



## **Stormwater Management Program (SWMP)**

### **2014 Annual Report**

**Pursuant to the  
Western Washington  
NPDES Phase II  
Municipal Stormwater General Permit  
# WAR04-5011**

**Submitted by:  
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## **BACKGROUND**

During the last few decades, regulatory organizations have come to recognize the extreme importance and value of our water resources. The United States began addressing water resources issues when industrial waste, untreated sewage and refuse were accumulating in our nation's waters at pollutant levels that posed dangers to public health.

In order to combat the high levels of pollutants entering our nation's waters, the Environmental Protection Agency (EPA) created the National Pollutant Discharge Elimination System (NPDES). This system of permitting requires that waste producers having direct discharges to surface waters go through an extensive permitting process to demonstrate that the impacts of respective industrial operations be minimized. The NPDES program has been expanded over the years to include Stormwater issues.

Jurisdictions with populations of 100,000 or greater have been required to go through the NPDES permitting process for a number of years. These larger cities and counties were included within what is called the NPDES Phase I program. Smaller jurisdictions such as the City of Lacey with populations between 10,000 and 100,000 residents are now required to have a Municipal Stormwater Permit as part of the NPDES Phase II program.

In the State of Washington, the Department of Ecology (DOE) has the delegated responsibility to implement NPDES requirements. As part of these requirements, each jurisdiction must develop and implement a comprehensive Stormwater Management Program (SWMP). DOE has created general compliance standards for SWMP's including:

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

## INTRODUCTION

This document is intended to comply with the requirements of the City of Lacey's NPDES Phase II Municipal Stormwater General Permit Number WAR04-5011.

The City's Stormwater Management Program (SWMP) includes activities and goals designed to protect and improve the quality of our surface water and groundwater resources by reducing negative impacts from our urban lifestyle. These goals include:

- Protect the health, safety and welfare of the public.
- Manage runoff from developed and newly developing properties.
- Mitigate the impacts of increased runoff due to urbanization.
- Manage stormwater and groundwater to minimize contact with pollutants.
- Manage stormwater to minimize flooding and erosion.
- Correct or mitigate existing water quality problems.

This SWMP has been designed to reduce the discharge of pollutants from regulated small Municipal Separate Storm Sewer Systems (MS4s) to the maximum extent practicable (MEP), and meet the State's all known, available and reasonable methods of prevention, control and treatment (AKART) requirements, for the primary purpose of protecting water quality.

This document will be updated annually to include changes in the program. The public is encouraged to be involved in the development and updating of all aspects of this program.

Comments or questions can be directed to the City of Lacey Public Works Department, Water Resources Division at 360-491-5600 or e-mail [WaterResources@ci.lacey.wa.us](mailto:WaterResources@ci.lacey.wa.us) .

## **SECTION 1 – Compliance with Standards** (Permit Section S.4)

In accordance with RCW 90.48.520, the discharge of toxicants to waters of the State of Washington which would violate any water quality standard, including toxicant standards, sediment criteria and dilution zone criteria is prohibited. The required response to such violations is defined below.

### **1.1 Required response to violations of Water Quality Standards**

Pursuant to permit section G20 *Non-Compliance Notification of the Permit*, the City of Lacey shall notify Ecology in writing within 30 days of becoming aware that a discharge from the MS4 is causing or contributing to a violation of Water Quality Standards. For ongoing or continuing violations, a single written notification to Ecology will fulfill this requirement.

In the event that Ecology determines that a discharge from a MS4 is causing or contributing to a violation of Water Quality Standards in receiving waters, and the violation is not already addressed by a Total Maximum Daily Load or other water quality cleanup plan, Ecology will notify the Permittee in writing that:

1. Within 60 days of receiving the notification, or by an alternative date established by Ecology, the City shall review their SWMP and submit a report to Ecology. The report shall include:
  - A description of the operational and/or structural Best Management Practices (BMPs) that are currently being implemented to prevent or reduce any pollutants that are causing or contributing to the violation of Water Quality Standards, including a qualitative assessment of the effectiveness of each BMP.
  - A description of additional operational and/or structural BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the violation of Water Quality Standards.
  - A schedule for implementing the additional BMPs including, as appropriate: funding, training, purchasing, construction, monitoring, and other assessment and evaluation components of implementation.

The City of Lacey shall implement the additional BMPs, pursuant to the schedule approved by Ecology, beginning immediately upon receipt of written notification of approval. The City shall also include with each subsequent annual report a summary of the status of implementation and any information from assessment and evaluation procedures collected during the reporting period.

## **SECTION 2 - Public Education and Outreach** (Permit Section S5.C.1)

Public education is a significant component of Lacey's comprehensive SWMP. Lacey Water Resources has been conducting education and outreach activities related to stormwater management for many years. Efforts focus on educating the public to prevent pollutants from entering surface and groundwater and providing information to residents and developers concerning management of stormwater quantity and quality. These efforts have been coordinated with other local jurisdictions to make the best use of limited resources and to disseminate consistent messages.

In terms of the SWMP components, the City has and will continue to meet the permit conditions. Existing programs will need to be refined or new ones created throughout this permit term.

### **2.1 Public Education and Outreach Requirements**

- Develop an education program aimed at residents, businesses, industries, elected officials, policy makers, planning staff and other employees of the Permittee. The goal of the education program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.
- Each Permittee shall measure the understanding and adoption of the targeted behaviors among the targeted audiences. The resulting measurements shall be used to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors.
- Each Permittee shall track and maintain records of public education and outreach activities.

### **2.2 Public Education and Outreach Efforts**

The following section describes the current status of the City of Lacey stormwater management efforts as required by Section S5.C.1 of the Permit.

- General impacts are being addressed in many ways. Lacey utilizes a variety of avenues to disseminate information to the public including the City of Lacey and Stream Team website, Stream Team Facebook page, City of Lacey Twitter, informational meetings, workshops, field trips, newspaper/newsletter articles, printed materials, projects with schools, community events, volunteer projects and press releases.

- The City of Lacey currently provides various brochures covering all aspects of stormwater management from flow control to streamside vegetation. They are used in conjunction with other activities to educate and invite the public to become involved in the protection of our environment.
- Lacey is member of the Stormwater Outreach for Regional Municipalities (STORM) Group. STORM is a coalition of cities and counties in the Puget Sound region, working together to address nonpoint pollution by advancing broad-scale behavior change among Puget Sound residents. The group has implemented a Department of Ecology grant-funded regional awareness campaign, *Puget Sound Starts Here (PSSH)* as a foundation upon which jurisdictions can build more specific behavior-change programs.

Lacey has implemented the PSSH campaign by:

- Branding written and online material with the PSSH logo
- Hosting a PSSH booth at the 2014 Lacey Spring Fun Fair during PSSH month which included, PSSH salmon stampers and PSSH Plinko
- Distributed a bright, colorful brochure that includes 10 BMPs residents can do to protect Puget Sound, which is branded with PSSH colors and logo. This is distributed at events and also at City Hall.
- Declaring May, 2014 Puget Sound Starts Here month in Lacey.
- Since 1990, Lacey has participated in the regional Stream Team Program as a tool for outreach to local businesses and residents. Stream Team is jointly funded by the storm and surface water utilities of the cities of Lacey, Olympia, Tumwater, and Thurston County. Stream Team involves citizens in the protection and enhancement of our local water resources through education and action. Citizens learn about water quality through field classes and trainings, and then give back to the community through action projects. Stream Team volunteers contribute hundreds of hours annually to our community through habitat monitoring riparian re-vegetation projects, storm drain marking, and other activities. In 2014, Stream Team volunteers contributed 1,195 hours of service to improving local streams and habitat in Lacey alone.
  - Each winter, Lacey performs the editor/coordinator role for the Stream Team Newsletter. The newsletter is distributed to more than 2,500 residents each quarter across all 4 jurisdictions. It is also posted to the website and on Facebook. Stream Team Coordinators from the three other jurisdictions perform the editor/coordinator role during the remaining three quarters of the year. Lacey pays for graphic design expenses for the newsletter each quarter. Articles include volunteer recruitment as well as stormwater educational messages including IDDE and BMPs messages for the general public and homeowners. IDDE and BMP messages include carpet cleaning and other household maintenance, yard care, vehicle maintenance, use and care of hazardous cleaning supplies and pet waste.

- Lacey also facilitates volunteer projects for local non-profit groups which all include an introduction to stormwater awareness, stormwater treatment and residential best management practices. Groups such as college classes, youth groups, churches and military troops assist the City in removing invasive species, such as scotch broom, from our stormwater facilities, and improving the riparian buffer along Woodland Creek. In 2014, Lacey facilitated 17 of these volunteer groups (their hours are included in the bullet above)
- South Sound GREEN (Global Rivers Environmental Education Network) is a program sponsored by local jurisdictions, school districts, and individual teachers from local school districts. GREEN teachers instruct students using a well-rounded curriculum aimed at many levels of watershed protection and understanding. Lacey signed a 5 year agreement in 2011 to participate in this program, and contributes \$12,000 annually. Lacey also provides time, resources, classroom presentations and field trips for GREEN teachers.
- Lacey Water Resources has a Pet Waste Awareness Program.
  - The neighborhood portion of the program provides signs and bag dispensers to all interested neighborhoods and apartment complexes within its Lacey City Limits. Signs and bag dispensers are mounted in areas of high pet use, educating and encouraging pet owners to pick up after their pets. Informational brochures about pet waste are distributed to residents of the neighborhoods and apartment complexes that receive neighborhood pet waste bag dispensers. The City is measuring the success of the program through surveys sent to program participants. (See Section 2.3 below).
  - The resident portion of this program provides any resident of Lacey or person who visits a City of Lacey outreach table at a community event a free “Bags on Board” portable pet waste bag dispenser, which attaches to their dog leashes. Recipients of the portable pet waste bag dispensers must sign the “Pet Poop Promise” to receive a dispenser. The dispensers say “Pick up for Puget Sound” and include the Stream Team website, which residents can visit to learn more about stormwater pollution.
  - Pet waste markers (or buttons) were applied to walking paths at four city parks. They read “Pick Up Poop Around The Loop” and are intended to educate residents who use the walking paths about the importance of picking up after their pets, especially while visiting these busy parks, some of which have lakes or creeks within the park boundary.
- The City participates in various public outreach events to reach different audiences, increase stormwater awareness and encourage best management practices as they relate to stormwater pollution and runoff. In 2014, the City participated in 11 different outreach events and reached an estimated 7,630 Lacey residents (see Section 2.6 for more detail). Messages shared include: general

stormwater awareness, residential stormwater BMPs, pet waste, vehicle leaks and natural yard care.

- Storm drain markers (or buttons) are applied to the curbs near storm drains in Lacey. They read “No Dumping, Flows to Waterways” to educate residents walking by that the runoff entering storm drains flows to local waterways and that dumping is not allowed. Through efforts completed over the past several years, nearly all of Lacey’s existing storm drains are marked with these weather resistant buttons. The City’s 2009 Development Guidelines and Public Works Standards requires that the curbs or roadways immediately adjacent to all newly installed storm drains are marked with the same buttons. In 2014, 153 storm drains were marked with the “No Dumping, Flows to Waterways” buttons.
- Landscapes are being addressed in many ways, including free workshops on Naturescaping, Rain Gardens and Shoreline Restoration for residents and landscape professionals. These workshops provide information on utilizing appropriate landscaping techniques and native plants to improve water quality and reduce runoff. Educational material focused on landscaping is available at City Hall and on the City’s and Stream Team’s website, and bookmarks with information about the Grow Smart Grow Safe app are given out with all outdoor water conservation materials.
- To prevent polluted runoff from charity car washes, the City, in coordination with other local jurisdictions, implemented a *Clean Cars, Clean Streams* Program to encourage local non-profit groups to either 1) purchase commercial car wash tickets from the Puget Sound Car Wash Association, or 2) hold their charity car washes at an approved site that receives treatment before being discharged to surface water or groundwater. For car washes held in Lacey at approved sites, the City offers a car wash kit that groups can check out which includes advertising material, hose nozzles, buckets, sponges and bio-degradable car wash soap. The groups also receive information about protecting surface water from pollution associated with washing cars on impermeable surfaces, which they are asked to provide the car wash recipients with. In 2014, six charity groups from Lacey purchased car wash tickets from the Puget Sound Car Wash Association, and another six groups hosted *Clean Cars, Clean Streams* charity car washes at approved Lacey locations.
- Buffers are being addressed through efforts by Lacey to protect the entire Woodland Creek corridor. This area is protected with 200-foot riparian buffers which are mandated by City ordinance. In addition, the City has acquired several parcels in the corridor. The result is that the entire creek within city limits is now protected
- The Wellhead Protection Plan is intended to provide an overview of the extent of actions necessary to protect groundwater and to reduce risks to the City’s water supply. It is also intended to be read in the context of on-going environmental

protection and water resource planning activities by the City and County, such as Stormwater Management, Groundwater Monitoring Program implementation, water system planning and development, and Growth Management Act (GMA) planning and implementation.

- The importance of vehicle maintenance is being communicated to Lacey residents using brochures and newsletter article. The public is being informed about the effects of pollution from leaky vehicles on groundwater and surface water.
- In 2004 the City of Lacey passed Ordinance Number 1233 to bring the city into compliance with State law regarding stormwater mitigation. A Private Facilities Inspection Program was developed to ensure private and city-owned stormwater facilities are being maintained properly. The program is designed to cover all possible effects on water quality. It is the City's intent to contact all property owners within the City of Lacey to provide guidance on proper maintenance of their individual stormwater facilities. The inspector conducts informational meetings on-site to inform the property owners about their storm system, perform an inspection of the site, note all deficiencies, and provide a report outlining repairs needed. The City also provides contact information for illicit discharges.
- Ordinance #1332 (Appendix B page-40) was adopted by City Council in 2009, updating Ordinance #1233 and Chapter 5a of the City of Lacey Development Guidelines. It outlines new minimum maintenance requirements, waste disposal, inspection procedures/authority, prohibited substances and enforcement policies as required by the permit.

### **2.3 Measuring Understanding** (Permit Section S5.C.1.b)

The City shall measure the understanding and adoption of the targeted behaviors among the targeted audiences. The resulting measurements shall be used to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors.

The City of Lacey has created programs to inform and involve the public on many different topics. The goal of the programs is adoption of desired behaviors and reduction of pollution to the maximum extent practicable.

In 2011, the City of Lacey completed a behavior survey of the residents in its stormwater service area to collect baseline information about general awareness of stormwater issues and current behaviors that relate to stormwater pollution. The City is utilizing this information to identify gaps in basic awareness of stormwater and opportunities to encourage behavior change through stormwater education and outreach activities. This

information will guide the City's education and outreach programs for the coming years. The survey will be repeated in 2015 to measure program success and identify areas for improvement.

One specific program that has been measured is the neighborhood pet waste station program. The City has provided free pet waste stations (sign and dispenser) to Homeowners Associations (HOAs) and Apartment Complexes for the past several years. As part of this program, participants agree to maintain the station and keep it filled with bags for pet owners to use. An evaluation is solicited from each pet waste station recipient 6 months following installation. One of the questions asks if the neighborhood has noticed a decrease in the amount of pet waste left on the ground, 100% of 2014 respondents reported that they noticed a decrease in pet waste left on the ground following the installation of a station in their neighborhood. Because this survey continues to show a very high compliance and satisfaction rate, the City has decided to continue the neighborhood pet waste station program as long as funding allows.

## **2.4 Tracking and Maintaining Records** (Permit Section S5.C.1.c)

All associated information is being tracked and recorded.

## **2.5 Future Education and Outreach Activities**

Throughout the permit cycle, The City of Lacey will continue evaluating and modifying the existing education and outreach programs to work towards the best program possible, educating all audiences on the importance of implementing existing BMPs in their lives and introducing them to changes in the program.

Actions recommended for continued compliance include:

- Continue collaboration with other NPDES municipalities to identify appropriate program evaluation techniques.
- Implement new or modify existing education and outreach activities, continue to track activities and monitor success.
- Continue evaluation of the understanding and adoption of targeted behaviors among targeted audience.
- Summarize annual activities for the "Public Education and Outreach" components of the Annual Compliance Report, and identify updates to the SWMP document.

## **2.6 Outreach Activities Summary Sheet**

The following pages are a summary of the City of Lacey's Education and Outreach activities provided in 2014.

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## 2.6 Activity Summary Sheet

SUMMARY			Total hours volunteered
Action Projects	569	Participants/Volunteers	1,195
Education	540,207	Participants/People Reached	
Education	1,030	Students Reached	
OTHER	15	New pet waste stations installed	
OTHER	475	Portable pet waste dispensers distributed	
OTHER	153	Storm drain markers installed	
OTHER	6	Clean Cars, Clean Streams Car Washes	
OTHER	500	PSCWA Charity Car Wash tickets purchased by local groups	
OTHER	48	PSCWA Charity Car Wash tickets given away	
OTHER	95	ECOSS Spill Kit Incentive Program	
OTHER	1	Stormpond education signs to HOAs	
OTHER	9	Stormpond Education Signs Installed at Public Stormponds	
OTHER	0.7	Acres of stormwater facility improved by volunteers	
OTHER	1	Miles of stream/riparian area improved	
OTHER	759	Trees and shrubs planted along streams	

### Action Projects

Date	Event Name	Event/Activity Description	Permit Requirement	Target Audience	Lacey Participants	Hours Volunteered
1/11/2014	WCCP: Holiday Tree Planting	Stream Team volunteers planted living Christmas trees (Douglas-fir that had been loaned to the public for the holiday season and returned to the City) in the buffer of Woodland Creek at Woodland Creek Community Park. This event included a presentation about the role of plants in reducing stormwater pollution.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	40	100
1/20/2014	WCCP: MLK DAY Riparian Buffer Planting	Stream Team volunteers and community members came to Woodland Creek Community Park in honor of MLK Day to plant 186 various shrubs and trees.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	81	162
4/12/2014	WCCP: Tree Planting	The Woodland Greenway Trail Association and volunteers joined Stream Team to plant native shrubs in the buffer of Woodland Creek at Woodland Creek Community Park. This event included a presentation on the importance of properly planted trees and their benefits on the health of Woodland Creek.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	12	36

## Action Projects(continued)

5/2/2014	Lake Crest Stormpond: Invasive Species Removal	The Timberline High School Special Education Classroom joined City of Lacey Stream Team to remove Himalayan blackberry in the buffer of Chambers Lake at the Lake Crest Stormpond. This event included a presentation about the role of plants in reducing stormwater pollution and the importance of native plants.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: High School Students & Adults	14	31.5
5/7/2014	Lake Crest Stormpond: Invasive Species Removal	The North Thurston High School Special Education Classroom joined City of Lacey Stream Team to remove Himalayan blackberry in the buffer of Chambers Lake at the Lake Crest Stormpond. This event included a presentation about the role of plants in reducing stormwater pollution and the importance of native plants.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: High School Students & Adults	20	60
5/9/2014	WCCP: Tree & Shrub Maintenance	Three elementary classrooms from Lydia Hawk Elementary join the City of Lacey to weed, apply plant protectors, and mulch trees and shrubs planted by volunteers in the buffer of Woodland Creek at Woodland Creek Community Park. This event included a presentation about the role of plants in reducing stormwater pollution.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Elementary School Students & Adults	67	134
5/14/2014	Bobs Assembly	The River Ridge Special Education Classroom joined the City of Lacey to assemble portable dog bag dispensers. This event included a presentation about the effects of dog poop in our waterways and how we can reduce our impacts.	S5.C.1.a.i: general impacts, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: High School Students & Adults	15	45
5/17/2014-5/18/2014	Lacey Spring Fun Fair	The Veterinary Science Club joined the City of Lacey Water Resources at the City's annual 2-day festival. Activities they assisted with included free bags on board pet waste bag dispensers, Water Conservation Plinko, the pet poop toss, salmon stampers calendars painting activity, and water cycle bracelets.	S5.C.1.a.i: general impacts, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: High School Students & Adults	32	72.5
5/20/2014	WCCP: Poop Flagging	A local cub scout pack joined Lacey Stream Team to flag dog poop piles at WCCP in the riparian area. This event included a presentation about the effects of dog poop on water quality and how we can prevent the impacts.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Elementary School Students & Adults	30	45
6/1/2014	Lake Crest Stormpond: Invasive Species Removal	Volunteers from a local church joined the City of Lacey to remove Himalayan blackberry in the riparian buffer of Chambers Lake. This event included a presentation about the role of plants in reducing stormwater pollution.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	5	17.5

## Action Projects(continued)

6/14/2014	PS I LOVE YOU event	Volunteers joined the City of Lacey Water Resources at Stream Team's outreach table for the PS I Love You festival. Activities they assisted with included Stormwater Plinko and the Carwash Game.	S5.C.1.a.i: general impacts, BMPs for car washing S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: High School Students & Adults	3	10
6/21/2014	Hawks Prairie Treatment Facility	A local church group joined the City of Lacey to remove Scotch Broom from the Hawks Prairie Treatment Facility. The event included a presentation about the role of native species in enhancing our local habitats and improving the site to improve the quality of stormwater runoff.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	25	56.25
7/2/2014	Macro Monitoring - Fox Creek	Volunteers gathered macro invertebrate samples at fox creek in an attempt to monitor the overall health of the creek. The event included a presentation about how stormwater runoff affects the health of the creek and how the species of macro invertebrates that live in the creek can demonstrate the health of the creek.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	6	18
7/14/2014	Macro Monitoring - Woodland Creek at Draham Rd.	Volunteers gathered macro invertebrate samples at woodland creek in an attempt to monitor the overall health of the creek. The event included a presentation about how stormwater runoff affects the health of the creek and how the species of macro invertebrates that live in the creek can demonstrate the health of the creek.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	2	6
7/22/2014	Macro Monitoring - Woodland Creek at Pleasant Glade Rd	Volunteers gathered macro invertebrate samples at woodland creek in an attempt to monitor the overall health of the creek. The event included a presentation about how stormwater runoff affects the health of the creek and how the species of macro invertebrates that live in the creek can demonstrate the health of the creek.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	4	12
8/9/2014	Lacey Community Market Family Fun Day	Volunteers joined the City of Lacey Water Resources at their outreach table. Activities they assisted with included pollution Plinko, and the carwash game.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: High School Students & Adults	2	6
8/23/2014	WCCP: Tree & Shrub Maintenance	City of Lacey Stream Team hosted a watering party to water existing trees and shrubs planted by volunteers in the buffer of Woodland Creek at Woodland Creek Community Park. This event included a presentation about the role of plants in reducing stormwater pollution.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	6	15
10/4/2014	WCCP: Tree Planting	The Woodland Greenway Trail Association and volunteers joined Stream Team to plant native shrubs in the buffer of Woodland Creek at Woodland Creek Community Park. This event included a presentation on the importance of properly planted trees and their benefits on the health of Woodland Creek.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	29	85

<b>Action Projects(continued)</b>						
10/11/2014	McAllister Park thank you for pickup up after your pet	Volunteers joined the City of Lacey Water Resources at their outreach table. Activities they assisted with included pollution Plinko, and the pet waste pickup game.	S5.C.1.a.i: general impacts, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	1	2.5
10/16/2014	WCCP: Tree & Shrub Maintenance	City of Lacey Stream Team participated in the 2014 JBLM Day of Service sponsored by Thurston County. 18 men and women from the OPS and Civil Engineer Squadron of the 627th Air Base Group of McChord AFB removed invasive species, planted 210 native trees and shrubs, and mulched around them.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers, BMPs for pet waste S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults	18	90
11/21/2014	Lake Crest Stormpond: Invasive Species Removal and Tree Planting	Planted 41 trees with students from Chambers Prairie Elementary School. Included presentation about the role of trees in reducing stormwater pollution and what the students can do to prevent pollutants from entering stormwater.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers, S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Elementary School Students	75	56.25
12/12/2014	Lake Lois: Tree Planting	Lacey Stream Team worked with 5th graders from Lydia Hawk Elementary to plant 110 native trees and shrubs at Lake Lois Habitat Reserve. This event included a presentation about the role of plants in reducing stormwater pollution.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Elementary School Students & Parents	66	99

**Education-General Public**

Date	Event Name	Event/Activity Description	Permit Requirement	Target Audience	Lacey Participants	% of increased knowledge
1/8/2014	Lacey HOA meeting	Presented the problems related to stormwater runoff and two City of Lacey programs, Rain Garden Incentive and Natural Lawn Care that homeowners can participate in to mitigate the effects.	S5.C.1.a.i: general impacts, BMPs for landscaping, LID BMPs S5C.1.a.ii: behavior change, general public, prevention of illicit discharge	General public: Homeowners	33	NA
1/28/2014	Chambers Lake Stormwater Treatment Facility Public Involvement Meeting	Invited neighbors of the Chamber's Lake Treatment Facility for a presentation, a question and answer session, and an open house to learn about the benefits and impacts of the planned stormwater treatment facility.	S5.C.1.a.i: general impacts, BMPs for landscaping, LID BMPs S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5.C.2: opportunity for involvement in development of new stormwater facility	General public: Homeowners, Lake Front Residents	45	NA

## Education-General Public

2/8/2014	Watershededucation	Hosted a workshop at LOTT to increase awareness of stormwater runoff. Participants watched the 30 minute film, Lost and Puget Sound, filled out a worksheet, and built their own models of a watershed. The models were then tested to see which team reduced their runoff the most.	S5.C.1.a.i: general impacts, BMPs for landscaping, LID BMPs S5.C.1.a.ii: behavior change, general public, prevention of illicit discharge	General public: Adults & Children	22	44
March-May 2014	Spring Stream Team Newsletter	Wrote articles for and distributed the quarterly regional (Lacey, Olympia, Tumwater & Thurston County) newsletter which includes IDDE articles, stormwater BMPs, and public participation opportunities.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5.C.1.a.ii: behavior change, general public, prevention of illicit discharge S5.C.1.b: stewardship opportunities	General public: Adults, Homeowners & Children	500	NA
2/27/2014	Beyond Landscaping	Co-hosted a workshop with Thurston County, Stream Team and The Native Plant Salvage Project for shoreline property owners in and around Lacey, emphasizing the use of habitat plantings to protect slopes and restore shoreline properties to more natural conditions.	S5.C.1.a.i: general impacts, impervious surfaces, BMPs for landscaping and buffers S5.C.1.a.ii: behavior change, general public, prevention of illicit discharge, BMPs for yard care, pesticides/fertilizers and LID S5.C.1.b: stewardship opportunities	Homeowners: Shoreline Property Owners	34	NA
4/1/2014	Inside Lacey Magazine	Submitted photos and a description of MLk day activities, including the importance of shoreline buffers, to Inside Lacey to describe, promote, and engage the public in the volunteer event.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5.C.1.a.ii.a: behavior change, general public, prevention of illicit discharge S5.C.1.b: stewardship opportunities	General public: Adults & Children	5000	NA
4/5/2014	Briggs YMCA Healthy Kid's Day	Hosted a booth at the Briggs YMCA's Healthy Kids Day. Activities included a salmon stamper calendar and the pet poop toss game. Portable pet waste bag dispensers were also distributed to residents who signed the "Pet Poop Promise".	S5.C.1.a.i: general impacts, BMPs for pet waste S5.C.1.a.ii: behavior change, general public, prevention of illicit discharge	General public: Adults & Children	505	NA
4/26/2014	Lacey HOA Stormwater Pond meeting	Presented the problems related to stormwater runoff and City of Lacey Neighborhood Pet Waste Bag Dispensers that homeowners can install in their neighborhood to mitigate the effects. Presented Stormpond maintenance for HOAs.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers, BMPs for pet waste S5.C.1.a.ii: behavior change, general public, prevention of illicit discharge	General public: Homeowners (HOAs) & property managers	32	NA
5/1/2014	Inside Lacey Magazine	Wrote and submitted an article to Inside Lacey to describe and promote the City's rain garden reimbursement program.	S5.C.1.a.ii: BMPs for landscaping, LID principles and LID BMPs	General public: Adults & Children	5000	NA
5/3/2014	Lacey STEM Fair	Hosted a booth at the Lacey STEM Fair. Activities included the display of 2 enviroscape models, one with BMPs and one without.	S5.C.1.a.i: general impacts, BMPs for pet waste, vehicle maintenance and landscaping S5.C.1.a.ii: BMPs for yard care, pesticides & fertilizers, auto repair	General public: Adults & Children	1000	NA
5/17/2014-5/18/2014	Lacey Spring Fun Fair	Hosted a Puget Sound Starts Here booth at the Lacey FUN Fair. Activities included a salmon stamper calendar and the pet poop toss game. Portable pet waste bag dispensers were also distributed to residents who signed the "Pet Poop Promise".	S5.C.1.a.i: general impacts, BMPs for pet waste. S5.C.1.a.ii: behavior change, general public, prevention of illicit discharge	General public: Adults & Children	5000	NA

## Education-General Public

June-August 2014	Summer Stream Team Newsletter	Wrote articles for and distributed the quarterly regional (Lacey, Olympia, Tumwater & Thurston County) newsletter which includes IDDE articles, stormwater BMPs, and public participation opportunities.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	500	NA
6/14/2014	PS I LOVE YOU event	Hosted a booth at the PS I Love You festival. Activities included the carwash game and pollution Plinko. Free commercial carwash tickets were also distributed to residents who signed the "Carwash Promise".	S5.C.1.a.i: general impacts, BMPs for car washing S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	322	NA
6/16/2014-6/23/14	CCCS Banner <sup>+</sup>	Hung a 30' banner across College Street for one week in Lacey that reads "Planning a Charity Car Wash, Sell Tickets instead www.charitycarwash.org"	S5.C.1.a.i: impacts of illicit discharge S5C.1.a.ii: behavior change, prevention of illicit discharge	General public: College Street Traffic Counts	*230363	NA
6/27/2014	CCCS Add in Olympian and Guardian**	Glossy page insert with info on Clean Cars Clean Streams	S5.C.1.a.i: impacts of illicit discharge S5C.1.a.ii: behavior change, prevention of illicit discharge	General public: Adults & Children	59,383	NA
7/12/2014	Community Market: Home & Garden	Hosted a booth at the local community market and offered free soil test kits and Grow Smart Grow Safe Lawn Care Bookmarks	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge, BMPs for yard care, pesticides/fertilizers and LID	General public: Adults & Homeowners	250	NA
June, July 2014	Lacey City Hall	Gave away outdoor water conservation kits and Grow Smart Grow Safe Lawn Care Bookmarks	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge, BMPs for yard care, pesticides/fertilizers and LID	General public: Adults & Homeowners	450	NA
8/9/2014	Community Market: Family Fun Day	Hosted a booth at the local community market and offered free carwash tickets for signing the Carwash Promise. Played the carwash game and displayed the Clean Cars Clean Streams kit.	S5.C.1.a.i: general impacts, BMPs for car washing S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	400	NA
8/25/2014-9/8/14	CCCS Banner <sup>+</sup>	Hung a 30' banner across College Street for one week in Lacey that reads "Planning a Charity Car Wash, Sell Tickets instead www.charitycarwash.org"	S5.C.1.a.i: impacts of illicit discharge S5C.1.a.ii: behavior change, prevention of illicit discharge	General public: College Street Traffic Counts	460,726	NA

## Education-General Public

Sept-Nov 2014	Fall Stream Team Newsletter	Wrote articles for and distributed the quarterly regional (Lacey, Olympia, Tumwater & Thurston County) newsletter which includes IDDE articles, stormwater BMPs, and public participation opportunities.	S5.C.1.a.i: general impacts, BMPs for landscaping and buffers S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Adults & Children	500	NA
10/11/2014	McAllister Park thank you for pickup up after your pet	Hosted a booth at the local community market and offered BOBS for signing the Pet Poop Promise. Played the pet poop pickup game.	S5.C.1.a.i: general impacts, BMPs for pet waste S5.C.1.a.ii: behavior change, general public, prevention of illicit discharge	General public: Adults & Children	5	NA

## Education- Students

3/21/2014	SS GREEN Student Congress	Facilitated one (85 min) "State of the Rivers" session which guided students through their 2013-2014 water quality sampling results, where they developed a list of BMPs to improve the WQ at their sites.	S5.C.1.a.i: general impacts, impervious surfaces S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Elementary & Middle School Students	12	NA
5/12/2014-5/29/2014	Near shore Field Trips	Hosted the Water Quality Station at Zittel's Marina for Komachin Middle School's near shore field trip. Station included presentation of enviroscape model, impacts of stormwater runoff, ways we can help reduce our impacts, and testing of temperature, salinity, and PH of Puget Sound	S5.C.1.a.i: general impacts, BMPs for pet waste, and landscaping S5.C.1.a.ii: behavior change, general public, prevention of illicit discharge	General public: Middle school students	823	NA
10/14/2014	SS Green WQ Monitoring	Assisted with collection of water quality samples at Long Lake. Provided presentation to each class about stormwater pollution sources in the area.	S5.C.1.a.i: general impacts, impervious surfaces S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Middle School Students	23	NA
10/17/2014	SS Green WQ Monitoring	Assisted with collection of water quality samples at Hicks Lake. Provided presentation to students about stormwater pollution sources in the area.	S5.C.1.a.i: general impacts, impervious surfaces S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Middle School Students	65	NA
12/15/2014	Stormwater Lesson	In this Watershed education lesson students learned about our Puget sound watershed, stormwater runoff, erosion, and built models of a watershed. They discussed sources of pollution in stormwater runoff and how they can prevent pollution from entering our surface waters.	S5.C.1.a.i: general impacts, impervious surfaces S5C.1.a.ii: behavior change, general public, prevention of illicit discharge S5C.1.b: stewardship opportunities	General public: Middle School Students	107	94.57%

## Other

Date	Program	Event/Activity Description	Permit Requirement	Target Audience	# Items Installed
2014	Pet Waste Stations	Pet waste stations are provided to existing HOAs or apartment complexes with no upfront costs to the participants; they are also now required to be installed in new residential developments	S5.C.1.a.i:BMPs for pet waste	General Public: Pet Owners, Homeowners and Multifamily Housing Dwellers	15
2014	Bags on Board (pet waste bag dispensers)	Bags on Board, portable pet waste bag dispensers, are given out to at outreach events and at the public works counter participants who agree to sign the "pet poop promise".	S5.C.1.a.i:BMPs for pet waste	General public: Pet Owners	475
2014	Storm drain markers	Storm drain markers are installed in existing neighborhoods by volunteers; they are also now required to be installed at each catch basin in new developments	S5.C.1.a.ii: illicit discharge	General public: Adults, Children business owners, landscapers	153
2014	Clean Cars, Clean Streams Car Washes	Provide car wash kits (buckets, sponges, A boards, and biodegradable soap) to charity car wash groups who hold their car wash at approved city sites that receive treatment for stormwater. Also the groups hand out educational fliers to each car washed at their car wash.	S5.C.1.a.ii: BMPs use of carwash soaps & illicit discharge	General public: Adults, Children, non-profit fundraising groups	6
2014	Charity Car Wash Tickets Purchased	Encouraged non-profits groups to sell charity car wash tickets, provided by the Puget Sound Car Wash Association, instead of holding traditional car washes. Included here are the number of tickets sold to those groups that identified themselves as Lacey organizations.	S5.C.1.a.ii: BMPs use of carwash soaps & illicit discharge	General public: Adults, Children, non-profit fundraising groups	500
2014	Charity Car Wash Tickets Given Away	Carwash tickets, are given out at outreach events to participants who agree to sign the "carwash promise".	S5.C.1.a.ii: BMPs use of carwash soaps & illicit discharge	General public: Adults, Children, non-profit fundraising groups	48
2014	ECOSS Spill Kit Incentive Program	In partnership with ECOSS local businesses were visited, educated about stormwater and spill prevention, given a free spill kit, and asked to sign a pledge reflecting their understanding of pollution prevention and promising to train future staff. A follow up visit was conducted with each business to provide an individual spill plan, a site map, and remind the business of the importance of spill prevention	S5.C.1.a.ii: BMPs for chemical storage & illicit discharge	Businesses	95
2014	Stormpond Education Signs to HOAs	Educational Stormwater Facility signs are distributed to HOAs with private stormwater facilities to educate their residents about the facility and about preventing stormwater pollution in the neighborhood.	S5.C.1.a.iii: BMPs for stormwater pond maintenance	General public: Adults, Homeowners & Children	1
2014	Stormpond Education Signs Installed at Public Stormponds	Educational Stormwater Facility signs are installed by local Eagle Scouts at public Stormponds to educate people who visit the Stormponds about the facility and preventing stormwater pollution.	S5.C.1.a.ii: BMPs for pollution prevention	General public: Adults and Children	9
2014	* Acres of City owned stormwater facility improved by volunteers	This entry includes acres of land cleared during the stormwater pond maintenance volunteer projects. Number of volunteers and hours is included in the total under "action projects".	S5.C.1.a.iii: BMPs for stormwater pond maintenance	General public: Youth and adult volunteers	0.7
2014	* Miles of stream restored or improved	This entry includes feet of stream improved during the tree planting projects. Number of volunteers and hours is included in the total under "action projects".	S5.C.1.a.i:BMPs for landscaping & buffers	General public: Youth and adult volunteers	1
2014	* Tree and Shrubs planted along streams	Trees and shrubs were planted at Woodland Creek Community Park (see action projects for more detail). Species planted include: roses, snowberry, Indian plum,	S5.C.1.a.i:BMPs for landscaping & buffers	General public: Youth and adult volunteers	759

\* Count includes average daily 2012 traffic counts on College Street, multiplied by the number of days the banner was hung, which in all cases was 7 days.

## **SECTION 3 - Public Involvement and Participation** (Permit Section S5C2)

### **3.1 Public Involvement and Participation Requirements**

The City is required to provide ongoing opportunities for public involvement through advisory boards and commissions, watershed committees, public participation in developing rate structures and budgets, stewardship programs, environmental activities or other similar activities. The public must be able to participate in the decision-making processes for the development, implementation and update of the program. Also, the City must make the SWMP document and Annual Compliance Report available to the public, including posting it on the City's website.

### **3.2 Public Involvement and Participation Current Activities**

The most recent version of the SWMP document and Annual Compliance Report are posted on the City's website at [www.ci.lacey.wa.us/publicworks-library](http://www.ci.lacey.wa.us/publicworks-library). The documents are updated on the website as needed. Comments on the SWMP will be considered, and subsequent editions of the documents will incorporate any appropriate suggestions. In this way, the SWMP will be a perpetual "work in progress" as it integrates revisions spawned in part by public comment, as well as new program components and progress toward program goals.

In 2014, the City provided a variety of public participation opportunities to the general public. The following is a list of those activities and a brief description of each.

#### **Storm Pond Maintenance Workshops**

All new developments in the City of Lacey are required to prepare a maintenance checklist and agreement for stormwater facilities that are filed with the deed to the property. In addition, residential developers are required to establish a homeowners association (HOA) with proper funding mechanisms to sustain community assets.

However, some of the older developments are unprepared and unaware of their obligations for stormwater facility maintenance. To address this issue, Water Resources reaches out to HOAs that are not performing needed maintenance. Staffs arrange meetings with the HOAs, provide copies of plans and maintenance guidelines, and conduct walk-throughs of the respective community's stormwater facility(s). This process provides the impetus for HOAs to become better organized with respect to maintenance and an opportunity for HOA's to provide the City with recommendations for improving the inspection process.

Water Resources also offers annual workshops to HOAs, property managers, and landscape contractors that focus on stormwater facility maintenance. This workshop provides participants an opportunity to understand the maintenance and inspection process and provide input for how it could be improved.

## **Stream Team**

Stream Team is a regional volunteer program sponsored by Lacey, Olympia, Tumwater and Thurston County. The program manages a volunteer base of all ages who, in Lacey, participate in educational opportunities such as field classes and free workshops. In turn, participants contribute to action projects intended to protect or enhance surface waters within the region. Examples of Stream Team action projects in Lacey include, re-vegetation along Woodland Creek, removing invasive species from stormwater facilities, and water quality monitoring.

As part of the City's involvement in Stream Team, Lacey City staff perform the editor/coordinator role for the 16-page quarterly Stream Team Newsletter each winter. The newsletter is distributed to more than 2,500 residents each quarter across all 4 jurisdictions. It is also posted to the website and on Facebook. Lacey pays for graphic design expenses for the newsletter each quarter and maintains the printing and mailing contract for the newsletter and the volunteer management software used by Stream Team.

## **Comprehensive Planning**

The Lacey Planning Commission consists of nine members, seven of whom must live within the City limits and two who may live within the urban growth area boundary. This commission develops recommendations for long-range comprehensive planning goals and policies in the City of Lacey and areas outside of the City which may seek annexation.

The Comprehensive Land Use Plan is the City's comprehensive vision for development of the City over the next 20 years. It is the City's "long range plan." It consists of a series of text elements articulating goals and policies for various topic areas and a land use map. The City's Comprehensive Land Use Plan includes elements on land use, housing, transportation, utilities, capital facilities, environmental protection and resource conservation, and economic development. The land use map shows the entire Lacey Urban Growth Area (UGA) and designates properties for particular categories of land uses. Thurston County and the City of Lacey developed the majority of the Plan as a cooperative "joint" effort. The land use, housing and utilities elements and the land use map were adopted by both jurisdictions in the same form. So, properties in the Lacey UGA, either in the incorporated City or unincorporated County, will be operating under the same Plan language and the same Plan map. Under the State's Growth Management Act, amendments to the Plan can only be considered once each year, and must be considered at the same time to provide holistic comprehensive evaluation of proposed changes. The City requires a completed application to be submitted by January 2nd to be considered for that calendar year. All applications are required to go to the Planning Commission for a public hearing and evaluation. The Planning

Commission recommends what action to take on each application and forwards the recommendations to the Lacey City Council for consideration and action by the end of July.

### **3.3 Public Involvement and Participation Future Activities**

Actions recommended for continued compliance include:

- Defining public involvement opportunities for the annual SWMP update and reporting process.
- Making the SWMP document and Annual Compliance Report available to the public by posting on the City of Lacey website.
- Summarizing annual activities for the "Public Involvement and Participation" component of the Annual Report, including updates to the SWMP.

### **3.4 Public Involvement and Participation Summary**

(Please See Summary on Page 16.)

## **SECTION 4 – Illicit Discharge Detection and Elimination (IDDE)**

(Permit Section S5.C.3)

### **4.1 IDDE Requirements**

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

- Implement an ongoing Illicit Discharge Detection and Elimination (IDDE) program to prevent, detect, characterize, trace and eliminate illicit discharges and illicit connections into the MS4. An illicit discharge means “any discharge to a municipal storm system that is not composed entirely of Stormwater...” and illicit connection means “any man-made conveyance that is connected to a municipal storm system without a permit (excluding roof

drains and other similar type connections) such as sanitary sewer connections, floor drains, etc.”

- Develop a storm infrastructure system map, have ordinances that prohibit illicit discharges, and create a program to detect and address illicit discharges.
- Publicly list and publicize a hotline or other local telephone number for public reporting of spills and other illicit discharges. Track illicit discharge reports and actions taken in response through close-out, including enforcement actions.
- Train Program staff on proper IDDE response procedures and processes and to recognize and report illicit discharges.
- Summarize all illicit discharges and connections reported to the City and response actions taken, including enforcement actions, in the Annual Compliance Report; including updates to the SWMP document.

## **4.2 IDDE Current Activities**

The City currently implements activities and programs that meet the Permit requirements. The current compliance activities associated with the above Permit requirements include:

### **System Mapping**

The City currently maintains a stormwater infrastructure map in electronic format. It is continuously updated to include new development as well as changes made to existing facilities. Both public and private facilities (when available) are included in the storm system mapping.

### **Illicit Discharge Regulations**

The City of Lacey has had Ordinances No.791 and No.1233 in place for many years prohibiting the discharge of pollutants to the City’s stormwater system. Ordinance No. 1332 updated these existing ordinances to reflect the new requirements. Discharges of waste to natural outlets is prohibited under Lacey Municipal Code Title 13, Water and Sewage, Chapter 13.08 (Use of Sewers – Private Sewage Disposal). Further, under Chapter 13.08.015, discharging polluting elements into the stormwater system is unlawful and subject to a fine of up to \$5,000. The purpose of these ordinances is to protect the receiving waters of the stormwater system.

Article 6 of Thurston County Code establishes a set of practices and procedures which protect the waters of Thurston County against nonpoint source pollution. It applies to all persons, activities and locations in Thurston County, and can be used to enforce against nonpoint pollutant sources that have the potential to enter stormwater systems. The intent of Article 6 is to enable protection

of public health, protection and improvement of water quality, and protection of present and future uses of water.

### **Spill Response Program**

City publications, such as the stormwater utility newsletter, *The Wet Street Journal*, and the regional publication the *Stream Team Newsletter*, include information about the local spill response hotline. A webpage has been dedicated to this specific information about reporting spills: [www.ci.lacey.wa.us/report-a-spill](http://www.ci.lacey.wa.us/report-a-spill). The City's Street/Storm Maintenance Division responds to stormwater-related emergencies, primarily chemical spills and flooding events. In either situation, Division priorities are to protect human life, groundwater and the environment, and property, in that order. Local police and fire authorities contact the Division for flooding and spill events occurring within current City limits. Trained City of Lacey personnel will act as first responders to requests for assistance on hazardous material spills located within the incorporated City limits. Hazardous materials cleanup activities will be limited to the right-of-way and City-owned property; however, spills that occur on private property or outside the City limits may be addressed only when there is a possible impact to City owned infrastructure or property.

### **Pollutant Source Identification**

Pollutant source investigation in the case of spills and emergencies occurs through the mechanisms mentioned above. Pollutant sources also are tracked through long-term monitoring of surface and ground waters, as described below. Sources identified through monitoring and basin planning efforts as contributing to degraded water quality have been incorporated as priorities for capital improvement projects and mitigation efforts.

### **IDDE Training**

All field staff receive training on the City's IDDE Program and refresher training is provided annually as needed.

## **4.3 IDDE Tracking**

Stormwater personnel document incidents of emergency response using HTE Data Management system. The data helps the Water Resources Division track problem flood areas and identify sources of spills in an effort to prevent future occurrences or contamination. In addition, the City is required to notify the Ecology Spill Response Team so that Ecology can track spills and ensure that they are properly addressed.

## **4.4 IDDE Future Activities**

The City of Lacey will continue to refine current efforts in order to protect our waterways and the environment, and to maintain compliance as Ecology phases in Permit requirements. Actions recommended for continued compliance include:

- Review and modify the IDDE Program as needed.
- Review and update codes.
- Review and develop additional public education and outreach, and Standard Operating Procedures (SOPs) for minimizing pollutant releases from permitted non-stormwater discharges.
- Further develop and implement the Stormwater Outfall Illicit Discharge screening program.
- Review and revise upstream illicit discharge source control programs to respond to illicit discharges found and/or reported.
- Summarize annual activities for the Illicit Discharge Detection and Elimination component of the Annual Report, including updates to the SWMP document.

## **SECTION 5 – Controlling Runoff from New Development, Redevelopment and Construction Sites**

### **5.1 Controlling Runoff Requirements**

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

- Develop, implement, and enforce a program to reduce pollutants in stormwater runoff (i.e. illicit discharges) to the MS4 for new development, redevelopment and construction site activities. The program must apply to both private and public projects, including roads.
- Adopt regulations (codes and standards) and implement plan review, inspection, and escalating enforcement processes and procedures necessary to implement the program in accordance with Permit conditions.
- Provide provisions, processes and procedures (plan review, inspection, and enforcement) to allow non-structural preventive actions and source reduction approaches such as Low Impact Development techniques (LID), measures to minimize the creation of impervious surfaces and measures to minimize the disturbance of native soils and vegetation.

- Adopt regulations (codes and standards) and provide provisions to verify adequate long-term operations and maintenance of new post-construction permanent stormwater facilities and best management practices (i.e. private drainage system inspections). In accordance with Permit conditions, this includes an annual inspection frequency and/or approved alternative inspection frequency, and maintenance standards for private drainage systems that are as protective as those in Volume V of the *2005 Stormwater Management Manual for Western Washington*.
- Provide training to staff on the new codes, standards, processes and procedures and create public outreach and education materials.
- Develop and define a process to record and maintain all inspections and enforcement actions by staff for inclusion in the Annual Compliance Report.
- Summarize annual activities for the “Controlling Runoff” component of the Annual Compliance Report, and identify any updates to the Program document.

## 5.2 Controlling Runoff Current Activities

The City currently has activities and programs that meet the Permit requirements. The current compliance activities associated with the above Permit requirements include:

- The City has developed and implemented a program to reduce pollutants in stormwater runoff to the municipal separate storm system from new development, redevelopment and construction site activities. The City enforces this program through the 2010 City of Lacey *Stormwater Design Manual*.
- The City has existing programs, codes, standards, processes and procedures that address the Permit requirements for management of stormwater runoff from development, redevelopment, and construction sites.
- The City requires and completes construction and stormwater site inspections during pre- and post-construction phases.
- The City records and maintains inspections and enforcement actions by staff.
- The City will summarize associated activities in the Annual Compliance Report, including Program updates.

Prior to stormwater management regulations, stormwater management meant conveying the water away from a prospective project site. Now, development projects are required to keep stormwater on-site and infiltrate runoff water to the maximum extent feasible. Under a series of ordinances adopting Lacey’s *Development Guidelines and Public Works Standards*, the City of Lacey requires

new development and redevelopment projects to meet specific development guidelines. Lacey's *Development Guidelines and Public Works Standards* specify criteria that must be met with regard to all forms of public works improvements.

Lacey's 2010 *Stormwater Design Manual* (SDM) contains minimum requirements for stormwater treatment, conveyance, storage and disposal. The Best Management Practices (BMPs) referenced in the SDM are consistent with Ecology's 2005 *Stormwater Management Manual for Western Washington*

The City of Lacey was the first in the state to adopt a low-impact development ordinance to encourage "zero effective drainage discharge." Recognizing that accepted methods for mitigating the impacts of increased stormwater run-off from development may not be the most appropriate approach to habitat protection, the City in 1999 adopted the Zero Effect Drainage Discharge ordinance (Ordinance 1113). This is an enabling ordinance that invites non-traditional approaches to plat development and allows justified exemptions from public works standards. Proposed "zero effect" proposals faced higher scrutiny during the review and approval process. No standards were specified through the codification of this ordinance, but under the ordinance, justified exemptions from public works standards are allowed. However, when determining whether an exemption is justified, the burden of proof is the responsibility of the project proponent.

The nature of the zero-effect idea is that it does not only allow exemptions from certain public works standards such as road width, but it may be challenged by State stormwater regulations. One way to ensure water quality compliance is to monitor the performance of the project using methods such as groundwater quality monitoring or downstream water quality monitoring. In fact, the Zero Effect Drainage Discharge ordinance requires the implementation of a monitoring program along with the project proposal.

One aspect of the zero effect drainage proposals that was not addressed through the ordinance is the issue of liability. The project owner or delineated responsible party would need a mitigation plan should the project stormwater system not function as designed or not provide proper water quality mitigation. The extent and details of this need are determined on a case-by-case basis.

Due at least in part to the lack of applicable standards and the uncertainties a developer faces in proposing a project under the Zero Effect Drainage Discharge ordinance, very few such proposals have been presented.

In 2006, the City of Lacey participated in the Low Impact Development (L.I.D.) Local Regulation Assistance Project with staff from Puget Sound Action Team and AHBL. The goal of this project was to develop draft regulatory changes, standards and other recommendations to encourage the increased use of L.I.D. One of the findings of this project was that Lacey's Zero Effect Drainage Discharge ordinance could be improved through clearer design objectives, more specific requirements, and flexibility within native vegetation retention requirements. These

recommendations were included in the 2010 SDM, which includes specific design criteria for LID features on development projects. In 2007 the City was delivered recommended amendments or modifications to the Lacey Municipal Code and to the Public Works Standards for establishment of L.I.D. practices and techniques. These recommendations will be considered as the City reviews and updates our codes and standards to implement LID as required under the 2013-2018 Phase II Permit.

## **Inspection and Enforcement**

Investigations and inspections are made to check on complaints concerning compliance. These investigations can lead to enforcement actions that will ensure compliance with regulations. Enforcement actions are based on the nature of the violation, the damage or risk to the public or public resources, and/or the degree of cooperation shown by the person subject to the enforcement.

Basic maintenance guidelines and erosion control standards are included in Lacey's 2010 *Stormwater Design Manual*. In addition to public education and outreach efforts that provide information regarding compliance with stormwater standards, Lacey Water Resources coordinates with other City divisions to monitor and enforce compliance of stormwater and erosion control systems.

Public Works has several full-time employees whose responsibility is to inspect and enforce development plans, including erosion control compliance. Water Resources staff coordinated with the City's Building Department to extend the inspection activities for erosion control. The City's Building Inspectors are regularly on project sites after the initial public works improvements are completed. However, the building inspectors are not specifically tasked with erosion control inspection and enforcement. The building inspectors have attended erosion control training and notify Public Works inspectors of non-compliance issues.

## **5.3 Controlling Runoff Future Activities**

The City of Lacey has a program to help reduce stormwater runoff from new development and construction sites, but updates will be necessary to maintain compliance as Ecology phases-in Permit requirements. Actions that are recommended for continued compliance include:

- Updating codes and standards to complement the 2012 *SWMMWW*.
- Updating the *Stormwater Design Manual* as needed.

- Developing standardized plan review, inspection, enforcement and compliance documentation and tracking processes and procedures.
- Conducting staff training and public education and outreach on implementation of the *Stormwater Design Manual*.
- Revising and adopting post-construction private drainage system maintenance standards for new approved facility types.
- Supporting Ecology by distributing copies of the Notice of Intent forms for Construction Activity and Industrial Activity.
- Revising information management systems to track and report construction, new development and redevelopment permits, inspection and enforcement actions and Private Drainage Inspection Program inspections and enforcement actions.
- Summarizing annual activities for the “Controlling Runoff from New Development, Redevelopment, and Construction Sites” component of the Annual Report (including the post-construction private drainage system inspection and maintenance requirements), and including updates to the SWMP document.

## **SECTION 6 – Pollution Prevention and Operation and Maintenance for Municipal Operations**

### **6.1 Operation and Maintenance Requirements**

Section S5.C.5 of the Permit requires the City to:

- Develop and implement an operations and maintenance (O&M) program with the ultimate goal of preventing or reducing pollutant runoff from municipal separate stormwater system and municipal operations and maintenance activities.
- Establish maintenance standards for the municipal separate stormwater system that are at least as protective as those specified in Ecology’s *Stormwater Management Manual for Western Washington*.
- Perform required inspection frequency of stormwater flow control and treatment facilities and catch basins, unless previous inspection data show that a reduced frequency is justified.
- Have processes and procedures in place 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.

- Train staff to implement the modified processes and procedures and document that training.
- Maintain Stormwater Pollution Prevention Plans (SWPPPs) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City.
- Summarize annual activities for the “Pollution Prevention and Operations and Maintenance for Municipal Operations” component in the Annual Compliance Report, including any updates to the SWMP document.

## **6.2 Operation and Maintenance Current Activities**

One of the most important aspects of effective stormwater management is a proper operations and maintenance program. Regular maintenance is the only method to ensure storm system integrity and continued water quality enhancement. The City of Lacey has a maintenance staff dedicated to stormwater system maintenance. Their responsibilities are quite broad and include catch-basin inspection and cleaning, street sweeping, facility cleaning and maintenance, spill response and control, and flooding response and repair where applicable. During 2014, City forces responded to 142 spill incidents.

One necessity for any operations and maintenance program is a complete and accurate inventory of infrastructure. New development is required to supply accurate as-built drawings that are added to the City’s system maps. However, some systems were developed outside the City’s jurisdiction or existed prior to development standards. Thus, there are many private storm systems in existence that are not properly mapped.

The City has been divided into a number of maintenance areas to optimize the cleaning and maintenance schedule. The City’s aggressive maintenance schedule has an inspection and cleaning goal for each of the City’s 4,997 catch basins. The City also owns and maintains 56 stormwater ponds, as well as a variety of other associated structures. These facilities often require repair and vegetation management.

Operation and maintenance of Lacey’s Stormwater systems is conducted by the Stormwater Division of the Transportation Maintenance Department of the City’s Public Works Operations. The City currently has activities and programs that meet the Permit requirements. The current compliance activities associated with the above Permit requirements include:

- The development and implementation of the City of Lacey Stormwater Pollution Prevention Plan.

- Conducting an Operations and Maintenance (O&M) program with the ultimate goal of minimizing pollutant runoff from municipal operations.
- Maintaining standard operating procedures (SOPs) to reduce stormwater impacts associated with runoff from municipal operation and maintenance activities including but not limited to streets, parking lots, and roads owned or maintained by the City. These procedures address such potential sources as utility installation, street cleaning, ditch maintenance and other City activities.
- Providing ongoing O&M training.

During rainy periods, concerned residents and business owners often notify the City's Street/Stormwater Maintenance Division of minor flooding problems. The Division responds to stormwater-related problems, including plugged grates, failed facilities and localized flooding. The Division keeps records of problem areas and facilities and attempts to perform maintenance and correct problems each year before the storm season begins. For storm related emergencies, local police and fire authorities contact the Division for flooding occurrences within current City limits, at city owned facilities or where City systems discharge to another jurisdiction or to private property.

### **6.3 Operation and Maintenance Future Activities**

The City of Lacey performs many activities to limit stormwater pollution potential related to its municipal operations and maintenance program. However, updates will be necessary to maintain compliance as Ecology phases in Permit requirements. Actions recommended for continued compliance include:

- Reviewing and updating inspection, operation and maintenance processes and procedures for City owned or operated stormwater catch-basins, flow control and treatment facilities.
- Administratively adopting standards equivalent to Ecology's maintenance standards for City-performed maintenance activities.
- Summarizing annual activities for the "Pollution Prevention and Operations and Maintenance" component of the Annual Report, including updates to the SWMP document.

## **SECTION 7 - TMDL (Permit Section S7)**

### **7.1 TMDL Requirements**

The Permit (Section S7) requires the City to:

- 1) Annually implement the following best management practices in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C. 1 of the Western Washington Phase II Permit:
  - a. Continue the Private Stormwater Facilities Maintenance Program, providing commercial and residential stormwater facility/BMP owners educational resources for facility function and maintenance requirements.
  - b. Offer bacteria pollution reduction brochures, signage and pet waste stations to homeowners associations.
  - c. Maintain pet waste bag dispenser units in City parks.
  - d. Install educational signage at City facilities/property.
  - e. Develop a targeted educational plan for septic system owners that includes; goals, target audiences, messages, format, distribution and evaluation methods by December 31, 2016.
- 2) Continue developing and implementing a fecal coliform bacteria wet weather sampling program for the College Regional Stormwater Facility by December 31, 2013 in accordance with the IDDE efforts and activities identified in S5.C.3 of the Western Washington Phase II permit.
- 3) Develop and implement a coordinated plan with the City of Olympia to monitor and reduce fecal coliform bacteria discharges from the Fones/Taylor wetland treatment facilities by December 31, 2014 in accordance with S5.C.3 of the Western Washington Phase II permit.
- 4) Annually implement the following best management practices in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.5 of the Western Washington Phase II Permit:
  - Continue re-vegetation and nuisance vegetation management along Woodland Creek and its tributaries.

## **7.2 TMDL Current Activities**

The City of Lacey implemented many programs in 2014, aimed to educate citizens and eliminate fecal coliform loading in our waterways including:

- Continued implementation of the Private Stormwater Facilities Maintenance Program
- Providing bacteria pollution reduction brochures, signage and pet waste stations to homeowners associations
- Maintaining pet waste bag dispensers in City parks
- Installing educational signage at City facilities/property

In 2013, the City of Lacey implemented a Fecal Coliform Bacteria Wet Weather Sampling Program for the College Regional Stormwater Facility (CRSF). This program is designed to identify and eliminate illicit discharges and illicit connections entering Woodland Creek and ultimately Henderson Inlet. During the wet season (November-April) samples are collected and if the results indicate a potential discharge, follow-up source tracking to identify the source will be performed. In February 2014, two samples were collected, one at the inlet to the facility (results 3 cfu/100mL) and one at the outlet (results 25cfu/100mL). Both samples came back well below the threshold numbers and no additional IDDE tracing was needed in 2014. A second set of samples will be collected (weather permitting) at the facility as part of Lacey's "water year" based program.

Lacey also implemented the Henderson TMDL Coordinated Sampling Plan. This is a coordinated plan between the Cities of Lacey and Olympia to monitor and reduce fecal coliform bacteria discharges to the Taylor wetland (Woodard Creek) from the Fones/Taylor stormwater treatment facilities. The plan specifies sampling by both cities during at least two storm events during the water year, when the facility discharges to Taylor wetland. The cities coordinate sampling within their respective storm systems so that samples are collected at the same time, at predetermined locations. When samples exceed 5,000 CFU/100mL, Olympia and Lacey will discuss the results and follow-up with source tracing to isolate the problem(s). In 2014 there were two storm events in February that could be sampled. Results from four samples collected by Lacey ranged between 64 and 187 CFU/100mL, which were satisfactory and did not indicate illicit discharges.

## **7.3 TMDL Future Activities**

Lacey will continue to implement and refine the above mentioned programs in 2015, in addition to developing a targeted educational plan for septic system owners that includes goals, target audiences, messages, format, distribution and evaluation methods, in preparation for the December 31, 2016 deadline.

## **SECTION 8 - Monitoring (Permit Section S8)**

### **8.1 Monitoring Requirements**

The Permit (Section S8) requires the City to conduct:

- Water quality monitoring required for compliance with TMDLs [total maximum daily pollutant loads]. TMDL-required monitoring for Lacey is discussed above in Section 7.
- Any sampling or testing required for characterizing illicit discharges pursuant to the Program's Illicit Discharge Detection and Elimination conditions.

The permit also requires Status and Trends monitoring, and Effectiveness monitoring. In 2014 Lacey opted to participate in both parts of the Regional Stormwater Monitoring Program implemented by the Department of Ecology. Lacey is contributing \$27,639 to the Department of Ecology annually beginning in August 2014 and will continue through the end of the current permit cycle.

### **8.2 Monitoring Current Activities**

#### **Interlocal Monitoring Program**

For several years, the City of Lacey has participated in an Interlocal Cooperation Agreement with Thurston County and the Cities of Olympia and Tumwater, for a Water Resource Monitoring Program that focuses on monitoring streams. The Interlocal Monitoring Program components include stream flow monitoring, precipitation monitoring, macro invertebrate monitoring, ambient water quality monitoring, and special projects. All of the monitoring stations are outside of Lacey city limits, and consequently represent cumulative impacts from at least two, and sometimes more, jurisdictions that oversee stormwater management. However, the long-term interlocal cooperative agreement was scaled back in 2013 so that program funding could be diverted to Ecology's Regional Stormwater Monitoring Program.

#### **Woodland Creek Monitoring**

The City of Lacey currently monitors Woodland Creek at three locations monthly. The main station is located at the downstream City limit, which represents the downstream impacts of land uses within the city. This station has been monitored monthly since year 2000. The other two stations are in the upper reach of Woodland Creek within the city limits. Monitored parameters include flow, FC bacteria, nitrate, turbidity, temperature, conductance, pH, dissolved oxygen and total dissolved solids. Eagle Creek, a tributary to Woodland Creek, is also sampled monthly for the same parameters (except flow).

Lacey has been monitoring Woodland Creek at the city limit monthly since the year 2000 and has no plans to stop. Lacey Stream Team volunteers also collect macro invertebrate samples from Woodland Creek at the same station, and the data are used to evaluate the biological integrity of the site. These samples are collected annually, an activity that is expected to continue.

### **Volunteer Stream Monitoring Program**

Stream Team volunteers collect benthic macro invertebrates from Woodland Creek for lab analysis once a year. South Sound GREEN (described in more detail in Section 2.2) elementary and middle school students also collect water quality samples from Woodland Creek and associated lakes and tributaries from various points in the watershed twice a year. Data gathered include: pH, temperature, DO, BOD, TSS, turbidity and fecal coliform. With City staff facilitation, this data is evaluated by the students at an annual Student Congress, and student recommendations for how people living in the watershed can change their behavior to improve the quality of the surface waters in the troubled areas are compiled. This list of recommendations is shared with Environmental Educators across the watershed.

### **Groundwater Monitoring**

Groundwater is the primary source of Lacey's drinking water supply. Source wells and monitoring wells are monitored regularly for water level and water quality parameters as part of Lacey's water system compliance and wellhead protection programs.

Water level monitoring provides information on seasonal and long-term trends in recharge, effects of resource development, and the direction of lateral and/or vertical groundwater flows between aquifers. Water quality monitoring of source wells ensures compliance with drinking water quality standards for inorganic contaminants, volatile organic contaminants, synthetic contaminants, and radionuclides. Sources are also sampled for unregulated contaminants for special projects or as part of EPA's programs to develop drinking water standards for additional contaminants. Results of monitoring data collected from source wells that supply the drinking water system are reported to all water customers in the annual Drinking Water Report, which is also available to the general public on Lacey's website.

Data collected from wellhead protection monitoring wells serve as an "early warning" system to signal potential contamination before it is detected in source wells. Some of the parameters monitored as part of these wellhead monitoring programs include conductivity, turbidity, hardness, pH, nitrate, volatile organic compounds, selected herbicides and pesticides, and bacteria.

### **8.3 Monitoring Future Activities**

The City will need to implement a Water Quality Monitoring Program to maintain compliance as Ecology phases-in current and future Permit requirements. The City will:

Implement the monitoring compliance strategy, including expanding the monitoring plans as necessary to implement the following Permit requirements and activities:

- Illicit Discharge Detection and Elimination Program outfall screening.
- Pollutant spill response (a.k.a., illicit discharge response) monitoring.
- Continued participation with Thurston County and the cities of Olympia and Tumwater monitoring work group.
- Summarize annual monitoring activities for the annual compliance report, including updates to the SWMP document.

There is currently monitoring coordination and data sharing with other local jurisdictions, and we generally know who to contact if we need more information. However, individual monitoring activities are not currently planned to complement each other. For shared facilities (e.g. the Fones Road Stormwater Facilities) or for areas with multiple authorities (e.g. the Woodland Creek basin, where the county has most of the authority at the mouth and headwaters), there could be room for improving coordination.

## Appendix A

The following pages contain stormwater management-related policies, ordinances and regulations to consider for overall compliance.

### Federal, State and City of Lacey Regulations

#### FEDERAL REGULATIONS

- ▶ Clean Water Act – including:
  - Compliance with state water quality standards for discharges of stormwater
  - NPDES Phase II Municipal Stormwater Permit requirements
  - Implementation of the Total Maximum Daily Load (TMDL) for the Henderson Inlet watershed
  - Compliance with Section 404 filling of wetlands
- ▶ Endangered Species Act

#### STATE REGULATIONS AND PROGRAMS

- ▶ State Environmental Policy Act (SEPA) review of City actions, per RCW 43.21C.120 and the SEPA rules, WAC 197-11-904
- ▶ Growth Management Act
- ▶ Department of Ecology's *Stormwater Management Manual for Western Washington*
- ▶ Department of Fish & Wildlife Hydraulic Project Approval (HPA)
- ▶ Water Quality Standards for discharges, per WAC 200, Chapter 90.48 RCW
- ▶ Underground Injection Control Program (UIC), per WAC 173-218

#### CITY OF LACEY POLICIES, CODES AND ORDINANCES

- ▶ Lacey Municipal Code (LMC), including the Titles and Chapters listed on the following page
- ▶ *Lacey Development Guidelines & Public Works Standards*
- ▶ *Lacey Stormwater Design Manual*

### Lacey Municipal Code

## Titles and Chapters Affecting the Stormwater Management Program

### **Title 12 STREETS AND SIDEWALKS**

Chapter 12.28 Development Standards and Public Works Standards

### **Title 13 WATER AND SEWAGE**

Chapter 13.08 Use of Sewers--Private Sewage Disposal

Chapter 13.70 Storm and Surface Water Utility Charges

### **Title 14 BUILDINGS AND CONSTRUCTION**

Chapter 14.23 Design Review

Chapter 14.24 Environmental Policy

Chapter 14.26 Shoreline Master Program

Chapter 14.28 Wetlands Protection

Chapter 14.30 Removal of Topsoil

Chapter 14.31 Zero Effect Drainage Discharge

Chapter 14.32 Tree and Vegetation Protection and Preservation

Chapter 14.33 Habitat Conservation Areas Protected

Chapter 14.34 Flood Hazard Prevention

Chapter 14.36 Critical Aquifer Recharge Areas Protection

Chapter 14.37 Geologically Sensitive Areas Protection

### **Title 16 Zoning**

Chapter 16.52 Environmentally Sensitive Areas

The following states statutes and administrative regulations should be reviewed in conjunction with this Chapter to ensure that all state requirements are satisfied:

A. Revised Code of Washington (RCW)

**Title**

43.20	Drinking Water
70.95	Dangerous and Solid Waste
70.105	Dangerous Waste, MTCA, Sediment Standards
90.48	Ground Water, Surface Water, Sediment
90.54	Ground Water
90.70	Sediment

B. Washington Administrative Code (WAC)

**Title**

173-200	Water Quality Standards for Ground Waters of the State of Washington
173-201	Water Quality Standards for Surface Waters of the State of Washington
173-216	State Waste Discharge Permit Program
173-220	National Pollutant Discharge Elimination
173-204	Sediment Management Standards
173-303	Dangerous Waste Regulations
173-304	Minimum Functional Standards for Solid Waste Handling
173-340	The Model Toxics Control Act Cleanup Regulation
246-290	Public Water Supplies

**5A.180 Violation deemed misdemeanor**

Any violation of the provisions of this Chapter as adopted is a misdemeanor.

## **Appendix B**

### **Ordinance # 1332**

The following is the update (Ordinance No.1332) to Chapter 5 of the City of Lacey *Development Guidelines and Public Works Standards*.

#### **CHAPTER 5**

#### **STORMWATER MAINTENANCE CODE**

##### **5.010 Purpose**

The provisions of this Chapter are intended to:

- A. Provide standards and procedures for inspection, maintenance, and repair of stormwater facilities in Lacey to help contribute to an effective and functional stormwater system.
- B. Comply with Washington Department of Ecology (Ecology) and Puget Sound Water Quality Authority (PSWQA) regulations and requirements for local governments.
- C. Authorize the Lacey Stormwater Utility to require that stormwater facilities be inspected, maintained, and repaired in conformance with this Chapter.
- D. Establish the minimum level of compliance, which must be met.
- E. Guide and advise all who conduct inspection, maintenance, and repair of stormwater facilities.
- F. Prevent harmful materials from leaking, spilling, draining, or being dumped into any public or private stormwater system.
- G. Provide a method of enforcement for compliance with this Chapter.

##### **5A.020 Definitions**

For the purpose of this Chapter, the following definitions apply:

- A. AKART – All Known, Available, and Reasonable methods of prevention, control, and Treatment. See also the State Water Pollution Control Act, sections 90.48.010 RCW and 90.48.520 RCW.

- B. “Best management practice” or “BMP” means physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of stormwater. BMP’s are listed and described in the Stormwater Management Manual.
- C. “Director” means the Public Works department director and/or designees.
- D. “Ground Water” means water in a saturated zone or stratum beneath the surface of the land or below a surface water body.
- E. “Harmful materials” are substances that may create a public nuisance or constitute a hazard to humans, animals, fish or fowl, or any solid, dangerous, or extremely hazardous waste, as defined by the Chapter 173-304 of the Washington Administrative Code (WAC) or Chapter 173-303 WAC. “Harmful materials” also include substances that, when released into the environment, may cause non-compliance with the following Chapters of the Washington Administrative Code: 246-290, 173-200, 173-201, 173-204, and/or 173-340.
- F. “Hyperchlorinated” means water that contains more than 10mg/Liter chlorine.
- G. “Illicit Discharge” means any direct or indirect non-stormwater discharge to the city’s storm drain system, except as expressly allowed by this chapter.
- H. “Illicit connection” means any man-made conveyance that is connected to a municipal separate storm sewer without a permit, excluding roof drains and other similar type connections. Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the municipal separate storm sewer system.
- I. “Municipal separate storm sewer system (MS4)” means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):
  - a. Owned or operated by the City of Lacey;
  - b. Designed or used for collecting or conveying stormwater;
  - c. Which is not part of a Publicly Owned Treatment Works (POTW). “POTW” means any device or system used in treatment of municipal sewage or industrial wastes of a liquid nature which is publicly owned; and
  - d. Which is not a combined sewer. “Combined sewer” means a system that collects sanitary sewage and stormwater in a single sewer system.
- J. “National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit” means a permit issued by the Environmental Protection Agency (EPA) (or by the Washington Department of Ecology under authority delegated pursuant to 33 USC Section 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

- K. “Non-stormwater discharges to the stormwater system” are discharges to any portion of the public or privately owned stormwater system that are not composed entirely of rainfall or snow melt. Examples may include, but are not limited to, sanitary wastewater, laundry wastewater, non-contact cooling water, vehicle wash wastewater, radiator flushing wastewater, spills from roadway accidents, and improperly disposed motor oil, solvents, lubricants, and paints.
- L. “Person” means any individual, partnership, corporation, association, organization, cooperative, public or Municipal Corporation, agency of the state or local governmental unit, however designated.
- M. “Pollutant” means anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes and solvents; oil and other automotive fluids; nonhazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.
- N. “Premises” means any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalks and parking strips.
- O. “Stormwater” means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels, or pipes into a defined surface water channel or a constructed infiltration facility.
- P. “Stormwater facility” means a constructed component of a stormwater system, designed or constructed to perform a particular function or multiple functions. Stormwater facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catch basins, oil/water separators, and sediment basins. Stormwater facilities are described in the Stormwater Management Manual. “Stormwater facility” includes both public and privately owned facilities.
- Q. “Stormwater Management Manual” or “Manual” means the Stormwater Management Manual for Western Washington prepared by the State Department of Ecology and dated February 2005 or any other technically equivalent manual.
- R. “Stormwater system” means constructed and natural features which function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate, divert, treat, or filter stormwater. “Stormwater system” includes both public and privately owned features.

**5A. 030      Maintenance Requirements**

All stormwater facilities in the City of Lacey, both public and private, shall be maintained according to this Chapter, maintenance guidelines specific to the stormwater facility, and the Minimum Maintenance Requirements and Standards of the Manual.

**5A. 040      Minimum Requirements**

- A. All stormwater facilities shall be inspected at regular intervals and maintained and repaired as needed to comply with: Section 5A.080 of this Chapter, the approved designs for stormwater facilities, stormwater permits which may be issued by the City of Lacey, the State Department of Ecology or the Environmental Protection Agency (EPA), applicable construction standards, and the minimum requirements as stated in the Stormwater Management Manual.
- B. All stormwater facilities shall be inspected by the City on a periodic basis, as described in Section 5A.080. If, during an inspection, a facility is found to not be in compliance with Section 5A.080, all subsequent inspection and maintenance intervals shall be scheduled more frequently if determined by the City to be necessary in order to assure future compliance.

**5A. 050      Disposal of waste from maintenance activities**

- A. Disposal of waste from maintenance activities shall be conducted in accordance with Chapters 173-304 and 173-303 of the WAC, the State Department of Ecology guidelines for disposal of waste materials from stormwater maintenance activities, and the Stormwater Management Manual.
- B. In addition to any of the above mentioned existing regulations and guidelines, the Stormwater Utility may develop additional requirements for handling and disposal of waste generated from maintenance activities within Lacey which, upon adoption, shall also apply. Additional requirements shall be placed in the Stormwater Management Manual.

**5A. 060      Compliance required**

Unless otherwise specified by agreement, property owners are responsible for the maintenance, operation, and repair of stormwater systems and BMP's within their property. Property owners shall maintain, operate, and repair these facilities in compliance with the requirements of this Chapter and the Stormwater Management Manual.

**5A. 070      Inspection authority**

During routine maintenance inspections to determine compliance with the provisions of Section 5A.080 or whenever there is cause to believe that a violation of the Chapter has been or is being committed, the City is authorized to inspect during regular working hours and at other reasonable times, all stormwater systems within Lacey to determine compliance with the provisions of this Chapter.

**5A. 080      Inspection and Minimum Maintenance Requirements**

These maintenance standards are intended to give support and guidance to all persons and property owners who must comply with the Drainage Design and Erosion Control Manual. All privately owned stormwater systems shall be maintained by the owner at his/her expense. The City of Lacey Public Works will complete and file a status report with the property owner or his/her designee after inspections have been completed. The minimum requirements listed herein will be subject to review and revision by the City on an annual basis in January.

- A. All parts of privately owned stormwater systems shall be maintained and/or restored to assure performance as designed and intended. All physical parts of the stormwater system shall be repaired and maintained per the City of Lacey, Development Guidelines and Public Works Standards, Stormwater Section, Appendix K and any guidelines specific to the respective facility.
- B. Stormwater system modifications or major repairs must be reviewed and approved by the City of Lacey prior to implementation. This is required to ensure that the intent of the originally approved stormwater system is achieved. The City may require the property owner to submit detailed drawings and/or specifications regarding proposed modifications and/or repairs.
- C. The City may require either partial or complete cleaning of a stormwater system whenever a prohibited substance (see item 9, this section) is found to be present in a stormwater system.
- D. A licensed, bonded, and insured contractor must accomplish all maintenance of privately owned stormwater systems except for normal vegetation maintenance facilities.
- E. All State and Federal confined space entry regulations and requirements must be followed.
- F. All maintenance work shall be completed in accordance with Section 5A.040.

- G. All privately owned pipes, catch basins, manholes, inlets, ditches, swales/bioswales, detention/retention systems, vaults, water quality facilities, flow control oil/water separators, sedimentation ponds, and stream channels located on (or running through) commercial properties, multi-family developments, private plats, and private short plats shall be inspected every three (3) years by the City and/or property owner and shall be maintained by the property owner.
- H. At a minimum, the following stormwater system maintenance shall be required:
1. Pipes and piped detention/retention systems, which are 10% or more obstructed, must be cleaned. Catch basins, manholes, and inlets must be cleaned when accumulation of material in the catchment reaches a volume of 60% capacity (the volume from the bottom of the structure to the bottom of the outfall pipe).
  2. All surface inlets must be cleared of leaves and debris so that they can readily accept water.
  3. All surface areas must be maintained to ensure runoff can flow directly to the catch basin as designed and approved.
  4. Ditches, swales/bioswales, detention/retention ponds, sedimentation ponds, vaults, and water quality facilities shall be cleaned and/or obstructions removed when flow is impeded; and/or the capacity of the ditch, swale, or water quality facility has been reduced by 20% or more.
  5. Flow control oil/water separators shall be maintained when sediment/debris reaches a volume of 20% capacity or visible oil sheen is found to be present.
  6. Constructed stream channels shall be cleaned and/or have obstructions removed when flow is impeded and/or the capacity has been reduced by 20% or more.
  7. Unstable and eroding stream channels and sedimentation ponds shall require maintenance and/or repair.
  8. Vegetation in and around the facility shall be maintained to prevent any impedance to performance of the system. Because the presence of vegetation can be both integral to water quality treatment and aesthetics, facility owners are expected to maintain established, healthy vegetation.
- I. Prohibited Discharges. The following materials/substances will not be allowed to enter any surface or sub-surface part of the public and/or private stormwater system. All listed prohibited materials shall be stored, handled and disposed of in a manner that will prevent

them from entering any part of the public, private stormwater system, or groundwater system:

- All non-stormwater discharges to the stormwater system, unless such discharges are authorized in accordance with Chapter 173-216 of the Washington Administrative Code. (WAC) (*State Waste Discharge Permit Program*) or Chapter 173-220 WAC (*National Pollutant Discharge Elimination System Permit Program*).
- Any solid, dangerous, or extremely hazardous waste, as defined by Chapters 173-304 WAC (*Minimum Functional Standards for Solid Waste Handling*) or Chapter 173-303 WAC (*Dangerous Waste Regulations*).
- Any substance that, when released into the environment, may cause non-compliance with Chapters 246-290 WAC (*Public Water Supplies*); 173-200 WAC (*Water Quality Standards for Ground Waters of the State of Washington*), 173-201 WAC (*Water Quality Standards for Surface Waters of the State of Washington*), 173-204 WAC (*Sediment Management Standards*); or 173-340 WAC (*The Model Toxics Control Act Cleanup Regulation*).
- Petroleum products including, but not limited to oil, gasoline, grease, fuel oil and heating oil.
- Trash and debris
- Chemicals and/or paint
- Animal waste
- Steam cleaning waste
- Uncured concrete wash water (generated during cleaning, finishing or during exposure of aggregate).
- Laundry wastes or other soaps
- Pesticides, herbicides or fertilizers
- Sewage
- Heated water
- Degreasers and/or solvents
- Bark or other fibrous or organic material
- Antifreeze and/or other automotive products
- Animal carcasses or any portion thereof
- Earth in quantities which cause violation of State water quality standards.
- Acids,alkalis, or bases
- Recreational vehicle wastes
- Dyes unless prior permission has been granted by the Director
- Construction materials and residues
- Wash water, sediment, and debris from street sweeping and street washing
- Metals in either particulate or dissolved form
- Flammable or explosive materials
- Radioactive material
- Batteries

- Drain cleaners
- Swimming pool or spa filter backwash
- Recreational vehicle waste
- Food wastes
- Lawn clippings, leaves, or branches
- Chemicals not normally found in uncontaminated water.

J. Allowable Discharges. The following types of discharges shall not be considered illegal discharges for the purposes of this chapter unless the director determines that the type of discharge, whether singly or in combination with others, is causing or is likely to cause pollution of surface water or groundwater:

- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration – as defined in 40 CFR 35.2005(20).
- Uncontaminated pumped ground water
- Foundation drains
- Air conditioning condensation
- Irrigation water from agricultural sources that is commingled with urban stormwater
- Springs
- Water from crawl space pumps
- Footing drains
- Flows from riparian habitats and wetlands
- Discharges from emergency fire fighting activities.

K. Conditional Discharges. The following types of discharges shall not be considered illegal discharges for the purposes of this chapter if they meet the stated conditions, or unless the director determines that the type of discharge, whether singly or in combination with others, is causing or is likely to cause pollution of surface water or groundwater:

1. Potable water, including water from water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges shall be de-chlorinated to a concentration of 0.1 ppm or less, pH-adjusted, if necessary and in volumes and velocities controlled to prevent re-suspension of sediments in the stormwater system;
2. Lawn watering and other irrigation runoff are permitted but shall be minimized;
3. De-chlorinated swimming pool discharges. These discharges shall be de-chlorinated to a concentration of 0.1 ppm or less, pH-adjusted, if necessary and in volumes and velocities controlled to prevent re-suspension of sediments in the stormwater system;
4. Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents are permitted if the amount of

street wash and dust control water used is minimized. At active construction sites, street sweeping must be performed prior to washing the street;

5. Non-stormwater discharges covered by another NPDES permit, provided, that the discharge is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations; and provided, that written approval has been granted for any discharge to the storm drain system;
6. Other non-stormwater discharges. The discharges shall be in compliance with the requirements of a stormwater pollution prevention plan (SWPPP) reviewed and approved by the city or county which addresses control of such discharges by applying AKART to prevent contaminants from entering surface or ground water.

L. Prohibition of Illicit Connections

1. The construction, use, maintenance, or continued existence of illicit connections to the storm drain system is prohibited.
2. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
3. A person is considered to be in violation of these provisions if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.

**5A. 090 Inspection Procedures**

- A. Inspection procedures will be maintained and updated as necessary in the “Private Stormwater Facilities Inspection Program” standard operating procedure within Public Works Operations.
- B. Prior to making any inspections on private property that has no dedicated access easements to the City; the inspector shall present identification credentials, state the reason for the inspection, and request entry.
- C. If the property or any building or structure on the property is unoccupied, the inspector shall first make a reasonable effort to locate the owner or other person(s) having charge or control of the property or portions of the property and request entry.
- D. If after reasonable effort the inspector is unable to locate the owner or other person(s) having charge or control of the property and has reason to believe the condition of the stormwater system creates an immediate hazard to persons or property, the inspector may enter the property.
- E. Unless entry is consented to by the owner or person(s) in control of the property or portion of the property, conditions are reasonably believed to exist which create imminent hazard, or an access easement to the storm facility was dedicated to the City, the inspector shall obtain a search warrant prior to entry as authorized by the laws of the State of Washington.

- F. The inspector may inspect the stormwater system without obtaining a search warrant provided for in Subsection D, provided the inspection can be conducted while remaining on public property or other property on which permission to enter is obtained.

**5A. 100 Inspection and maintenance records**

Owners of storm drainage systems will be required to provide the City with all existing inspection, maintenance, and repair records, as well as any record drawings or diagrams that they may have for their storm drainage systems when requested.

**5A. 110 Enforcement authority**

The City of Lacey is obligated to monitor and enforce water quality standards in conformance with the Clean Water Act of 1972. In addition, the State Department of Ecology requires a public as well as a private stormwater inspection and maintenance program under the DPDES phase II program. The City or its designee shall administer and enforce this Chapter and shall have the authority to adopt and implement administrative procedures for such enforcement.

**5A. 120 Enforcement policy**

- A. Where maintenance and repair is found necessary to correct health or safety problems, to control harmful materials entering the stormwater system, or to remove harmful materials that have entered the stormwater system, such work shall be completed by the owner or operator of the stormwater system or stormwater facility within twenty-four (24) hours of notification of the person or entity responsible for maintenance of the non-compliance. When maintenance and repair is found necessary to prevent water quality degradation, such work shall be completed within seven (7) calendar days of notification, unless there is a severe water quality hazard, in which case such work shall be completed immediately. Other related problems, maintenance, or repairs shall be completed within thirty (30) calendar days of notification of the person or entity responsible for such maintenance of the non-compliance.
- B. In the event a valid response is not received nor the violations corrected, a second letter describing the violations shall be sent in accordance with the procedures set forth above. This second notice shall allow fourteen (14) calendar days for abatement of the violation, or a valid response, to negotiate a schedule as noted in Subsection A, above.
- C. Failure to abate the violation or negotiate a schedule as noted in Subsection B, above within fourteen (14) calendar days of the issuance of the second letter shall be deemed a misdemeanor.

### **5A. 130        Orders**

The City shall have the authority to issue to an owner or person(s) representing an owner an order to maintain or repair a component of a stormwater facility or BMP to bring it into compliance with this Chapter, the Stormwater Management Manual, and/or other City regulations. The order shall include:

- A.     A description of the specific nature, extent and time of the violation, and the damage or potential damage that reasonably might occur.
- B.     A notice that the violation or the potential violation cease and desist, and in appropriate cases, the specific corrective action to be taken.
- C.     A reasonable time to comply, in conformance with Section 13.66.040 of the Lacey Municipal Code. However, in the event the violation is reasonably believed to create an imminent hazard the City shall have the authority to issue an emergency cease and desist order. Such order shall require immediate compliance with the provisions of this chapter by halting operations and/or terminating discharges.
- D.     Penalties may be incurred by any owner of a stormwater system not in compliance with this Chapter.
- E.     An order to the owner to provide to the City a detailed plan which may include drawings and steps that will be taken to achieve compliance within a specified time. This plan is subject to approval by the City.

### **5A. 140        Penalty for violations**

- A. Persons Subject to Penalty. Any person who violates or fails to comply with the requirements of this Chapter or who fails to conform to the terms of an approval or order issued by the City may be charged with a misdemeanor. Each day of continued violation shall constitute a separate violation for purposes of this penalty.
- B. Aiding and Abetting. Any person who, through an act of commission or omission, aids or abets in the violation shall be considered to have committed a violation of the Chapter, and be subject to enforcement action.
- C. Re-inspection Fees. In addition to the penalties to be imposed, the City may impose a re-inspection fee for any account or storm drainage facility found to be not compliance with this Chapter. This inspection fee shall be independent of any current or future penalties that may be incurred by the property owner for noncompliance with this Chapter.
- D. Disconnection from the MS4. Illicit connections, illicit discharges, or continued failure of the property owner to comply with the provisions of this chapter may result in disconnection from the MS4.

**5A. 150 Severability**

If any portion of this Chapter or its application to any person, entity, or circumstance is held invalid, the remainder of this Chapter or the application of the provision to other persons, entities, or circumstances shall not be affected.

**5A. 160 Abrogation and restrictions**

It is not intended that this Chapter repeal, abrogate, or impair any existing regulations, easements, covenants, or deed restrictions. However, where this Chapter imposes greater restrictions, the provisions of this Chapter shall prevail.

**5A. 170 State statutes and regulations**

## **Appendix C**

### **General Conditions**

#### **G1. DISCHARGE VIOLATIONS**

All discharges and activities authorized by this Permit shall be consistent with the terms and conditions of this Permit.

#### **G2. PROPER OPERATION AND MAINTENANCE**

The Permittee shall at all times properly operate and maintain all facilities and systems of collection, treatment, and control (and related appurtenances) which are installed or used by the Permittee for pollution control to achieve compliance with the terms and conditions of this Permit.

#### **G3. NOTIFICATION OF SPILL**

If a Permittee has knowledge of a spill into a municipal storm sewer which could constitute a threat to human health, welfare, or the environment, the Permittee shall notify the Ecology regional office and other appropriate spill response authorities immediately but in no case later than within 24 hours of obtaining that knowledge. Spills which might cause bacterial contamination of shellfish, such as might result from broken sewer lines, shall be reported immediately to the Department of Ecology and to the Department of Health, Shellfish Program. The Department of Ecology's regional office 24-hour number is (425)649-7000 for NWRO and (360)407-6300 for SWRO and the Department of Health's shellfish 24-hour number is (360)236-3330.

#### **G4. BYPASS PROHIBITED**

The intentional bypass of Stormwater from all or any portion of a Stormwater treatment BMP whenever the design capacity of the treatment BMP is not exceeded, is prohibited unless the following conditions are met:

A. Bypass is: (1) unavoidable to prevent loss of life, personal injury, or severe property damage; or (2) necessary to perform construction or maintenance-related activities essential to meet the requirements of the Clean Water Act (CWA); and

B. There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated Stormwater, or maintenance during normal dry periods.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

## **G5. RIGHT OF ENTRY**

The permittee shall allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law at reasonable times:

- A. To enter upon the Permittee's premises where a discharge is located or where any records must be kept under the terms and conditions of this Permit;
- B. To have access to, and copy at reasonable cost and at reasonable times, any records that must be kept under the terms of the Permit;
- C. To inspect at reasonable times any monitoring equipment or method of monitoring required in the Permit;
- D. To inspect at reasonable times any collection, treatment, pollution management, or discharge facilities; and
- E. To sample at reasonable times any discharge of pollutants.

## **G6. DUTY TO MITIGATE**

The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this Permit which has a reasonable likelihood of adversely affecting human health or the environment.

## **G7. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort, or any exclusive privilege.

## **G8. COMPLIANCE WITH OTHER LAWS AND STATUTES**

Nothing in the Permit shall be construed as excusing the Permittee from compliance with any other applicable federal, state, or local statutes, ordinances, or regulations.

## **G9. MONITORING**

### **A. Representative Sampling:**

Samples and measurements taken to meet the requirements of this Permit shall be representative of the volume and nature of the monitored discharge, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

**B. Records Retention:**

The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the application for this permit, for a period of at least five years. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the Ecology. On request, monitoring data and analysis shall be provided to Ecology.

**C. Recording of Results:**

For each measurement or sample taken, the Permittee shall record the following information: (1) the date, exact place and time of sampling; (2) the individual who performed the sampling or measurement; (3) the dates the analyses were performed; (4) who performed the analyses; (5) the analytical techniques or methods used; and (6) the results of all analyses.

**D. Test Procedures:**

All sampling and analytical methods used to meet the monitoring requirements in this permit shall conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136, unless otherwise specified in this permit or approved in writing by Ecology.

**E. Flow Measurement:**

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements are consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations or at a minimum frequency of at least one calibration per year. Calibration records should be maintained for a minimum of three years.

**F. Lab Accreditation:**

All monitoring data, except for flow, temperature, conductivity, pH, total residual chlorine, and other exceptions approved by Ecology, shall be prepared by a laboratory registered or accredited under the provisions of, Accreditation of Environmental Laboratories, Chapter 173-50 WAC. Soils and hazardous waste data are exempted from this requirement pending accreditation of laboratories for analysis of these media by Ecology.

**G. Additional Monitoring:**

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

## **G10. REMOVED SUBSTANCES**

With the exception of decant from street waste vehicles, the Permittee shall not allow collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of Stormwater to be resuspended or reintroduced to the storm sewer system or to waters of the state. Decant from street waste vehicles resulting from cleaning Stormwater facilities may be reintroduced only when other practical means are not available and only in accordance with the Street Waste Disposal Guidelines in Appendix 4.

## **G11. SEVERABILITY**

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

## **G12. REVOCATION OF COVERAGE**

The director may terminate coverage under this General Permit in accordance with Chapter 43.21B RCW and Chapter 173-226 WAC. Cases where coverage may be terminated include, but are not limited to the following:

- A. Violation of any term or condition of this general permit;
- B. Obtaining coverage under this general permit by misrepresentation or failure to disclose fully all relevant facts;
- C. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
- D. A determination that the permitted activity endangers human health or the environment, or contributes significantly to water quality standards violations;
- E. Failure or refusal of the permittee to allow entry as required in Chapter 90.48.090 RCW;
- F. Nonpayment of permit fees assessed pursuant to Chapter 90.48.465 RCW;

Revocation of coverage under this general permit may be initiated by Ecology or requested by any interested person.

## **G13. TRANSFER OF COVERAGE**

The director may require any discharger authorized by this General Permit to apply for and obtain an individual permit in accordance with Chapter 43.21B RCW and Chapter 173-226 WAC.

#### **G14. GENERAL PERMIT MODIFICATION AND REVOCATION**

This General Permit may be modified, revoked and reissued, or terminated in accordance with the provisions of WAC 173-226-230. Grounds for modification, revocation and reissuance, or termination include, but are not limited to the following:

- A. A change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this General Permit;
- B. Effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this General Permit;
- C. A water quality management plan containing requirements applicable to the category of dischargers covered under this General Permit is approved; or
- D. Information is obtained which indicates that cumulative effects on the environment from dischargers covered under this General Permit are unacceptable.
- E. Changes in state law that reference this permit.

#### **G15. REPORTING A CAUSE FOR MODIFICATION OR REVOCATION**

A Permittee who knows or has reason to believe that any activity has occurred or will occur which would constitute cause for modification or revocation and reissuance under Condition G12, G14, or 40 CFR 122.62 must report such plans, or such information, to Ecology so that a decision can be made on whether action to modify, or revoke and reissue this Permit will be required. Ecology may then require submission of a new or amended application. Submission of such application does not relieve the Permittee of the duty to comply with this Permit until it is modified or reissued.

#### **G16. APPEALS**

- A. The terms and conditions of this General Permit, as they apply to the appropriate class of dischargers, are subject to appeal within thirty days of issuance of this General Permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.
- B. The terms and conditions of this General Permit, as they apply to an individual discharger, are appealable in accordance with chapter 43.21B RCW within thirty days of the effective date of coverage of that discharger. Consideration of an appeal of General Permit coverage of an individual discharger is limited to the General Permit's applicability or nonapplicability to that individual discharger.

C. The appeal of General Permit coverage of an individual discharger does not affect any other dischargers covered under this General Permit. If the terms and conditions of this General Permit are found to be inapplicable to any individual discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

D. Modifications of this Permit are appealable in accordance with chapter 43.21B RCW and chapter 173-226 WAC.

### **G17. PENALTIES**

40 CFR 122.41(a)(2) and (3), 40 CFR 122.41(j)(5), and 40 CFR 122.41(k)(2) are hereby incorporated into this Permit by reference.

### **G18. DUTY TO REAPPLY**

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit.

### **G19. CERTIFICATION AND SIGNATURE**

All applications, reports, or information submitted to the Department shall be signed and certified.

A. All permit applications shall be signed by either a principal executive officer or ranking elected official.

B. All reports required by this Permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Department, and

2. The authorization specifies either an individual or a position having responsibility for the overall development and implementation of the SWMP. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

C. Changes to authorization. If an authorization under condition G19.B.2 is no longer accurate because a different individual or position has responsibility for the overall development and implementation of the SWMP, a new authorization satisfying the requirements of condition G19.B.2 must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

D. Certification. Any person signing a document under this Permit shall make the following certification:

“I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that Qualified Personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for willful violations.”

## **G20. NON-COMPLIANCE NOTIFICATION**

In the event the Permittee is unable to comply with any of the terms and conditions of this permit, including discharges from the Permittees MS4 which may cause a threat to human health or the environment, the Permittee shall:

- A. Take appropriate action to correct or minimize the threat to human health or the environment or otherwise stop or correct the condition of noncompliance.
- B. Notify Ecology of the failure to comply with the permit terms and conditions within 30 days of becoming aware of the non-compliance.
- C. Notify Ecology immediately in cases where the Permittee becomes aware of a discharge from the Permittee’s MS4 which may cause or contribute to an imminent threat to human health or the environment.

## **G21. UPSETS**

Permittees must meet the conditions of 40 CFR 122.41(n) regarding “Upsets.” The conditions are as follows:

- A. Definition. “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- B. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (C) of this condition are met. Any determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, will not constitute final administrative action subject to judicial review.
- C. Conditions necessary for demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset;
  2. The permitted facility was at the time being properly operated; and
  3. The Permittee submitted notice of the upset as required in 40 CFR 122.41(l)(6)(ii)(B) (24-hour notice of noncompliance).
  4. The Permittee complied with any remedial measures required under 40 CFR 122.41(d) (Duty to Mitigate).
- E. Burden of proof. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

## Appendix D

### Glossary of Acronyms and Definitions

The following acronyms and definitions are adapted from the Phase II Permit and are reproduced here for the reader's convenience.

**AKART** means all known, available, and reasonable methods of prevention, control and treatment.

**All known, available and reasonable methods of prevention, control and treatment** refers to the State Water Pollution Control Act, Chapter 90.48.010 and 90.48.520 RCW.

**Applicable TMDL** means a TMDL which has been approved by EPA on or before the issuance date of this Permit, or prior to the date that the Permittee's application is received by Ecology, or prior to a modification of this Permit, whichever is later.

**Beneficial Uses** means uses of waters of the states which include but are not limited to use for domestic, stock watering, industrial, commercial, agricultural, irrigation, mining, fish and wildlife maintenance and enhancement, recreation, generation of electric power and preservation of environmental and aesthetic values, and all other uses compatible with the enjoyment of the public waters of the state.

**Best Management Practices** ("BMPs") are the schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices approved by the Department that, when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State.

**BMP** means Best Management Practice.

**Bypass** means the diversion of Stormwater from any portion of a Stormwater treatment facility.

**Common plan of development or sale** means a site where multiple separate and distinct construction activities may be taking place at different times on different schedules, but still under a single plan. Examples include: phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate owners (e.g. a development where lots are sold to separate builders); a development plan that may be phased over multiple years, but is still under a consistent plan for long-term development; and projects in a contiguous area that may be unrelated but still under the same contract, such as construction of a building extension and a new parking lot at the same facility. If the project is part of a common plan of development or sale, the disturbed area of the entire plan shall be used in determining permit requirements.

**Component** or **Program Component** means an element of the SWMP listed in S5 SWMP for Cities, Towns, and Counties or S6 Stormwater Management Program for Secondary Permittees of this permit.

**Co-permittee** means an operator of a regulated small MS4 which is applying jointly with another applicant for coverage under this permit. A co-permittee is an owner or operator of a regulated small MS4 located within or adjacent to another regulated MS4. A co-permittee is only responsible for complying with the

conditions of this permit relating to discharges from the MS4 the co-permittee owns or operates. See also 40 CFR 122.26(b)(1)

**CWA** means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. (6-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.

**Detailed Implementation Plan** means the formal implementation plan for a Total Maximum Daily Load (TMDL) or water quality clean-up plan.

**DIP** means Detailed Implementation Plan.

**Director** means the Director of the Washington State Department of Ecology, or an authorized representative.

**Discharge** for the purpose of this permit means, unless indicated otherwise, any discharge from a MS4 owned or operated by the permittee.

**Entity** means another governmental body, or public or private organization, such as another permittee, a conservation district, or volunteer organization.

**Equivalent document** means a technical Stormwater management manual developed by a state agency, local government or other entity that includes the Minimum Technical Requirements in Appendix 1 of this Permit. The Department may conditionally approve manuals that do not include the Minimum Technical Requirements in Appendix 1; in general, the Best Management Practices (BMPs) included in those documents may be applied at new development and redevelopment sites, but the Minimum Technical Requirements in Appendix 1 must still be met.

**40 CFR** means Title 40 of the Code of Federal Regulations, which is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government.

**General Permit** means a permit which covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual permits being issued to each discharger.

**Ground water** means water in a saturated zone or stratum beneath the surface of the land or below a surface water body.

**Heavy equipment maintenance or storage yard** means an uncovered area where any heavy equipment, such as mowing equipment, excavators, dump trucks, backhoes, or bulldozers are washed or maintained, or where at least five pieces of heavy equipment are stored.

**Hydraulically Near** means runoff from the site discharges to the sensitive feature without significant natural attenuation of flows that allows for suspended solids removal. See Appendix 7 Determining Construction Site Sediment Damage Potential for a more detailed definition.

**Hyperchlorinated** means water that contains more than 10 mg/Liter chlorine. Disinfection of water mains and appurtenances requires a chlorine residual of 10 mg/L at the end of the disinfection period. This level is

well above the Maximum Residual Disinfectant Level of an annual average of 4 mg/Liter chlorine for potable water.

**Illicit connection** means any man-made conveyance that is connected to a municipal separate storm sewer without a permit, excluding roof drains and other similar type connections. Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the municipal separate storm sewer system.

**Illicit discharge** means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.

**Large Municipal Separate Storm Sewer System** means all municipal separate storm sewer systems located in an incorporated place with a population of 250,000 or more, a county with unincorporated urbanized areas with a population of 250,000 or more according to the 1990 decennial census by the Bureau of Census.

**Low Density Residential Land Use** means, for the purpose of permit section S8 Monitoring, one unit per 1-5 acres.

**Low Impact Development (LID)** means a Stormwater management and land development strategy applied at the parcel and subdivision scale that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely mimic pre-development hydrologic functions.

**Major Municipal Separate Storm Sewer Outfall** means a municipal separate storm sewer outfall from a single pipe with an inside diameter of 36 inches or more, or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive Stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 12 acres or more).

**Material Storage Facilities** means an uncovered area where bulk materials (liquid, solid, granular, etc.) are stored in piles, barrels, tanks, bins, crates, or other means.

**Maximum Extent Practicable (MEP)** refers to paragraph 402(p)(3)(B)(iii) of the federal Clean Water Act which reads as follows: Permits for discharges from municipal storm sewers shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques, and system, design, and engineering methods, and other such provisions as the Administrator or the State determines appropriate for the control of such pollutants.

**Medium Municipal Separate Storm Sewer System** means municipal separate storm sewer systems located in an incorporated place with a population of more than 100,000 but less than 250,000, or a county with unincorporated urbanized areas of more than 100,000 but less than 250,000 according to the 1990 decennial census by the Bureau of Census.

**MEP** means Maximum Extent Practicable.

**MTRs** means Minimum Technical Requirements.

**Municipal Separate Storm Sewer System (MS4)** means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

(i) owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.

(ii) designed or used for collecting or conveying Stormwater.

(iii) which is not a combined sewer; and (iv) which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

**National Pollutant Discharge Elimination System (NPDES)** means the national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington Department of Ecology.

**Notice of Intent (NOI)** means the application for, or a request for coverage under this General Permit pursuant to WAC 173-226-200.

**Notice of Intent for Construction Activity** and **Notice of Intent for Industrial Activity** mean the application forms for coverage under the *Baseline General Permit for Stormwater Discharges Associated with Industrial Activities*.

**Outfall** means point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the State and does not include open conveyances connecting two municipal separate storm sewer systems, or pipes, tunnels, or other conveyances which connect segments of the same stream or other waters of the State and are used to convey waters of the State.

**Permittee** unless otherwise noted, the term “Permittee” includes Permittee, Co-Permittee, and Secondary Permittee, as defined below:

(i) A “Permittee” is a city, town, or county owning or operating a regulated small MS4 applying and receiving a permit as a single entity.

(ii) A “Co-Permittee” is any operator of a regulated small MS4 that is applying jointly with another applicant for coverage under this Permit. Co-Permittees own or operate a regulated small MS4 located within or adjacent to another regulated small MS4.

(iii) A “Secondary Permittee” is an operator of regulated small MS4 that is not a city, town or county.

**Physically Interconnected** means that one MS4 is connected to a second MS4 in such a way that it allows for direct discharges to the second system. For example, the roads with drainage systems and municipal streets of one entity are physically connected directly to a MS4 belonging to another entity.

**Pollutant Generating Impervious Surfaces (PGIS)** are surfaces considered to be significant sources of pollutants in Stormwater runoff. Such surfaces include those that are subject to vehicular use, industrial activities, or storage of erodible or leachable materials that receive direct rainfall or run-on or blow-in of rainfall. Metal roofs are considered to be PGIS unless coated with an inert, non-leachable material. Roofs that are subject to venting of indoor pollutants from manufacturing, commercial or other operations or processes are also considered PGIS. A surface, whether paved or not, shall be considered PGIS if it is regularly used by motor vehicles. The following are considered regularly-used surfaces: roads, unvegetated road shoulders, bike lanes within the traveled lane of a roadway, driveways, parking lots, unfenced fire lanes, vehicular equipment storage yards, and airport runways.

**Process Wastewater** means any water which, during manufacture or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by product, or waste product.

**Qualified Personnel or Consultant** means someone who has had professional training in the aspects of Stormwater management for which they are responsible and are under the functional control of the Permittee.

**RCW** means the Revised Code of Washington State.

**Regulated Small Municipal Separate Storm Sewer System (MS4)** means a Municipal Separate Storm Sewer System which is automatically designated for inclusion in the Phase II Stormwater permitting program by its location within an Urbanized Area, or by designation by the NPDES permitting authority and is not eligible for a waiver or exemption under S1.C.

**Replaced impervious surfaces** means, for structures, the removal and replacement of any exterior impervious surfaces or foundation; or, for other impervious surfaces, the removal down to bare soil, or base course, and replacement. Exemptions and partial exemptions are defined in Appendix 1 of this Permit.

**Runoff** is water that travels across the land surface and discharges to water bodies either directly or through a collection and conveyance system. See also “Stormwater.”

**Shared Waterbodies** means waterbodies, including downstream segments, lakes and estuaries that receive discharges from more than one permittee.

**Secondary Permittee** is an operator of regulated small municipal separate storm sewer system which is not a city, town or county. Secondary Permittees include special purpose districts and other MS4s that meet the criteria for a regulated small MS4 in S1.B.

**Significant contributor** means a discharge contributes a loading of pollutants considered to be sufficient to cause or exacerbate the deterioration of receiving water quality or instream habitat conditions.

**Sediment/Erosion-Sensitive Feature** means an area subject to significant degradation due to the effect of construction runoff or areas requiring special protection to prevent erosion. See Appendix 6 Determining Construction Site Sediment Transport Potential for a more detailed definition.

**Small Municipal Separate Storm Sewer System** or **Small MS4** is a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels and/or storm drains which is:

- a. Owned or operated by a city, town, county, district, association or other public body created pursuant to State law having jurisdiction over disposal of sewage, industrial wastes, Stormwater, or other wastes, including special districts under State law such as a sewer districts, flood control districts or drainage districts, or similar entity.
- b. Designed or used for collecting or conveying Stormwater.
- c. Not a combined sewer system,
- d. Not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.
- e. Not defined as “large” or “medium” pursuant to 40 CFR 122.26(b)(4) & (7) or designated under 40 CFR 122.26 (a)(1)(v).

Small MS4s include systems similar to separate storm sewer systems in municipalities such as: universities, large publicly owned hospitals, prison complexes, highways and other thoroughfares. Storm sewer systems in very discrete areas such as individual buildings do not require coverage under this Permit.

Small MS4s do *not* include storm drain systems operated by non-governmental entities such as: individual buildings, private schools, private colleges, private universities, and industrial and commercial entities.

**Stormwater** means runoff during and following precipitation and snowmelt events, including surface runoff and drainage.

**Stormwater Associated with Industrial and Construction Activity** means the discharge from any conveyance which is used for collecting and conveying Stormwater, which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant, or associated with clearing grading and/or excavation, and is required to have an NPDES permit in accordance with 40 CFR 122.26.

**Stormwater Management Manual for Western Washington** means the 5-volume technical manual (Publication Nos. 99-11 through 15 for the 2001 version and Publication Nos. 05-10-029-033 for the 2005 version (The 2005 version replaces the 2001 version) prepared by Ecology for use by local governments that contains BMPs to prevent, control, or treat pollution in storm water.

**Stormwater Management Program** (SWMP) means a set of actions and activities designed to reduce the discharge of pollutants from the regulated small MS4 to the maximum extent practicable and to protect water quality, and comprising the components listed in S5 or S6 of this Permit and any additional actions necessary to meet the requirements of applicable TMDLs pursuant to *S7 Compliance with TMDL Requirements*, and *S8 Monitoring and Assessment*.

**Total Maximum Daily Load** (TMDL) means a water cleanup plan. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant’s sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure that the water body can be used for the purposes the state has designated. The calculation must also account for seasonable variation in water quality. Water quality standards are set by states, territories, and tribes. They identify the uses for each water body, for example, drinking water supply, contact

recreation (swimming), and aquatic life support (fishing), and the scientific criteria to support that use. The Clean Water Act, section 303, establishes the water quality standards and TMDL programs.

**Urbanized Area (UA)** is a land area comprising one or more places and the adjacent densely settled surrounding area that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile. For the year 2000 Census, the U.S. Census Bureau classified "urban" as all territory, population, and housing units located within an Urbanized Area (UA) or an Urban Cluster (UC). It delineated UA and UC boundaries to encompass densely settled territory, which consists of: core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. In addition, under certain conditions, less densely settled territory may be part of each UA or UC. The U.S. Census Bureau announced the "Census 2000 Urbanized Areas" on May 1, 2002. More information can be found at the U.S. Census Bureau website.

**Urban/higher density rural subbasins** means any subbasin or portion thereof that is within or proposed to be within the urban growth area (UGA), or any rural area subbasin or portion thereof fifty percent or more of which is comprised of lots smaller than 5 acres in size.

**Vehicle Maintenance or Storage Facility** means an uncovered area where any vehicles are regularly washed or maintained, or where at least 10 vehicles are stored.

**Waters of the State** includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the state" as defined in Chapter 90.48 RCW which includes lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and water courses within the jurisdiction of the State of Washington.

**Water Quality Standards** means Surface Water Quality Standards, Chapter 173-201A WAC, Ground Water Quality Standards, Chapter 173-200 WAC, and Sediment Management Standards, Chapter 173-204 WAC.

**Appendix E**

**Stormwater Management Program (SWMP)  
2014 Annual Report**

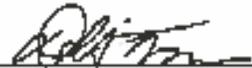
**Signature Page**

**PREPARED BY:**

  
\_\_\_\_\_  
Rick McBroom  
Engineering Tech III

3-23-15  
\_\_\_\_\_  
Date

**REVIEWED BY:**

  
\_\_\_\_\_  
Doug Christenson, P.E.  
Water Resources Engineer

3-23-15  
\_\_\_\_\_  
Date

**REVIEWED BY:**

  
\_\_\_\_\_  
Peter Brooks, P.E.  
Water Resources Manager

3-23-15  
\_\_\_\_\_  
Date

**APPROVED BY:**

  
\_\_\_\_\_  
Scott Eggen, P.E.  
Director of Public Works

3-23-15  
\_\_\_\_\_  
Date

## **Appendix F**

### **NPDES Phase II Annual Report Form for Cities, Towns and Counties (Appendix 3 of the Permit) for Permit Year 2014**



# Water Quality Program

## Permit Submittal Electronic Certification

**Permittee:** LACEY CITY OF

**Permit Number:** WAR045011

**Site Address:** 420 COLLEGE ST  
Lacey, WA 98503-0507

**Submittal Name:** MS4 Annual Report Phase II Western

**Version:** 1

**Due Date:** 3/31/2015

### Questionnaire

Number	Permit Section	Question	Answer
1	S5.A.2	Attach updated annual Stormwater Management Program Plan (SWMP Plan). (S5.A.2)	Lacey 2014 SWMP_1_03232015_0820.doc
2	S9.D.5	Attach a copy of any annexations, incorporations or boundary changes resulting in an increase or decrease in the Permittee's geographic area of permit coverage during the reporting period per S9.D.5.	Not Applicable
3	S5.A.3	Implemented an ongoing program to gather, track, and maintain information per S5.A.3, including costs or estimated costs of implementing the SWMP.	Yes
4	S5.A.5.b	Coordinated among departments within the jurisdiction to eliminate barriers to permit compliance. (S5.A.5.b)	Yes
4b	S5.A.5.b	Attach a written description of internal coordination mechanisms. (Required to be submitted no later than March 31, 2015, S5.A.5.b)	City Permit Coordination Strategy - draft_4b_03202015_1229.pdf
5	S5.C.1.a.i and ii	Attach description of public education and outreach efforts conducted per S5.C.1.a.i and ii.	Education Discription_5_03182015_0928.docx
6	S5.C.1.b	Created stewardship opportunities (or partnered with others) to encourage resident participation in activities such as those described in S5.C.1.b.	Yes
7	S5.C.1.b	Used results of measuring the understanding and adoption of targeted behaviors among at least one audience in at least one subject area to direct education and outreach resources and evaluate changes in adoption of targeted behaviors. (Required no later than February 2, 2016, S5.C.1.b)	Not Applicable
7b	S5.C.1.b	Attach description of how this requirement was met.	
8	S5.C.2.a	Describe the opportunities created for the public to participate in the decision making processes involving the development, implementation and updates of the Permittee's SWMP. (S5.C.2.a)	Public participation is requested in most all of our outreache efforts,from our website to our publications and all manor between.

9	S5.C.2.b	Posted the updated SWMP Plan and latest annual report on your website no later than May 31. (S5.C.2.b)	Yes
9b	S5.C.2.b	List the website address.	<a href="http://www.ci.lacey.wa.us/city-government/city-departments/public-works/water-resources/storm-and-surface-water-programs/policies-plans-and-regulations">http://www.ci.lacey.wa.us/city-government/city-departments/public-works/water-resources/storm-and-surface-water-programs/policies-plans-and-regulations</a>
10	S5.C.3.a.i - vi	Maintained a map of the MS4 including the requirements listed in S5.C.3.a.i.-vi.	Yes
11	S5.C.3.b.v	Implemented a compliance strategy, including informal compliance actions as well as enforcement provisions of the regulatory mechanism described in S5.C.3.b. (S5.C.3.b.v)	Yes
12	S5.C.3.b.vi	Updated, if necessary, the regulatory mechanism to effectively prohibit illicit discharges into the MS4 per S5.C.3.b.vi. (Required no later than February 2, 2018)	Not Applicable
12b		Cite the Prohibited Discharges code reference	
13	S5.C.3.c.i	Implemented procedures for conducting illicit discharge investigations in accordance with S5.C.3.c.i.	Yes
13b	S5.C.3.c.i	Cite methodology	Programs include Private Facilities Inspections, Catch basin/Manhole inspections,Ditch Inspections,Outfall Inspections,Stormwater BMP Inspections, and Vidio inspections as needed
14	S5.C.3.c.i	Percentage of MS4 coverage area screened in reporting year per S5.C.3.c.i. (Required to screen 40% of MS4 no later than December 31, 2017 (except no later than June 30, 2018 for the City of Aberdeen) and 12% on average each year thereafter. (S5.C.3)	25
15	S5.C.3.c.ii	List the hotline telephone number for public reporting of spills and other illicit discharges. (S5.C.3.c.ii)	360-491-5644
15b	S5.C.3.c.ii	Number of hotline calls received.	142
16	S5.C.3.c.iii	Implemented an ongoing illicit discharge training program for all municipal field staff per S5.C.3.c.iii.	Yes
17	S5.C.3.c.iv	Informed public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste. (S5.C.3.c.iv)	Yes
17b	S5.C.3.c.iv	Describe the information sharing actions. (S5.C.3.c.iv)	We include sharing in all Stormwater related communication and programs.

18	S5.C.3.d	Implemented an ongoing program to characterize, trace, and eliminate illicit discharges into the MS4 per S5.C.3.d.	Yes
19	S5.C.3.d.iv	Number of illicit discharges, including illicit connections, eliminated during the reporting year. (S5.C.3.d.iv)	142
20	S5.C.3.d.iv	Attach a summary of actions taken to characterize, trace and eliminate each illicit discharge found by or reported to the permittee. For each illicit discharge, include a description of actions according to required timeline per S5.C.3.d.iv	2014 SPILLS & IDDE_20_03182015_0937.xls
21	S5.C.3.e	Municipal illicit discharge detection staff are trained to conduct illicit discharge detection and elimination activities as described in S5.C.3.e.	Yes
22	S5.C.4.a	Implemented an ordinance or other enforceable mechanism to address runoff from new development, redevelopment and construction sites per the requirements of S5.C.4.a.	Yes
24	S5.C.4.a.i	Number of exceptions granted to the minimum requirements in Appendix 1. (S5.C.4.a.i., and Section 6 of Appendix 1)	0
25	S5.C.4.a.i	Number of variances granted to the minimum requirements in Appendix 1. (S5.C.4.a.i., and Section 6 of Appendix 1)	0
26	S5.C.4.b.i	Reviewed Stormwater Site Plans for all proposed development activities that meet the thresholds adopted pursuant to S5.C.4.a.i. (S5.C.4.b.i)	Yes
26b	S5.C.4.b.i	Number of site plans reviewed during the reporting period.	23
27	S5.C.4.b.ii	Inspected, prior to clearing and construction, permitted development sites that have a high potential for sediment transport as determined through plan review based on definitions and requirements in Appendix 7 Determining Construction Site Sediment Damage Potential, or alternatively, inspected all construction sites meeting the minimum thresholds adopted pursuant to S5.C.4.a.i. (S5.C.4.b.ii)	Yes
27b	S5.C.4.b.ii	Number of construction sites inspected per S5.C.4.b.ii.	23
28	S5.C.4.b.iii	Inspected permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. (S5.C.4.b.iii)	Yes
28b	S5.C.4.b.iii	Number of construction sites inspected per S5.C.4.b.iii.	23
29	S5.C.4.b.ii, iii and v	Number of enforcement actions taken during the reporting period (based on construction phase inspections at new development and redevelopment projects). (S5.C.4.b.ii, iii and v)	0
30	S5.C.4.b.iv	Inspected all permitted development sites that meet the thresholds in S5.C.4.a.i upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. (S5.C.4.b.iv)	Yes

31	S5.C.4.b.ii-iv	Achieved at least 80% of scheduled construction-related inspections. (S5.C.4.b.ii-iv)	Yes
32	S5.C.4.b.iv	Verified a maintenance plan is completed and responsibility for maintenance is assigned for projects. (S5.C.4.b.iv)	Yes
33	S5.C.4.c	Implemented provisions to verify adequate long-term operation and maintenance (O&M) of stormwater treatment and flow control BMPs/facilities that are permitted and constructed pursuant to S5.C.4. a and b. (S5.C.4.c)	Yes
35	S5.C.4.c.iii	Annually inspected stormwater treatment and flow control BMPs/facilities per S5.C.4.c.iii.	Yes
35b	S5.C.4.c.iii	If using reduced inspection frequency for the first time during this permit cycle, attach documentation per S5.C.4.c.iii	Not Applicable
36	S5.C.4.c.iv	Inspected new residential stormwater treatment and flow control BMPs/facilities and catch basins every 6 months per S5.C.4.c.iv to identify maintenance needs and enforce compliance with maintenance standards.	Yes
37	S5.C.4.c.v	Achieved at least 80% of scheduled inspections to verify adequate long-term O&M. (S5.C.4.c.v)	Yes
38	S4.C.4.c.vi	Verified that maintenance was performed per the schedule in S5.C.4.c.vi when an inspection identified an exceedance of the maintenance standard.	Yes
38b	S5.C.4.c.vi	Attach documentation of any maintenance delays. (S5.C.4.c.vi)	Not Applicable
39	S5.C.4.d	Provided copies of the Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity to representatives of proposed new development and redevelopment. (S5.C.4.d)	Yes
40	S5.C.4.e	All staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement are trained to conduct these activities. (S5.C.4.e)	Yes
42	S5.C.4.g	Participated and cooperated with the watershed-scale stormwater planning process led by a Phase I county. (S5.C.4.g)	Not Applicable
43	S5.C.5.a	Implemented maintenance standards as protective, or more protective, of facility function as those specified in Chapter 4 of Volume V of the 2005 Stormwater Management Manual for Western Washington.	Yes
44	S5.C.5.a	Applied a maintenance standard that is not specified in the Stormwater Management Manual for Western Washington.	Not Applicable
44b	S5.C.5.a	Please note what kinds of facilities are covered by this alternative maintenance standard. (S5.C.5.a)	
45	S5.C.5.a.ii	Performed timely maintenance per S5.C.5.a.ii.	Yes

46	S5.C.5.b	Annually inspected all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities. (S5.C.5.b)	Yes
46b	S5.C.5.b	Number of known municipally owned or operated stormwater treatment and flow control BMPs/facilities. (S5.C.5.b)	882
46c	S5.C.5.b	Number of facilities inspected during the reporting period. (S5.C.5.b)	429
46d	S5.C.5.b	Number of facilities for which maintenance was performed during the reporting period. (S5.C.5.b)	315
47	S5.C.5.b	If using reduced inspection frequency for the first time during this permit cycle, attach documentation per S5.C.5.b.	Not Applicable
48	S5.C.5.c	Conducted spot checks and inspections (if necessary) of potentially damaged stormwater facilities after major storms as per S5.C.5.c.	Yes
49	S5.C.5.d	Inspected all municipally owned or operated catch basins and inlets as per S5.C.5.d, or used an alternative approach. (Required once no later than August 1, 2017 and every two years thereafter, except once no later than June 30, 2018 and every two years thereafter for the City of Aberdeen)	Not Applicable
49b	S5.C.5.d	Number of known catch basins.	4997
49c	S5.C.5.d	Number of catch basins inspected during the reporting period.	3814
49d	S5.C.5.d	Number of catch basins cleaned during the reporting period.	3814
50	S5.C.5.d.i-ii	Attach documentation of alternative catch basin cleaning approach, if used. (S5.C.5.d.i or ii)	Not Applicable
51	S5.C.5.f	Implemented practices, policies and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. (S5.C.5.f)	Yes
52	S5.C.5.g	Implemented an ongoing training program for Permittee employees whose primary construction, operations or maintenance job functions may impact stormwater quality. (S5.C.5.g.)	Yes
53	S5.C.5.h	Implemented a Stormwater Pollution Prevention Plan for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee in areas subject to this Permit that are not required to have coverage under an NPDES permit that covers stormwater discharges associated with the activity. (S5.C.5.h)	Yes
54	S7.A	Complied with the Total Maximum Daily Load (TMDL)-specific requirements identified in Appendix 2. (S7.A)	Yes
55	S7.A	For TMDLs listed in Appendix 2: Attach a summary of relevant SWMP and Appendix 2 activities to address the applicable TMDL parameter(s). (S7.A)	TMDL_55_03182015_0954.docx

56	S8.A	Attach a description of any stormwater monitoring or stormwater-related studies as described in S8.A.	Monitoring_56_03182015_1004.docx
57	S8.B.1	Participated in cost-sharing for the regional stormwater monitoring program (RSMP) for status and trends monitoring. (S8.B.1)	Yes
58	S8.C.1	Participated in cost-sharing for the regional stormwater monitoring program (RSMP) for effectiveness studies. (S8.C.1) (Required to begin no later than August 15, 2014)	Yes
59	S8.D.1	Contributed to the RSMP for source identification and diagnostic monitoring information repository in accordance with S8.D.1. (Required to begin no later than August 15, 2014)	Yes
60	G3	Notified Ecology in accordance with G3 of any discharge into or from the Permittees MS4 which could constitute a threat to human health, welfare or the environment. (G3)	Yes
61	G3	Number of G3 notifications provided to Ecology.	0
62	G3.A	Took appropriate action to correct or minimize the threat to human health, welfare, and/or the environment per G3.A.	Yes
63	S4.F.1	Notified Ecology within 30 days of becoming aware that a discharge from the Permittee's MS4 caused or contributed to a known or likely violation of water quality standards in the receiving water. (S4.F.1)	Not Applicable
64	S4.F.3.a	If requested, submitted an Adaptive Management Response report in accordance with S4.F.3.a.	Not Applicable
65	S4.F.3.d	Attach a summary of the status of implementation of any actions taken pursuant to S4.F.3 and the status of any monitoring, assessment, or evaluation efforts conducted during the reporting period. (S4.F.3.d)	Not Applicable
66	G20	Notified Ecology of the failure to comply with the permit terms and conditions within 30 days of becoming aware of the non-compliance. (G20)	Not Applicable
67	G20	Number of non-compliance notifications (G20) provided in reporting year.	0
67b	G20	List the permit conditions described in non-compliance notification(s).	Not Applicable

*I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Richard McBroom

3/26/2015 7:51:39 AM

Signature

Date

# DRAFT

## **City of Lacey Departmental Coordination Strategy for compliance with the Western Washington Phase II Municipal Stormwater Permit**

Effective Date: March 31, 2015

Permit Number: WAR04-5011

### **Responsible Official:**

Scott Spence, City Manager

### **Phase II Permit Signatory:**

Scott Egger, Public Works Director

### **Permit Coordinators:**

Doug Christenson, Water Resources Engineer & Permit Contact

Rick McBroom, Water Resources Engineering Technician III

### **Purpose:**

The Western Washington Phase II Municipal Stormwater Permit (Phase II Permit) is issued by the Washington State Department of Ecology to allow municipal separate stormwater systems to discharge to waters of the state. The Phase II Permit includes broad-ranging requirements which are implemented by several departments within the City of Lacey, primarily the Department of Public Works. One of the many conditions of the 2013-2018 Phase II Permit requires each permitted jurisdiction to develop coordination mechanisms among departments, to eliminate barriers to compliance with the terms of the permit. A written description of Lacey's internal coordination mechanisms is required to be submitted to Ecology in the Annual Report due no later than March 31, 2015, per Permit Section S5.A.5.b. This draft Departmental Coordination Strategy is intended to describe departmental roles, responsibilities and coordination for the purpose of compliance with this Permit section.

### **Guidelines:**

- 1) The Phase II Permit is a broad-ranging regulatory permit which requires city-wide compliance, and as such, shall be considered as a city-wide permit.
- 2) Permit Coordinator: The City Manager has the authority to designate the Phase II Permit Coordinator, who is responsible for coordinating the City's compliance with the permit. Currently two staff members from the Water Resources division of the Public Works Department act as co-coordinators. All other departments responsible for complying with any portion of the Phase II Permit shall work cooperatively with the Permit Coordinators, responding and providing accurate tracking and reporting information in a timely manner.

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The Phase II Permit Coordinators' duties include:

- a. Prepare all Phase II Permit-related submittals to Ecology.
  - b. Coordinate National Pollutant Discharge Elimination System (NPDES) compliance efforts for the City, including collecting tracking and reporting data from the different departments, as well as preparing and submitting annual reports and Stormwater Management Program (SWMP) updates to the Washington Department of Ecology.
  - c. Assist the various City departments in identifying and understanding their individual responsibilities for complying with the pertinent sections of the Phase II Permit.
  - d. Assist in the development or updating of departmental programs or procedures necessary to comply with the Phase II Permit requirements.
  - e. Assist in training efforts, when applicable to Phase II Permit requirements.
  - f. Coordinate required illicit discharge detection and elimination training for all field staff.
  - g. Work with individual departments to assist in resolving issues of non-compliance.
  - h. Drafting and submitting G3 (discharge/spills) and/or G20 (non-compliance) notification letters to Ecology, when applicable.
- 3) All municipal field staff, including Fire and Police staff, are responsible for reporting illicit discharges to the City's Spill Hotline number: 360-491-5644.
- 4) All City departments are responsible for working with the Phase II Permit Coordinator to resolve instances of permit noncompliance, including:
- a. Notifying the Phase II Permit Coordinator as soon as they become aware of any instance of non-compliance; and
  - b. Identifying steps and a timeline for resolving issues of non-compliance that will be identified in G3 or G20 notifications to Ecology.
- 5) Compliance with Standards
- a. All daily activities and City operations that can impact stormwater or water quality, must comply with applicable stormwater management standards as listed in the following documents:
    - i. The Department of Ecology's *Stormwater Management Manual for Western Washington*, Volume IV, Source Control (adopted by reference in the City of Lacey 2010 *Stormwater Design Manual*);
    - ii. City of Lacey 2014 *Development Guidelines and Public Works Standards*, Chapter 5, Stormwater Maintenance Code; and
    - iii. Thurston County Integrated Pest and Vegetation Management Plan
  - b. All stormwater development review, inspection and maintenance activities must comply with applicable adopted standards as contained in the following documents (or updates):
    - i. The City of Lacey 2010 *Stormwater Design Manual*; and
    - ii. The City of Lacey 2014 *Development Guidelines and Public Works Standards*.

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- 6) All City of Lacey departments are responsible for training staff, implementing requirements, keeping records and providing accurate tracking and reporting data for the NPDES programs under their purview.

- 7) Departmental Responsibilities

It is the responsibility of each department director to assign the duties and responsibilities identified in this policy to the appropriate members of their staff, and ensure they are being implemented correctly. The following are department-specific responsibilities:

- a. Public Works

- i. The Public Works Department shall be responsible for leading the majority of the City's NPDES compliance efforts, including the following Phase II Permit sections:  
S5.C.1 Public Education and Outreach; S5.C.2 Public Involvement and Participation; S5.C.3 Illicit Discharge Detection and Elimination; S5.C.4 Controlling Runoff from New Development, Redevelopment and Construction Sites; and S5.C.5 Municipal Operations and Maintenance.
- ii. Public Works is also specifically responsible for the following Permit-related activities:
  - a. Overall coordination of Phase II Permit compliance activities.
  - b. Annual Reporting.
  - c. Updating and submittal of the Stormwater Management Program (SWMP) plan.
  - d. Contact with the Department of Ecology regarding permit issues.
  - e. Submitting G3 and G20 noncompliance notifications, if needed.
- iii. Public Works, with the cooperation of the Community Development department, is responsible for compliance with Section S5.C.4 of the Phase II Permit, entitled "Controlling Runoff from New Development, Redevelopment and Construction Sites." The many responsibilities under this permit section include, but are not limited to:
  - a. The development, updating, and implementation of the City of Lacey *Stormwater Design Manual* and the *Development Guidelines and Public Works Standards*.
  - b. Conducting development review in compliance with adopted standards and policies.
  - c. Tracking and reporting of development review activities.
  - d. Tracking, reporting and justifying any deviations (e.g. variances or exceptions) from adopted stormwater management standards.
  - e. Collection of final as-built stormwater system drawings for new and redevelopment projects, and distribution of as-builts to designated staff for mapping and inspection.
  - f. Managing and tracking stormwater maintenance bonds and agreements.
  - g. Capital Improvement Program project planning, design, construction and inspection.
  - h. Inspections of private development sites during construction of street amenities, right-of-way frontage improvements and utilities.
  - i. Ensuring ongoing inspection and maintenance of private stormwater systems.

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- iv. Public Works - Operations Division shall be responsible for ensuring the ongoing inspection and maintenance of all City-owned and/or City-operated stormwater facilities located on properties under City Of Lacey purview, in compliance with Permit Section S5.C.5. In general, the Transportation Maintenance/Stormwater division is responsible for all publicly-owned stormwater facilities located in City streets and parcels, except those located within City parks, which are maintained by Parks/Facilities Maintenance division.
  - v. Public Works - Operations shall be responsible for developing, implementing and updating Standard Operating Procedures to ensure compliance with the Phase II Permit.
- b. Community Development
- i. The Community Development department shall be responsible for updating all city codes, policies, plans and standards relating to land-use, development and stormwater management, implemented by or under their purview on private development sites, as necessary to meet the requirements of the Phase II Permit.
  - ii. Community Development and Public Works field inspectors shall conduct and/or coordinate inspections of temporary erosion control measures on private development sites beginning prior to initial site clearing/grading, through construction of utilities, infrastructure and structures, and until project completion and final approval.
- c. Information Services
- i. Mapping data shall be provided by the Public Works department to the Information Services department (I.S.). I.S. shall maintain and update the City's storm system mapping, including public and private storm system mapping, in the City's G.I.S. (Geographic Information System) in compliance with Section S5.C.3.a of the Permit.
  - ii. The City's Stormwater Management Program Plan (SWMP) shall be prepared and updated by the Water Resources division of Public Works. Information Services shall assist in posting the annual update of the SWMP on the City of Lacey website.
- d. Other City Departments
- i. All other City departments shall be responsible for compliance with applicable building and land management standards, standard operating procedures, staff training, and tracking of activities, as appropriate, to meet the requirements of the Phase II Permit.

## **Procedures:**

- 1) All departments shall report annual tracking information for Phase II Permit-related activities to the Permit Coordinator within two weeks of the date of the request.
- 2) Tracking of Phase II Permit compliance activities shall indicate the following information:  
The name of the responsible staff member, the date of the action, the location, a description of the action being tracked, and the results of the action.

Public education is a significant component of Lacey's comprehensive SWMP. Lacey Water Resources has been conducting education and outreach activities related to stormwater management for many years. Efforts focus on educating the public to prevent pollutants from entering surface and groundwater and providing information to residents and developers concerning management of stormwater quantity and quality. These efforts have been coordinated with other local jurisdictions to make the best use of limited resources and to disseminate consistent messages.

## Public Education and Outreach

The following section describes the current status of the City of Lacey stormwater management efforts as required by Section S5.C.1 of the Permit.

- General impacts are being addressed in many ways. Lacey utilizes a variety of avenues to disseminate information to the public including the City of Lacey and Stream Team website, Stream Team Facebook page, City of Lacey Twitter, informational meetings, workshops, field trips, newspaper/newsletter articles, printed materials, projects with schools, community events, volunteer projects and press releases.
- The City of Lacey currently provides various brochures covering all aspects of stormwater management from flow control to streamside vegetation. They are used in conjunction with other activities to educate and invite the public to become involved in the protection of our environment.
- Lacey is member of the Stormwater Outreach for Regional Municipalities (STORM) Group. STORM is a coalition of cities and counties in the Puget Sound region, working together to address nonpoint pollution by advancing broad-scale behavior change among Puget Sound residents. The group has implemented a Department of Ecology grant-funded regional awareness campaign, *Puget Sound Starts Here (PSSH)* as a foundation upon which jurisdictions can build more specific behavior-change programs.

Lacey has implemented the PSSH campaign by:

- Branding written and online material with the PSSH logo
  - Hosting a PSSH booth at the 2014 Lacey Spring Fun Fair during PSSH month which included, PSSH salmon stampers and PSSH Plinko
  - Distributed a bright, colorful brochure that includes 10 BMPs residents can do to protect Puget Sound, which is branded with PSSH colors and logo. This is distributed at events and also at City Hall.
  - Declaring May, 2014 Puget Sound Starts Here month in Lacey.
- Since 1990, Lacey has participated in the regional Stream Team Program as a tool for outreach to local businesses and residents. Stream Team is jointly funded by the storm

and surface water utilities of the cities of Lacey, Olympia, Tumwater, and Thurston County. Stream Team involves citizens in the protection and enhancement of our local water resources through education and action. Citizens learn about water quality through field classes and trainings, and then give back to the community through action projects. Stream Team volunteers contribute hundreds of hours annually to our community through habitat monitoring riparian re-vegetation projects, storm drain marking, and other activities. In 2014, Stream Team volunteers contributed 1,195 hours of service to improving local streams and habitat in Lacey alone.

- Each winter, Lacey performs the editor/coordinator role for the Stream Team Newsletter. The newsletter is distributed to more than 2,500 residents each quarter across all 4 jurisdictions. It is also posted to the website and on Facebook. Stream Team Coordinators from the three other jurisdictions perform the editor/coordinator role during the remaining three quarters of the year. Lacey pays for graphic design expenses for the newsletter each quarter. Articles include volunteer recruitment as well as stormwater educational messages including IDDE and BMPs messages for the general public and homeowners. IDDE and BMP messages include carpet cleaning and other household maintenance, yard care, vehicle maintenance, use and care of hazardous cleaning supplies and pet waste.
- Lacey also facilitates volunteer projects for local non-profit groups which all include an introduction to stormwater awareness, stormwater treatment and residential best management practices. Groups such as college classes, youth groups, churches and military troops assist the City in removing invasive species, such as scotch broom, from our stormwater facilities, and improving the riparian buffer along Woodland Creek. In 2014, Lacey facilitated 17 of these volunteer groups (their hours are included in the bullet above)
- South Sound GREEN (Global Rivers Environmental Education Network) is a program sponsored by local jurisdictions, school districts, and individual teachers from local school districts. GREEN teachers instruct students using a well-rounded curriculum aimed at many levels of watershed protection and understanding. Lacey signed a 5 year agreement in 2011 to participate in this program, and contributes \$12,000 annually. Lacey also provides time, resources, classroom presentations and field trips for GREEN teachers.
- Lacey Water Resources has a Pet Waste Awareness Program.
  - The neighborhood portion of the program provides signs and bag dispensers to all interested neighborhoods and apartment complexes within its Lacey City Limits. Signs and bag dispensers are mounted in areas of high pet use, educating and encouraging pet owners to pick up after their pets. Informational brochures about pet waste are distributed to residents of the neighborhoods and apartment complexes that receive neighborhood pet waste bag dispensers. The City is measuring the success of the program through surveys sent to program participants. (See Section 2.3 below).

- The resident portion of this program provides any resident of Lacey or person who visits a City of Lacey outreach table at a community event a free “Bags on Board” portable pet waste bag dispenser, which attaches to their dog leashes. Recipients of the portable pet waste bag dispensers must sign the “Pet Poop Promise” to receive a dispenser. The dispensers say “Pick up for Puget Sound” and include the Stream Team website, which residents can visit to learn more about stormwater pollution.
  - Pet waste markers (or buttons) were applied to walking paths at four city parks. They read “Pick Up Poop Around The Loop” and are intended to educate residents who use the walking paths about the importance of picking up after their pets, especially while visiting these busy parks, some of which have lakes or creeks within the park boundary.
- The City participates in various public outreach events to reach different audiences, increase stormwater awareness and encourage best management practices as they relate to stormwater pollution and runoff. In 2014, the City participated in 11 different outreach events and reached an estimated 7,630 Lacey residents (see Section 2.6 for more detail). Messages shared include: general stormwater awareness, residential stormwater BMPs, pet waste, vehicle leaks and natural yard care.
- Storm drain markers (or buttons) are applied to the curbs near storm drains in Lacey. They read “No Dumping, Flows to Waterways” to educate residents walking by that the runoff entering storm drains flows to local waterways and that dumping is not allowed. Through efforts completed over the past several years, nearly all of Lacey’s existing storm drains are marked with these weather resistant buttons. The City’s 2009 Development Guidelines and Public Works Standards requires that the curbs or roadways immediately adjacent to all newly installed storm drains are marked with the same buttons. In 2014, 153 storm drains were marked with the “No Dumping, Flows to Waterways” buttons.
- Landscapes are being addressed in many ways, including free workshops on Naturescaping, Rain Gardens and Shoreline Restoration for residents and landscape professionals. These workshops provide information on utilizing appropriate landscaping techniques and native plants to improve water quality and reduce runoff. Educational material focused on landscaping is available at City Hall and on the City’s and Stream Team’s website, and bookmarks with information about the Grow Smart Grow Safe app are given out with all outdoor water conservation materials.
- To prevent polluted runoff from charity car washes, the City, in coordination with other local jurisdictions, implemented a *Clean Cars, Clean Streams* Program to encourage local non-profit groups to either 1) purchase commercial car wash tickets from the Puget Sound Car Wash Association, or 2) hold their charity car washes at an approved site that receives treatment before being discharged to surface water or groundwater. For car washes held in Lacey at approved sites, the City offers a car wash kit that groups can check out which includes advertising material, hose nozzles, buckets, sponges and bio-

degradable car wash soap. The groups also receive information about protecting surface water from pollution associated with washing cars on impermeable surfaces, which they are asked to provide the car wash recipients with. In 2014, six charity groups from Lacey purchased car wash tickets from the Puget Sound Car Wash Association, and another six groups hosted *Clean Cars, Clean Streams* charity car washes at approved Lacey locations.

- Buffers are being addressed through efforts by Lacey to protect the entire Woodland Creek corridor. This area is protected with 200-foot riparian buffers which are mandated by City ordinance. In addition, the City has acquired several parcels in the corridor. The result is that the entire creek within city limits is now protected
- The Wellhead Protection Plan is intended to provide an overview of the extent of actions necessary to protect groundwater and to reduce risks to the City's water supply. It is also intended to be read in the context of on-going environmental protection and water resource planning activities by the City and County, such as Stormwater Management, Groundwater Monitoring Program implementation, water system planning and development, and Growth Management Act (GMA) planning and implementation.
- The importance of vehicle maintenance is being communicated to Lacey residents using brochures and newsletter article. The public is being informed about the effects of pollution from leaky vehicles on groundwater and surface water.
- In 2004 the City of Lacey passed Ordinance Number 1233 to bring the city into compliance with State law regarding stormwater mitigation. A Private Facilities Inspection Program was developed to ensure private and city-owned stormwater facilities are being maintained properly. The program is designed to cover all possible effects on water quality. It is the City's intent to contact all property owners within the City of Lacey to provide guidance on proper maintenance of their individual stormwater facilities. The inspector conducts informational meetings on-site to inform the property owners about their storm system, perform an inspection of the site, note all deficiencies, and provide a report outlining repairs needed. The City also provides contact information for illicit discharges.
- Ordinance #1332 (Appendix B page-40) was adopted by City Council in 2009, updating Ordinance #1233 and Chapter 5a of the City of Lacey Development Guidelines. It outlines new minimum maintenance requirements, waste disposal, inspection procedures/authority, prohibited substances and enforcement policies as required by the permit.

## **Measuring Understanding**

The City shall measure the understanding and adoption of the targeted behaviors among the targeted audiences. The resulting measurements shall be used to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors.

The City of Lacey has created programs to inform and involve the public on many different topics. The goal of the programs is adoption of desired behaviors and reduction of pollution to the maximum extent practicable.

In 2011, the City of Lacey completed a behavior survey of the residents in its stormwater service area to collect baseline information about general awareness of stormwater issues and current behaviors that relate to stormwater pollution. The City is utilizing this information to identify gaps in basic awareness of stormwater and opportunities to encourage behavior change through stormwater education and outreach activities. This information will guide the City's education and outreach programs for the coming years. The survey will be repeated in 2015 to measure program success and identify areas for improvement.

One specific program that has been measured is the neighborhood pet waste station program. The City has provided free pet waste stations (sign and dispenser) to Homeowners Associations (HOAs) and Apartment Complexes for the past several years. As part of this program, participants agree to maintain the station and keep it filled with bags for pet owners to use. An evaluation is solicited from each pet waste station recipient 6 months following installation. One of the questions asks if the neighborhood has noticed a decrease in the amount of pet waste left on the ground, 100% of 2014 respondents reported that they noticed a decrease in pet waste left on the ground following the installation of a station in their neighborhood. Because this survey continues to show a very high compliance and satisfaction rate, the City has decided to continue the neighborhood pet waste station program as long as funding allows.

## 2014 Illicit Discharge Detection and Elimination

Request Date	Request number	Description	Comments	Facility ID
114/01/06	WF0143309	Standby- spill response at Carpenter and Malibu	Auto accident at Carpenter and Malibu	WNCO
114/01/06	WF0143310	Standby - Spill response at Marvin and Quinault	Car accident at Marvin and Quinault	NEO
114/01/06	WF0143311	Standby- Spill response @ Marvin and Martin Way	Clean up anti freeze at Marvin and Martin Way.	NEO
114/01/08	WF0143350	Standby - Spill Response	Auto accident on Ruddell at 30th. Responded and cleaned up antifreeze.	EAO
114/01/10	WF0143419	Spill response	Disabled semi on Martin Way at Carpenter	WNCO
114/01/14	WF0143499	Standby - Spill Response	Auto accident on Martin Way at Discount Tire, cleaned up antifreeze.	WNCO
114/01/16	WF0143537	Standby - Spill Response	Auto accident in the intersection of College and Lacy Blvd.	WNCO
114/01/21	WF0143598	Standby - Spill Response	Spill response to an accident at 1325 Marvin Rd	NEO
114/01/23	WF0143677	Spill Response	auto accident on College at 22nd	CLO
114/01/23	WF0143678	Spill Response	Auto accident at 14th and Golf Club	CLO
114/01/24	WF0143701	Spill Response	Auto accident on Ruddell Rd at Yelm Hwy	SOO
114/01/27	WF0143763	Spill Response	Auto accident on 14th ave at WCL	CLO
114/01/28	WF0143828	Standby- Spill Response	Auto accident at 22nd and College	CLO
114/02/03	WF0144017	Spill response	Clean up oil and antifreeze.	
114/02/06	WF0144111	Standby - Spill Response	Auto accident on College St, south of Mullen Rd.	CLO
114/02/11	WF0144229	Standby - Spill response	Auto accident on Martin Way at Park and Ride	WNCO
114/02/11	WF0144230	Spill Response	Auto accident on College at 16th	WNCO
114/02/18	WF0144321	Spill Response	Auto accident on College at 7th	WNCO
114/02/20	WF0144447	Spill Response	Auto accident at Corporate and Intelco	SOO
114/03/03	WF0144693	Standby - Spill Response	Auto accident on Ruddell at Pacific	WNCO
114/03/04	WF0144739	Standby - Spill Response	Auto accident on Yelm Hwy at Compton	EAO
114/03/05	WF0144757	Standby - Spill Response	Report of fuel cans or fuel spilled at the College 45th roundabout. Responded and found nothing.	SOO
114/03/10	WF0144843	Standby - Spill Response	Auto accident Martin Way and River Ridge	WNCO

114/03/10	WF0144844	Standby - Spill Response	Auto accident at Martin and college	WNCO
114/03/11	WF0144902	Standby: Spill response at College St SE & 7th Ave	Vehicle collision. Spilled about 1 quart of antifreeze. Applied absorbent. Cleaned and swept up debris.	WNCO
114/03/12	WF0144911	Spill Response	Check city structures downstream of Sutter Metals, Due to large amount of runoff during rain event	WNCO
114/03/17	WF0145005	Spill response	Clean up spill	PD0002
114/03/26	WF0145259	Standby - Spill Response	Rollover accident on the 800 block of Sleater Kinney SE, cleaned up antifreeze.	WDCO
114/03/31	WF0145332	Spill Response	Auto accident at Britton Lane and Britton Parkway	HPO
114/03/31	WF0145337	Standby - Spill Response	report of coolant in roadway, in front of park and ride on Martin Way. Responded and found nothing.	WNCO
114/04/01	WF0145396	Spill Response	Auto accident, 3500 block of College SE	CLO
114/04/03	WF0145452	spill response	Spill at College I.e. in front of Safeway.	SOO
114/04/04	WF0145468	Standby - Spill Response	This accident had already been cleaned up during regular work hours(see wr #145452 / 1) Dispatch should not have called the standby person.	SOO
114/04/08	WF0145532	Spill response	Clean up anti-freeze	SLO
114/04/08	WF0145533	Spill response	Clean up material spilled.	HPO
114/04/14	WF0145640	Standby - Spill Response	Paint spill on Yelm Hwy at Balustrade Blvd.	SOO
114/04/21	WF0145720	Spill response	Cleaned up motor oil at 38th and Goldfinch	EAO
114/04/21	WF0145731	Spill Response	Motorcycle parked on sidewalk at Willamette and Hogum Bay leaking oil.	NEO
114/04/22	WF0145754	Spill Response	Auto accident on 29th Ave NE	NEO
114/04/23	WF0145765	Standby - Spill Response	Auto accident at 3305 Carpenter Rd SE	EAO
114/04/24	WF0145818	Spill Response	Auto accident on Pacific at Webb, cleaned up antifreeze and transmission oil.	WNCO
114/04/24	WF0145819	Spill Response	Auto accident on Hogum at Willamette	NEO
114/04/25	WF0145843	Spill Response	Auto accident at Yelm Hwy. & College St.	SOO

114/05/13	WF0146156	Spill response for Hogum Bay Rd. & Willamette Dr.	Vehicle ran stop sign and was hit by oncoming traffic spilling some coolant. Spread absorbent and swept it up and dumped in dumpster at the shop.	NEO
114/05/15	WF0146190	Spill Response	Auto accident on College at 6th Ave SE. Clean up antifreeze	CDO
114/05/18	WF0146312	Standby-spill response, traffic accident at 14th & Sleater-Kinney	Arrived on scene, spill was in center lane, southbound on Sleater-Kinney. Tow truck driver (or LPD) must have cleaned up the spill prior to my arrival. There was some cat litter left on the stain from the spill. Notified 151 of what I found. No liquids to clean up were present.	CLO
114/05/20	WF0146315	Spill response request at Hogum Bay and Willamette	Auto accident on Willamette at Hogum Bay	HPO
114/05/22	WF0146380	Standby-Anti-freeze spill at Carpenter & 37th Ave.	Arrived on scene at above intersection, spread absorbent over antifreeze spill.	SEO
114/05/26	WF0146428	Standby-Auto accident at Hogum Bay & Willamette	Cleaned up oil on ground.	NEO
114/05/30	WF0146538	Standby-Auto accident on 6th Ave SE at Anytime Fitness.	Applied dry sweep, cleaned up debris. Put sign in	*MULTIPLE
114/05/30	WF0146538	Standby-Auto accident on 6th Ave SE at Anytime Fitness.	Repair/replace sign and pole as needed. Signs & Markings cage. Parks needs to look at tree.	*MULTIPLE
114/06/03	WF0146580	Spill response needed at Pacific and Ruddell	Auto accident at Pacific and Ruddell	
114/06/04	WF0146621	Spill Response	Auto accident on College at 6th SE	CDO
114/06/06	WF0146687	Standby-Emergency road closure and spill response-motorcycle accident.	Shut down Carpenter Rd. so Lacey Police could perform investigation of vehicle accident. Also	EAO

			cleaned up gas and oil spill.	
114/06/07	WF0146688	Standby-Clean up antifreeze and oil from accident.	Cleaned up antifreeze and oil spill.	SOO
114/06/10	WF0146735	Standby-Spill response at Sleater-Kinney & 7th Ave. SE.	All vehicles were gone when I arrived. Called dispatch to verify location and they informed me that the vehicle was behind T-Mobile. I went to T-Mobile and cleaned up an anti-freeze spill. There were no vehicles behind T-Mobile, just a puddle of anti-freeze.	WDCO
114/06/11	WF0146733	Standby-Anti freeze spill on Commerce Place Dr. NE	Responded to spill, put down absorbent and cleaned up spill. Tree down, contacted Street Dept.	*MULTIPLE
114/06/12	WF0146751	Spill Response	Buckets discovered by Mark Way. Responded and was unable to determine substance. I contacted the DOE and they responded and tested it to find out that it was human waste. Dumped waste into lift station 1 and disposed of the containers in the dumpster.	WDCO
114/06/17	WF0146838	Spill Response	3 vehicle accident on College at 13th Ct. Set up traffic control, assisted with traffic, and with cleanup.	CDO
114/06/18	WF0146886	Spill Response	Auto accident on College at 22nd.	CLO
114/06/18	WF0146909	Standby-4 car accident at Marvin & Quinault and 2 car at Marvin & Safeway	Called in 151 to assist. Both spills cleaned up.	NEO
114/06/20	WF0146952	Spill Response	2 car rear-end auto accident on Carpenter Rd at 5th Way	WNCO
114/06/27	WF0147059	Spill Response	Auto accident, intersection of College and Lacey Blvd	CDO
114/06/27	WF0147064	Spill Response	Auto accident at Willamette and Hogum Bay	NEO
114/06/27	WF0147068	Spill Response	Auto accident on Carpenter Rd at old entrance to	EAO

			Albertsons	
114/07/03	WF0147221	Standby-spill response for accident at 501 College St. SE	Drove up and down College St, but found no spill or LPD on site.	CDO
114/07/03	WF0147224	Standby-Spill response for 5001 College St. SE	Put down kitty litter and swept up and also picked up debris.	SOO
114/07/04	WF0147226	Standby-Car accident at Hogum Bay & Willamette.	Put down kitty litter and swept in and removed. Also swept up broken glass.	NEO
114/07/04	WF0147228	Standby-Accident at 3rd & College, 1/2 qt. oil on roadway.	Put down kitty litter, swept in and picked up.	CDO
114/07/10	WF0147345	Standby-Car accident at Carpenter & Malibu Dr.	Put down kitty litter, swept in, picked up and some car debris.	EAO
114/07/10	WF0147347	Standby-Car accident at Ruddell & 45th Ave.	Put down kitty litter, swept in, picked up.	SLO
114/07/11	WF0147361	Standby-Spill in roundabout at Pacific & Golf Club Rd.	When I arrived Lacey PD said he thought it might be anti-freeze fluid. He said it dried up and thinks it was from the air conditioning (water). Nothing to clean up. I also drove through the roundabout and didn't see anything to clean up.	WDCO
114/07/14	WF0147388	Standby-Car accident at Martin Way & Marvin Rd.	Cleaned car debris and half gallon of antifreeze on Marvin Rd, headed northbound in outside lane.	NEO
114/07/19	WF0147432	Standby-Spill response for vehicle accident at Ruddell & Yelm Hwy.	Spread absorbent, swept up, and disposed at shop.	SOO
114/07/23	WF0147469	Spill Response	Auto accident on College at the 45th roundabout.	SOO
114/08/01	WF0147732	Standby-Spill response for accident at 6215 Martin Way.	Cleaned up oil spill and debris from roll-over accident.	WDCO
114/08/06	WF0147799	Standby-Spill response at 45th & Seville Dr.	Responded to a couple of gallons of fuel spilled from a vehicle fire. A little fuel went into	SOO

			catch basin with the water run off from the Fire Dept. Installed absorbent mats in 2 catch basins.	
			Cleaned up fuel and debris. Notified Stormwater for follow-up.	
114/08/11	WF0147878	Spill Response	Respond to spill at 54th and Ruddell.	
114/08/17	WF0147995	Standby-Accident at Balustrade & Delaware.	Transmission fluid spill. Spread kitty litter, swept up and helped tow truck operator clean up car parts.	SOO
114/08/25	WF0148094	Spill Response	Auto accident at College and 37th	SOO
114/09/03	WF0148314	Spill Response	Diesel fuel leaking from a 40 foot refrigerated trailer at the north end of Hogum Bay Rd, in front of Harbor Wholesale.	NEO
114/09/05	WF0148400	Standby-Spill response at Carpenter Rd. & 5th Way	Cleaned up absorbent material put down by tow truck driver. Case # 14-4286.	WNCO
114/09/06	WF0148399	Standby-Antifreeze spill at Homann & Pacific.	Cleaned up spill material put down by tow truck driver. Picture on camera.	EAO
114/09/08	WF0148411	Standby-Antifreeze spill at Mullen & Ruddell.	Cleaned up antifreeze spill, case #14-4344.	EAO
114/09/09	WF0148430	Spill Response	Auto accident on College at 3rd Ave	CDO
114/09/10	WF0148552	Standby-Anti-freeze spill at Ruddell & 14th.	Cleaned up anti-freeze spill, case# 4398.	EAO
114/09/12	WF0148532	Spill Response	Auto accident on Carpenter at Diamond	EAO
114/09/12	WF0148535	Spill Response	Auto accident on Martin Way near Taco Bell	WNCO
114/09/13	WF0148553	Standby-Spill response at Martin Way & Galaxy Dr.	Received call that Lacey Fire had taken care of this spill. I was almost on scene so I stopped to be sure no fluids entered the storm system and the spill was cleaned up properly.	HPO
114/09/16	WF0148577	Spill Response	City dump truck blew a radiator hose. Cleaned up on College, from Pacific to Lacey Blvd.	CDO
114/09/22	WF0148658	Standby - Spill Response	Auto accident on Martin Way in front of lift old station 16	CDO
114/09/30	WF0148897	Standby - Spill Response	Auto accident at 1319 Glen Mary Dr SE	EAO

114/09/30	WF0148932	Standby-Spill response at College & 37th Ave.	Cleaned up large amount of transmission fluid, oil, and gas in intersection.	SOO
114/10/03	WF0148986	Standby-Antifreeze spill in 5700 block of Ruddell Rd	Cleaned up anti-freeze spill on road. Case #4817.	SOO
114/10/09	WF0149060	Spill Response	Auto accident at 16th and Judd	EAO
114/10/14	WF0149157	Spill response	Auto accident at 14th Way and Golf Club	CLO
114/10/15	WF0149194	Spill response	Auto accident at 31st and Willamette	HPO
114/10/20	WF0149257	Spill Response	Paint spill on sidewalk, 2600 block of Ruddell Rd, Northbound side.	EAO
114/10/23	WF0149330	Spill Response	Auto accident in the College and 45th Roundabout	SOO
114/10/29	WF0149504	Spill Response	Auto accident on College at the 45th roundabout.	SOO
114/10/29	WF0149506	Standby-Spill response at Martin Way & College.	Put absorbent down and cleaned up in middle of intersection.	WNCO
114/10/31	WF0149534	Spill Response	Auto accident at 31st and Campus Prairie Lp.	NEO
114/10/31	WF0149562	Standby-Antifreeze spill at College & 42nd Lane.	Cleaned up antifreeze spill.	SOO
114/11/01	WF0149561	Standby-Oil spill due to accident at Rainier & Balustrade roundabout.	Cleaned up oil spill.	SOO
114/11/03	WF0149563	Slick road reported on Yelm Hwy W of Corporate Center Dr.	Found nothing to slide on other than wet roadway	PD0001
114/11/07	WF0149662	Spill Response	Auto accident on Marvin, just north of Martin Wy	NEO
114/11/08	WF0149690	Standby-Antifreeze spill at Pacific & Franz.	Cleaned up spill.	EAO
114/11/08	WF0149691	Standby-Oil spilled at Yelm Hwy by Safeway exit.	Cleaned up oil spill.	SOO
114/11/10	WF0149721	Standby-Five car collision at Hogum Bay @ Willamette.	Cleaned spill - oil, swept glass off sidewalk - picked up large debris, called in sweeper - glass spread all over Hogum Bay and some on Willamette. Street tree hit, somewhat sturdy, Oscar to check	HPO

			on Wednesday. Also some black plastic pieces on SW corner to be picked up during daylight hours.	
114/11/10	WF0149722	Standby-Spill response for accident at College & 42nd Ln.	Cleaned up antifreeze spill.	SOO
114/11/18	WF0149832	Standby-Hazardous material spill at 4403 22nd Ave. SE.	Homeowner reported spill on 22nd Ave in front of his residence. He reported approx. 1/2 gallon of liquid had spilled from a metal can which was now crushed and had a strong odor. Responded to scene and found that all liquid had evaporated. Spread dry-sweep on stain in roadway, swept and bagged debris.	CLO
114/11/19	WF0149856	Standby-Accident at College & 29th, spill response for anti-freeze.	Car vs. car vs. telephone pole at above intersection. Cleaned up antifreeze at scene. No fluids had entered storm system.	CLO
114/11/21	WF0149874	Spill response.	Clean up antifreeze at 37th and College st. across from the church.	SOO
114/11/26	WF0149987	Sediment flowing into storm pond from Burton Ray Gardens project.	Use sand bags to block outlet pipe to prevent sediment from flowing to wetland. Remove sandbags when threat of sedimentation is over.	PD0005
114/11/26	WF0149988	Spill response	Clean up antifreeze and oil from car accident at College st. and Montclair Dr.	CLO
114/12/03	WF0150073	Spill response at Britton Pkwy. and Carpenter Rd.	Clean up antifreeze and battery acid from car accident.	PD0032
114/12/05	WF0150114	Spill response needed at Martin and Marvin	Apply absorbent and clean up antifreeze.	HPO
114/12/08	WF0150181	Spill response needed on Martin Way @ I-5 South	Apply absorbent and clean up antifreeze.	CDO

114/12/10	WF0150218	Pacific Disposal had a spill at 6601 Steamer Dr. S.E.	Rob Kendall called and said they had a spill of hydraulic fluid on 12/9/14. They did the clean up and said nothing got in any of the basins. We went to the location and everything looked good. Rod Kendall (360)-486-8604	PD0035
114/12/11	WF0150249	Standby-Auto accident at Ruddell & Brentwood.	Applied absorbent, scrubbed in, and cleaned up.	SLO
114/12/12	WF0150276	Respond to spill at College St. & Woodland Sq. Lp.	Applied absorbent and cleaned up.	CDO
114/12/13	WF0150278	Standby-Antifreeze spill at Marvin Rd. & Martin Way.	Cleaned up spill and debris due to auto accident.	HPO
114/12/15	WF0150275	Respond to spill at College St. & Martin Way	Applied absorbent and cleaned up used absorbent.	
114/12/16	WF0150320	Respond to spill at I-5 and Martin Way.	Applied absorbent and cleaned up debris.	CDO
114/12/16	WF0150351	Standby-Antifreeze spill due to auto accident.	Applied dry-sweep and removed debris.	WNCO
114/12/24	WF0150491	Standby-Spill response at 16th & College.	Cleaned up approx. 1 gallon of anti-freeze. Case # 2014-6388.	CLO
114/12/28	WF0150492	Standby-Spill due to 2-vehicle accident at College & Lacey Blvd.	LPD had entire block closed. Cleaned up 1+ gallon of antifreeze from intersection and approx. 1 gallon of oil from outside n-bound lane in front of Pints & Quarts and in shop parking lot. Police report #2014-6436.	CDO
114/12/29	WF0150584	Standby-Spill due to accident at College & 16th Ave	1 qt. of oil and anti-freeze spilled in accident at NE corner of intersection. Picked up debris and applied absorbent to spill area. Removed absorbent from road surface. No fluids entered storm system. Not raining at time of accident. Police report# 2014-6446.	CLO
114/12/30	WF0150517	Respond to car accident at Ruddell Rd. and 29th	Apply absorbent, scrub in and clean up used absorbent and other debris.	SLO

## **Monitoring**

In 2014 Lacey's Monitoring activities included the following:

### **1. Interlocal Monitoring Program**

For several years, the City of Lacey has participated in an Interlocal Cooperation Agreement with Thurston County and the Cities of Olympia and Tumwater, for a Water Resource Monitoring Program that focuses on monitoring streams. The Interlocal Monitoring Program components include stream flow monitoring, precipitation monitoring, macro invertebrate monitoring, ambient water quality monitoring, and special projects. All of the monitoring stations are outside of Lacey city limits, and consequently represent cumulative impacts from at least two, and sometimes more, jurisdictions that oversee stormwater management. However, the long-term interlocal cooperative agreement was scaled back in 2013 so that program funding could be diverted to Ecology's Regional Stormwater Monitoring Program.

### **2. Woodland Creek Monitoring**

The City of Lacey currently monitors Woodland Creek at three locations monthly. The main station is located at the downstream City limit, which represents the downstream impacts of land uses within the city. This station has been monitored monthly since year 2000. The other two stations are in the upper reach of Woodland Creek within the city limits. Monitored parameters include flow, FC bacteria, nitrate, turbidity, temperature, conductance, pH, dissolved oxygen and total dissolved solids. Eagle Creek, a tributary to Woodland Creek, is also sampled monthly for the same parameters (except flow). Lacey has been monitoring Woodland Creek at the city limit monthly since the year 2000 and has no plans to stop. Lacey Stream Team volunteers also collect macro invertebrate samples from Woodland Creek at the same station, and the data are used to evaluate the biological integrity of the site. These samples are collected annually, an activity that is expected to continue.

### **3. Volunteer Stream Monitoring Program**

Stream Team volunteers collect benthic macro invertebrates from Woodland Creek for lab analysis once a year. South Sound GREEN (described in more detail in Section 2.2) elementary and middle school students also collect water quality samples from Woodland Creek and associated lakes and tributaries from various points in the watershed twice a year. Data gathered include: pH, temperature, DO, BOD, TSS, turbidity and fecal coliform. With City staff facilitation, this data is evaluated by the students at an annual Student Congress, and student recommendations for how people living in the watershed can change their behavior to improve the quality of the surface waters in the troubled areas are compiled. This list of recommendations is shared with Environmental Educators across the watershed.

## TMDL Compliance

The City of Lacey implemented many programs in 2014, aimed to educate citizens and eliminate fecal coliform loading in our waterways including:

- Continued implementation of the Private Stormwater Facilities Maintenance Program
- Providing bacteria pollution reduction brochures, signage and pet waste stations to homeowners associations
- Maintaining pet waste bag dispensers in City parks
- Installing educational signage at City facilities/property
- Continuing re-vegetation and nuisance vegetation management along Woodland Creek and its tributaries

In 2013, the City of Lacey implemented a Fecal Coliform Bacteria Wet Weather Sampling Program for the College Regional Stormwater Facility (CRSF). This program is designed to identify and eliminate illicit discharges and illicit connections entering Woodland Creek and ultimately Henderson Inlet. During the wet season (November-April) samples are collected and if the results indicate a potential discharge, follow-up source tracking to identify the source will be performed. In February 2014, two samples were collected, one at the inlet to the facility (results 3 cfu/100mL) and one at the outlet (results 25cfu/100mL). Both samples came back well below the threshold numbers and no additional IDDE tracing was needed in 2014. A second set of samples will be collected (weather permitting) at the facility as part of Lacey's "water year" based program.

Lacey also implemented the Henderson TMDL Coordinated Sampling Plan. This is a coordinated plan between the Cities of Lacey and Olympia to monitor and reduce fecal coliform bacteria discharges to the Taylor wetland (Woodard Creek) from the Fones/Taylor stormwater treatment facilities. The plan specifies sampling by both cities during at least two storm events during the water year, when the facility discharges to Taylor wetland. The cities coordinate sampling within their respective storm systems so that samples are collected at the same time, at predetermined locations. When samples exceed 5,000 CFU/100mL, Olympia and Lacey will discuss the results and follow-up with source tracing to isolate the problem(s). In 2014 there were two storm events in February that could be sampled. Results from four samples collected by Lacey ranged between 64 and 187 CFU/100mL, which were satisfactory and did not indicate illicit discharges.

#### **4. Groundwater Monitoring**

Groundwater is the primary source of Lacey's drinking water supply. Source wells and monitoring wells are monitored regularly for water level and water quality parameters as part of Lacey's water system compliance and wellhead protection programs.

Water level monitoring provides information on seasonal and long-term trends in recharge, effects of resource development, and the direction of lateral and/or vertical groundwater flows between aquifers. Water quality monitoring of source wells ensures compliance with drinking water quality standards for inorganic contaminants, volatile organic contaminants, synthetic contaminants, and radionuclides. Sources are also sampled for unregulated contaminants for special projects or as part of EPA's programs to develop drinking water standards for additional contaminants. Results of monitoring data collected from source wells that supply the drinking water system are reported to all water customers in the annual Drinking Water Report, which is also available to the general public on Lacey's website.

Data collected from wellhead protection monitoring wells serve as an "early warning" system to signal potential contamination before it is detected in source wells. Some of the parameters monitored as part of these wellhead monitoring programs include conductivity, turbidity, hardness, pH, nitrate, volatile organic compounds, selected herbicides and pesticides, and bacteria.

#### **5. Regional Monitoring**

Lacey also opted to participate in both parts of the Regional Stormwater Monitoring Program implemented by the Department of Ecology. Lacey is contributing \$27,639 to the Department of Ecology annually beginning in August 2014 and will continue through the end of the current permit cycle.