



CITY OF KIRKLAND

2008 STORMWATER MANAGEMENT PROGRAM (SWMP)

Prepared February, 2008



This page intentionally left blank.

Table of Contents

1. Introduction	5
1.1 The Purpose of the Stormwater Management Program Document	5
1.2 The NPDES Program	5
1.3 The Western Washington Phase II Municipal Stormwater Permit	5
1.4 Implementation Timing	6
1.5 City Coordination and Responsibilities	6
1.6 The Surface Water Management Utility – Other Activities	6
1.7 The Permit as Document Map	6
2. Public Education and Outreach	7
2.1 Permit Requirements	7
2.2 Current Activities	7
2.3 Planned Activities	8
3. Public Involvement and Participation	9
3.1 Permit Requirements	9
3.2 Current Activities	9
3.3 Planned Activities	9
4. Illicit Discharge Detection and Elimination	10
4.1 Permit Requirements	10
4.2 Current Activities	10
4.3 Planned Activities	11
5. Controlling Runoff from New Development, Redevelopment and Construction Sites	12
5.1 Permit Requirements	12
5.2 Current Activities	12
5.3 Planned Activities	13
6. Pollution Prevention and Operation and Maintenance for Municipal Operations	14
6.1 Permit Requirements	14
6.2 Current Activities	14
6.3 Planned Activities	14

APPENDIX A

Western Washington Phase II Municipal Stormwater NPDES Permit Overview

APPENDIX B

Public Comment

List of Tables

Table 2.1 Current Education and Outreach Programs and Activities	7
Table 2.2 Education and Outreach Work Plan for 2008	8
Table 3.1 Public Involvement Work Plan for 2008	9
Table 4.1 Illicit Discharge Detection and Elimination Work Plan for 2008	11
Table 5.1 Controlling Runoff from New Development, Redevelopment and Construction Sites Work Plan for 2008	13
Table 6.1 Pollution Prevention and Operation and Maintenance for Municipal Operations Work Plan for 2008	15

1. Introduction

1.1 The Purpose of the Stormwater Management Program Document

This document constitutes the City of Kirkland 2008 Stormwater Management Program (SWMP) as required under condition S5 of the *Western Washington Phase II Municipal stormwater Permit* (the Permit). The purpose of the document is to detail actions that the City of Kirkland will take between February 16th, 2008 and February 16, 2009 to maintain compliance with conditions in the Permit. This SWMP will be an attachment to the Annual Compliance Report for the Permit for 2007, which is due at Ecology on March 31, 2008.

1.2 The NPDES Program

The National Pollutant Discharge Elimination System (NPDES) is a program created under the Federal Clean Water Act with the intent of protecting and restoring water quality in lakes and stream so that they can support “beneficial uses” such as fishing and swimming. Governmental and private entities wishing to discharge water or wastewater to surface waters regulated by the Federal Government (Waters of the US) must obtain permits and comply with certain conditions or face fines and other penalties. NPDES permits have been written for discharges from construction sites, concentrated animal feeding operations, industrial activities, publicly-owned wastewater treatment plants, and municipal stormwater systems.

In Washington State, the US Environmental Protection Agency has delegated the authority over NPDES permits to the Washington State Department of Ecology (Ecology). Ecology has issued several general permits for discharges from stormwater systems that apply to municipalities with different sizes of populations and that are located in different regions of the State (Eastern and Western Washington). Phase I refers to municipalities of >100,000, and Phase II to those with a population of less than 100,000 according to the 1990 census.

1.3 The Western Washington Phase II Municipal Stormwater Permit

Kirkland has a population of less than 100,000 and is in Western Washington. Thus our stormwater program must comply with conditions in the *Western Washington Phase II Municipal Stormwater Permit*. The Permit was issued on February 16th, 2007, and will remain in effect until February 15th of 2012. A Permit allows municipalities to discharge stormwater from municipal systems into “waters of the state” such as rivers, lakes and streams, as long as we implement programs to reduce pollutants in stormwater to the “maximum extent possible” by conducting programs and activities in the following program areas:

- Public Education and Outreach
- Public Involvement
- Illicit Discharge Detection and Elimination
- Construction and Post-construction runoff controls
- Pollution Prevention and Municipal Operations and Maintenance
- Monitoring

The SWMP must be prepared and submitted annually and must contain the planned actions and activities that will be used in the following year to gain compliance with the permit. In addition, the Permit requires the City to submit an Annual Compliance Report by March 31st of each year that details actions taken in the previous year to achieve compliance. The full text of the Permit is available at: http://www.ecy.wa.gov/Programs/wq/stormwater/municipal/phase_II_ww/ww_ph_ii-permit.html or can be viewed upon request by contacting the City of Kirkland at (425) 587-3850.

1.4 Implementation Timing

The Permit is valid for 5 years, from February 16, 2007 to February 15, 2012, and allows for phased implementation of stormwater management programs and actions. Appendix A details the timing for actions required under the Permit.

The following are required tasks and deadlines for 2008 that are relevant to Kirkland and are associated with the SWMP (as noted by Ecology in information associated with the Annual Compliance Report):

- Annual Compliance Report for activities conducted in 2007 is due March 31st, 2008
- Annual written update of Permittee’s Stormwater Management Program (SWMP, i.e. this document) must be attached to the Annual Compliance Report

- Initiate a program to develop and maintain a map of all new connections to the stormwater system allowed after the effective date of the permit (see Section 4 of this SWMP for explanation and details)
- Provide copies of the **Notice of Intent for Construction Activity** and **Notice of Intent for Industrial Activities** to representatives of proposed new development and redevelopment (see Section 5 of this SWMP for explanation and details)

The first year of the Permit is largely concerned with initiation of activities, with few deadlines. This is why most items in this report have “schedule notes” in the tables that say “beginning in 2008.” The City is collecting and analyzing information, and is preparing to maintain compliance by meeting deadlines that occur in 2009 or beyond.

1.5 City Coordination and Responsibilities

Compliance with the Permit will require coordination and documentation of activities in several City departments. The Public Works Department Surface Water Utility staff will coordinate City efforts, and will meet with staff from other departments regularly to insure that on-going and planned activities meet Permit requirements. It is anticipated that activities required for Permit compliance will be carried out largely by the Public Works, Information Technology, Planning, Parks, City Managers Office (City attorney), and Finance departments. The Fire/Building and Police departments will be involved to a lesser extent.

1.6 The Surface Water Management Utility – Other Activities

This SWMP details activities that are planned and that fall under the purview of the Permit. Stormwater management is one part of the City’s overall surface water management strategy. The Surface Water Utility conducts a suite of programs that reduce flooding, protect and improve water quality, and protect and restore aquatic habitat in the City’s streams and lakes. Although not directly required, flood reduction and aquatic habitat restoration efforts can often further stormwater management goals. For details on Surface Water Utility activities not addressed in this SWMP, see the City website at http://www.ci.kirkland.wa.us/depart/Public_Works/Storm_Surface_Water.htm or contact the Public Works Department at (425) 587-3800.

1.7 The Permit as Document Map

The remainder of this document details the required elements of the SWMP as noted in Condition S5C of the Permit, and notes current and planned compliance activities. The subsection of Condition S5C associated with each section is noted in parentheses in the section on Permit Requirements.

2. Public Education and Outreach

2.1 Permit Requirements

The Permit (Section 55C.1) requires the City to provide a stormwater education and outreach program that will:

- Prioritize and address the target audiences and subject areas listed in the Permit based on stormwater issues and practices currently existing in Kirkland.
- Develop education and outreach programs that are designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.
- Measure changes in the understanding and adoption of behaviors by the target audience, and use that information to evaluate past programs, and to direct future programs.
- Maintain records of public education and outreach activities.
- Summarize activities in the Annual Report.

2.2 Current Activities

The City currently has activities and programs that meet the Permit requirements. Table 2.1 lists target audiences and behaviors that are currently being addressed by education and outreach programs.

Table 2.1 Current Education and Outreach Programs and Activities

Item	Target Audience	Goal and/or Behaviors Promoted
Car Wash Kits	General Public (Fundraising Groups)	Proper discharge of wastewater into the sanitary sewer
Storm Drain Stenciling	General Public	Awareness, prevention of discharge of non-stormwater materials into the stormwater system
Natural Yard Care Neighbors Program	Homeowners	Reduce or eliminate use of herbicides and pesticides, reduce water usage, develop healthy soil
Newspaper inserts and newsletters	General Public, Homeowners	General awareness of stormwater impacts and issues
Elementary schools workshops program	General Public	General awareness of stormwater impacts and issues
Business license issuance/renewal information on best management practices	Businesses, Property Managers	Use of management practices that prevent discharge of pollutants into the stormwater system
Hazardous waste management/reduction	Businesses	Reduce waste creation, and dispose properly of hazardous waste that is created
Private drainage system inspection and technical assistance	Property Managers	Reduce discharge of sediment and uncontrolled high flows into the public stormwater system
Developers Forum	Engineers, Contractors, Developers, Review Staff, Land Use Planners	Increase awareness of technical standards for stormwater site and erosion control plans, Low Impact Development (LID) techniques and tools
Booths and displays at various special and on-going events	General Public	Raise awareness of stormwater impacts and ways that citizens can reduce these impacts
Source control technical assistance	Businesses	Work with businesses to develop practical methods of reducing or eliminating discharge of non-stormwater materials into the stormwater system

In addition, the City is participating in development and funding of regional surveys and focus groups to assess awareness and existing behaviors related to stormwater.

The City tracks education and outreach efforts, and informally evaluates costs vs. benefits.

2.3 Planned Activities

The City of Kirkland's stormwater education and outreach program currently targets a variety of audiences and behaviors. Activities to maintain compliance will center around prioritizing existing programs and developing new ones based on the audiences listed in the Permit, developing methods of evaluating, understanding and adoption of behaviors and of adjusting programs based on such evaluation, and tracking and maintaining records of public education and outreach activities. Table 2.2 summarizes education and outreach activities that are planned for 2008.

Table 2.2 Education and Outreach Work Plan for 2008

Item ID	Item Title	Additional Departments Involved	Schedule Notes
EDUC-1	Develop NPDES education/outreach strategy	Planning	Begin in 2008
EDUC-2	Prioritize existing programs, develop new programs based on NPDES education/outreach strategy	none	Begin in 2008
EDUC-3	Continue coordination and collaboration with other NPDES jurisdictions to identify opportunities for regional awareness and behavior change programs	none	Continue through 2008
EDUC-4	Develop strategy and methods to evaluate changes in understanding and adoption of target behaviors	Planning	Begin in 2008
EDUC-5	Summarize annual activities for "Public Education and Outreach" portion of Annual report; update SWMP as needed	none	Complete before March 31 st of each year

3. Public Involvement and Participation

3.1 Permit Requirements

The Permit requires the City to :

- Create opportunities for public involvement through advisory councils, watershed committees, participation in developing rate-structures, stewardship programs and environmental activities of other similar activities. At a minimum, the public must be able to participate in the decision-making processes involving the development, implementation and update of the SWMP.
- Make the SWMP and Annual Compliance Report available to the public, including posting on the City's website.
- Summarize activities for the Annual Compliance Report.

3.2 Current Activities

The City currently has activities and programs that meet the Permit requirements. Such activities include:

- Posting of the draft SWMP on the City's website along with an invitation to the public to submit comments on the document.
- Presentation of the SWMP to the City Council
- The City plans to post the final SWMP and Annual Compliance Report on the City website.

3.3 Planned Activities

The City plans to continue to solicit input on the SWMP and other aspects of the Stormwater Program as shown in the table below:

Table 3.1 Public Involvement Work Plan for 2008

Item ID	Item Title	Additional Departments Involved	Schedule Notes
PUB-1	Conduct public involvement process for 2008 SWMP	City Manager's Office	To be complete by March 31, 2008
PUB-2	Post SWMP and Annual Report on City website	Information Technology	To be complete by March 31, 2008
PUB-3	Refine public involvement process for 2009 SWMP	City Manager's Office	To be complete by December 31, 2008
PUB-5	Summarize annual activities for "Public Education and Outreach" portion of Annual Compliance Report; update SWMP as needed	none	To be complete by December 31, 2008
PUB-4	Refine and expand public involvement process for overall stormwater management program	none	on-going

4. Illicit Discharge Detection and Elimination

4.1 Permit Requirements

The Permit (Section 55C.3) requires that the City:

- Develop an ongoing program to detect and remove illicit connections, discharges, and improper disposal including spills into the municipal stormwater system.
- Develop a municipal storm sewer map that includes attributes of stormwater system outfalls and notes receiving waters.
- Develop and implement an ordinance to prohibit non-stormwater discharges and dumping into the stormwater system.
- Develop and implement an ongoing program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping into the stormwater system.
- Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste, and publicize a hotline phone number for public reporting of spills dumping and illicit discharges.
- Adopt and implement procedures for program evaluation and assessment.
- Provide training for municipal field staff on the identification and reporting of illicit discharges into the stormwater system.
- Summarize activities for the Annual Compliance Report.

4.2 Current Activities

The City currently conducts activities that meet the Permit requirements. Current illicit discharge detection and elimination (IDDE) activities that are part of Permit compliance include:

- Maps and an associated GIS database have been created for the municipal separate stormwater system. Mapping of the private stormwater system is underway. Standard procedures are in place for maintaining the GIS database to document new connections, changes/alterations to existing system, and changes based on field verification. Maps are available to Ecology and to co-permittees and secondary permittees upon request in electronic format.
- Kirkland Municipal Code Chapter 15.52 prohibits illicit discharges, and provides for progressive enforcement actions and penalties.
- The city has taken steps to identify and eliminate illicit discharges including the following:
 - Completed the study *Stormwater Pollutant Hot Spots Assessment for the City of Kirkland* (Parametrix, January, 2008) that identifies potential pollutant sources based on land use, traffic volumes and other data and makes recommendations for addressing potential hot spots.
 - Field assessment and screening of outfalls is underway for the Juanita Creek watershed.
 - Water quality complaints and reports of spills or dumping are investigated on average within 7 days of receipt and are resolved by referring the call to the appropriate party and/or by tracing pollutant sources and working with the responsible party or property owner to remove the source of the discharge.
 - A phone number 425-587-3800 (the public works front counter) is publicly listed for public reporting of spills and other illicit discharges, though it is not listed as a hotline per se. Records are kept of calls received, and actions taken as a result of these calls.
- The City has programs to educate businesses, and the general public about the hazards associated with improper disposal of waste through the King County Local Hazardous Waste Management Program, source control visits to businesses by City staff, and general awareness campaigns.

4.3 Planned Activities

Kirkland currently conducts many activities to detect and eliminate illicit discharges, but will need to document procedures and add to current efforts as Permit requirements are phased in over the next several years. The major work items for continued compliance include the following:

- Documentation of existing programs and procedures.
- Review and update the Kirkland Municipal Code.
- Document and update existing enforcement strategy.
- Continue to implement and refine outfall screening program.
- Update and augment education programs on the hazards of illicit discharges, and on reducing pollutants in permitted non-stormwater discharges.
- Develop centralized record-keeping for actions associated with illicit discharges.
- Develop IDDE training program.

Table 4.1 Illicit Discharge Detection and Elimination Work Plan for 2008

Item ID	Item Title	Additional Departments Involved	Schedule Notes
IDDE-1	Develop City-wide IDDE program per Permit conditions	Police, Fire/Building, City Manager's Office	Begin in 2008
IDDE-2	Define drainage area and other attributes as needed for each municipal separate stormwater outfall with a 24-inch nominal diameter or larger	Information Technology	Begin in 2008
IDDE-3	Define procedure to tag connections to the municipal separate stormwater system that have occurred after February 16, 2007	Information Technology	Procedure in place by December 31, 2008
IDDE-4	Review and update Kirkland Municipal Code as needed to comply with IDDE Permit requirements	Planning	Begin in 2008
IDDE-5	Update enforcement strategy and document existing enforcement procedures	none	Begin in 2008
IDDE-6	Review and add education programs as needed	none	Begin in 2008
IDDE-7	Develop strategy for providing education to the general public on reduction of pollutants in permitted non-stormwater discharges	none	Begin in 2009
IDDE-8	Document City-wide IDDE response procedures, and update as needed	Police, Fire/Building, Parks	Begin in 2008
IDDE-9	Review and update City-wide tracking and documentation of responses to IDDE issues	Information Technology, Police, Fire/Building, Parks	Begin in 2008
IDDE-10	Define staff training needs, and determine whether to update existing training opportunities or add new ones.	none	Begin in 2008
IDDE-11	Participate in regional forum of NPDES municipalities to coordinate and cooperate on IDDE issues including training	none	Begin in 2008, ongoing
IDDE-12	Summarize annual activities for "Illicit Discharge Detection and Elimination" portion of Annual Compliance Report; update SWMP as needed	none	To be complete by December 31, 2008

5. Controlling Runoff from New Development, Redevelopment and Construction Sites

5.1 Permit Requirements

The Permit requires that Kirkland develop, implement and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities. This program must include:

- Adopt an ordinance that addresses runoff from new development, redevelopment and construction sites.
- Adopt minimum stormwater design standards that are equivalent to the Department of Ecology's *2005 Stormwater Management Manual for Western Washington*.
- Implement a program (permitting process) to review plans, inspect sites during construction, and to take enforcement action against those failing to follow approved guidelines or to provide facilities as required during plan review.
- Adopt codes and standards and develop practices to allow for non-structural preventative actions and source reduction practices such as Low Impact Development Techniques (LID) that use amended or native soils and vegetation to minimize runoff and remove pollutants from stormwater.
- Adopt an ordinance, maintenance standards, inspection procedures, and enforcement provisions to verify long-term operation and maintenance of permanent stormwater control facilities constructed after the effective date of the Permit.
- Provide for training staff on new/revise regulations, standards, processes and procedures.
- Develop a process for centralized recordkeeping of activities associated with regulation of new development, redevelopment, and construction sites as required in the Permit.
- Summarize activities for the Annual Report.

5.2 Current Activities

Kirkland currently has a program that meets Permit requirements. Current activities associated with controlling runoff from new development, redevelopment, and construction sites associated with Permit compliance include:

- The City implements a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction sites.
- Kirkland Municipal Code Chapter 15.52 addresses control of stormwater runoff from new development, redevelopment and construction sites and includes a permit review and approval process, design standards, erosion control requirements, maintenance standards, inspection and maintenance of post-construction permanent stormwater controls, and enforcement provisions.
- The City maintains records of review, inspection, and enforcement actions by staff.
- Kirkland makes copies of the Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity available to the applicants for development permits.
- Staff have attended trainings on erosion control, low impact development techniques, and stormwater design standards and practices.

5.3 Planned Activities

Kirkland currently has a program that meets Permit requirements, but in order to maintain compliance the following further actions will be needed:

- Adopt a new stormwater design manual and revise associated codes and standards.
- Develop procedure for tracking and documenting Permit-related plan review, inspection, enforcement, and compliance activities.
- Review plan review, inspection, and enforcement procedures and make alterations if needed.

- Revise maintenance standards.
- Review and revise inspection frequencies for stormwater treatment and flow control facilities both during and after construction, or submit modified inspection frequency request for private drainage systems to Ecology.
- Determine staff training needs and develop training strategies.
- Develop programs to educate the public (including engineers and contractors) about new codes and standards and about Low Impact Development design strategies and technologies (one of the target audiences under the "Public Education and Outreach" section of the Permit).

Table 5.1 Controlling Runoff from New Development, Redevelopment and Construction Sites Work Plan for 2008

Item ID	Item Title	Additional Departments Involved	Schedule Notes
CTRL-1	Select new stormwater design manual, develop adoption strategy	none	Begin in 2008
CTRL-2	Adopt new stormwater design manual and revise Kirkland Municipal Code and Pre-Approved Plans to reflect requirements in the new stormwater design manual	none	Begin in 2008
CTRL-3	Review existing tracking procedures for plan review, inspection, and enforcement, and determine how to tag Permit-specific actions, and how to produce Permit-related reports	none	Begin in 2008
CTRL-4	Review and revise plan review, inspection, and enforcement procedures	none	Begin in 2008
CTRL-5	Revise Maintenance Standards		Begin in 2008
CTRL-6	Review and revise inspection frequencies, or request modified inspection frequency from Ecology	none	Begin in 2008
CTRL-7	Continue to provide copies of the Notice of Intent for Construction Activities and the Notice of Intent for Industrial Activities to representatives of proposal new development and redevelopment	Fire/Building	On-going
CTRL-5	Define staff training requirements and develop training strategy	none	Begin in 2008
CTRL-6	Determine the need for programs to educate the public including engineers and contractors about new codes and standards and about Low Impact Development design strategies and technologies	none	Begin in 2008
CTRL-7	Summarize annual activities for "Controlling Runoff from New Development, Redevelopment and Construction Sites" portion of Annual Compliance Report; update SWMP as needed	none	To be complete by December 31, 2008

6. Pollution Prevention and Operation and Maintenance for Municipal Operations

6.1 Permit Requirements

The Permit (Section S5C.5) requires the City to:

- Develop and implement a municipal operations and maintenance program that has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.
- Adopt maintenance standards that are as protecting as those noted in the *2005 Stormwater Management Manual for Western Washington*.
- Perform inspection of municipally owned and operated water quality treatment and flow control facilities and catch-basins at frequency required in the Permit.
- Establish and implement practices to reduce stormwater impacts associated with maintenance operations for streets, parking lots, roads or highways owned or maintained by the City.
- Establish and implement policies to reduce pollutants in runoff from all lands owned or maintained by the City.
- Develop and provide training to assist staff in implementing practices and policies to reduce pollutants in runoff from maintenance operations.
- Develop and implement a Stormwater Pollution Prevention Plan (SWPP) for all heavy equipment maintenance or storage yards, and material storage yards, and material storage facilities owned or operated by the City.

6.2 Current Activities

Kirkland currently has programs that meet Permit requirements including the following:

- The City Operations and Maintenance (O&M) Program takes steps to minimize pollutants in runoff from City activities as noted in the *ESA Regional Road Maintenance Program Guidelines*, which are being used though they have not been formally adopted.
- Water quality treatment and flow control facilities are inspected, and are cleaned and repaired as necessary.
- Catch-basins are inspected and cleaned at a rate that will meet Permit requirements.
- Some O&M staff have attended training associated with pollutant reduction.
- The Parks Department and Public Works Departments use Integrated Pest Management and other techniques to minimize pollutant discharge from landscaped areas on City properties; although improved documentation of these policies is needed.
- The City has a list of all publicly-owned properties for use in evaluating potential for and reducing pollutant runoff.

6.3 Planned Activities

Kirkland Currently has programs that seek to reduce pollutants in runoff from City facilities and maintenance practices, but in order to maintain continued compliance with the Permit, the following will be needed:

- Adopt maintenance standards as noted in the *2005 Stormwater Management Manual for Western Washington*
- Review and revise inspection procedures and frequencies for municipally owned or operated permanent water quality treatment and flow control facilities and catch-basins.
- Review and revise practices to reduce impacts from runoff or maintenance practices associated with municipally owned or operated streets, parking lots, and roads.
- Review and update operation and maintenance practices for municipally-owned lands in order to reduce pollutants in runoff.
- Develop and implement training programs for staff whose work could impact stormwater quality.

- Develop a Stormwater Pollution Prevention Plan for all heavy equipment maintenance or storage yards, and materials storage facilities owned by the City.
- Update tracking and documentation methods and procedures associated with inspection, maintenance or repair activities.

Table 6.1 Pollution Prevention and Operation and Maintenance for Municipal Operations Work Plan for 2008

Item ID	Item Title	Additional Departments Involved	Schedule Notes
MUNI-1	Choose and adopt updated maintenance standards	none	Begin in 2008
MUNI-2	Review inspection frequencies for water quality treatment and flow control facilities and revise if needed.	none	Begin in 2008
MUNI-3	Review inspection frequencies for catch-basins to insure that they are on par to meet Permit requirements	none	Begin in 2008
MUNI-4	Review maintenance and operation practices to reduce pollutant runoff from City streets	none	Begin in 2008
MUNI-5	Review maintenance and operation practices for City-owned lands and revise if necessary to reduce pollutants in runoff.	none	Begin in 2008
MUNI-6	Develop and implement training program for City staff whose work could impact water quality	none	Begin in 2008
MUNI-7	Develop a Stormwater Pollution Prevention Plan (SWPP)	none	Begin in 2009
MUNI-3	Refine and document maintenance and operation procedures for public properties in order to reduce pollutant runoff	Parks	Begin in 2008
MUNI-4	Summarize annual activities for "Pollution Prevention and Operation and Maintenance for Municipal Operations" portion of Annual report; update SWMP as needed	none	To be complete by December 31, 2008

This page intentionally left blank.

Appendix A

Western Washington Phase II Municipal Stormwater NPDES Permit Overview

This page intentionally left blank.

Western Washington Phase II Municipal Stormwater NPDES Permit Overview

The timeline below provides and overview of major program components deadlines (“...no later than...”) for implementing permit requirements of S5 Stormwater Management Program (SWMP) for Cities, Towns and Counties. Other permit elements are listed on the next page. This is guidance only: please see the permit for additional detail and related requirements.

S5 Program Component	Feb 16, 2007	Feb 2008	Feb 2009	Aug 2009	Feb 2010	Feb 2011	Aug 2011	Feb 2012
A. Stormwater Management Plan	Set up process to track costs, actions and activities. Establish coordination among permittees as possible.		Begin tracking costs.				Program fully implemented	
C.1 Public Education and Outreach			Implement educ program. Public hotline starts. Begin to measure understanding, adoption				Distribute IDDE info to target audiences	
C.2 Public Involvement			Program begins. SWMP and annual reports are available to the public and posted on website. Create opportunities for public input.					
C.3 Illicit Discharge Detection and Elimination (IDDE)			Establish public hotline to report spills and illicit discharges.	Adopt IDDE codes & regulations to prohibit non stormwater discharge, establish escalating enforcement. Develop IDDE staff training. Recordkeeping	Train all municipal field staff. Prioritize receiving waters for visual inspection.	Storm system map is complete and maps are kept updated. Assess 3 high priority water bodies.	Program fully implemented: field assessments, inspections, procedures, process to ID priority areas. Distribute info on IDDE.	
C.4 Control Runoff from New Develop't, Redevelop't Construction Sites (generally, disturbing at least 1 acre)	Make NOIs for construction, industrial stormwater permits available. Recordkeeping (inspections, maintenance, enforcement).			Adopt regulations, implement program for runoff control, site plan review, inspection, enforcement, LID. Adopt/implement O&M regulations for post-construction BMPs & facilities. Staff training.				
C.5 Municipal Pollution Prevention, Operation and Maintenance					Adopt and implement SWPPP, inspection & maintenance schedule, procedures. Staff training.			

Department of Ecology Municipal Stormwater Permit Workshops
March 2007

Other significant elements of the permit

This is guidance only: see the permit for additional detail and related requirements.

S1 Application for coverage

- Operators of small MS4s designated by Ecology as “significant contributors per S1.B.3 must submit NOIs within 120 days.
- Jurisdictions submitting NOI to Ecology after January 17, 2007 need to conduct public notification.
- Jurisdictions applying as Co-Permittees submit a joint NOI. Co-Permittees can end or amend agreements at any time.

S4.F Response to violations of Water Quality Standards

- Notification and possible corrective actions may occur at any time.

S7 Compliance with Total Maximum Daily Load (TMDL) Requirements

- Jurisdictions comply with applicable TMDL requirements listed in Appendix 2 with individual timelines.

S8 Monitoring

- Report on all new stormwater monitoring studies and assessment of BMP appropriateness in each annual report.
- By December 31, 2010 select sites for long-term discharge monitoring and questions/sites for SWMP effectiveness monitoring.
- Beginning March 2011, annual reports include the status of preparing for the future, long-term monitoring program.

S9 Reporting

- Keep all records related to the permit and the SWMP for at least five years.
- Beginning March 31, 2008 submit a report for the previous calendar year using annual report forms in Appendix 3.
- Notify of changes in jurisdictional boundary with annual report.

G3 Notification of Spill

- Report to Ecology within 24 hours a spill into the municipal storm sewer which could constitute a threat to human health, welfare or the environment.

G18 Duty to Reapply

- Apply for permit renewal no later than August 16, 2011 (180 days before permit expiration).

G20 Non-compliance Notification

- Notify Ecology with 30 days of awareness of permit non-compliance.

Department of Ecology Municipal Stormwater Permit Workshops
March 2007

Appendix B

Public Comments

This page is intentionally left blank.

The following public comment was received during the public comment period, which ran from March 6 to March 25, 2008.

Sarah Andeen via e-mail (address on file):

Hello,

Thank you for sending out the invitation to comment on the Stormwater regulations.

There is one suggestion I would like to make regarding the education portion of the draft - it might be a good idea to add a section on specifically targeting landscapers and lawn care businesses. There is a section on educating homeowners on how to use greener materials, but many homeowners do not maintain their own yards. Developing a brochure specifically for these businesses might have a broader impact than simply educating homeowners. Also as many landscape companies operate in more than one city this could have a broader impact if they were to use these techniques in all cities in the area- not just Kirkland.

I realize there is a general business owner section as well, but I think the information contained in there would be a little too broad for this particular need.

Thank you for your consideration of this idea.

Sarah Andeen

This comment will be taken into consideration as part of addition to and alteration of education and outreach programs, which is task EDUC-2 as described in Section 2 of this document.



March 25, 2008

Jenny Gaus, PE
City of Kirkland
123 5th Avenue
Kirkland, WA 98033

RE: 2008 Draft City of Kirkland Stormwater Management Plan

Dear Jenny:

In response to Kirkland's request for input on the 2008 City of Kirkland Draft Stormwater Management Plan, we have reviewed the plan and offer the following comments:

- We would like the opportunity to comment on draft City of Kirkland regulations (i.e. proposed changes to KMC, design requirements, and preapproved plans) when they become available.
- We believe contractors would like standardized NTU requirements for TESC/SWPPP between local jurisdictions. It's difficult for them to determine adequate measures for meeting requirements when working under different standards in different cities. It's also difficult to appropriately bid jobs until standard NTU requirements are developed. It was discussed in section 4 of the Draft SWMP that Kirkland will meet with other NPDES phase II municipalities to combine efforts in meeting requirements. This may be a great forum to discuss the NTU requirements.
- Phase II/2005 DOE says minimum requirements 1 – 5 apply to sites with greater than 2,000 SF of new impervious or 5,000 SF of new or replaced impervious. This includes preparation of SWPPP. It would be beneficial for Kirkland to develop a boiler plate SWPPP for small single family projects as they would all likely exceed 2,000 SF of impervious, rather than use the DOE template for SWPPPs. This would allow for expediency and efficiency in both preparation and review of the SWPPP's if allowed under the 2005 DOE.
- Phase II/2005 DOE says minimum requirements 1 – 9 apply to sites with greater than 5,000 SF of new impervious. Our experience has shown it can be difficult under the current hydrologic/hydraulic modeling software and minimum orifice constraints to achieve the very low allowable release rates on small sites, modeled as forested in the existing condition. We recommend developing protocol or exemptions for addressing sites where detention is required, but difficult to achieve with the constraints noted above. We'd be happy to discuss this in more technical detail with you, if you would like, as the City is adopting a new drainage manual and rewriting the storm water code.

BLUELINE LAND DEVELOPMENT CONSULTING

25 CENTRAL WAY SUITE 400 KIRKLAND WA 98033 • TEL 425-216-4051 FAX 425-216-4052 • THEBLUELINEGROUP.COM

- It would be beneficial for the City to develop a flow chart to work through for designers, developers and contractors to use to determine if LID techniques are appropriate for a site. The flow chart could address site topography, groundwater levels, soils, etc. This way LID would be encouraged rather than forced.
- Provide a preapproved plan for rain gardens similar to the drywell and infiltration trench plans. This plan could address specifications for amended soil bio-retention mix as well as a list of drought tolerant plants, in addition to sizing criteria, set-backs, etc.
- Develop list of projects that utilized LID techniques to provide as training to engineers, contractors and developers so we can visit sites to see what a finished LID site looks like. Make cost estimates and monitoring data available for these sites, so cost effectiveness and reliability can be evaluated in the decision making process.

We've attended several of the Kirkland Developers Partnership Forum events and trainings, as well as the Sustainable September LID class. These have been very helpful overviews in introducing the LID/Built Green trends. Continuing to provide these kinds of programs to the development community regarding the upcoming stormwater management changes will be very beneficial. We also agree with the increased need for community education/outreach regarding small site drainage controls/LID including maintenance of such features on individual properties.

Thank you for the opportunity to comment on the 2008 City of Kirkland Draft Stormwater Management Plan. Please feel free to call us at (425)216-4051 with any questions.

Sincerely,

THE BLUELINE GROUP



Deanna L. Martin, PE
Project Engineer



Geoff E. Tamble, PE
Principal

