



City of SeaTac
Stormwater Management Program
March 2012
Permit # WAR 04-5541



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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
SMC	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 document represents the fifth and final Stormwater Management Program (SWMP) update 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) issued in 2007. It is intended to illustrate the City's full compliance with the 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 document.

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 19, 2011.

1.2 CITY OF SEATAC MISSION

The City is dedicated to maintaining its 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 it's citizens.

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 provides a description of programs the City has implemented to meet the requirements of the Phase II Permit. It then describes the ongoing activities the City intends to accomplish in order to evaluate and maintain the established program.

2. PROGRAM MANAGEMENT AND ADMINISTRATION



This section outlines the management and administrative activities necessary to support the 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 is necessary for the City to consider overall management and administration of its Stormwater Management Program.

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 PROGRAM DESCRIPTION

2.2.1 Coordination Efforts

The City's Stormwater Management Program includes coordination with a number of entities on stormwater-related issues. These coordination efforts 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 Forum.
- 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.
- Coordination with adjacent jurisdictions (Cities of Burien, Des Moines, Tukwila and Normandy Park) on training opportunities, services and equipment.

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 maintenance or repair needs, illicit discharges or spills (received by phone calls, through the City’s website, or in person).
- 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.
- The City has implemented an asset management database system for tracking investigations and responses to citizen complaints for both the IDDE and Operations and Maintenance Programs.
- The City is also in the process of updating its permit tracking database system, which will assist in the tracking and reporting of the Construction and Post Construction Site Runoff Program elements.

2.2.3 Training Program

The City 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, private consulting firms, and the City.
- All municipal field staff take an in-house IDDE training on the identification and reporting of illicit discharges.
 - Public Works Maintenance and IDDE staff attend an in-house spill response training.
 - 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 ONGOING ACTIVITIES

While the City's Stormwater Management Program has been fully implemented and meets all the required elements of the Phase II Permit, it is essential to provide continuing oversight to maintain the different program elements. The following activities describe the City's ongoing efforts to maintain compliance with the Phase II Permit:

2.3.1 Coordination and Management

- In order to effectively manage and maintain compliance of the Stormwater Management Program, the Stormwater Compliance Division will continue to coordinate the City's inter-departmental program elements.
- Continue to coordinate with adjacent jurisdictions in an effort to share training opportunities, services and equipment.

2.3.2 Tracking

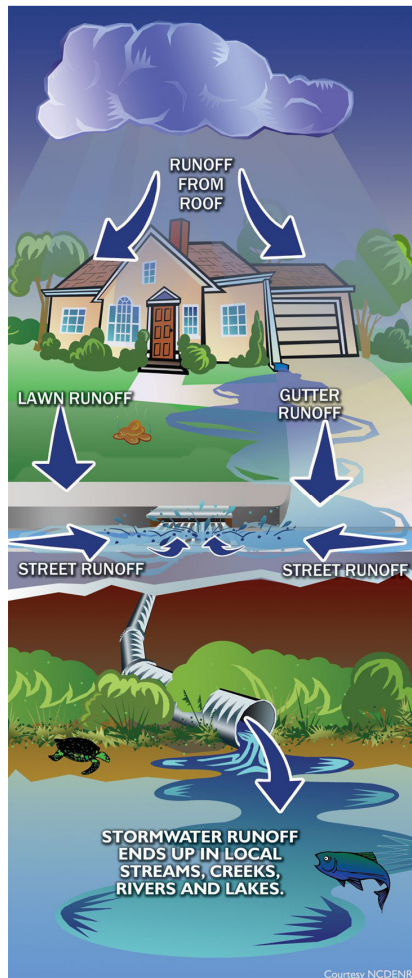
Continue to evaluate and maintain SWMP program tracking and reporting elements in an effort to continue to improve efficiency in complying with the reporting requirements of the Phase II Permit.

2.3.2 Participation in Regional NPDES Forums

City staff will continue 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.

Puget Sound Starts Here In SeaTac

It starts in our homes, yards
and driveways.
It starts in our parks.
It starts on our sidewalks,
streets and in our storm drains.



3. PUBLIC EDUCATION AND OUTREACH

This section summarizes the Phase II Permit requirements for public education and outreach, describes the program the City has underway for public education and outreach, and presents the City's ongoing plan to evaluate and update this program.

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 PROGRAM DESCRIPTION

The City of SeaTac 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 program targets a variety of audiences and subject areas pertinent to stormwater education and includes ongoing evaluation, as well as tracking and reporting elements and is fully compliant with the requirements of section S5.C1. of the Phase II Permit.

The City believes that public education is an important tool in protecting our water resources. Through public education, the City hopes to increase water quality compliance by helping people realize their individual and collective responsibilities for protecting our waterways. Public education and participation has also proven to be a useful tool in water quality compliance and enforcement. An informed community can be very effective at keeping a watchful eye on our waterways.

3.2.1 Program Resources

The City uses many sources for educational information such as Ecology, Hazardous Waste and Toxics Reduction, the Environmental Protection Agency, King County Department of Natural Resources and Parks, Water Resource Inventory Area (WRIA-9), regional educational forums, other NPDES jurisdictions, local environmental organizations, as well as creating materials in-house.

3.2.2 Media and Venues for Distribution

The Public Education and Outreach Program uses a variety of media types and venues to raise awareness on water quality issues related to stormwater, as well as to promote adoption of environmentally friendly behaviors and participation in our volunteer programs. The media types and venues commonly used by the City include:

- Brochures, posters, flyers and fact sheets;
- City web pages and links to pertinent regional programs;
- Educational videos or programming;
- Community events and festivals;
- Public meetings (i.e. City Council and advisory councils);
- Merging messages with complimentary programs (i.e. solid waste, hazardous waste and recycling);
- 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-creeks.aspx>;
- Small business consultations (via partnership with private environmental agencies)
- City of SeaTac Newsletter and Weekly Reports; and
- Local government access channel #21(SEATV)

3.2.3 Education and Outreach Materials

SeaTac's education and outreach program uses a variety of educational materials covering a broad range of stormwater topics. Examples of specific education materials being utilized by the program include:

- Natural Yard Care literature, web links, news articles and SEATV slides
- Pet waste brochures, posters, signs and SEATV slides
- City of SeaTac Stormwater Public Education and Involvement Web Page <http://www.ci.seatac.wa.us/index.aspx?page=342>, which promotes both city and regional programs
- Salmon Friendly Gardener Brochure
- Washington Lake Booklet
- Water Quality/Conservation Classes and events:
 - SeaTac Special Recycle Events,
 - Natural Yard Care classes,
 - Rain Barrel classes and events
- Fish Friendly Car Wash Program flyers, articles and web page
- Storm Drain Marker Program with the City of SeaTac logo and the Puget Sound Starts Here slogan;
- The Spill Hotline business cards, articles and small business posters and SEATV slides
- Illicit Discharge Detection and Elimination program brochure, articles and SEATV slides
- Be a Lake Steward Flyer

3.2.4 Participation in Regional Forums

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 included:

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

3.2.5 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 were used in 2011 to modify our existing educational program to improve understanding and adoption of environmentally friendly behaviors.

3.2.6 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 ONGOING ACTIVITIES

While the City's education and outreach program has been fully implemented and meets all the required elements of the Phase II Permit, it is essential to provide continuing oversight to maintain,

evaluate and update the different program elements, as necessary. The following describes the City's ongoing program activities:

- Continue 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.
- Continue to develop approaches to measure the understanding and adoption of targeted behaviors.
- Continue to evaluate need for additional program materials and subject areas.
- 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, as possible.

4. PUBLIC INVOLVEMENT AND PARTICIPATION



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

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 PROGRAM DESCRIPTION

The City of SeaTac encourages residents and interested parties to participate in the decision making processes involving the update and implementation of the City's Stormwater Management Program (SWMP), as well as other public involvement and participation opportunities offered by the City. The City believes public involvement and participation are important to promoting stewardship of both the City and its natural environments. Through public involvement, citizens help make a difference in their quality of life and the quality of our natural habitats and waterways.

The City's Public Involvement and Participation Program offers a number of activities that compliment and work with the City's public education and outreach activities and is fully compliant with the requirements of section S5.C.2. of the Phase II Permit. These program elements 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 perform a variety of services including: salmon spawning surveys, litter and debris removal along stream corridors, remove invasive plants, and plant native species to help prevent pollution, remove 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 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 articles 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 which carries the message Puget Sound Starts Here!

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

4.2.7 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 of March 2011 SWMP). Comments and concerns of the committee are addressed in the LID Report.

4.2.8 Create opportunities for public involvement

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.

4.2.9 Post current annual report and SWMP document on the City website

In accordance with Section S5.C.2 of the permit, the City posts 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 has 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.

4.3 ONGOING ACTIVITIES

The City's Public Involvement Program has been fully implemented and meets all the required elements of the Phase II Permit. However, it is essential to provide continuing oversight to maintain, evaluate and update the different program elements, as necessary. The following describes the City's ongoing program activities:

- Continue public involvement and participation activities, such as storm drain curb markers and other volunteer activities. Continue to monitor and evaluate volunteer opportunities and update, as necessary.



5. ILLICIT DISCHARGE DETECTION AND ELIMINATION

This section summarizes the Phase II Permit requirements for Illicit Discharge Detection and Elimination (IDDE) Program, describes program activities the City has underway for IDDE, and presents the City's planned ongoing 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 PROGRAM DESCRIPTION

The City of SeaTac maintains an active Illicit Discharge Detection and Elimination (IDDE) program. The City actively investigates prohibited discharges and illicit connections to the City's stormwater system in an effort to improve water quality in the City's surface water resources.

The IDDE Program is fully compliant with all portions of section S5.C3 of the NPDES Phase II Permit. These program elements include:

5.2.1 Municipal Stormwater System Mapping

- **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 are maintained and updated by the City's GIS division as necessary and are available upon request.

- **Program to develop and maintain a map of connections to the MS4**

The City has initiated a program to develop and maintain a map of connections to the public storm sewer system. Through this program the Development Review Division 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.

5.2.2 Adopt and Implement an IDDE Ordinance

In 2009 the City of SeaTac adopted an Illicit Discharge Detection and Elimination (IDDE) code (SMC 12.12) in compliance with section S5C3.b of the Phase II Permit. Based on this ordinance, the City hired stormwater and water quality staff to implement the program to investigate and remove illicit discharges and connections to the storm sewer system.

5.2.3 Adopted Stormwater Pollution Prevention Manual

In February of 2010 the City of SeaTac adopted 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).

5.2.4 IDDE Program

In 2009 the City initiated the development of the Illicit Discharge Detection and Elimination program to implement the IDDE code, as well as developed program policies and procedures for investigating and removing illicit discharges and connections to the City stormwater system. This program was fully implemented in 2010 and its policies and procedures were formalized through the adoption of the City of SeaTac IDDE Policies and Procedures Manual in August of 2011. This manual included policies and procedures for:

- Prioritizing receiving waters
- Conducting dry weather assessments
- Tracing illicit discharges and connections

- Characterizing nature of threat
- Containment/Spill Response Plan
- Inspection and escalating enforcement procedures
- Reporting discharges which constitute a threat to human health, welfare or the environment

The City has been very successful in implementing and enforcing its IDDE code. The City's emphasis on education and voluntary compliance has been well received by both the business and residential community.

5.2.5 Spill Hotline

In early 2009 the City of SeaTac established 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 hotline has been publicized and posted on the City's web page (<http://www.ci.seatac.wa.us/index.aspx?page=189>), as well as articles, spill hotline cards, brochures and on SEATV - Chanel 21.

5.2.6 Prioritization and Assessment of Receiving Waters

- **Prioritization of Receiving Waters**

In 2009 the City prioritized 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 waters 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's north eastern border, west of Military Road; and two located near SeaTac's central eastern border east of Military Road and north of S. 178th St.) receive runoff from residential neighborhoods of equivalent size and therefore are ranked equally.

- **Assessment of Receiving Waters**

- In 2010 City staff conducted dry weather assessments of MS4 outfalls into the following receiving waters: Des Moines Creek, Miler Creek and Angle Lake. No illicit discharges or connections were found during that field assessment.
- In 2011 City staff conducted dry weather assessments on the remaining receiving waters in the City (the three unnamed creeks identified above). No illicit discharges or connections were found during that field assessment.

5.2.7 IDDE Procedures

Beginning in 2010 and continuing into 2011 the City developed and implemented a comprehensive set of procedures necessary for implementing its IDDE program. These procedures were compiled and documented in the City's IDDE Policies and Procedures Manual, published in July of 2011. This document includes procedures for:

- characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges found by or reported to the City (Section S5.C.3.c.iii of the Phase II Permit);
- tracing the source of an illicit discharge; including visual inspections, and when necessary, opening manholes, using mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures (Section S5.C.3.c.iv of the Phase II Permit); and
- removing the source of the discharge, including notification of appropriate authorities; notification of the property owner; technical assistance for eliminating the discharge; follow-up inspections; and escalating enforcement and legal actions if the discharge is not eliminated (Section S5.C.3.c.v. of the Phase II Permit).

5.2.8 IDDE Training

In 2009 the City initiated ongoing IDDE training for 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

5.2.9 IDDE Education

As part of the City's ongoing public education program, the following components are used to address illicit discharges:

- Small Business Consultations
- Fish Friendly Car Wash Kit Program
- Storm Drain Marker Program
- Spill Hotline cards and magnets
- Articles in the SeaTac Report
- The IDDE Brochure
- The Pet Waste Brochure
- SeaTac's Stormwater Management Web Page
- SEATV Channel 21 Spill Hotline and IDDE education slides

5.2.10 Tracking and Reporting

Tracking of the investigation and removal of illicit discharges and connections was initiated in 2009 through the use of a modified Citizen Action Request (CAR) Form. This method was also utilized throughout 2010 and most of 2011. In the fourth quarter of 2011 the City implemented an asset management data base system to track both IDDE and Maintenance program requirements.

5.3 ONGOING ACTIVITIES

While the IDDE Program has been fully implemented and meets all the required elements of the Phase II Permit, it is essential to provide continuing oversight to maintain, evaluate and update the different program elements, as necessary. The following describes the City's ongoing program activities:

5.3.1 Ongoing evaluation and expansion of IDDE program

- Maintain existing program elements such as tracking, reporting, mapping new connections to the MS4 and IDDE.
- Continue to coordinate with neighboring cities and the Port of Seattle to possibly share GIS data and IDDE services.
- Evaluate and review adopted IDDE procedures to trace, characterize, and remove illicit discharges, and update if necessary.
- Continue IDDE ongoing training program.
- Continue to review and update the City's public education activities to address illicit discharges, as necessary.
- Participate in regional forums and committees to keep apprised of industry standards for investigation and monitoring.

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 the City's program elements; 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 PROGRAM DESCRIPTION

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 program applies to both public and private projects, including roads. Elements of program compliance are described below:

6.2.1. Maintain Existing Standards and Processes

The City maintained its existing development review and inspection standards and processes until new stormwater regulations were adopted in February of 2010, as required under the NPDES Permit.

6.2.2 Regulatory Standards and Mechanisms

- **Adoption of Stormwater Manual**

In February of 2010, the City amended SeaTac Municipal Code (SMC) 12.10 adopting 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.

- **SeaTac Addendum to the Stormwater Manual**

The City of SeaTac Addendum to the KCSWDM adopted in 2010 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>.

- **Permit/Development Review & Inspection Processes**

The City's existing development review and inspections processes were modified as necessary to meet the requirements of the Phase II Permit. Development review and inspection staff were trained on the modifications.

6.2.3 Development Review and Inspection

In SeaTac the development review and inspection processes are divided into two departments: Public Works and Community & Economic Development (CED). Stormwater/development review is conducted by the Development Review Division of CED. Inspections on commercial and multifamily projects are conducted by the Engineering Division of Public Works, inspections of single family construction are conducted by the Building Division of CED. Capital Improvement Projects (CIPs) are reviewed and inspected by the Engineering Division of Public Works.

6.2.4 Training of Development Review and Inspection Staff

The City provided in-house training for inspection and development review staff on the modifications to the standards and inspection procedures. Training sessions include the topics of

revised stormwater review standards, inspection and escalating enforcement procedures, as well as tracking and reporting responsibilities.

6.2.5 Construction Inspection

The City provides a minimum of four construction site run-off/erosion control inspections during the construction phase of the project (i.e. Preconstruction Conference, Initial Erosion Control, Temporary Erosion Control and Final Erosion Control). Inspections occur at a minimum of every 6 months and are enforced through a tiered escalating enforcement procedure. Legal authority to conduct inspections is granted through the approval process and SMC 12.10.180.

6.2.6 Post Construction Inspection

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. After the bond period ends, sites are inspected annually thereafter. Legal authority to conduct inspections is granted through the approval process and SMC 12.10.180.

6.2.7 Low Impact Development

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.

Also in 2010, based on the results of the City’s multi-departmental LID Team meeting and the Permit Stakeholders Committee, the City developed an LID Report in compliance with section S9.E.4 of the Phase II Permit.

6.2.8 NPDES General Construction Permits

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.

6.2.9 Inspections and Escalating Enforcement

The City conducts construction inspections, well as annual post construction inspections of private stormwater facilities that have been reviewed and approved under the 2009 KCSWDM to verify adequate long term operation and maintenance of these facilities. Procedures and policies for escalating enforcement have been documented and inspection staff has been trained on these procedures. The City maintains records of inspections, corrective actions, and enforcement through its permit tracking software. The authority for conducting inspections and enforcement on private property are identified below:

- The authority to conduct inspections of private stormwater facilities is granted through the approval process and SMC 12.10.180. Inspections and corrective actions are enforced through chapter 1.15 of SMC.
- Fines are enforced through SMC 13.190.080.

6.3 ONGOING ACTIVITIES

The following ongoing activities are planned for 2012:

- Maintained ongoing compliance with the newly implemented Phase II Permit requirements.
- Continue to provide oversight and additional training and clarification as needed on the standards and procedures for stormwater review, inspection and tracking.

- Modify and adjust procedures, as necessary, for review, inspection and tracking to improve program efficiency.
- Provide input and oversight on the update of the existing development permit tracking software. The City is working 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, describes the program activities the City has implemented in compliance 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, as well as ensure the proper function of the MS4. 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 PROGRAM DESCRIPTION

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 elements:

7.2.1 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:
 - letters sent to property owners offering maintenance services through a third party contractor at a discounted group rate;
 - reduced stormwater utility rates in the form of a rate-credit for timely maintenance of facilities.

7.2.2 Public Facility Maintenance Program

- The City has adopted supplemental guidance documents on the maintenance and land management practices. These documents include:
 - ESA Regional Road Maintenance Standards
 - 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:
 - vegetative management,
 - structural repair and maintenance, and
 - sediment removal, as needed through the inspection and service request processes.
- City staff conduct post storm "spot check" inspections of potentially damaged stormwater facilities after major storm events (> 24-hour-10 year recurrence interval). These inspections are done based on a Spot Check list developed and maintained by the Maintenance Division.
- 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:
 - within one year for typical maintenance
 - within six months for catch basins
 - 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 Service Request 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.

7.2.3 Tracking

Maintenance inspection, repair and enforcement are tracked and reported within the Annual NPDES Phase II Permit Report. The City has implemented a new tracking system through the purchase and implementation of an asset management software system.

7.2.4 Training of Maintenance Staff

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

7.2.5 Stormwater Pollution Prevention Plans

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 ONGOING ACTIVITIES

The following ongoing activities are planned for 2012:

- Maintain ongoing compliance with the implemented Phase II Permit requirements.
- Continue to provide oversight and additional training and clarification, as needed, on the standards and procedures for inspection, maintenance, and land management activities.
- Modify and adjust procedures as necessary to improve program efficiency.