



City of Newcastle 2008 Stormwater Management Program

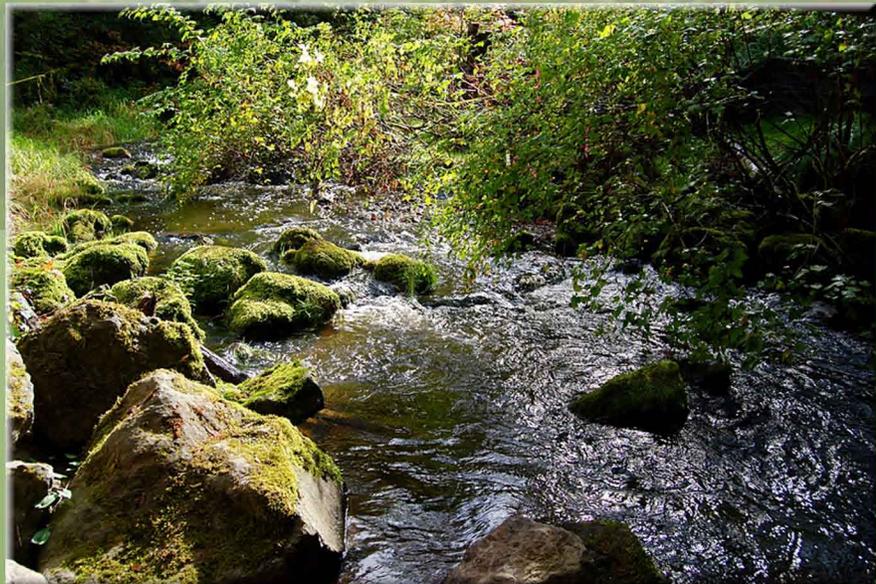
Prepared for

City of Newcastle

Department of Public Works

13020 Newcastle Way

Newcastle, WA 98059



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CITATION

Parametrix. 2008. City of Newcastle
2008 Stormwater Management Program. Prepared by
Parametrix, Bellevue, Washington. February 2008.

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ACRONYMS AND ABBREVIATIONS

AKART	All Known, Available, and Reasonable methods of prevention, control and Treatment
BMPs	best management practices
City	City of Tukwila
Ecology	Washington State Department of Ecology
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
GIS	geographical information system
IDDE	illicit discharge detection and elimination
KCSWDM	King County Surface Water Design Manual
LID	Low Impact Development
MEP	maximum extent practicable
MS4	municipal separate storm sewer system
NMC	Newcastle Municipal Code
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
Phase II permit	National Pollutant Discharge Elimination System Phase II Municipal Stormwater Permit
RFA	Request For Action
SWMP	stormwater management program
TESC	temporary erosion and sediment control
TMDLs	Total Maximum Discharge Limits
WRIA	Water Resource Inventory Area
WSU	Washington State University

1. INTRODUCTION

This report represents the first stormwater management program (SWMP) document prepared by the City of Newcastle (City) in accordance with the recently issued National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit (Phase II permit).



The Phase II permit requires the City to develop a stormwater management program that includes numerous actions and activities with the overall goal of reducing the discharge of pollutants from its storm sewer system, to the maximum extent practicable, and of protecting the water quality. The actions and activities are described in a number of program components under Section S5.C of the Phase II permit. The Phase II permit directs the City to prepare a SWMP document that includes a description for each of the program components.

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

1.1 BACKGROUND AND OVERVIEW

The following provides a brief background to, and overview of, the Phase I and II permit processes that have occurred to date:

- The federal Clean Water Act (CWA) was modified in 1987 to include stormwater in the NPDES permit program. That is, a municipality such as the City, will need an NPDES permit to discharge stormwater from its municipal storm sewer system, or 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 issue such permits.
- EPA finalized Phase I rules for large municipalities in 1990; those with populations greater than 100,000. Ecology then issued NPDES Phase I permits to:
 - King County
 - Snohomish County
 - Pierce County
 - Clark County
 - City of Seattle
 - City of Tacoma

- This Phase I permit expired in 2000 and was re-issued in 2007.
- In 1999, EPA issued final Phase II rules to include all municipalities in census-defined urban areas with the current population greater than 1,000.
- The City is determined to be an operator of a regulated small MS4, in an Ecology-designated urbanized area, and is therefore required to submit for approval and receive coverage under an Ecology Phase II permit.

Ecology developed the Phase II permit, which allows the City of Newcastle to discharge stormwater from its MS4 into a surface water of Washington State, provided the City implements a stormwater management program to:

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

This Phase II permit authorizes discharges of non-stormwater flows to surface waters and to groundwaters of the state from the City's MS4 only under the following conditions:

- The discharge is authorized by a separate NPDES or State Waste Discharge permit.
- The discharge is from emergency fire-fighting activities.
- The discharge is from another illicit or non-stormwater discharge that is managed by the City as provided in Special Condition Sections S5.C.3.b and S6.C.3.b of the permit.

The Phase II permit requires the City to develop a stormwater management program that includes the following five 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

The SWMP document is to also include any additional information on meeting applicable Total Maximum Discharge Limits, or TMDLs, pursuant to Section S7 of the permit. Since no TMDLs apply to the City's receiving waters at this time, this report does not address TMDL issues.

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 life cycle (February 2007 through February 2012), with full implementation of the plan by August 2011. Appendix A provides the same information as Figure 1-1, but with more detail, to further assist City staff in planning and implementation of the separate deadlines defined within the permit.

1.2 CITY OF NEWCASTLE MISSION STATEMENT

The City is dedicated to developing a stormwater management program that contributes to protecting the environment. This includes coordinating with others towards this common goal, continuing with the successful programs the City currently has in place, and providing opportunities for input from the citizens of Newcastle as the stormwater program is fully developed over the next 4 years.

Because this document is to be updated annually, it is considered a working document that will be modified as necessary to reflect adaptations the City needs to make as the stormwater management program is developed. The City will make every effort to be transparent with such modifications through its Public Education and Involvement programs as well as through the annual SWMP submittal process.

Furthermore, it is recognized that the City will need to evaluate the resources necessary to develop and sustain a successful SWMP. To that end, the City is committed to working with City staff to support implementation of the stormwater management program, and conduct a funding analysis to determine what funding is required to sustain the City's SWMP.

1.3 DOCUMENT ORGANIZATION (PERMIT SECTIONS)

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

- Section 1** Program Introduction
- Section 2** Oversight and Administration (S5.A, S5.B & S9)
- Section 3** Public Education and Outreach (S5.C.1)
- Section 4** Public Involvement and Participation (S5.C.2)
- Section 5** Illicit Discharge Detection and Elimination_Overall Goals (S5.C.3)
- Section 6** Controlling Runoff from New Development, Redevelopment, and Construction Sites (S5.C.4)
- Section 7** Pollution Prevention and Operation and Maintenance (S5.C.5)

Each section provides a brief overview of permit requirements, summarizes existing programs and activities currently underway that meet or contribute toward meeting the permit requirements, and identifies activities planned for the remainder of the permit as identified in the deadlines detailed in the permit schedule in Appendix A.

Permit Section	Requirements	Deadline	2007				2008				2009				2010				2011				2012				
			1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	
S5. STORMWATER MANAGEMENT PROGRAM (SWMP)																											
S5.A.	SWMP FULLY developed and implemented	08/19/2011																									
	Start tracking SWMP costs	01/01/2009																									
S5.C.1	Public Education and Outreach																										
	Provide education and outreach program	02/15/2009																									
S5.C.2	Public Involvement and Participation																										
	Public participation in SWMP development	02/15/2008																									
S5.C.3	Illicit Discharge Detection and Elimination																										
	Map storm/sewer system	02/15/2011																									
	Adopt ordinance to prohibit illicit discharge	08/15/2009																									
	Implement illicit discharge detection and elimination program	08/19/2011																									
	List a hotline	02/15/2009																									
	Field staff trained	08/15/2009																									
	Implement on-going training program	02/15/2010																									
	Prioritize receiving waters for visual inspection	02/15/2010																									
	Field assessments of three high priority waterbodies	02/15/2011																									
	Field assessment of one high priority waterbody	02/15/2012																									
	Distribute public education and outreach information	08/19/2011																									
S5.C.4	Controlling Runoff from New Development, Redevelopment and Construction Sites																										
	Adopt ordinance for new development, redevelopment, and construction site projects	08/15/2009																									
	Plan review, inspection and enforcement strategy in place	08/15/2009																									
	Provisions to verify O&M of post-construction stormwater facilities and BMPs	08/15/2009																									
	Staff trained	08/15/2009																									
S5.C.5	Pollution Prevention and O&M for Municipal Operations																										
	Develop and implement O&M Program	02/15/2010																									
	Inspect all catch basins and inlets	02/15/2012																									
S9. REPORTING REQUIREMENTS																											
S9.A.	Submit Annual Reports																										
	First Annual Report (including SWMP document)	03/31/2008																									
	Second Annual Report	03/31/2009																									
	Third Annual Report	03/31/2010																									
	Fourth Annual Report (including status of monitoring program)	03/31/2011																									
	Fifth Annual Report	03/31/2012																									

Figure 1-1. NPDES Phase II Municipal Stormwater Management Program Compliance Schedule

2. PROGRAM MANAGEMENT AND ADMINISTRATION

This section outlines the oversight and administrative activities necessary to support the development and implementation of the City's SWMP.

2.1 PERMIT REQUIREMENTS

Stormwater management program oversight and administrative activities are addressed in Sections S5.A, S5.B, and S9 of Ecology's NPDES Phase II permit that requires the City to:



- Develop and implement a SWMP according to the schedules outlined in the permit by **08/19/2011** (see Appendix A schedule).
- Prepare written documentation of the SWMP 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**. Each annual report shall include the following:
 - A copy of the current SWMP
 - Submittal of Appendix B – *Annual Report Form for Cities, Towns, and Counties*. This annual report is intended to summarize the City's compliance with the conditions of the permit, including:
 - Status of implementation of each component of the SWMP in Section S5.
 - An assessment of the City's progress in meeting the minimum performance standards established for each of the minimum control measures of the SWMP.
 - A description of activities being implemented to comply with each component of the SWMP including:
 - Number and type of inspections
 - Enforcement actions
 - Public education and involvement activities
 - Illicit discharges detected and eliminated
 - The City's SWMP implementation schedule and plans for meeting permit deadlines, and the status of SWMP implementation to date.
 - An evaluation of the effectiveness of current best management practices (BMPs) and the City's obligation for continued implementation of SWMP components already in effect.
 - Notification of any annexations, incorporations, or jurisdictional boundary changes resulting in an increase or decrease in the City's geographic area of permit coverage during the reporting period.
 - The applications, reports, or information submitted to Ecology by the City that are signed and certified by either a principal executive officer or ranking

elected official. The individual signing these documents shall make the following certification:

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

- The City shall make all records related to this permit and the City's SWMP available to the public at reasonable times during business hours. The City will provide a copy of the most recent annual report to any individual or entity upon request.
- The City shall track the cost or estimated cost of development and implementation of each SWMP component by **02/16/2009**.
- Begin tracking drainage/stormwater related calls from citizens to the City by **01/01/2009**.
- When necessary, the City shall include coordination mechanisms among entities covered under the municipal stormwater NPDES permit to encourage coordinated stormwater-related activities within adjoining or shared drainage areas.
- The City shall include coordination mechanisms among City departments to eliminate barriers in complying with the terms of the Phase II permit.

2.2 CURRENT ACTIVITIES

The following are current activities being done by the City to support development and implementation of its SWMP.

2.2.1 Coordination

- The City currently coordinates with King County and the Cities of Bellevue and Renton on maintenance, development, transportation, and drainage-related issues as needed.

2.2.2 Tracking Program

- The City currently uses a Request For Action (RFA) Form when responding to complaints on illicit discharges (received by telephone calls, through the City's website, or in person).

2.2.3 Training Program

- The City currently requires staff in the City's Public Works Department to participate in the Regional Road Maintenance Endangered Species Act (ESA) Training Program.
- The City currently provides training on an as-needed basis in permitting, plan review, operation and maintenance, and inspections.

2.3 PLANNED ACTIVITIES

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

- Hold the first City Council meeting in early March of each year to review the revisions to the annual SWMP document. This meeting will be open to the public.
- Develop a cost-tracking mechanism that is easily implementable and includes both Engineering and Maintenance Departments.
- Develop a mechanism for internal coordination on NPDES Phase II-related activities, including the City Council.
- Identify SWMP component tracking needs and develop practical mechanisms for collecting and reporting the information that builds upon tracking mechanisms currently in place.
- Identify SWMP component training needs and develop a coordinated training program that builds upon training currently in place.
- Identify SWMP reporting needs and City responsibilities for completing these tasks. These include completing the annual report and developing attachments such as the updated SWMP document as necessary.
- Identify responsibility for City website updates, including posting of the SWMP document and collating/tracking feedback.

In working towards achieving the City's oversight and administration goals, Table 2-1 identifies the planned program oversight and administration activities for future projections.

Table 2-1. Program Oversight and Administration Planned Activities

Planned Activity		Future Due Dates
1	Evaluate existing oversight and administration activities/tools	Ongoing With Yearly Review
2	Define strategy for implementing and managing NPDES program	
2.1	Identify staffing needs and internal coordination of City departments regarding NPDES permit requirements	
2.2	Determine funding needs and source	
2.3	Identify collaboration opportunities with other NPDES communities and adjacent jurisdictions on program tools and evaluation techniques	
3	Define and initiate overall tracking program	02/16/2009
3.1	Identify tracking needs and timeframes by SWMP component	
3.2	Identify and develop cost-tracking mechanism	
3.3	Implement cost-tracking mechanism	
4	Define and initiate overall training program	Varies with Program – will be started in 2009
4.1	Identify training needs and timeframes by SWMP component	
4.2	Initiate development of the training program and/or locate training tools for implementation	

Table 2-1. Program Oversight and Administration Planned Activities (continued)

Planned Activity		Future Due Dates
5	Review and identify overall ordinance/code update procedures	08/19/2009
6	Reporting	Annually starting in 2008
6.1	Initiate data/information collation for Annual Report	
6.2	Identify attachments needed for Annual Report	
7	Plan program management activities and responsibilities	
7.1	Initiate SWMP document update if necessary	
7.2	Initiate planning of 2009 program management activities	

3. PUBLIC EDUCATION AND OUTREACH

This section summarizes the Phase II permit requirements for public education and outreach, describes current activities the City has underway for public education and outreach, and presents activities the City plans to undertake to bring its current program in compliance with the Phase II permit requirements and scheduled efforts through the end of the permit cycle.



3.1 PERMIT REQUIREMENTS

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 purpose of this program is to reduce or eliminate behaviors and 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, and developers
- Elected officials, policy makers, review staff, land use planners, engineers, maintenance staff, and other City employees

The Phase II permit also requires the City to measure the understanding and adoption of targeted behaviors among the targeted audiences. The resulting measurements are to be used to direct education and outreach resources most effectively and evaluate changes in targeted behaviors.

Lastly, this section of the Phase II permit requires the City to track and maintain records of public education and outreach activities.

3.2 CURRENT ACTIVITIES

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

The City uses many sources for educational information such as Ecology's, Hazardous Waste and Toxics Reduction, EPA Region 10, King County Department of Natural Resources and Parks, Water Resource Inventory Area (WRIA) 9, and various local environmental organizations. The City benefits from volunteers provided through King County who provide many resources for home gardeners.

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

- **Brochures or fact sheets** for general public and specific audiences
- **Recreational guides** to educate groups such as park users and hikers accompanied by their dogs

- **Alternative information sources**, such as websites and posters for schools or specific businesses such as restaurants
- **Volunteer citizen educators** that could staff Newcastle’s Festival and other events
- **Event participation** with educational displays at community environmental classes, events and festivals
- **Storm drain markers** with the message “No Dumping - Drains to Stream”
- **Newcastle Stormwater Hotline** for citizens reporting spills, polluters, or for information
- **Tributary signage** to increase public awareness at local water resources

Examples of specific education materials and activities include:

- City of Newcastle Newsletter
- Newcastle Special Recycle Events
- SudSafe Car Wash Kit

3.3 PLANNED ACTIVITIES

The following presents activities planned by the City to support development and implementation of its public education and outreach program.

- Continue public education and outreach activities already initiated by the City
- Build upon existing public education and outreach activities identified above to meet permit requirements. Examples include:
 - Public education posters distributed to the automobile industry on good cleaning practices
 - Public education posters distributed to restaurant owners and employees (in Korean, Spanish, and English)
- Develop an approach to measure the understanding and adoption of targeted behaviors
- Track and maintain records of public education activities
- Conduct Natural Yard Care, Organic Gardening, and Integrated Pest Management classes
- Coordination with Washington State University (WSU) Division—Cooperative Extension Energy Program
- Coordination with WSU King County Extension – which can provide the services from over 600 Master Gardener volunteers, community horticulture faculty and professional staff that are available to provide expert advice. These resources also provide extensive online information.
- Establish a Curb Marker Program with the message: “No Dumping - Drains to Stream”
- Conduct Pet waste education

- Install signage to deter feeding of ducks and geese around Newcastle Ponds and Lake Boren
- Develop an identifiable public education and outreach program by **2/15/2009**
- Participate in the King County regional outreach forum, STORM, on an ongoing basis
- Continue to participate in public education and outreach regional training workshops

In working towards achieving the City’s public education and outreach goals, Table 3-1 identifies current and future public education and outreach-related activities.

Table 3-1. Public Education and Outreach: Planned Activities

Planned Activity		Future Due Dates
1	Evaluate existing public education/outreach activities	Ongoing With Yearly Review
2	Identify individual responsible for public education/outreach	
3	Conduct public education workshop	
3.1	Identify “gaps” in target audience	
3.2	Initiate framework for public education/outreach program	
3.3	Initiate development of measurable goal	
3.4	Conduct initial public opinion survey	
3.5	Evaluate results of public opinion survey	
4	Draft framework for public education program (including feedback mechanism)	02/15/2009
4.1	Prepare a formal public education and outreach program document for submittal in the Annual Report	
5	Initiate activities program defined in the public education and outreach program	Annually
6	Initiate summary of yearly public education/outreach activities for the Annual Report	

4. PUBLIC INVOLVEMENT AND PARTICIPATION

This section summarizes the Phase II permit requirements for public involvement and participation, describes current activities the City has underway for public involvement and participation, and presents activities the City plans to undertake to bring its current program in compliance with the Phase II permit requirements and scheduled efforts through the end of the permit cycle.



4.1 PERMIT REQUIREMENTS

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.

By **02/15/2008** the City shall develop and implement a process for consideration of public comments on their SWMP.

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. Furthermore, the SWMP document and annual report are to be posted on the City's website.

4.2 CURRENT ACTIVITIES

The City of Newcastle currently has several ongoing public involvement and participation activities that compliment and work with the City's public education and outreach activities. These include:

- *City of Newcastle Newsletter and Website*—The City has featured articles in recent issues of the City's newsletter on the Phase II NPDES program and has created a web page on the City's website with a summary of the Phase II permit and its requirements. Both the newsletter and the City's web page include information on how to provide the City with feedback on the SWMP.
- *Stream or Lake Cleanups*—During these public events, a group of volunteers of all ages dedicates a weekend morning to pick up litter and debris along a stream corridor. Removing litter from the stream helps prevent pollution and flow obstructions, as well as the potential impacts of erosion and flooding.

4.3 PLANNED ACTIVITIES

The following presents activities planned by the City to support development and implementation of its public involvement and participation program.

- Develop an ongoing public involvement and participation strategy
- Continue current public involvement and participation activities already initiated by the City

- *Curb Marker Program*—Storm drain marking is an established method of involving the public to increase community awareness of stormwater pollution. Through this program, Newcastle works with neighborhood developers to mark storm drain inlets or catch basins with a colorful, plastic curb marker with the message “No Dumping - Drains to Stream.”
- Post the City’s SWMP document and annual report on the City’s website annually on or before **03/31**.
- Provide ongoing opportunities for the public to comment on the SWMP document through contact information on the City’s website, public comments recorded at the City Council meeting, and solicitations for comment in the City’s newsletter.
- Present the City’s SWMP plans to the City Council and the public prior to the March 31 submittal to Ecology
- Periodically update the City Council on progress of the SWMP as needed

In working towards achieving the City’s public involvement and participation goals, Table 4-1 identifies public involvement and participation-related planned activities.

Table 4-1. Public Involvement and Participation: Planned Activities

Planned Activity		Future Due Dates
1	Evaluate existing public involvement/participation activities	
2	Identify individual responsible for public involvement /participation	
3	Develop ongoing public involvement/participation strategy	Ongoing
3.1	Create opportunities for public involvement	
3.2	Post the Annual Report and SWMP document on the City website	Annually on 03/31
3.3	Identify public involvement venues	Ongoing
4	Reporting	Annually on or before 03/31
4.1	Initiate summary of public involvement/participation activities for the Annual Report	
4.2	Identify Annual Report attachments if needed	
5	Plan public involvement/participation activities and responsibilities	
5.1	Initiate SWMP document update if necessary	
5.2	Post the SWMP related documents on the City’s website along with an email address for public comment.	
5.3	Initiate planning of future public involvement/participation activities	

5. ILLICIT DISCHARGE DETECTION AND ELIMINATION – OVERALL GOALS

This section summarizes the Phase II permit requirements for illicit discharge detection and elimination (IDDE), describes current activities the City has underway, and presents activities the City plans to undertake to bring its current program in compliance with the Phase II permit requirements and scheduled efforts through the end of the permit cycle.



5.1 PERMIT REQUIREMENTS

The City is required by Section S5.C.3 of the permit to implement an ongoing program to detect and remove illicit connections, discharges, and improper disposal, including any spills not under the purview of another responding authority, into the MS4 owned or operated by the City. The goals and requirements of the City's IDDE program are as follows:

- *IDDE Program Goals*

The City shall develop and implement an ongoing IDDE Program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping into the City's MS4 by **08/19/2011**, with the goals for the program as listed below:

- Develop procedures for locating priority areas likely to have illicit discharges
- Establish field assessment protocols designed to detect and remove illicit discharges
- Develop procedures for characterizing discharge and the potential threat from such discharges
- Implement procedures for tracing and removing the source of the discharge
- Develop procedures for IDDE program evaluation and assessment, including tracking inspections, costs associated with the Illicit Discharge Program, and feedback from public education efforts.
- Ensure that public education of the hazards associated with illegal discharges and improper disposal of waste is coordinated with the Public Education component of the Permit Section S5.C.2 and the appropriate information is distributed to target audiences.

- *Ordinances*

The City shall prohibit, through ordinances, non-stormwater discharges into the MS4 and implement escalating enforcement procedures and actions. These ordinances shall be adopted no later than **08/15/2009**. Non-stormwater discharges will prohibit the following categories unless stated conditions in the permit are met:

- Discharges from potable water sources
- Discharges from lawn watering and other irrigation runoff
- Dechlorinated swimming pool discharges
- Street and sidewalk wash water

- *Geographic Information System (GIS) Mapping*

The City shall design a GIS mapping program to support the IDDE efforts. This GIS effort is intended to identify the City's existing stormwater system and all connections to the City's MS4 that were authorized or allowed by the City after the date of this permit. The City shall maintain and keep the maps current, and, when requested, provide information to other municipalities sharing common drainage areas. Completion of these maps is due **08/19/2011**. These maps will include the following information:

- All separate storm sewer outfalls 24 inches or larger including non-pipe outfalls with an equivalent cross-sectional area to all outfalls greater than 24 inches
- Receiving waters
- Structural stormwater BMPS owned or maintained by the City
- Conveyance structures and systems for all required outfalls (indicate type, material, and size where known)
- Associated outfall subbasin drainage areas
- Land use
- Fully described mapping standards

- *Hotline*

The City shall establish a hotline or other local number for public reporting of spills and other illicit discharges. A record of all calls received, and the follow-up actions taken, needs to be kept and summarized for the annual report. This hotline needs to be in place and fully functioning by **02/15/2009**.

- *Training*

The City shall provide appropriate training for municipal field staff on the identification and reporting of illicit discharges into MS4s no later than **08/15/2009**. This portion of the IDDE program will include the following:

- The City shall ensure that all field staff currently responsible for identification, investigation, termination, cleanup, and reporting illicit discharges are currently trained to conduct these activities.
- The City shall implement of an ongoing training program for all municipal field staff who might, as part of their normal job, come into contact with or observe an illicit discharge.
- The City shall document and maintain records of the training provided and the staff trained, and include this information in the annual report.

5.2 CURRENT ACTIVITIES

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

- A map of the City's storm sewer system in a GIS database. Receiving waters and wetlands have been identified. The City's GIS Department frequently revises the GIS database to include new facilities or update existing data.
- The City has multiple IDDE education and outreach outlets available to them that have been used or are currently being used. There is an existing stormwater page on

the City's website. The City's monthly newsletter has been and can be further used to provide educational opportunities to businesses and the public.

- The City has the capacity, through their Maintenance Department, to address any illicit discharges found within their structures, as well as identification, investigation, termination, if appropriate; cleanup for the spills they are responsible for; and reporting requirements to the appropriate agencies.
- A hotline is available for citizens to call in illicit discharge or spill complaints. The information is currently recorded in RFA format, but with no formal tracking. A tracking mechanism will be designed to centralize call intake, and track responses and actions taken, which will then be summarized for the annual report.
- The City can conduct inspections of private facilities for illicit discharges during construction.
- The City currently requires staff in the City's Public Works Department to participate in the Regional Road Maintenance ESA Training Program.
- The City currently has as part of its ongoing public education program the following to address illicit discharges:
 - SudSafe Car Wash Kit

5.3 PLANNED ACTIVITIES

The following identifies activities the City plans to undertake to bring its illicit discharge detection and elimination program in compliance with the Phase II requirements and schedules.

- Build upon current IDDE activities to develop an identifiable IDDE program that includes:
 - Procedures for locating priority areas likely to have illicit discharges
 - Selecting three high priority water bodies for field assessment activities
 - Reviewing procedures for characterizing the nature of, and potential public or environment threat posed by, any illicit discharges found by or reported to the City
 - Procedures for tracing the source of an illicit discharge
 - Procedures for removing the source of the illicit discharge
- Update the City's storm sewer system map to meet permit requirements such as:
 - Convert the existing CAD files to GIS
 - Complete an outfall inventory/designation
 - Map structural BMPs
 - Complete the piped systems and non-piped systems draining to outfalls with an effective diameter greater than 24 inches
 - Develop procedures for documenting updates to the City's future GIS database and storm sewer maps

- Coordinate with the Cities of Bellevue and Renton on sharing GIS data
- Review and update City ordinances to adequately address IDDE as stipulated in the Phase II permit
- Evaluate current hotline procedures, and update, formalize, and document the new protocols
- Develop and implement an IDDE training program
- Review and supplement if necessary, current public education activities to address illicit discharges through programs like the Curb Marker Program
- Develop tracking procedures for:
 - The numbers and types of illicit discharges and spills
 - Inspections
 - Feedback from IDDE-related public education and outreach activities
 - Training activities
- Participate in the King County regional Operation and Maintenance Forum (IDDE subcommittee)
- Participate in the King County regional Outreach Forum

The Phase II permit requires the City to implement its IDDE program by 2011; therefore, Table 5-1 lists general activities that are planned for developing an IDDE program to meet IDDE program-related deadlines.

Table 5-1. Illicit Discharge Detection and Elimination Plan: Planned Activities

Planned Activity		Future Due Dates
1	Evaluate existing illicit discharge detection and elimination program	Ongoing with annual review
2	Develop Illicit Discharge Detection and Elimination Program	08/19/2011
2.1	Develop and implement screening procedures	
2.2	Review and update illicit discharge response/source control procedures if necessary	
2.3	Review and update tracking/documentation procedures if necessary	
2.4	Review and supplement public education/outreach efforts if necessary (coordinate with the City's public education and outreach program)	
2.5	Develop inspection plan and enforcement team	

**Table 5-1. Illicit Discharge Detection and Elimination Plan: Planned Activities
 (continued)**

Planned Activity		Future Due Dates
3	Update storm sewer system map	02/15/2011
3.1	Define conveyance system and outfalls	
3.2	Define drainage areas and catchments	
3.3	Map structural BMPs	
3.4	Document permit -required attributes	
3.5	Develop procedures for additions and updates	
4	Update ordinances	08/15/2009
4.1	Determine inspection and enforcement procedures	
4.2	Update Seattle Municipal Code to address illicit discharges if needed	
5	Evaluate and update current hotline procedures if necessary	02/15/2009
6	Develop training program	08/15/2009
6.1	Review current training with respect to illicit discharges	
6.2	Identify additional training if necessary	
6.3	Draft framework for training program	
7	Reporting	Annually 03/31
7.1	Initiate summary of prior year's IDDE activities for each Annual Report	
7.2	Identify Annual Report attachments if needed	
8	Plan future year's IDDE activities and responsibilities	
8.1	Initiate SWMP document update if necessary	
8.2	Initiate planning of next year's IDDE activities	

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 current activities the City has underway; planned activities needed within the permit cycle; and presents activities the City plans to undertake to bring its current program in compliance with the Phase II permit requirements and scheduled efforts through the end of the permit cycle.



6.1 PERMIT REQUIREMENTS

Section S5.C.4 of the Phase II permit requires the City to develop, implement, and enforce a program to reduce pollutants in stormwater control runoff to MS4s 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 must also include the following goals and requirements for all sites larger than 1 acre; the smaller site areas are addressed by a program that the City already has in place:

- The program shall include an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects by **08/15/2009** with these minimum standards:
 - The minimum requirements, technical thresholds, and definitions in Appendix A or an equivalent approved by Ecology under the NPDES Phase I permit.
 - A site planning process and BMP selection and design criteria that, when used to implement the minimum requirements in Appendix A or an approved equivalent, will protect water quality and reduce the discharge of pollutants to MEP using AKART prior to discharge. Documentation of this process is required to show how the criteria and requirements will protect water quality, reduce the discharge of pollutants to MEP and satisfy state AKART requirements.
 - Legal authority to inspect private stormwater facilities that discharge to the City's MS4.
 - Provisions to allow for Low Impact Development (LID) techniques, taking into account site conditions, access, and long-term maintenance.
- The City's program shall include a permitting process with plan review and inspection and enforcement capability to meet the above-referenced standards required by the Phase II permit by **08/15/2009**. The program shall include:
 - Review of all stormwater site plans
 - Site inspections prior to clearing and construction that have a high potential for sediment transport as determined through plan review
 - Site inspections during construction to ensure temporary erosion and sediment control (TESC) measures are effective

- Site inspections of permanent stormwater controls and verification that a maintenance plan is completed and responsibility for maintenance is assigned
- Achieve at least a 95 percent inspection schedule for inspections referenced above
- An enforcement strategy developed and implemented to respond to issues of non-compliance
- The City shall provide provisions to verify adequate long-term operation and maintenance of post-construction stormwater facilities and BMPs. These provisions shall be in place no later than **08/15/2009** and are listed below.
 - Adoption of an ordinance identifying the responsible party for Operation and Maintenance
 - Establish maintenance standards that comply with the permit expectations for water quality
 - Annual inspections of all stormwater treatment and flow control facilities other than catch basins permitted by the City
 - Inspections of all new flow control and water quality treatment facilities, including catch basins, for new residential developments that are a part of a larger common plan of development every 6 months during the period of heaviest house construction (i.e., 1 to 2 years following subdivision approval) to identify maintenance needs and enforce compliance with maintenance standards
- The City shall implement procedures for keeping records of inspections and enforcement actions by City staff, including inspection reports, warning letters, notices of violations, and other enforcement records; records of maintenance inspections and maintenance activities shall be maintained as well
- The City shall make available all copies of the Notice of Intent (NOI) for both Construction and Industrial Activities. The City will continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.
- No later than **08/15/2009**, the City shall verify that all staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct those activities. Training shall be documented and records of the training provided and the staff trained shall be maintained.

6.2 CURRENT ACTIVITIES

The City of Newcastle currently has an active program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities. The existing program currently applies to both public and private projects, including roads. The current compliance activities associated with the above permit requirements include:

- The current program has existing civil codes and engineering design standards that are enforced through the current permit, plan review, and inspection processes to reduce pollutants from stormwater runoff.

- Current Newcastle Municipal Code Section (NMC) 13.05.035.A discusses the City's future adoption of the minimum standards of the *King County Surface Water Design Manual* (KCSWDM). In Section 13.10.040 of the NMC, the City formally adopted the 1998 version of the KCSWDM.
- The City will adopt the 2005 KCSWDM once it has gained equivalency from Ecology. The City assumes that provisions to allow for LID design options will be included in the KCRTS manual.
- The City currently tracks the procedures to support the codes and design standards through a data management (Permits Plus) system designed to support the permit process.
- The City records and maintains inspections and enforcement actions by staff.
- There is a system of escalating enforcement procedures necessary to sustain the existing codes and standards throughout the construction/development process in Sections 13.05.050 and 13.05.080 of the NMC. It is primarily the responsibility of the City's inspectors to initiate enforcement procedures during all phases of construction.
- All sites are inspected by the City prior to the start of construction.

6.3 PLANNED ACTIVITIES

The following identifies activities the City plans to undertake to bring its program for controlling run off from new development, redevelopment, and construction sites in compliance with the Phase II requirements and schedules.

- Adopting of the 2005 KCSWDM once equivalency has been achieved by the City from Ecology
- Updating the NMC and engineering standards to reflect the new KCSWDM and permit requirements
- Conducting staff training and public education and outreach on implementing the new King County manual.
- Summarizing annual activities for the annual report including any required updates to the SWMP document.

In working towards achieving the City's efforts to reduce pollution from runoff from new development, redevelopment, and construction sites, Table 6-1 describes planned activities the City intends to undertake for 2008 and beyond.

Table 6-1. Controlling Runoff from New Development, Redevelopment, and Construction Sites: Planned Activities

	Planned Activity	Future Due Dates
1	Evaluate existing runoff control program	Annually
2	Review and update NMC to address permit requirements, if necessary	08/15/2009
2.1	Required thresholds and minimum requirements	
2.2	Site planning and BMP selection criteria that protect water quality, meet MEP, and satisfy AKART	
2.3	Legal authority to inspect new facilities	
2.4	Provisions for LID (or equivalent)	
2.5	Application of erosivity waiver	
3	Plan review, inspection, and enforcement	08/15/2009
3.1	Review and update plan review if necessary	08/15/2009
3.2	Develop inspection procedure plan	
3.3	Identify staff inspection team	
3.4	Update enforcement strategy if necessary	
3.5	Identify enforcement team	
3.6	Update NMC if necessary	
3.7	Develop mechanism to track plan review, inspections, and enforcement actions	
3.8	Document NOIs for construction and industrial activities	
4	Operation and maintenance	08/15/2009
4.1	Update process for accepting new facilities or inspecting private facilities (keep private or go public)	08/15/2009
4.2	Document new stormwater systems for inspection, operation, and maintenance	
4.3	Update NMC to include long-term operation and maintenance requirements for phased construction	
4.4	Review BMP inspection frequency	
5	Staff trained in plan review, inspections, and enforcement related to stormwater	08/15/2009
5.1	Define training needs (who and what)	08/15/2009
5.2	Identify supplemental training needs	
5.3	Develop training schedule	
5.4	Track training and summarize for Annual Report	
6	Reporting	Annually
6.1	Initiate summary of plan review, inspection, and enforcement activities for Annual Report	Annually
6.2	Identify Annual Report attachments, if any	
7	Plan next year's runoff control activities and responsibilities	Annually
7.1	Initiate SWMP document update if necessary for Annual Report	Annually
7.2	Initiate planning of future runoff control activities	

7. POLLUTION PREVENTION AND OPERATION AND MAINTENANCE

This section summarizes the Phase II permit requirements for pollution prevention and operation and maintenance, describes current activities the City has implemented to meet the Phase II requirements, and identifies activities that the City plans to undertake to bring its current program in compliance with the Phase II permit requirements and scheduled efforts through the end of the permit cycle.



7.1 PERMIT REQUIREMENTS

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 no later than **2/15/2010**. This program is intended to prevent or reduce pollutant runoff from municipal operations and shall include a training component as follows:

- The City shall establish maintenance standards that are as protective, or more protective, of facility function than those specified in Chapter 4 of Volume V of the 2005 Stormwater Management Manual for Western Washington. The purpose of the maintenance standard is to determine if maintenance is required on a particular facility or structure. If maintenance is deemed necessary during inspection, the following schedule is required for completion of the required maintenance:
 - Within 1 year for wet pool facilities and retention/detention ponds
 - Within 6 months for typical maintenance
 - Within 9 months for maintenance requiring revegetation
 - Within 2 years for maintenance that requires capital construction of less than \$25,000
- Annual inspection of all municipally owned or operated permanent stormwater treatment and flow control facilities other than catch basins.
- 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. If spot checks reveal widespread damage/maintenance needs, inspect all stormwater treatment and flow control facilities that may be affected.
- Inspection of all catch basins and inlets owned or operated by the City at least once within the 5-year permit cycle.
- Inspection of at least 95 percent of all sites where inspection is required, either cyclically or storm-event related, as described above.
- Establishment and implementation of practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads, or highways owned or

maintained by the City and road maintenance activities conducted by the City. The following activities shall be addressed:

- Pipe cleaning
- Cleaning of culverts that convey stormwater in ditch systems
- Ditch maintenance
- Street cleaning
- Road repair and resurfacing, including pavement grinding
- Snow and ice control
- Utility installation
- Pavement striping maintenance
- Maintaining roadside areas, including vegetation management
- Dust control
- Establishment and implementation of policies and procedures to reduce pollutants in discharges from all lands owned or maintained by the City. These policies shall address, but are not limited to:
 - Application of fertilizer, pesticides, and herbicides, as well as the development of nutrient management and integrated pest management plans
 - Sediment and erosion control
 - Landscape maintenance and vegetation disposal
 - Trash management
 - Building exterior cleaning and maintenance
- Develop and implement an ongoing training program for employees of the City whose construction, operation or maintenance job functions may affect stormwater quality. Follow-up training shall be provided as needed to address changes in procedures, techniques, or requirements.
- Records of inspections and maintenance or repair activities conducted by the City shall be documented and a summary of actions taken included in the operation and maintenance section of the updated SWMP annual report.

7.2 CURRENT ACTIVITIES

The City currently has an active pollution prevention and operations and maintenance program that is implemented by the City's Maintenance Department. This program includes the following activities:

- Inspection of all catch basins and inlets owned or operated by the Permittee at least once before the end of the permit term (minimum 5-year rotating schedule). If the catch basin has over 6 inches of deposited sediment in the sump it is scheduled for cleaning.
- Facility maintenance of stormwater structures, including vegetative control, structure repair, and sediment removal, is performed once every 3 to 5 years, or as needed through the current inspection and complaint processes.

- The City's piped storm drainage system has been delineated into zones by the Public Works staff. Pipe system maintenance is scheduled by zone, and each zone is maintained on a 3- to 5-year cycle. This includes repair of all pipes and catch basins with particular attention given to chronic problem areas, and areas for which complaints have been received from citizens.
- The City responds to all stormwater-related complaints. Complaints are submitted to the City through RFAs, City council meetings, letters, e-mails, and telephone complaints. Currently, the City takes citizen telephone complaints related to stormwater through the City's main telephone number.
- Maintenance staff keeps an informal list of problem areas in the City's ditch system. These problem areas are maintained every 3 to 5 years. Maintenance consists of removal of ditch vegetation and excess sediments to maintain hydraulic capacity. In addition, mowing, brush cutting, and headwall and trash rack maintenance/repair are performed on an as-needed basis.
- City maintenance crews are responsible for hazardous material spills response. Though City crews are only 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.
 - City crews receive annual training informally on federal and state regulations that affect operation and maintenance activities.

7.3 PLANNED ACTIVITIES

The following presents activities planned by the City to support development and implementation of its pollution prevention and operation and maintenance program.

- Modify the inspection schedule for all municipally owned or operated permanent stormwater treatment and flow control facilities, other than catch basins to be compliant with the SWMP requirements.
- Conduct 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.
- Establish a single hotline number for citizen complaints. Formalize documentation and response protocol and coordinate with the City's Engineering Department for responses to citizen complaints.
- Establish and implement formalized and documented practices designed to reduce stormwater impacts through good housekeeping.
- Expand on the existing ongoing training program as determined in the operation and maintenance program for employees within the City whose construction, operation, or maintenance job functions may affect stormwater quality.
- Develop new forms to support the record requirement for inspections and maintenance or repair activities conducted by the City that must be summarized in the annual report.
- Develop the ability to track all costs, including labor hours attributed to the Pollution Prevention and Operation and Maintenance Program and summarized for the annual report.

In working towards achieving the City’s pollution prevention and operation and maintenance goals, Table 7-1 identifies the related activities planned for this permit cycle.

**Table 7-1. Pollution Prevention and Operations and Maintenance Program:
 2008 Planned Activities**

Planned Activity		Future Due Dates
1	Evaluate existing pollution prevention and operation and maintenance program	Ongoing with annual review
2	Update inspection and maintenance program	
2.1	Define and quantify system for maintenance (e.g., type and size)	Ongoing
2.1.2	Catch basins	All inspected by 02/15/2012 on a 5 year schedule thereafter
2.1.2	Stormwater treatment and flow control facilities	All inspected by 02/15/2010 on a 1 year schedule thereafter
2.1.3	Streets, roads, and highways	Ongoing, due 02/15/2010
2.1.4	Parks, open spaces, right-of-way	
2.2	Determine system maintenance for water quality	
2.3	Evaluate frequency of inspections	
2.4	Develop resource needs assessment for maintenance	
2.5	Fund and staff maintenance plan (not a SWMP requirement)	
2.6	Develop tracking mechanisms for inspections, maintenance, and repairs	
3	Training of operation and maintenance Staff	02/15/2010
3.1	Identify operation and maintenance training needs (what and who)	
3.2	Update current training if necessary	
3.3	Develop ongoing training program	
3.4	Document training	
4	Reporting	Annually
4.1	Initiate summary of the Pollution Prevention and Operation and Maintenance activities for the Annual Report	
4.2	Identify annual report attachments, if any	
5	Plan the Pollution Prevention and O&M activities and responsibilities	
5.1	Initiate SWMP document update if necessary	
5.2	Initiate planning of 2009 Pollution Prevention and operation and maintenance activities	