



City of SeaTac
Stormwater Management Program
March 2011
Permit # WAR 04-5541



This page is intentionally blank.

TABLE OF CONTENTS

1. INTRODUCTION	5
1.1 BACKGROUND	5
1.2 CITY OF SEATAC MISSION	6
1.3 DOCUMENT ORGANIZATION	6
2. PROGRAM MANAGEMENT AND ADMINISTRATION	8
2.1 WHAT IS REQUIRED	8
2.2 EXISTING PROGRAM ACTIVITIES	9
2.3 ACCOMPLISHED ACTIVITIES	10
2.4 PLANNED ACTIVITIES	11
3. PUBLIC EDUCATION AND OUTREACH	12
3.1 WHAT IS REQUIRED	12
3.2 EXISTING PROGRAM ACTIVITIES	13
3.3 ACCOMPLISHED ACTIVITIES	14
3.4 PLANNED ACTIVITIES	15
4. PUBLIC INVOLVEMENT AND PARTICIPATION	16
4.1 WHAT IS REQUIRED	16
4.2 EXISTING PROGRAM ACTIVITIES	16
4.3 ACCOMPLISHED ACTIVITIES	17
4.4 PLANNED ACTIVITIES	18
5. ILLICIT DISCHARGE DETECTION AND ELIMINATION	19
5.1 WHAT IS REQUIRED	19
5.2 EXISTING ACTIVITIES	19
5.3 ACCOMPLISHED ACTIVITIES	21
5.4 PLANNED ACTIVITIES	22
6. CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT, AND CONSTRUCTION SITES	23
6.1 WHAT IS REQUIRED	23
6.2 EXISTING PROGRAMS	24
6.3 ACCOMPLISHED ACTIVITIES	25
6.4 PLANNED AND ONGOING ACTIVITIES	25
7. POLLUTION PREVENTION AND OPERATION AND MAINTENANCE	26
7.1 WHAT IS REQUIRED	26
7.2 EXISTING PROGRAMS	27
7.3 PLANNED AND ONGOING ACTIVITIES	28

ACRONYMS AND ABBREVIATIONS

AKART	All Known Available and Reasonable methods of prevention, control and Treatment
APWA	American Public Works Association
BMP	Best Management Practice
City	City of SeaTac
CWA	Clean Water Act
Ecology	Washington State Department of Ecology
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
GIS	Geographic Information System
IDDE	Illicit Discharge Detection and Elimination
IPM	Integrated Pest Management
KCSWDM	King County Surface Water Design Manual
LID	Low Impact Development
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
Phase II Permit	National Pollutant Discharge Elimination System Phase II Municipal Stormwater Permit for Western Washington
ROAD MAP	Regional Operations and Maintenance Program
SEPA	State Environmental Policy Act
STMC	SeaTac Municipal Code
SWMP	stormwater management program
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Discharge Limit
WRIA	Water Resource Inventory Area
WSDOT	Washington State Department of Transportation
WSU	Washington State University



1. INTRODUCTION

This report represents the fourth Stormwater Management Program (SWMP) document prepared by the City of SeaTac (City) in accordance with the National Pollutant Discharge Elimination System (NPDES) Western Washington Phase II Municipal Stormwater Permit (Phase II permit). The Phase II Permit requires the City to develop a Stormwater Management Program that includes numerous actions and activities with the overall goal of reducing the discharge of pollutants from its storm sewer system to the maximum extent practicable, and of protecting the water quality. The actions and activities are described in a number of program components under Section S5.C of the Phase II Permit. The Phase II Permit directs the City to prepare a SWMP document that includes a description for each of the program components.

This section provides background information on the Phase II Permit. This is followed by a mission statement from the City regarding its stormwater management activities. Finally, this section outlines the structure for the remainder of the SWMP report.

1.1 BACKGROUND

The following provides a brief background on the development of the Phase II Permit:

- The federal Clean Water Act (CWA) was modified in 1987 to include stormwater in the NPDES permit program. A municipality such as the City, now needs an NPDES permit to discharge stormwater from its municipal separate storm sewer system (MS4), to waters of the state.
- In the state of Washington, the United States Environmental Protection Agency (EPA) has given the Washington State Department of Ecology (Ecology) the authority to administer these permits.
- During the “first phase” of the CWA modification, EPA finalized its rules in 1990 for large municipalities with a population greater than 100,000 (referred to as Phase I municipalities).
- Ecology issued NPDES Phase I permits to: King County, Snohomish County, Pierce County, Clark County, City of Seattle, City of Tacoma
- Later, EPA finalized its rules in 1999 to include all municipalities in census-defined urban areas with a population greater than 10,000 (referred to as Phase II municipalities).
- With a population of over 25,000 in a census-defined urban area, the City qualifies for coverage under the Ecology Phase II Permit.
- The Phase II Permit allows the City to discharge stormwater from its MS4 into receiving waters such as rivers, creeks, and lakes, provided the City implements a Stormwater

Management Program to:

- Reduce the discharge of pollutants from its MS4 to the maximum extent practicable
- Meet state AKART (All Known Available and Reasonable methods of prevention, control and Treatment) standards
- Protect water quality

To do so, the Phase II Permit requires the City to develop a Stormwater Management Program that includes the following components from Section S5.C of the permit:

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

Figure 1-1 provides an overview of the SWMP components and the compliance schedule for key program components. Figure 1-1 also shows that the SWMP requirements are phased throughout the permit cycle (February 2007 through February 2012), with full implementation of the requirements by August 2011.

1.2 CITY OF SEATAC MISSION

The City is dedicated to developing a Stormwater Management Program that contributes to protecting the environment. This includes coordinating with others towards this common goal, continuing with the successful programs the City currently has in place, and providing opportunities for input from the citizens of SeaTac as the stormwater program is fully developed over the next year.

Because this report is updated annually, it is considered a working or draft document that will be modified as necessary to reflect adaptations the City needs to make as the Stormwater Management Program is developed.

1.3 DOCUMENT ORGANIZATION

This document is organized by program component according to the following sections:

Section 1	Introduction
Section 2	Program Management and Administration
Section 3	Public Education and Outreach
Section 4	Public Involvement and Participation
Section 5	Illicit Discharge Detection and Elimination
Section 6	Controlling Runoff from New Development, Redevelopment, and Construction Sites
Section 7	Pollution Prevention and Operation and Maintenance

For ease of reading, each section provides an overview of what the phase II program component requires. Each section then summarizes existing activities and programs the City has in place that meet, or contributes toward meeting, the program requirements. Activities accomplished in during the reporting period follow. Lastly, each section identifies the planned or ongoing activities the City intends to accomplish as it works towards fulfilling the goals of the Phase II Permit.

2. PROGRAM MANAGEMENT AND ADMINISTRATION



This section outlines the management and administrative activities necessary to support the development and implementation of the City's Stormwater Management Program. While not specifically called out under development of the SWMP document (Section S5.C of the permit), it will be necessary for the City to consider overall management and administration of its Stormwater Management Program. This document builds on the previous Stormwater Management Program document by including a new section summarizing 2010 accomplishments, and where appropriate will provide more detail on activities planned for 2011.

2.1 WHAT IS REQUIRED

Stormwater management program management and administrative activities are addressed in Section S5.A of the Phase II permit which requires the City to:

- Develop and implement a SWMP according to the schedules outlined in the permit by 08/19/2011 (see Figure 1-1).
- Prepare a written documentation of the SWMP (this document) that is to be updated at least annually for submittal with the City's annual reports to Ecology no later than 03/31 of each year beginning in 2008.
- Include an ongoing program for gathering, tracking, maintaining, and using the information to evaluate development and implementation of the SWMP, permit compliance, and to help the City set priorities. This should include:
 - Tracking the cost or estimated cost of developing and implementing each SWMP component beginning 01/01/2009.
 - Tracking the number of inspections, enforcement actions, and public education activities stipulated in each SWMP component.
- When necessary, include coordination mechanisms among entities covered under municipal stormwater NPDES permits to encourage coordinated stormwater-related activities within adjoining or shared areas.
- Include coordination mechanisms among departments within each jurisdiction to eliminate barriers in complying with the terms of the Phase II Permit.

2.2 EXISTING PROGRAM ACTIVITIES

2.2.1 Coordination

The City currently coordinates with a number of entities on stormwater-related issues. These include the following:

- The Miller and Walker Creek Basin Committee which consists of:
 - The City of SeaTac
 - The City of Burien
 - The City of Normandy Park
 - Port of Seattle (Seattle-Tacoma International Airport)
 - King County
- The Des Moines Creek Basin Committee which includes:
 - The City of SeaTac
 - The City of Des Moines
 - Port of Seattle (Seattle-Tacoma International Airport)
- Participation in the Regional NPDES Phase II Permit Coordinators group.
- Participation in STORM (Stormwater Outreach for Regional Municipalities) – a regional NPDES education and outreach forum.
- Participation in ROAD MAP – a regional NPDES operations and maintenance forum.
- Participation in a regional Illicit Discharge Detection and Elimination (IDDE) implementation work group.
- Participation in the Water Resource Inventory Area (WRIA) 9 forum for regional stormwater-related issues.
- Coordination of the City’s mapping group (Geographic Information System or GIS) with GIS staff at the City of Burien and the City of Des Moines.
- Coordination with King County on public education workshops offered by the City on water quality-related topics.

2.2.2 Tracking Program

The City currently has a number of tracking mechanisms in place. These include:

- A Citizen Action Form (CAR) when responding to complaints on illicit discharges or spills (received by phone calls, through the City’s website, or in person).
- A database for logging responses to citizen complaints. This includes inspection by City staff, identification of supplies needed, acquisition of the supplies if necessary, and a determination of field crew needed to respond to the complaint.
- A timekeeping system for tracking staff time on NPDES programs.
- The City budget tracking system is also used to monitor expenditures on NPDES related projects and programs.

2.2.3 Training Program

The City currently requires its staff to attend the following training venues as appropriate:

- Staff in the City’s Public Works Department participate in the Regional Road Maintenance Endangered Species Act (ESA) Training Program.
- Inspection staff responsible for erosion sedimentation control inspections attain Certified Erosion Sedimentation Control Lead (CESCL) Certification through Ecology approved training or in-house training on single family inspections.
- IDDE investigation and response staff attend training offered through the Environmental Protection Agency and private consulting firms.

- All municipal field staff take an in-house IDDE training on the identification and reporting of illicit discharges.
- City staff currently attend training on an as-needed basis in design, permitting, plan review, operation and maintenance, and inspections through WSDOT, King County, DOE, the American Public Works Association (APWA) and in-house training.

2.3 ACCOMPLISHED TASKS

The following summarizes the tasks accomplished under program management and administration in 2010.

Task 1 Hire a Water Quality Technician

In January of 2010 the City hired a Water Quality technician to assist in the development and implementation of the Illicit Discharge Detection and Elimination and other stormwater programs.

Task 2 Present SWMP and Annual Report to Council

In February of 2010 city staff presented the SWMP and Annual Report to the Transportation and Public Works City Council Committee, which is open to the public. Both reports were subsequently posted on the City's web site and available for public comment.

Task 3 Purchase and Implement Asset Management System

In August of 2010 the City purchased and initiated the customization of an asset management program to provide greater efficiency in the tracking and reporting on the Operations and Maintenance and IDDE programs.

Task 4. Stormwater Mapping

In 2010 City staff completed the GIS mapping of the City's municipal stormwater infrastructure in compliance with the NPDES Permit requirements.

Task 5 Training and Oversight

In 2010 the ongoing training program for the different stormwater programs was maintained. In addition the ongoing oversight of the newly developed or recently modified programs was maintained to ensure the programs requirements were being adhered to. The ongoing training program includes:

- IDDE Level A Training for all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges and illicit connections.
- IDDE Level B Training for all municipal field staff, which as a part of their normal duties, might come into contact with or observe illicit discharges and connections.
- Spill Response and Reporting Training
- Changes to Processes and Procedures – All pertinent City staff are trained on changes to processes and procedures to address NPDES permit requirements for all applicable SMWP programs.

Task 6 Participation in Regional NPDES Forums

City staff continued to participate in NPDES regional forums (i.e. ROAD MAP, STORM and NPDES Permit Coordinators Forum) in an effort to coordinate compliance efforts or strategies

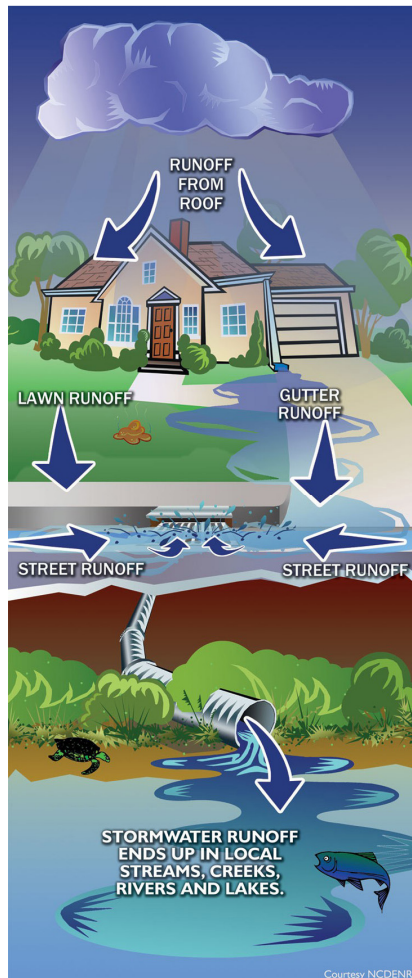
and share implementation tools with other NPDES Phase II jurisdictions.

2.4 2010 PLANNED ACTIVITIES

The following are activities planned by the City to support development and implementation of its SWMP in 2011:

- Present updates of the City's SWMP document and Annual Report to the City Council in February. This meeting will be open to the public.
- Complete installation and implementation of the Cityworks asset management data base system to provide greater efficiency to O & M and IDDE tracking components.
- Purchase, install and utilize modern GPS field equipment to improve the accuracy of the City's stormwater infrastructure mapping.
- Continue to implement the remaining IDDE program requirements.
- Maintain staff training on pertinent SWMP components.
- Continue to participate in regional NPDES regional forums and other NPDES jurisdictions to share tools and strategies for implementation.
- Coordinate collation of information for the annual report including updating the SWMP document.

Puget Sound
Starts Here



3. PUBLIC EDUCATION AND OUTREACH

This section summarizes the Phase II Permit requirements for public education and outreach, describes existing program activities the City has underway for public education and outreach, and presents the City's planned public education and outreach activities.

3.1 WHAT IS REQUIRED

Section S5.C.1 of the Phase II Permit requires the City to provide an education and outreach program for the area served by its MS4 no later than 2/15/2009. The goal of the program is to educate the community about the impacts of stormwater discharges on local waterbodies and reduce or eliminate behaviors/practices that cause or contribute to adverse stormwater impacts.

The program may target the following audiences:

- General public
- Businesses including home-based and mobile businesses
- Homeowners, landscapers, and property managers
- Engineers, contractors, developers, review staff, and land use planners

The Phase II Permit also requires the City to measure the understanding and adoption of a targeted

behavior among a target audience once within the permit cycle. The resulting measurements are to be used to direct education and outreach efforts most effectively and evaluate changes in targeted behaviors.

This section of the Phase II Permit also requires the City to track and maintain records of public education and outreach activities.

3.2 EXISTING PROGRAM ACTIVITIES

The City currently has an active public education and outreach program that uses a variety of approaches to inform residents and businesses about stormwater-related pollution prevention activities.

The City uses many sources for educational information such as Ecology, Hazardous Waste and Toxics Reduction, EPA Region 10, King County Department of Natural Resources and Parks, Water Resource Inventory Area (WRIA-9), other NPDES jurisdictions and local environmental organizations.

Some examples of materials and activities relevant to SeaTac issues include:

- **Brochures or fact sheets** for general public and specific audiences
- **Recreational guides** to educate groups such as boaters and hikers accompanied by their dogs
- **Alternative information sources**, such as websites and posters for schools or specific businesses such as restaurants
- **Event participation** with educational displays at community environmental classes, events, and festivals
- **Storm drain markers**
- **SeaTac Spill Hotline** for citizens reporting spills, polluters, or for information

Examples of specific education materials and activities include:

- City of SeaTac Newsletter
- Channel 21 SEATV — educational videos
- City of SeaTac Stormwater Public Education and Involvement Web Page <http://www.ci.seatac.wa.us/index.aspx?page=342>
- Salmon Friendly Gardener Brochure
- Washington Lake Booklet
- Pet Waste Education
- Natural Yard Care articles and brochures
- Water Quality/Conservation Classes and events:
 - SeaTac Special Recycle Events,
 - Natural Yard Care Classes,
 - Rain Barrel classes
- Fish Friendly Car Wash Program
- Storm Drain Marker Program with the City of SeaTac logo installed in residential areas
- Des Moines Creek Basin Plan—schools, community groups, businesses, and citizens contribute to public education, habitat restoration, and stream cleanups
- Miller and Walker Creek Basin Stewardship Program includes development of website with public education information accessed at: <http://www.kingcounty.gov/environment/watersheds/central-puget-sound/miller-walker-creek.aspx>.

3.2.1 Tracking and Reporting of Program Activities

The City uses a simple tracking system for tracking the activities (i.e. events and distributions of materials) for the different educational programs to allow for efficient reporting on these programs.

3.3 ACCOMPLISHED TASKS

The following summarizes the tasks accomplished under public education and outreach in 2010.

Task 1. Evaluate existing public education/outreach activities

The City continues to review and evaluate existing public education and outreach programs, as well as evaluate educational materials from city, county, state and federal and environmental agencies for potential use.

Task 2. Update public education programs

Task 2.1 Consistency with Regional Messaging

The City began to update existing programs to be consistent with the regional messaging of the STORM multi-media campaign to reinforce the “Puget Sound Starts Here!” message. Updated programs include:

- City of SeaTac Stormwater Public Education and Involvement Web Page <http://www.ci.seatac.wa.us/index.aspx?page=342>
- Storm drain markers now include the message Puget Sound Starts Here

Task 2.2 Develop additional public education materials/activities if necessary

In the spring of 2010 the City expanded its Fish Friendly Car Wash Program to include:

- A second car wash kit to keep up with the demand
- An educational flyer
- Seasonal articles in the SeaTac Report

Task 2.3 Measuring Awareness and Adoption of Behaviors

In the spring and summer of 2010 the City of SeaTac worked with a consulting firm to measure the awareness and adoption of behaviors of subject matter related to residential stormwater pollution. These topics included pet waste, natural yard care and feeding of waterfowl. The results of this research will be used in 2011 to modify our existing educational program to improve understanding and adoption of environmentally friendly behaviors

Task 3. Participate in Regional Stormwater Education Forum

In an effort to maintain consistent messaging, share tools and strategies, and to continue to expand staff’s public and education and outreach skills, City staff has maintained ongoing participation in the Stormwater Outreach for Regional Municipalities (STORM) regional forum and its regional stormwater education campaign – “Puget Sound Starts Here”. This regional multi-media campaign includes:

- Television advertisements
- Radio advertisements
- Web page (<http://www.pugetsoundstartshere.org/>) and videos, etc.

3.4 PLANNED ACTIVITIES

The City's planned activities for public education and outreach are to:

- Continue public education and outreach activities already initiated by the City.
- Build upon existing public education and outreach activities identified above to meet permit requirements. Examples include:
 - Update and distribute program materials based on the awareness and behaviors research conducted in 2010
 - Develop additional IDDE program educational materials
 - Hold classes or distribute public education materials on natural yard care practices to protect water quality
 - Continue to develop an approach to measure the understanding and adoption of targeted behaviors
 - Continue to track and maintain records of public education activities
 - Continue to update applicable existing programs to be consistent with "Puget Sound Starts Here!" campaign in an effort to maintain consistent messaging
 - Continue to participate in the STORM regional outreach forum, when possible
 - Participate in public education and outreach regional training workshops, when possible

4. PUBLIC INVOLVEMENT AND PARTICIPATION



This section summarizes the Phase II Permit requirements for public involvement and participation, describes existing program activities the City has underway for public involvement and participation, and presents the City's planned public involvement and participation activities.

4.1 WHAT IS REQUIRED

Section S5.C.2 of the Phase II permit requires the City to include ongoing opportunities for public involvement through advisory councils, watershed committees, participation in developing rate structures, stewardship programs, environmental activities, or other similar activities. The City is also required to make its SWMP document, annual report, and all other submittals required under the Phase II Permit, available to the public and posted on the City's website.

4.2 EXISTING PROGRAM ACTIVITIES

The City currently has a number of ongoing public involvement and participation activities that compliment and work with the City's public education and outreach activities. These are described below.

4.2.1 Lake Monitoring and Lake Monitoring Volunteers

The City contracts with King County Department of Natural Resources, Water and Land Resources Division, to monitor limited aspects of water quality in Angle Lake, with the help of citizen volunteers. In addition, King County staff are available to speak to citizens' groups and lake associations on water quality topics and to give technical advice on lake-related topics and lake-friendly practices.

4.2.2 Stream Stewardships

These public events are coordinated through Miller/Walker Creek and Des Moines Creek Basin committees. Volunteers pick up litter and debris along stream corridors, remove invasive plants, and plant native species to help prevent pollution, flow obstructions, and the potential impacts of erosion and flooding.

4.2.3 Des Moines Creek Basin Plan

Working collectively, the participating agencies have developed a robust watershed management plan to protect natural resources. By providing regional leadership and technical expertise, agencies have played a key role in the development of this unique set of projects. Completion of these projects will not only be a major step toward restoration of Des Moines Creek, but will provide a template for future watershed restoration efforts.

The City is working to increase public awareness of the Des Moines Creek watershed and involve volunteers in salmon restoration efforts. Schools, community groups, businesses, and citizens have contributed hundreds of hours to restoring the Des Moines Creek Watershed.

4.2.4 City of SeaTac Newsletter and Website

The City has featured articles in recent issues of the City's newsletter on the Phase II NPDES program and has created a web page on the City's website with a summary of the Phase II Permit and its requirements. Both the newsletter and the City's web page include information on how to provide the City with feedback on the SWMP.

4.2.5 Storm Drain Marker Program

Storm drain marking is an established method of involving the public to increase community awareness of stormwater pollution. Through this program, SeaTac works with neighborhood developers and volunteers to mark storm drain inlets or catch basins with a colorful, plastic curb marker.

4.2.6 Evaluation and Consideration of Public Comments

Public comment on the development of SWMP program, when received, is evaluated based on the following criteria:

- Consistency with the Phase II Permit requirements
- Consistency with City codes and policies
- Feasibility
- Costs and benefits.

4.3 ACCOMPLISHED TASKS

The following summarizes the tasks accomplished under public involvement and participation in 2010.

Task 1. Permit Stakeholder Committee involvement

A Permit Stakeholders Committee composed of local developers and consulting engineers was given the opportunity to provide comments on the issues of low impact development (LID) and City's LID Report (Appendix B). Comments and concerns of the committee are addressed in the LID Report.

Task 2. Ongoing public involvement/participation strategies

Task 2.1 Create opportunities for public involvement

Throughout 2010, the City maintained a number of opportunities for the public to be involved in development of its stormwater program. These included updating the web page dedicated to the NPDES Phase II Municipal Stormwater Permit Program on the City's website <http://www.ci.seatac.wa.us/index.aspx?page=189>, publishing articles on the Phase II permit in the City's newsletter "SeaTac Report", and presenting information on the permit, the Annual Report and the SWMP document at public meetings such as the Transportation and Public

Works Committee meetings.

Task 2.2 Post current annual report and SWMP document on the City website

In accordance with Section S5.C.2 of the permit, the City posted a copy of its annual report and SWMP document on its website at the following address: <http://www.ci.seatac.wa.us/index.aspx?page=189>. The City's website includes an email address and telephone number for the public to send comments directly to the City. The City also included an announcement in its SeaTac Report newsletter on the SWMP document, where to find it, and how to provide the City with any feedback.

4.4 PLANNED ACTIVITIES

The following presents activities planned by the City to continue supporting its public involvement and participation program.

- Continue current public involvement and participation activities already initiated by the City, such as storm drain curb markers and update them as necessary.
- Post the City's SWMP document on the City's website on or before March 31 of each year.
- Provide ongoing opportunities for the public to comment on the SWMP document through contact information on the City's website, public comments recorded at the City Council meetings, and solicitations for comment in the City's newsletter.
- Present the City's SWMP plans to a City Council or council committee. These meetings are open to the public.
- Periodically update the City Council on the progress of the SWMP, as needed.



5. ILLICIT DISCHARGE DETECTION AND ELIMINATION

This section summarizes the Phase II Permit requirements for illicit discharge detection and elimination (IDDE), describes existing program activities the City has underway for IDDE, and presents the City's planned IDDE activities.

5.1 WHAT IS REQUIRED

The City is required by Section S5.C.3 of the Phase II Permit to develop, implement, and enforce a program to detect and remove illicit connections, discharges, and spills into the City's MS4. This program is required to include:

- A municipal storm sewer system map that shows the location of all known outfalls, receiving waters, and structural best management practices (BMPs). For all outfalls with a nominal diameter of more than 24 inches (or an equivalent cross-sectional area for non-pipe systems), the City should document the tributary conveyance structures, the associated drainage areas, and the land use. The City also needs to develop a mechanism for updating the map.
- A regulatory mechanism to prohibit non-stormwater discharges into the MS4 that includes escalating enforcement procedures and actions.
- An IDDE plan to detect and address non-stormwater discharges and illegal dumping into the City's MS4. This plan should include procedures to screen for illicit discharges; trace, characterize, and remove the discharges; educate the community on the hazards associated with illicit discharges; and assess the effectiveness of the City's IDDE program.
- A hotline for the public to report spills and other illicit discharges including a record of all calls received and follow-up actions.
- Training for municipal field staff on the identification and reporting of illicit discharges into MS4s. This needs to ensure that all field staff that are currently responsible for illicit discharges are trained to conduct these activities and should also include an ongoing training program.
- Documentation of reported illicit discharges, responses, and enforcement actions, as well as documentation of training and staff trained.

5.2 EXISTING PROGRAM ACTIVITIES

The City currently has many of the elements required for an IDDE program in place. These include:

- The City's GIS Division continues to update the GIS database to include new facilities or update existing data.
- A Spill Hotline (206.973.4770 Business Hours or 206.296.8100 After Hours) for citizens to call in illicit discharges or spill complaints. The information is recorded in a Citizen Action Request (CAR) form. These CAR forms then used to track follow-up efforts by City staff such as inspection, identification, elimination and enforcement. The hotline has been publicized and posted on the City's web page.
- Inspections of private facilities for illicit discharges and follow-up work orders.
- Participation by the City's Public Works Department staff in the Regional Road Maintenance ESA Training Program.
- Multiple education and outreach outlets that have been or are currently being utilized. The Spill Hotline cards, the City's Stormwater Management web page <http://www.ci.seatac.wa.us/index.aspx?page=189> and the City's quarterly newsletter are examples educational outlets and resources available to businesses and the public.
- Discharge removal capability through the Maintenance and the Stormwater Compliance Divisions to address any illicit discharge found on private property or within the city's structures, including identification, investigation, and termination, if appropriate, cleanup for spills they are responsible for, and reporting requirements to the appropriate agencies.
- Adopted revised Illicit Discharge Detection and Elimination code (SMC 12.12) in compliance with the Phase II Permit in 2009.
- Prioritize major receiving waters within the City for inspection based upon the following criteria:
 - Potential risk of illicit discharge based on land use activities
 - Size of the contributing basin
 - History of illicit discharges and spills

Based upon this evaluation the receiving water are listed below in order of priority

- 1) Des Moines Creek
- 2) Miller Creek
- 3) Angle Lake
- 4) Unnamed Creeks

The three unnamed creeks (one located near SeaTac north eastern border west of Military Road; and two located near SeaTac's central eastern border west of Military Road and north of S. 178th St.) receive runoff from residential neighborhoods of equivalent size and therefore are ranked equally.

- Provide ongoing IDDE training to investigative and municipal field staff. The ongoing training program includes:
 - IDDE Level A Training for all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges and illicit connections.
 - IDDE Level B Training for all municipal field staff, which as a part of their normal duties, might come into contact with or observe illicit discharges and connections.
 - Spill Response and Reporting Training
- As part of the City's ongoing public education program, the following components are used to address illicit discharges:
 - Fish Friendly Car Wash Kit Program
 - Storm Drain Marker Program
 - Spill Hotline cards
 - articles in the SeaTac Report
 - SeaTac's Stormwater Management Web Page

5.3 ACCOMPLISHED TASKS

The following summarizes the tasks accomplished within the IDDE program in 2011.

Task 1. Ongoing evaluation and expansion of IDDE program

The City continues to evaluate and modify and/or expand its IDDE in an effort to meet the Phase II Permit requirements. In 2010 the City made the following changes/additions to its IDDE program to better meet the program goals:

- Hired a full time Water Quality Technician
- Developed draft procedures for the identification, investigation and removal of illicit discharges and illicit connections to the MS4
- Assigned and clarified IDDE duties and responsibilities between the Stormwater Compliance Division (private property investigations) and the Maintenance Division (public property investigations)
- Expanded training program to include Spill Response training
- Initiated joint storm drainage maintenance and IDDE inspections
- Updated CAR forms
- Developed a Stormwater Monitoring Plan required under section S8.C.1 of the Phase II Permit (see Appendix A)

Task 2 Storm sewer system map

Task 2.1 Map all known outfalls, receiving waters, and structural best management practices (BMPs).

In 2010 the City GIS completed its update of all known outfalls (24" nominal diameter or larger, receiving waters, and structural (BMPs). All required geographic and land use features are identified within storm system maps. These maps will be maintained and regularly updated by the City's GIS division and are available upon request.

Task 2.2 Program to develop and maintain a map of connections to the MS4

The City initiated a program to develop and maintain a map of connections to the public storm sewer system. Through this program the Development Services Section and the Engineering Division coordinate information on new stormwater connects to the MS4 and distribute it to the GIS Division for mapping. Further, maintenance and IDDE field inspection teams are trained to identify needed corrections to address changes to built conditions once they become aware of mapping discrepancies.

Task 3 Purchase and Implement Asset Management System

In August of 2010 the City purchased and initiated the customization of an asset management program to provide greater efficiency in the tracking and reporting on IDDE programs such as Spill Hotline, investigations, and escalating enforcement.

Task 4 Dry weather outfall screening

In the 2010 the Stormwater Compliance Division developed and implemented a dry weather screening process for stormwater outfalls to natural waterways located within the City. Procedures were established for describing and evaluating outfall as well as assessing flows to determine their source. Dry weather assessments were conducted in the summer of 2010. While dry weather flows were found at several locations during the screening process, all sources of these flows were determined to be natural based on screening procedures.

Task 5 Adopted Stormwater Pollution Prevention Manual

The City of SeaTac Addendum to the 2009 King County Surface Water Design Manual (adopted in February of 2010) adopts the King County 2008 King County Pollution Prevention Manual to be used as technical guidance for water quality best management practices (BMPs). This BMP manual is also used as the technical guidance for identifying and implementing source control measures for private residents, businesses, and industries when applying SMC 12.12 (Surface and Stormwater – Illicit Discharge Detection and Elimination Code).

5.4 PLANNED ACTIVITIES

In addition to the City's current IDDE activities, the following identifies activities the City plans to undertake for its illicit discharge detection and elimination program.

- Maintain and update the City's storm sewer system map to meet the ongoing Phase II permit requirements, as needed.
- Continue to coordinate with neighboring cities and the Port of Seattle to possibly share GIS data and IDDE services.
- Review the City's current procedures to trace, characterize, and remove illicit discharges, and update if necessary.
- Complete implementation of the asset management data base system to improve the IDDE tracking system.
- Continue to implement an IDDE training program
- Continue to review and update the City's public education activities to address illicit discharges, as necessary.
- Participate in the ROAD MAP Forum's IDDE subcommittee, as possible.

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



This section summarizes the Phase II Permit requirements for runoff from new development, redevelopment and construction sites; describes existing programs the City has underway for runoff control; and describes the City's on-going efforts to evaluate and improve this program as needed.

6.1 WHAT IS REQUIRED

Section S5.C.4 of the Phase II permit requires the City to develop, implement, and enforce a program to reduce pollutants in stormwater runoff to its MS4 from new development, redevelopment, and construction site activities. This program must apply to both public and private projects, including roads, and address all site-related pollutant sources. The program should include:

- A regulatory mechanism to implement the program according to the technical thresholds, minimum requirements, and definitions in Appendix 1 of the Phase II Permit (or an equivalent approved by Ecology).
- A permitting process with plan review, inspection and enforcement capability to meet the above referenced standards required by the Phase II permit.
- Legal authority to inspect private stormwater facilities that discharge to the City's MS4.
- Provisions to allow for Low Impact Development (LID) techniques.
- A regulatory mechanism to verify adequate long-term operation and maintenance of post-construction stormwater facilities and BMPs.
- A mechanism to make available all copies of the notice of intent (NOI) for both construction and industrial activities.
- Training for 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.
- Procedures for tracking plan reviews, inspections, responses, enforcements, maintenance activities, and staff training.

6.2 EXISTING PROGRAMS

As of February 15, 2010 the City of SeaTac adopted and implemented all necessary regulatory and procedural modifications needed to achieve full compliance with this section (S5.C.4.) of the Phase II Permit. The program is designed to actively reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities. The existing program applies to both public and private projects, including roads. Elements of program compliance are listed below:

- SeaTac Municipal Code (SMC) 12.10 adopts the minimum standards of the 2009 King County Surface Water Design Manual (KCSWDM) as amended by the City of SeaTac Addendum to the KCSWDM. These standards are equivalent to those required within the Phase II Permit.
 - Based on input from staff and the NPDES Permit Stakeholders Committee, in 2009 the City determined that due to the limited applicability of the erosivity waiver within our jurisdiction, the option would not be included in the code amendments.
 - The City maintained its existing development review and inspection processes until new stormwater regulations were adopted in February of 2010 as required under the NPDES Permit.
 - The City of SeaTac Addendum to the KCSWDM adopted in 2009 accomplishes the following:
 - Amends the KCSWDM to achieve equivalency with permit requirements as identified by Ecology guidance document.
 - Adopts stormwater maintenance standards within the KCSWDM
 - Adopts 2005 Low Impact Development (LID) Technical Guidance Manual as supplemental guidance for the use of LID in the City.
 - Adopts the Regional Road Maintenance – Endangered Species Act Program Guidelines to supplement maintenance standards from KCSWDM.
 - Adopts the City of SeaTac Integrated Pest and Vegetation Management Plan.
- The SeaTac Addendum to the 2009 KCSWDM is available on the City of SeaTac Stormwater Management web page: <http://www.ci.seatac.wa.us/index.aspx?page=189>.
- The City provided training inspection and development review staff on the modifications to the standards and inspection procedures.
 - The City provides a minimum of four construction site run-off/erosion control inspections during the construction phase of the project. Inspections occur at a minimum of every 6 months and are enforced through a tiered escalating enforcement procedure.
 - Post construction inspection of private facilities approved under the 2009 King County Surface Water Design Manual standards are inspected every six months during the period of heaviest house construction (i.e. one year following subdivision approval) under a stormwater maintenance bond.
 - Low Impact Development (LID) – The updated stormwater review standards allow for the use of non-structural and structural LID techniques, with the exception of narrow sidewalks which conflict with federal and city access requirements.
 - The City provides copies of the Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity or NPDES Construction Stormwater General Permit Focus Sheets to representatives of proposed new development and redevelopment.
 - Inspections and corrective actions are enforced through chapter 1.15 of SMC.
 - Fines are enforced through SMC 13.190.080.
 - The City has the authority to inspect private stormwater facilities through SMC 12.10.180.
 - The City maintains records of inspections, corrective actions, and enforcement through its permit tracking software.

- The Des Moines Creek Restoration Projects Design Report includes construction phase BMPs in accordance with the KCSWDM.

6.3 ACCOMPLISHED ACTIVITIES

The following activities were accomplished in 2010:

Task 1 The LID Report

Based on the results of the City's multi-departmental LID Team meeting and the Permit Stakeholders Committee, the City developed and LID Report (see Appendix B) in compliance with section S9.E.4 of the Phase II Permit

Task 2 Maintain permit compliance and provide oversight

Throughout 2010 the City maintained compliance with the newly implemented Phase II Permit requirements and provided oversight and additional training and clarification as needed on the new standards and procedures for stormwater review, inspection and tracking. Included in these was a guidance document on newly adopted soil amendment requirements: "The City of SeaTac Soil Amendment Standards".

6.4 PLANNED AND ONGOING ACTIVITIES

In addition to the City's current procedures and practices for controlling stormwater runoff from new development, redevelopment, and construction sites, the City plans the following activities:

- Maintained ongoing compliance with the newly implemented Phase II Permit requirements.
- Ensure Phase II Permit required processes and procedures (e.g. site plan review, inspections, enforcement, maintenance and tracking) are maintained during the City departmental reorganization creating the Community and Economic Development Department.
- Continue to provided oversight and additional training and clarification as needed on the new standards and procedures for stormwater review, inspection and tracking.
- Modify and adjust procedures review, inspection and tracking procedures to improve program efficiency.
- Update existing antiquated development permit tracking software with a modern data base tracking system. The City plans to include all Phase II Permit requirements tracking needs for the program on controlling stormwater runoff from new development, redevelopment, and construction sites in this software update.

7. POLLUTION PREVENTION AND OPERATION AND MAINTENANCE



This section summarizes the Phase II Permit requirements for pollution prevention and operation and maintenance, and describes existing pollution prevention and operation and maintenance program activities the City has implemented and identifies how the program complies with the Phase II Permit requirements.

7.1 WHAT IS REQUIRED

Section S5.C.5 of the Phase II Permit requires the City to provide a Pollution Prevention and Operation and Maintenance Program for the area served by its MS4. The goal of the program is to prevent or reduce pollutant runoff from the City's operation and maintenance activities. The program requirements include:

- Maintenance standards that are at least as protective as those specified in the 2005 Stormwater Management Manual for Western Washington.
- An inspection program that includes all City-owned or operated permanent stormwater treatment, flow control facilities, and catch basins, at a frequency that meets the Phase II Permit requirements unless a reduced frequency can be justified.
- Spot checks of potentially damaged permanent treatment and flow control facilities, other than catch basins after major (greater than 24-hour-10-year recurrence interval rainfall) storm events.
- Practices to reduce stormwater impacts associated with runoff from streets, parking lots, road/highways owned or maintained by the City, and to reduce pollutants in discharges from all lands owned or maintained by the City.
- An ongoing training program for City staff whose construction, operations, or maintenance job functions may affect stormwater quality.
- Development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City.
- Documentation of inspections, maintenance, or repair activities, as well as staff training.

7.2 EXISTING PROGRAM ACTIVITIES

The City has an active pollution prevention and operation and maintenance program implemented by the City's Public Works Department which is in full compliance with the Phase II Permit requirements as of February 15, 2010. The program adheres to the maintenance standards of the 2009 King County Stormwater Design Manual (KCSWDM). This program includes the following:

- Inspection Program
 - All private stormwater facilities approved under the 2009 KCSWDM standards are inspected annually.
 - Private stormwater facilities approved prior to the adoption of the 2009 or vested under previous stormwater regulations are inspected regularly on a priority basis. The goal of this program element is to provide annual inspection for high priority areas (i.e. parking lots, gas stations, car lots, and car washes). The goal for the remaining lower risk properties is to inspect them every other year.
 - For all classifications of private stormwater facilities, if cleaning or maintenance is needed, the property is issued a 30-day notice letter to correct. The City re-inspects the stormwater facilities afterwards to ensure the necessary corrections are completed. Escalating enforcement procedures are in place for properties who fail to meet correction timelines.
 - The City's program also includes an incentive program that includes:
 1. letters sent to property owners offering maintenance services through a third party contractor at a discounted group rate
 2. reduced stormwater utility rates in the form of a rate-credit for timely maintenance of facilities
- Public Facility Maintenance Program
 - The City has adopted supplemental guidance documents and plans to help clarify and provide direction on the maintenance and land management practices. These documents include:
 1. ESA Regional Road Maintenance Standards
 2. The City of SeaTac Integrated Pest and Vegetation Management Plan
 - All known public stormwater facilities (except catch basins) are inspected and maintained at a minimum annually. Facility maintenance of stormwater structures includes, but is not limited to:
 1. vegetative management,
 2. structural repair and maintenance, and
 3. sediment removal, as needed through the inspection and complaint processes.
 - City staff conduct post storm "spot check" inspections of potentially damages stormwater facilities after major storm events (> 24-hour-10 year recurrence interval).
 - All known public catch basins are inspected and cleaned as necessary, at a minimum once during the five year Phase II Permit issuance cycle. Catch basins are inspected and maintained on a section/grid basis tracked by the Public Works Maintenance Division.
 - Maintenance and repair of public stormwater facilities are conducted within the minimum timeliness requirements of the Phase II Permit as follows:
 1. within one year for typical maintenance
 2. within six months for catch basins
 3. within two years for maintenance requiring capital construction of less than \$25,000 in value
 - The Des Moines Creek Regional Detention Facility has developed a stand-alone Operation and Maintenance Manual (October 2007). This includes annual and emergency inspections, inspection checklists, and documentation.
 - The City responds to all stormwater-related complaints. Complaints are received by the

- City through the City's website, emails, telephone calls, or in person.
- Complaints are recorded and tracked through a Citizen Action Form. The City's Maintenance Division conducts inspections, determines supplies/crew needed, and conducts a re-inspection. The Stormwater Compliance Division assists in this program.
- City maintenance crews are responsible for spills within the right-of-way. They are often the first group to respond to spill complaints regardless of where they are located. The spill response responsibilities for the different city departments and divisions are laid out within the City of SeaTac Spill Response Plan.
- Maintenance inspection, repair and enforcement are tracked and reported within the Annual NPDES Phase II Permit Report. The City is currently updating this tracking system through the purchase and implementation of an asset management software system which was initiated in 2010.
- The City maintains an ongoing training program to ensure its maintenance field staff have the essential training needed to complete their duties. This ongoing training program includes
 - Regional Road Maintenance ESA Training
 - IDDE Level A Training
 - Spill Response and Reporting Training
 - HAZWOPER certification and re-certification
- City staff has developed and implemented a Stormwater Pollution Prevention Plan (SWPPP) for its only heavy equipment and material storage facility (the SeaTac Maintenance Facility) as of the winter of 2009. The plan identifies practices and procedures for:
 - Spill response and reporting
 - Material storage and use
 - Equipment storage and use
 - Maintenance practices, and
 - Regular visual inspections.

7.3 PLANNED AND ONGOING ACTIVITIES

In addition to City's existing stormwater maintenance program, the City plans the following activities for 2011:

- Maintained ongoing compliance with the newly implemented Phase II Permit requirements.
- Continue to provide oversight and additional training and clarification as needed on the new standards and procedures for inspection, maintenance, and land management activities.
- Modify and adjust procedures as necessary to improve program efficiency.
- Complete update and implementation of asset management software to provide greater efficiencies in program activities, as well as tracking and reporting needs.