnership event at Snoqualmie Point Park is scheduled for April 28, 2018.	N/A
<b>Hazardous Waste Collection</b>	General Public and Homeowners	The City collects fluorescent light bulbs, batteries and prescription medications at various City buildings. The annual hazardous waste collection event sponsored by King County has not yet been scheduled, but is anticipated to occur in the summer or fall of 2018.	N/A
<b>Organic Gardening and Natural Yard Care Program</b>	General Public and Homeowners	The City plans to assess current available outreach material and/or contract with trained entities (i.e., Tilth Alliance, King County) to provide public education classes related to Organic Gardening and Natural Yard Care.	\$2,500
<b>Pet Waste Stations</b>	General Public	The City plans on continuing to provide pet waste disposal bags at the pet waste stations that have been installed in local parks.	\$5,100
<b>Household Hazardous Waste Education</b>	General Public and Homeowners	The City plans to partner with Waste Management to provide education on hazardous waste via bill insert notices.	N/A
<b>Stormwater Outreach for Regional Municipalities (STORM)</b>	General Public	The City is a member of Stormwater Outreach for Regional Municipalities (STORM), an organization of jurisdictions that have joined to address non-point pollution in the Puget Sound. The City will continue to support regional stormwater awareness campaign activities.	N/A
<b>Stormwater Comprehensive Plan</b>	General public, City staff, and Businesses	The City is in the process of updating its Stormwater Comprehensive Plan to better identify projects and programs that protect water resources and water quality.	\$230,000

## Measurement and Tracking

The annual public education and outreach program is developed based on local water quality needs, staff experience and feedback from previous programs. Measurement tools utilized for various programs thus far include: number of educational events, actual or estimated number of target audience reached, total amount of site visits, e-mail newsletter counts, number and type of materials distributed, and anecdotal information from program participants. Programs have not yet utilized post-program surveys, preprogram assessments and social media marketing, but could be integrated in the future. Tracking records on public education and outreach are maintained in independent project files and compiled annually for reporting purposes.

## PAST ACTIVITIES

Table 2 summarizes the target audiences and behaviors addressed through public education activities conducted from 2013 through 2017. Some educational programs occur regularly or are static, providing a resource that requires moderate renewed effort once established (e.g., continued webpage content; passive hazardous waste collection sites). Other efforts occur intermittently; for instance, restoration planning continues to inform regular grant applications, but restoration grant awards are more sporadic by nature, and sometimes reflect one-time opportunities. As such, programs are influenced by funding, collaborative opportunities (regional efforts, grants, etc.), and staff time.

<b>Table 2. Previous Education and Outreach Programs and Activities.</b>		
<b>Item</b>	<b>Target Audience</b>	<b>Goal/Behavior/Activity</b>
<b>City Website</b>	General Public	The City's website has been used to promote community activities and educational opportunities. Major updates, including a new, more user-friendly look and additional resources for residents and businesses were launched as part of the City's website redesign in late 2017. The Street and Storm Division Page was separated, a new hotline was generated to Operations-Utilities staff, and information targeted to help developers navigate the City's updated municipal stormwater regulations was added. The website also includes links to the SWMP Plan, the City O&M manual, the KCSWDM, and the City's addendum to the KCSWDM.
<b>Spill Response</b>	General Public	The City continued a water quality complaint, spill reporting, and illicit discharge reporting hotline in 2017. The City publicized it via the City website.
<b>Quarterly Newsletter E-Notices</b>	General Public	The City e-noticed quarterly in the City News to promote classes, stewardship opportunities, and water-related best management practices. The e-notices reached ~700 persons in the City e-mail list, ~1,200 in the Yahoo group, and ~1,900 Facebook followers. This information was also shared with the Snoqualmie Ridge Residential Owners Association (ROA) with its weekly publications that reached ~4,000 persons.

**Table 2 (continued). Previous Education and Outreach Programs and Activities.**

Item	Target Audience	Goal/Behavior/Activity
<b>Promotional Material (print)</b>	General Public and Homeowners	Beginning in 2015, staff has distributed promotional materials on car washes, car leaks and pet waste at Earth Day, Snoqualmie Railroad Days, Ridge Block Party, and other City events.
<b>Volunteer Stewardship Projects</b>	General Public	The City partnered with the Green Snoqualmie Partnership, Mountains to Sound Greenway, and King County on several streamside planting events in 2017. The Green Snoqualmie Partnership was formed in 2016 and held their first annual Green Snoqualmie Day on October 7, 2017.
<b>Pet Waste Stations</b>	General Public	<p>The City installed pet waste bag stations and signs in local parks. Bag purchase and use tallies include the following:</p> <ul style="list-style-type: none"> <li>• 2014 = 190,000 bags</li> <li>• 2015 = 190,000 bags</li> <li>• 2016 = 200,000 bags</li> <li>• 2017 = 220,000 bags</li> </ul>
<b>Hazardous Waste Collection</b>	General Public and Homeowners	The City collects fluorescent light bulbs, batteries and prescription medications at various City buildings. A hazardous waste collection event sponsored by King County was held from July 7–9, 2017, at Mount Si High School’s freshman campus in Snoqualmie. Items accepted for disposal free of charge included pesticides, oil-based paints, automotive products (e.g., oil, antifreeze, lamps, etc.), and fluorescent bulbs/tubes.
<b>Stormwater Utility Rate Structure</b>	General Public and Businesses	The City adopted new Stormwater Utility rates for 2017 through 2020 in February 2017. The approval processes included discussion of Stormwater and water quality with the public and businesses.
<b>Stormwater Comprehensive Plan</b>	General public, City staff, and Businesses	The City embarked upon the process of updating its Stormwater Comprehensive Plan to better identify projects and programs that protect water resources and water quality.
<b>Stormwater CIP</b>	General public, City staff, and Businesses	The Stormwater Capital Improvement Program (CIP) is included in the City’s 20-year CIP, providing public comment opportunity. In addition, a more user-friendly, publicly available format for each project is implemented by creating the CIP storybook format for council and public presentation.
<b>Stormwater Outreach for Regional Municipalities (STORM)</b>	General Public	The City is a member of Stormwater Outreach for Regional Municipalities (STORM), an organization of jurisdictions that have joined to address non-point pollution in the Puget Sound. The City supports regional stormwater awareness campaign activities.



# PUBLIC INVOLVEMENT AND PARTICIPATION

## OVERVIEW

The Phase II permit states that Permittees should plan for ongoing public participation opportunities in the decision-making process of rate structures, environmental programs and stormwater activities through council workshops, watershed committees and public hearings as applicable. Each Permittee should also comply with applicable State and local public notice requirements when developing its SWMP Plan. As a New Permittee, the City was required to develop and begin to implement these section requirements no later than August 1, 2014. The Phase II permit requires the City to:

- Create opportunities for the public to participate in the decision-making processes involving the development, implementation and updates of the SWMP Plan. The City Plan includes consideration of public comment in the SWMP Plan’s development and implementation.
- Make the available SWMP Plan and Annual Report available to the public, including posting on the City’s website, no later than May 31 each year.

Ongoing public involvement activities include:

- Posting the SWMP Update and Annual Report on the City’s website

## PLANNED ACTIVITIES

Table 3 summarizes the public involvement activities planned for 2018.

<b>Table 3. Planned Public Involvement Activities for 2018.</b>			
<b>Item</b>	<b>Department/ Public Involvement</b>	<b>Cost (estimate)</b>	<b>Timeline Notes</b>
The City maintains a web page containing the t and associated materials, located under the Public Works home page. The web page is updated with the latest Annual Report and SWMP Plan each year.	P/PW	\$0	Ongoing
Work on water quality and watershed issues; includes Snoqualmie Tribe, King County, Snoqualmie Valley cities, and citizen members.	Snoqualmie Watershed Forum	\$0	Est. 2005; ongoing

## PAST ACTIVITIES

Table 4 summarizes the public involvement activities that occurred from 2013 through 2017.

<b>Table 4. Previous Public Involvement Activities.</b>			
<b>Item</b>	<b>Department/ Public Involvement</b>	<b>Cost (estimate)</b>	<b>Timeline Notes</b>
Any studies, projects, proposed rate changes or actions requiring City Council input or approval include a public participation process with public notice, discussion at council committee meetings, and public input at City Council and Council Committee meetings.	P/PW; CD; Parks and Public Works (PPW) and Community Development (CDC) Committees	\$112,000 equally split by the Water, Sewer and Stormwater Utilities	February 23, 2015, and ongoing. Work completed in 2017.
The Shoreline Hearings Board, created under SMC19.08.210 in 1986, serves to help protect the shorelines of Snoqualmie through updates to the Shoreline Master Program (SMP). The SMP incorporates State Policy RCW 90.58.020 by reference, which states that shoreline "uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment."	P/PW, CD, and Shoreline Hearings Board	\$0	Estimated 1986; meets for Plan Updates
The City maintains a web page containing the Annual Report and associated materials, located under the Public Works home page. The web page is updated with the latest Annual Report and SWMP Plan each year.	P/PW	\$0	Ongoing
Work on water quality and watershed issues; includes Snoqualmie Tribe, King County, Snoqualmie Valley cities, and citizen members.	Snoqualmie Watershed Forum	\$0	Estimated 2005; ongoing

# ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

## OVERVIEW

The Illicit Discharge Detection and Elimination (IDDE) program refers to the process of detecting and removing illicit connections and discharges – including spills not under the purview of another responding authority – into the municipal separate storm sewer system (MS4) owned or operated by the City.

## Mapping

The Phase II permit requires the creation and ongoing maintenance of a MS4 map; IDDE mapping requirements are outlined under S5.C.3.a. At a minimum, maps are required to include or depict:

- All known municipal separate storm sewer outfalls and MS4 discharge points, receiving waters, and stormwater treatment and flow control BMPs/facilities owned, operated or maintained by the City.
- Tributary conveyances to all known outfalls and discharge points with a 24-inch nominal diameter or larger (or equivalent cross-sectional area for non-pipe systems), showing all tributary conveyance types, materials and size where known; associated drainage areas; and land uses.
- All authorized or allowed MS4 connections since August 1, 2013.
- Connections between the Permittee MS4 and MS4s of other municipalities or public entities.
- Geographic areas served by the MS4 that do not discharge stormwater to surface waters.
- Conform to the preferred mapping format described on the Ecology website, per S5.C.3.a.viii.

The City has initiated a program to develop and maintain a map of all connections to the MS4 authorized or allowed after the Phase II permit effective date.

Complete stormwater system maps are due February 2018.

## Illicit Discharge Ordinance

The Phase II permit requires the City to implement an ordinance or other regulatory action necessary to effectively prohibit non-stormwater, illicit discharges into the stormwater system by February 2, 2016. Ordinance requirements are outlined under S5.C.3.b.

## IDDE Program

The Phase II permit requires the City to implement an ongoing Discharge Detection and Elimination (IDDE) program to detect and remove illicit connections, discharges, and improper disposals including spills into the MS4. IDDE program components listed under S5.C.3.c include field screening, a hotline, staff training, communication of hazard information, and other requirements.

The City must fully implement all IDDE Program requirements by February 2018.

### *Field Screening and Discharge Elimination*

This SWMP Plan section addresses two Phase II permit sections, namely MS4 field screening investigation procedures for illicit connections (S5.C.3.c.i), and developing procedures to characterize, trace and eliminate illicit discharges, including spills and illicit connections, to the MS4.

The City's IDDE program must:

- Implement a field screening methodology appropriate to the City's MS4 characteristics and water quality concerns, to be documented in the annual report.
- As a New Permittee, the City must field screen at least 12 percent of its MS4 by December 31, 2017, and on average 12 percent annually thereafter.

Ongoing IDDE activities include:

- Field screening 12% of the MS4 annually



## **IDDE Timelines**

**Immediately** respond to all illicit discharges, including spills, determined to constitute a threat to human health, welfare, or the environment, consistent with General Condition G3.

**Within 7 days** on average, investigate or refer to an agency with appropriate authority complaints, reports or monitoring data indicating a potential discharge.

**Within 21 days** of a report or discovery of a suspected illicit connection, commence an investigation to determine a connection's source, nature and discharge volume, and the party responsible for the connection.

**Within 6 months**, use the compliance strategy in a documented effort to eliminate the illicit connection upon an illicit connection confirmation. All known illicit MS4 connections shall be eliminated.

The City must also implement procedures for the following (per S5.C.3.d.i–iv):

- Characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges found by or reported to the City. Procedures shall address evaluating whether the discharge must be immediately contained, and the steps to be taken for discharge containment.
- Tracing the source of an illicit discharge, including visual inspections and, when necessary: opening manholes; using mobile cameras; collecting and analyzing water samples; and/or other detailed inspection procedures.
- Eliminating the discharge and its source, including: notifying appropriate authorities; notifying the property owner; technical assistance to eliminate the discharge; follow-up inspections; and use of the compliance strategy developed pursuant to S5.C.3.b.v including escalating enforcement and legal actions if the discharge is not eliminated.
- Compliance with IDDE program procedures shall be achieved by meeting the timelines under S5.C.3.d.iv; these are listed in the IDDE Timelines callout box.

## ***Public Information and Hotline***

Publicize a hotline or other telephone number for public reporting of spills and other illicit discharges by August 1, 2015 (S5.C.3.c.ii). Include the number of calls and follow up actions taken.

Ongoing IDDE activities include:

- Responding to calls to the illicit discharge hotline

## ***Training***

This SWMP Plan section addresses two Phase II permit sections on staff training, namely training for all field staff who might come into contact with illicit discharge (S5.C.3.c.iii) and training staff specifically designated to address illicit discharges (S5.C.3.e).

- **All Field Staff:** Implement an ongoing training program for all municipal field staff on identifying illicit discharge/connection, and on the proper procedures for reporting and responding to the illicit discharge/connection. This training should be provided to all field staff, who might come into contact with or otherwise observe an illicit discharge or illicit storm system connection as part of their normal job responsibilities (S5.C.3.c.iii).
- **Designated Field Staff:** Municipal field staff responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, and illicit connections are required to be trained to conduct these activities (S5.C.3.e).
- **Both Training Program Components:** Provide follow-up training as needed to address changes in procedures, techniques, requirements or staffing. Document the trainings provided and the staff trained, including the number of trainings and staff trained, names of staff trained and training topics. Both training requirements should be met no later than February 2, 2016.

City staff will be attending illicit discharge trainings in March 2018.

## ***Hazard Information***

- Inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper waste disposal by February 2, 2017 (S5.C.3.c.iv).

## ***Recordkeeping***

According to S5.C.3.f, the City should track and maintain records of activities conducted to meet the requirements of Phase II permit section S5.C.3. Per sections S5.C.3.a–e, this means the City should track and at least retain records of the following:

- Connections to the MS4 authorized or allowed by the City after August 1, 2013.
- Number inspections made for illicit connections, including field screenings.

- Number of illicit discharges, including spills, identified and/or eliminated.
- Number of trainings provided, training subjects, and the staff trained.

## PLANNED ACTIVITIES

The City currently conducts a variety of IDDE program activities; major items for continued compliance include:

- Implement a business spills program (source control pollution prevention program).
- Update draft procedures to comply with IDDE program requirements.
- Maintain and continue to publicize a spill hotline.
- Track the number of illicit discharges and illicit connections, including spills.
- Develop a plan to provide field screening of 12 percent of the MS4 by the end of the Phase II permit term.

The IDDE activities planned for 2018 are summarized in Table 5.

<b>Item</b>	<b>Departments</b>	<b>Timeline Notes</b>
<b>Mapping.</b> Map known MS4 outfalls, known MS4 discharge points, receiving waters, stormwater treatment and flow control BMPs/facilities owned or operated by the City, tributary conveyances for 24-inch nominal diameter or larger outfalls and discharges points, connections between the MS4 and other municipalities or public entities, and geographic areas that do not discharge stormwater to surface waters. Continue to track and map all new MS4 connections.	P/PW, CD, GIS	Complete MS4 map by February 2, 2018.
<b>Ordinances.</b> Continued enforcement of SMC 15.18.150 (Illicit Discharges to storm water system or water prohibited).	P/PW and CD	Ongoing.
<b>Field Screening.</b> Develop draft methodology and work plan for a field screening program consistent with Phase II permit requirements. Evaluate a tracking method to validate field screening completion by Phase II permit deadlines.	P/PW	Screen 12% of the MS4 per year.
<b>Hotline.</b> Maintain spill reporting hotline number; continue to publicize via press releases and the City website.	P/PW	Hotline established; maintenance ongoing.
<b>City Staff Trainings.</b> Municipal staff trainings will be provided in 2018 as a refresher to 2015 trainings on illicit discharge awareness, and response and enforcement, and to train new City staff.	City Staff	Trainings scheduled for March 19, 2018.
<b>IDDE Procedures.</b> Develop draft procedures to comply with IDDE characterization, tracing, and elimination requirements and review internally. Procedures should support source investigation and follow up, including code enforcement if needed, within Phase II permit timelines.	P/PW	Full procedures and program developed by February 2, 2018.

<b>Table 5 (continued). Planned IDDE Activities for 2018.</b>		
<b>Item</b>	<b>Departments</b>	<b>Timeline Notes</b>
<b>Spills.</b> Develop draft spill reporting forms and enhance spill tracking system. Investigate spill sources and follow up, including code enforcement as necessary.	P/PW	Procedures due February 2, 2018.
<b>Recordkeeping.</b> Implement an asset management system to assist with recordkeeping, permit tracking and ongoing field screening and system maintenance needs.	P/PW and IT	Ongoing

## PAST ACTIVITIES

The City has been working towards IDDE program compliance. Major items completed from 2015 through 2017 are summarized in Table 6.

<b>Table 6. Previous IDDE Actions and Activities.</b>		
<b>Item</b>	<b>Departments</b>	<b>Timeline Notes</b>
<b>Mapping.</b> The City has been recording all connections to the MS4 as they are received since August 1, 2013. In 2013 the City hired Tetra Tech to develop the Snoqualmie Ridge Stormwater System Operations Manual, which included additional, limited stormwater map data development.	P/PW, CD, and IT	All new authorized MS4 connections must be mapped since August 1, 2013.
<b>Ordinances.</b> In 2011, the City adopted Ordinances 1081 and 1082. Ordinance 1081 addressed Chapter 15.18 Surface and Stormwater Management and Ordinance 1082 addressed Chapter 15.20 Clearing and Grading. In 2014, the Street & Storm Division webpage was updated to provide additional information and guidance regarding the updated City Stormwater Regulations, including Water Manual usage, flow control, TESC, modeling and monitoring, drainage review cost estimates, and City code citations.	P/PW and CD	Ordinance implemented in 2011. Website updated in 2014.
<b>Hotline.</b> The City established a spill reporting hotline number which it publicized via press releases and the City website. In 2015, 2016, and 2017, the hotline received zero calls. Appendix A, Figure A-1 contains a hotline reporting form developed to record information about the nature of each call and any follow-up actions taken.	P/PW, CD, IT, and Communications	Operational February 20, 2015.
<b>Staff Training.</b> In 2015, City staff attended staff trainings on illicit discharge awareness, and response and enforcement. Appendix A, Table A-2 contains information about training topics and provides a list of participating staff by department.	P/PW, CD, Police, and Fire	Trainings conducted in January 2015.
<b>IDDE Procedures.</b> The City requested draft procedures from other cities for review.	P/PW	Full procedures and program developed by February 2, 2018.
<b>Spills.</b> In 2014, staff established ERTS notice designees, and began tracking spills according to Ecology guidelines. Staff requested draft forms from other cities and located additional examples online to guide the development of an internal spills form.	P/PW	Tracking began in 2014.

# RUNOFF PROGRAM: NEW DEVELOPMENT, REDEVELOPMENT, AND CONSTRUCTION SITES

## OVERVIEW

The City is required to develop, implement, and enforce a runoff program to reduce stormwater runoff pollutants to its MS4 from new development, redevelopment and construction site activities. This program applies to private and public development, including roads; it must include the following:

- Runoff ordinance
- Runoff permit process
- Long-term O&M
- Notice of Intent (NOI)
- Staff training
- LID code review

## Runoff Ordinance

The City must implement an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment and construction sites.

- Due December 31, 2017, the ordinance/mechanism shall apply to all applications submitted on or after January 1, 2018, as well as prior applications which have not started construction by January 1, 2023 (S5.C.4.a).
- The ordinance/mechanism should include the minimum requirements, technical thresholds, and definitions in Appendix 1 (or an Ecology-approved equivalent; see S5.C.4.a.i), local requirements listed under S5.C.4.a.ii, and legal authority to inspect and enforce maintenance standards for private stormwater facilities approved under this section's provisions (S5.C.4.a.iii).

The stormwater requirements in Chapter 15.18 were updated in December 2017 and will be implemented in 2018.

## Runoff Permit Process

The City must implement a runoff program permit process to review site plans, inspect construction sites, and take enforcement action against those failing to follow approved guidelines or to provide facilities as required during plan review (S5.C.4.b, i-iv).

The City will be expanding stormwater site plan review and construction site inspection activities in 2018.

## Runoff: Long-Term O&M

By December 2017, the program shall include an ordinance or mechanism, maintenance standards, required facility inspections, and enforcement procedures to verify long-term operation and maintenance of permanent stormwater treatment and flow control facilities permitted/constructed under S5.C.4.b terms, above (S5.C.4.c, i-vii). This Long-Term O&M Runoff Program component should include a procedure to retain inspection and enforcement action records, including reports, maintenance activities, warnings, violation notices, and other records.

The City is required to implement annual inspections of private stormwater treatment and flow control facilities starting in 2018.

## Notice of Intent

The Program shall make both Construction and Industrial Activities Notices of Intent (NOI) copies available for to re/development representatives by August 1, 2013 (S5.C.4.d). The City shall continue to enforce local runoff ordinances for sites also covered by Ecology Stormwater permits.

## Trainings

Ensure that those charged with program implementation are properly trained; provide staff trainings on new/revised regulations, standards, processes and procedures, and document the training topics and staff attending by December 31, 2017, per S5.C.4.e).

## LID Code and Enforceable Document Review

Review, revise and adopt codes, standards and rules to incorporate and require LID principles and BMPs, by December 31, 2017; revisions should be designed to minimize impervious surface, native vegetation loss, and stormwater runoff.

**Note:** Phase II permit requirements for watershed-scale stormwater planning applies to jurisdictions with all or part of their coverage area in a watershed selected under condition S5.C.5.c. The City is not in such a watershed, and as such, watershed-scale Phase II permit requirements listed under S5.C.4.g do not apply.

## PLANNED ACTIVITIES

Planned runoff program activities for 2018 are listed in Table 7.

<b>Table 7. Planned Runoff Program: New Development, Redevelopment, and Construction Site Activities for 2018.</b>		
<b>Item</b>	<b>Department/ Public Involvement</b>	<b>Timeline Notes</b>
<b>Ordinances.</b> Implement and enforce Chapter 15.18 SMC (Surface and Stormwater Management) and Chapter 15.20 SMC (Clearing and Grading).	P/PW and CD	Ongoing
<b>Surface Water Design Manual Addendum:</b> The City is working on updating their addendum to the King County Surface Water Design Manual (KCSWDM) following the adoption of the 2016 KCSWDM in December 2017.	P/PW	Spring 2018
<b>Notices of Intent.</b> The City posted links to the Construction and Industrial NOIs in 2013, on its Storm and Street facilities webpage. Links to these NOIs should be retained at all times, as the continuing available copies meets Phase II permit requirement S5.C.4.d.	P/PW	Ongoing
<b>Recordkeeping.</b> Records on plan review and inspection reports are, to date, maintained in individual project files. The City is currently working to implement asset management software for stormwater and other utilities. This software will enable creation of a database for improved recordkeeping to meet Phase II permit requirements.	P/PW and CD	Ongoing
<b>Plan Review Process.</b> The City currently conducts development review, permitting, and inspections during the construction process. Drainage and Temporary Erosion and Sediment Control (TESC) plans are reviewed by a consultant and approved by the Community Development Department.	P/PW and CD	Ongoing
<b>Inspections.</b> The City contracts with consultants to conduct inspections of facilities during construction and at final construction.	P/PW and CD	Ongoing
<b>LID Enforceable Document Review.</b> The City will complete the LID review process and provide recommendations for enforceable documents including the City's comprehensive plan, the Parks, Recreation, and Open Space Plan; Snoqualmie Ridge Development Standards; and Development Standards for Snoqualmie Ridge II.	P/PW and CD	June 2018

## PAST ACTIVITIES

Table 8 summarizes the runoff program activities that occurred from 2013 through 2017.

**Table 8. Previous Runoff Program: New Development, Redevelopment, and Construction Site Activities.**

Item	Department/ Public Involvement	Timeline Notes
<p><b>Ordinances.</b> In 2011, the City adopted Ordinances 1081 and 1082 in advance of Phase II permit deadlines; Ordinance 1081 addresses Chapter 15.18 Surface and Stormwater Management, and Ordinance 1082 addresses Chapter 15.20 Clearing and Grading. Both require drainage review; Chapter 15.18 SMC incorporates the Phase II permit Appendix I by reference. SMC 15.18.100 (c) requires developers to grant the City “an easement permitting access for inspection and performance of any required maintenance...”; such easements are included for new plats.</p> <p>In 2017, the City revised Chapter 15.18 SMC to adopt the 2016 King County Surface Water Design Manual.</p>	P/PW and CD	Ordinances adopted in 2011 and 2017
<p><b>Surface Water Design Manual Addendum:</b> The City developed and implemented a City-specific addendum to the 2009 King County Surface Water Design Manual (KCSWDM).</p>	P/PW	Developed in July 2011 and revised in July 2013
<p><b>Notices of Intent.</b> The City posted links to the Construction and Industrial NOIs in 2013, on its Storm and Street facilities webpage. Links to these NOIs should be retained at all times, as the continuing available copies meets Phase II permit requirement S5.C.4.d.</p>	P/PW	Ongoing
<p><b>Recordkeeping.</b> Records on plan review and inspection reports are, to date, maintained in individual project files. The City is currently working to implement asset management software for stormwater and other utilities. This software will enable creation of a database for improved recordkeeping to meet Phase II permit requirements.</p>	P/PW and CD	Ongoing
<p><b>Plan Review Process.</b> The City currently conducts development review, permitting, and inspections during the construction process. Drainage and Temporary Erosion and Sediment Control (TESC) plans are reviewed by a consultant and approved by the Community Development Department.</p>	P/PW and CD	Ongoing
<p><b>Inspections.</b> The City contracts with consultants to conduct inspections of facilities during construction and at final construction.</p>	P/PW and CD	Ongoing
<p><b>LID Code Review.</b> The City went through a detailed code review and revision process in 2017. Revisions to allow LID principles and LID BMPs were integrated into Title 12, Title 13, Title 15, Title 16, and Title 17 of the Snoqualmie Municipal Code. Ordinance 1198 was adopted on December 11, 2017.</p>	P/PW and CD	Adopted December 11, 2017; effective December 28, 2017



# MUNICIPAL OPERATIONS AND MAINTENANCE

## OVERVIEW

The City must develop and implement an operations and maintenance (O&M) program for public facilities that includes a training component, with the ultimate goal of preventing or reducing pollutant runoff from municipal operations. The program shall be fully implemented by December 31, 2017. This section primarily affects the Parks and Public Works Department (including Facilities); see S5.C.5.

The Phase II permit (S5C.5) requires City O&M to include:

- **Maintenance Standards.** Implement maintenance standards as protective as those in the Stormwater Management Manual for Western Washington, Chapter 4, Volume V; standards should meet the O&M timelines summarized on the following page, and be updated or created as necessary to meet Phase II permit requirements, per S5.C.5.a.
- **Annual Inspections.** Annually inspect all City-owned or operated stormwater treatment and flow control BMPs/facilities, and take appropriate maintenance actions per adopted maintenance standards (previous bullet and O&M timelines summarized on the following page). Options to annual inspections are listed in the Phase II permit under S5.C.5.b.
- **Spot Checks.** Spot check potentially damaged stormwater treatment and flow control facilities after a major storm event (24-hour storm event within a 10-year-plus interval). If spot checks indicate widespread damage/maintenance needs, inspect all such facilities and conduct repairs per the O&M timelines summarized on the following page and per S5.C.5.c.

Ongoing Municipal O&M activities include:

- Annual inspections of stormwater treatment and flow control facilities
- Spot checks
- Catch basin inspections and cleaning
- Updating SOPs

- **Catch Basins.** Annually inspect and, if needed clean, all catch basins and inlets owned and operated by the City once by February 2, 2018, and every 2 years thereafter. The Phase II permit provides some alternatives to this requirement; see S5.C.5.d.

*Note:* Required inspection compliance for S5.C.5.b, c, and d is determined by the presence of an inspection program designed to inspect all sites, achieving 95%+ of inspections (S5.C.5.e).

The City is required to inspect all City-owned and operated catch basins and inlets once by February 2, 2018.

- **Practices, Policies, and Procedures.** Implement practices, policies and procedures to reduce runoff pollutants from all lands owned or maintained by the City, including streets, parking lots, roads or highways, buildings, parks, open space, road rights-of-way, maintenance yards, and stormwater treatment and flow control BMPs/facilities; for the full list of activities that must be addressed, see S5.C.5.f.
- **Staff Training.** Hold an ongoing staff training program addressing water quality, O&M standards, inspection procedures, selecting appropriate BMPs, job performance to minimize water quality impacts, and procedures to report water quality concerns. Document and maintain records of training provided and the staff trained, per S5.C.5.g.
- **Stormwater Pollution Prevention Plan (SWPPP).** By December 2017, implement a Phase II permit-compliant SWPPP for all heavy equipment maintenance/storage, and material storage, yards and facilities, owned or operated by the City, including structural BMPs per S5.C.5.h.

The City will be updating the SWPPP for the Public Works Operations Facility (City Shop) in 2018.

### O&M Timelines

*See S5. C5.a.ii*

When an inspection identifies an exceedance of the maintenance standard, maintenance shall be performed within:

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

These timelines apply except for circumstances beyond City control such as property access denial, permit delays or reallocations of staff for unexpected emergency work.

## PLANNED ACTIVITIES

The City plans to implement the activities listed in Table 9 in 2018.

<b>Table 9. Planned Municipal Operations and Maintenance Activities for 2018.</b>		
<b>Item</b>	<b>Department/ Public Involvement</b>	<b>Timeline Notes</b>
<b>O&amp;M.</b> The City has had a longstanding program to maintain public Stormwater facilities. In 2016, the City began exploring improving permit tracking via asset management software. After the software is implemented in 2017/2018, a gap analysis of O&M procedures against Phase II permit requirements will be performed.	P/PW	Ongoing
<b>Inspections.</b> Facility inspection records are currently retained, though the City will assess whether it is feasible to reduce required annual inspection frequency where possible while maintaining compliance with the Phase II permit. The inspection program will be reviewed to ensure it meets Phase II permit requirements.	P/PW	Ongoing
<b>Spot Checks.</b> Spot checks of potentially damaged permanent treatment and flow control facilities are inspected after major storms. Staff check all of the city's stormwater ponds and structures annually.	P/PW	Ongoing
<b>Catch Basins.</b> The City stormwater maintenance program includes catch basin inspections and maintenance with documentation in written reports. The City will continue to explore documentation of maintenance activities through an asset management system in 2018.	P/PW	Ongoing
<b>SOPs.</b> Future SOPs will be written in a format to be used as annual training materials, and as living documents that can be updated easily as needed.	P/PW	Ongoing
<b>Staff Training.</b> Identify and attend relevant O&M trainings.	P/PW	Ongoing
<b>Stormwater Pollution Prevention Plan (SWPPP).</b> A Public Works Operations Facility (City Shop) will be updated in the spring of 2018.	P/PW	Ongoing

## PAST ACTIVITIES

Table 10 summarizes the municipal O&M activities that occurred from 2013 through 2017.

<b>Table 10. Previous Municipal Operations and Maintenance Activities.</b>		
<b>Item</b>	<b>Department/ Public Involvement</b>	<b>Timeline Notes</b>
<b>O&amp;M.</b> The City has had a longstanding program to maintain public stormwater facilities.	P/PW	Ongoing
<b>Inspections.</b> Facility inspection records are currently retained, though the City will assess whether it is feasible to reduce required annual inspection frequency where possible while maintaining compliance with the Phase II permit. The inspection program will be reviewed to ensure it meets Phase II permit requirements.	P/PW	Ongoing

**Table 10 (continued). Previous Municipal Operations and Maintenance Activities.**

Item	Department/ Public Involvement	Timeline Notes
<b>Spot Checks.</b> Spot checks of potentially damaged permanent treatment and flow control facilities are inspected after major storms. Staff check all of the city's stormwater ponds and structures annually.	P/PW	Ongoing
<b>Catch Basins.</b> The City stormwater maintenance program includes catch basin inspections and maintenance with documentation in written reports. In 2016, the City began exploring improving permit tracking via asset management software. The City implemented a new asset management system in 2017, but it has not yet been fully integrated into City operations.	P/PW	Ongoing
<b>SOPs.</b> In 2015, the City adopted the Snoqualmie Stormwater System O&M Manual. Future SOPs will be written in a format to be used as annual training materials, and as living documents that can be updated easily as needed. SOPs for land disturbing construction projects are addressed through a Public Works Permit, which addresses temporary erosion and sediment control (TESC), and pollution prevention.	P/PW	Ongoing
<b>SOPs.</b> The City developed a Drainage System Maintenance Standard Operating Procedure for inspecting and maintaining storm and drainage facilities.	P/PW and CD Department	\$5,000
<b>Staff Training.</b> City staff attended a LID O&M and General O&M training in January 2015. Appendix A, Table A-2 contains information about training topics and provides a list of participating staff by department.	P/PW	Training conducted in January 2015
<b>Stormwater Pollution Prevention Plan (SWPPP).</b> A SWPPP was developed for the Public Works Operations Facility (City Shop) in late 2017 and is slated to be updated in 2018. A new contract for asset management allocated \$46,000 to stormwater SWPPP activities in 2016 and 2017.	P/PW	Ongoing

# TMDL REQUIREMENTS

## OVERVIEW

Additional requirements apply if there is an applicable, approved Total Maximum Daily Load (TMDL) for stormwater discharges from MS4s owned or operated by the City listed in Phase II Permit Appendix 2; see section S7.

- The City is not listed for TMDLs listed in Appendix 2 under the current Phase II permit.
- If the City has actions associated with TMDLs under future Phase II permit terms, it should incorporate requirements as pertinent at that time.

## PLANNED ACTIVITIES

None to report.

## PAST ACTIVITIES

None to report.



# MONITORING AND ASSESSMENT

## OVERVIEW

Section 8 of the Phase II permit requires all permittees to “provide, in each annual report, a description of any stormwater monitoring or stormwater-related studies” conducted:

- By the City
- On behalf of the City, or
- Reported to the City.

The annual report should briefly provide a description of the type of information gathered or received.

Permittees with TMDLs have other monitoring requirements; these do not apply to the City.

Since the City is a new permittee, they are not yet required to pay into the collective fund to implement the Regional Stormwater Monitoring Program (RSMP); however, this will most likely be a requirement for the City for the next Phase II permit cycle. The RSMP includes the following areas:

- Status and Trends Monitoring (S8.B)
- Stormwater Management Program Effectiveness Studies (S8.C)
- Source Identification and Diagnostic Monitoring (S8.D)

## PLANNED ACTIVITIES

None to report.

## PAST ACTIVITIES

None to report.





# REPORTING REQUIREMENTS

## OVERVIEW

Section 9 of the Phase II permit describes reporting and recordkeeping requirements. The Annual Report and SWMP Plan are prepared and submitted each year to Ecology.

As part of the implementation of the SWMP, the City gathers, tracks, maintains, and uses information on an ongoing basis to evaluate the SWMP development and implementation.

- The City strives to submit an annual report on the Phase II permit no later than March 31 each year for activities the previous year.
- Records related to the Phase II permit and SWMP shall be retained for at least 5 years.
- Records related to the Phase II permit and SWMP shall be reasonably available to the public.
- Administration items, such as annexations, must be included in the Annual Report.

Ongoing Reporting activities include:

- Submitting Annual Report and SWMP Plan to Ecology

## PLANNED ACTIVITIES

Table 11 summarizes planned reporting activities for 2018.

<b>Item</b>	<b>Department/ Public Involvement</b>	<b>Timeline Notes</b>
Submit Annual Report and SWMP Plan to Ecology.	P/PW	March 31, 2018
Retain all records related to the Phase II permit and the SWMP for at least 5 years.	P/PW	Ongoing

## PAST ACTIVITIES

Table 12 summarizes reporting activities conducted from 2015 through 2017.

<b>Table 12. Previous Reporting Activities.</b>		
<b>Item</b>	<b>Department/ Public Involvement</b>	<b>Timeline Notes</b>
Submitted Annual Report and SWMP Plan to Ecology.	P/PW	March 31, 2015 March 31, 2016 March 31, 2017
Retain all records related to the Phase II permit and the SWMP for at least 5 years.	P/PW	Ongoing

# **APPENDIX A**

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## **Supplemental Information**



Table A-1 lists potential education and outreach program options for future years that have not been selected for 2016, but may be viable for roll out in future years depending on local water quality needs, monitoring program feedback, SWMP priorities, grants/budgeting opportunities, and staff time. As the SWMP is reviewed annually, the below list is intended to assist future program development. The SWMP development staff should annually reach out to staff in other cities, review published best management practices, and review Ecology guidance on additional program items that may have been piloted in the recent past and shown evidenced-based success in education and behavior change.

<b>Table A-1. Education and Outreach Options for Future Years.</b>		
<b>Item</b>	<b>Target Audience</b>	<b>Goal/Behavior/Activity</b>
Master Recycler and Composter Program	General Public	The City could explore contracting to train Master Composter soil builders that would return volunteer hours to cities in the region on natural, chemical-free gardening practices.
Stormwater Outreach for Regional Municipalities (STORM)	General Public	As a member of STORM, the City may explore additional regional options for stormwater outreach and education, including participation in the Puget Sound Starts Here campaign.
Additional City Outreach Material for Public Booths/Displays	Municipal Staff	Information could be provided on additional items such as pesticide-free yard care, salmon friendly commuting, safe chemical storage, and other water quality topics at cultural and environmental events.
Additional Volunteer Stewardship Projects	General Public	Staff could organize additional events for benthic and water quality sampling, and storm drain stenciling.
Additional City Staff Trainings	Municipal Staff	Additional staff trainings are possible for illicit discharge awareness, illicit discharge response and enforcement, spill response, erosion and sediment control, Phase II drainage review, stormwater and environmental permitting, and critical aquifer recharge area review.

Table A-2 lists the staff trainings conducted in 2015, including the date held, the topics covered, and the number of total attendees broken out by department.

<b>Table A-2. Staff Training Summary.</b>		
<b>Date</b>	<b>Topics</b>	<b>Attendees by Department</b>
January 21, 2015	<ul style="list-style-type: none"> <li>• Preventing illicit discharges</li> <li>• Illicit discharge indicators</li> <li>• Field screening and source tracing methodologies</li> <li>• Data management</li> <li>• Terminating illicit discharges</li> <li>• Field exercise</li> </ul>	<ul style="list-style-type: none"> <li>• Parks and Public Works: 25</li> <li>• Police: 5</li> <li>• Building: 3</li> <li>• Fire: 7</li> <li>• <b>Total: 40</b></li> </ul>
January 23, 2015	<ul style="list-style-type: none"> <li>• LID O&amp;M overview</li> <li>• BMP specifics</li> <li>• Administrative tools</li> <li>• Field exercise</li> </ul>	<ul style="list-style-type: none"> <li>• Parks and Public Works: 25</li> <li>• <b>Total: 25</b></li> </ul>

