

**CITY OF FIFE  
2009 STORMWATER MANAGEMENT  
PROGRAM (SWMP)**

Prepared by the Ken Gill, City of Fife Public Works Department<sup>1</sup>  
Fife, WA  
March 2009

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<sup>1</sup> Report Template prepared by Steve Anderson, PE, of Brown and Caldwell and provided by Mark Higginson, PE, City of Puyallup Public Works Department

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# CITY OF FIFE 2009 STORMWATER MANAGEMENT PROGRAM

## 1. INTRODUCTION

### 1.1 Overview and Background

The National Pollutant Discharge Elimination System (NPDES) permit program is a requirement of the federal clean water act, which is intended to protect and restore waters for “fishable, swimmable” uses. The federal Environmental Protection Agency (EPA) has delegated permit authority to state environmental agencies. In Washington, the NPDES-delegated permit authority is the Washington State Department of Ecology (Ecology).

Municipalities with a population of over 100,000 (as of the 1990 census) have been designated as Phase I and must comply with Ecology’s Phase I NPDES Municipal Stormwater permit. With Fife’s 1997 census falling well below the 100,000 threshold (4545), the City must comply with the Phase II Municipal Stormwater Permit.

In October 2002 the City of Fife prepared a Comprehensive Stormwater Management Plan in conjunction with our Permit application. The Plan includes an analysis of our existing stormwater program, capital improvement projects (CIP) and costs, a financial plan and implementation schedule. This document is available at our website.

The Permit allows municipalities to discharge stormwater runoff from municipal drainage systems into the State’s waterbodies (e.g., streams, rivers, lakes, and wetlands) as long as municipalities implement programs to protect water quality by reducing discharges of “non-point source” pollutants to the “maximum extent practicable” (MEP) through application of Permit-specified requirements. The Permit requires the City to create a Stormwater Management Program (SWMP), which is organized under the following Program components:

- Public Education and Outreach
- Public Involvement
- Illicit Discharge Detection and Elimination
- Runoff Controls
- Pollution Prevention and Municipal Operations and Maintenance
- Monitoring

The Permit requires the City to report annually (due date March 31<sup>st</sup> of each year) on progress in Program implementation for the prior year (the annual report covers Jan 1, 2008 to Dec 31, 2008). The Permit also requires submittal of documentation that describes proposed Program activities for the coming year. Implementation of various Permit conditions is phased throughout the five-year Permit term from February 16, 2007 through February 15, 2012. We understand the Permit will be revised and reissued at the end of this period.

This report is the City's Draft Stormwater Management Program compliance document; it builds from our existing 2002 Comprehensive Stormwater Management Plan and 2008 SWMP. The SWMP will be modified annually to incorporate public, council and staff recommendations and input. The remainder of this 2009 SWMP document describes actions Fife will take to maintain compliance over the second year of the Permit term (i.e., February 16, 2009 through February 16, 2010).

## 1.2 Phased Permit Requirements

1. Ecology began work on the Phase II Municipal Stormwater Permit for Western Washington in the fall of 2004 and posted a preliminary draft for public comment on May 16, 2005. Ecology released a formal draft of the Permit in February 2006 and issued the final Permit on January 17, 2007. The Permit issued by Ecology became effective on February 16, 2007 and expires on February 15, 2012. Ecology is phasing in many of the Permit requirements over the five-year Permit term. The phased activities will be discussed in the latter sections.

This SWMP document is based on direction provided in the following documents and attendance to an Ecology sponsored study session:

- Western Washington Phase II Municipal Stormwater Permit.
- Annual Report Form for Cities, Towns, and Counties (Appendix 3 of the Permit).
- Ecology's Draft Guidance for City and County Annual Reports for Western Washington Phase II Municipal Stormwater General Permits.
- Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments.

All of these documents are available on Ecology's website:

[http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phase II ww/ww ph ii-permit.html](http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phase%20II%20ww/ww%20ph%20ii-permit.html).

This SWMP document includes the following attachments:

Appendix A - Acronyms and Definitions from the Permit.

## 1.3 Department Responsibilities

The Permit requirements affect departments across the City organization. One difficulty in assigning lead departments to address Permit sections is that those sections do not divide cleanly along department divisional lines. Fife collaborates for the efficient use of existing resources within each department for each Permit component. Those departments include Management, Community Development, Parks and Recreation, Police, Finance, and Public Works. While the component for each task may be cross-departmental, the lead department has been identified in the task for each Permit component in the following sections.

## 1.4 Total Maximum Daily Load (TMDL) Compliance Issues

Stormwater discharges covered under the Permit are required to implement actions necessary to achieve the pollutant reductions called for in applicable TMDL's. Applicable TMDL's are TMDL's which have been approved by the EPA before the issuance date of the permit or which have been approved by the EPA prior to the date the permittee's application is received by Ecology. Information on Ecology's TMDL program is available on Ecology's website at [www.ecy.wa.gov/programs/wq/tmdl](http://www.ecy.wa.gov/programs/wq/tmdl).

All TMDL's approved by EPA before February 15, 2006, were reviewed by Ecology to determine whether stormwater including municipal stormwater sources were identified in the TMDL. When most of these TMDL's were developed, municipal stormwater was considered a subset of non-point dischargers, rather than a permitted discharge. As a result, very few TMDL's statewide contain requirements for municipal stormwater sources. Few TMDL's completed to date have established load allocations or waste load allocations for municipal stormwater discharges covered under the Permit. Ecology is interpreting TMDL requirements as follows:

- For TMDL's where stormwater was not identified as a source of the pollutants of concern, or if all of the sources were defined in the TMDL, Ecology considers the MS4 not to be a significant contributor of pollutants.
- Where stormwater was identified as a source of pollutants and the TMDL or implementation plans developed to support the TMDL identified control measures were less than or equivalent to the requirements of this permit, Ecology sets a narrative effluent limit: "compliance with the permit compliance constitutes compliance with the TMDL or implementation plans.
- If stormwater was identified as a source of pollutants and specific WLA's, LA's or control measures were established, Ecology must develop effluent limits in addition to the other requirements of the permit. These effluent limits may be narrative or numeric depending on the control measures set by the TMDL or implementation plans.

Where a TMDL or the detailed implementation plan developed for the TMDL identifies actions or activities beyond what is required by this permit, Ecology has identified the additional requirements in Appendix 2 of the permit for all TMDL's approved by EPA prior to February 15, 2006. Appendix 2 of the permit lists the cities and counties affected by the TMDL. **The City of Fife has not been listed in Appendix 2.**

## 1.5 Document Organization

The content in this document is based upon Permit requirements and Ecology's Draft Guidance for City and County Annual Reports for Western Washington Phase II Municipal Stormwater

Permits. The remainder of the Stormwater Management Program document is organized similarly to the Permit:

- Section 2.0 addresses Permit requirements for administration of the City's Stormwater Management Program for 2009.
- Section 3.0 addresses Permit requirements for Public Education and Outreach for 2009.
- Section 4.0 addresses Permit requirements for Public Involvement and Participation for 2009.
- Section 5.0 addresses permit requirements for Illicit Discharge Detection and Elimination for 2009.
- Section 6.0 addresses Permit requirements for Controlling Runoff from New Development, Redevelopment and Construction Sites for 2009.
- Section 7.0 addresses Permit requirements for Pollution Prevention and Operation and Maintenance for Municipal Operation for 2009.
- Section 8.0 addresses Permit requirements for the Water Quality Monitoring section of the Permit for 2009.

Each section includes a summary of the relevant Permit requirements and a description of current and planned compliance activities.

## 2. STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

### 2.1 Permit Requirements

The Permit (Section S5.A) requires the City to:

- Develop and implement a Stormwater Management Program and prepare written documentation (SWMP document) for submittal to Ecology on March 31, 2008; and update the Program annually thereafter. The purpose of the Program is to reduce the discharge of pollutants from the municipal stormwater system to the maximum extent practicable (MEP) thereby protecting water quality. The Program is to include the actions and activities described in Sections 3 through 8 of this SWMP document.
- Submit annual compliance reports beginning in 2008 to Ecology by March 31<sup>st</sup> (for the previous calendar year). These reports are to summarize SWMP implementation status and present information from assessment and evaluation activities conducted during the reporting period.

### 2.2 Current Activities

The city currently has in place activities and programs that meet the Permit requirements. Current activities associated with the above Permit requirements include:

- The City submitted a 2008 SWMP and annual report to Ecology on March 31, 2008; in May 2008 we received a letter from Ecology that the submittal was complete.

### 2.3 Planned Activities

Public Works staff actions recommended for continued Permit compliance includes:

- Work with Finance Department to track costs associated with SWMP implementation.
- Continue compliance coordination mechanisms with other organizations.
- The City is on track to comply with Ecology's requirements for submittal of the second annual compliance report and SWMP by March 31, 2009.

### 3. PUBLIC EDUCATION AND OUTREACH

This Section describes the Permit requirements related to Public Education and Outreach, including current and planned compliance activities.

#### 3.1 Permit Requirements

The Permit (Section S5.C.1) requires the City to:

- Prioritize and target education and outreach activities to specified audiences, including general public, businesses, residents/homeowners, landscapers, property managers, engineers, contractors, developers, review staff and land use planners and other City employees to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.
- Have an outreach program that is designed to achieve measurable improvements in the target audience's understanding of the problem and what they can do to solve it.
- Track and maintain records of public education and outreach activities.

#### 3.2 Current Activities

The City does not currently have a written Public Education and Outreach Plan but has provided this service to the public and private stormwater facility owners.

- Public Works staff has published 12 articles regarding stormwater in the Fife Flyer; topics covered were rain gardens, yard care workshops and household guide to protecting clean water.
- Public Works staff performs storm pond inspections; the inspection typically includes the owner, targeting businesses and property managers.
- Funded the Fife portion of public survey conducted by Elway Research, Inc. The survey may be used to determine a baseline against which future awareness and behavior change can be measured.
- The City tracks its education and outreach efforts.

#### 3.3 Planned Activities

Fife will continue to develop an Education and Outreach program in 2009. Actions for continued Permit compliance will include:

- Continue current activities.
- Summarize annual activities for the "Public Education and Outreach" components of the Annual Compliance Report; identifying updates to the Program document.

## 4. PUBLIC INVOLVEMENT

This section describes the Permit requirements related to Public Involvement, including current and planned compliance activities.

### 4.1 Permit Requirements

The Permit (Section S5.C.2) requires the City to:

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

### 4.2 Current Activities

The current compliance activities associated with the above Permit requirements include:

- The City advertised for and held a public hearing for adoption of the 2005 Ecology Stormwater Management Manual for Western Washington on April 22, 2008. Several private developer questions were answered by Russ Blount, Director of Public Works and recorded in the meeting minutes. The public hearing included presentation of the 2008 SWMP and annual report; no public comments were received.
- Posted 2008 SWMP and Annual Compliance Report on website; no comments were received.
- Presented Fife NPDES program to Puyallup River Watershed Council on October 22, 2008. Responded to questions and answers.

### 4.3 Planned Activities

Fife will offer the public opportunities to be involved in the decision making process on stormwater issues. Actions planned for continued compliance include:

- Prepare an article for inclusion into Fife Flyer requesting public comment for 2009 SWMP.

- Make 2009 SWMP document and Annual Compliance Report available to public by posting on the City website.
- Summarize annual activities for the “Public Involvement and Participation” component of the Annual Report; including updates to the SWMP.

Table 4-1 is the proposed work plan for 2009 SWMP requirements related to Public Involvement, including current and planned compliance activities.

Table 4-1 2009 Public Involvement Work Plan			
Task ID	Task Description	Lead Departments	Schedule Notes
PI-1	Charter City implementation team.	City Management	Completed in 2008
PI-2	Continue to provide opportunities for public involvement for incorporation into SWMP.	City Management, Engineering	Continue through 2009
PI-3	Implement ongoing public involvement.	City Management, Engineering	Continue through 2009
PI-4	Make SWMP document and Annual Compliance Report available to public by posting on the City website.	City Management	Complete before March 31, 2009
PI-5	Summarize annual activities for "Public Involvement and Participation" component of Annual Report; identify any updates to Program document.	City Management	Submit by March 31, 2009

## 5. ILLICIT DISCHARGE DETECTION AND ELIMINATION

This Section describes the Permit requirements related to Illicit Discharge Detection and Elimination (IDDE), including current and planned compliance activities.

### 5.1 Permit Requirements

The Permit (Section S5.C.3) requires the City to:

- Implement an ongoing program to detect and remove illicit discharges, connections and improper disposal, including any spills into the municipal separate storm sewers owned or operated by the City. Develop a storm sewer system map, adopt ordinances that prohibit illicit discharges, and create a program to detect and address illicit discharges.
- Publicly list and publicize a hotline or other local telephone number for public reporting of spills and other illicit discharges. Track illicit discharge reports and actions taken in response through close-out, including enforcement actions.
- Train Program staff on proper IDDE response SOPs and to recognize and report illicit discharges.
- Summarize all illicit discharges and connections reported to the City and response actions taken, including enforcement actions, in the Annual Compliance Report: including updates to the SWMP document.

### 5.2 Current Activities

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

The Fife Municipal Code prohibits discharge of polluted waters into any natural outlet or any area under jurisdiction of the City (FMC 13.08.020). City staff have reviewed Ecology guidance in drafting Permit-compliant code, attended an Ecology sponsored short course and drafted a revision to the FMC for legal review. Expect to present the code updates to Council in April/May 2009.

- The City is currently a subscriber to Pierce County's geographic information system (GIS) and has most of the information and data necessary to create the required maps. The City hired a GIS/CAD technician and purchased a GPS unit to collect and update the existing storm sewer map to include drainage features (e.g., catch basins, pipe size and type).
- Hosted Pollution Prevention Training (agenda included a session on IDDE Awareness Training) taught by Robin Lee, PE of Brown and Caldwell on June 11, 2008 at Fife Community Center; 56 total attendees (26 Fife staff) from 8 other Phase II municipalities.

- Scott Nyberg, City Drainage Foreman inspects City-wide drainage features as part of weekly duties including Wapato Creek, Fife Ditch and the Erdhahl Ditch for illicit discharges. Scott and other Public Works staff respond to reports of spills and Ecology notification.

### 5.3 Planned Activities

Fife conducts some illicit discharge detection and elimination activities but will need to expand current efforts in order to maintain compliance as Ecology phases in Permit requirements.

Actions recommended for continued compliance include:

- Review and update codes.
- Continue to update GIS storm system inventory.
- Review and develop additional public education outreach and SOPs for minimizing pollutant releases from permitted non-stormwater (i.e., illicit) discharges.
- Fife Flyer article on existing hotline.
- Develop and implement stormwater outfall illicit discharge screening program.
- Select and implement IDDE issue tracking/resolution system.
- Continue IDDE training program.
- Summarize annual activities for the “Illicit Discharge Detection and Elimination” component of the Annual Report; including updates to the SWMP document.

Table 5-1 is the proposed work plan for 2009 SWMP illicit discharge detection and elimination activities.

Table 5-1 2009 Illicit Discharge Detection and Elimination Work Plan			
Task ID	Task Description	Lead Departments	Schedule Notes
IDDE-1	Charter City implementation team.	City Management	Completed in 2008
IDDE-2	Using existing drainage as-built inventory, update storm drain GIS layers.	Engineering	Begin in 2008; continue in 2009 with maps to be completed by February 19, 2011
IDDE-3	Review and update codes as needed to address IDDE Permit requirements.	Engineering, Public Works O&M, Legal	Adopt by August 19, 2009
IDDE-4	Revise current IDDE response process into a standard, City-wide IDDE response and enforcement SOP.	Engineering/Legal	Implement by August 19, 2009
IDDE-5	Public education of existing Citizen Help Desk available at our website for public reporting of spills and other illicit discharges.	City Management/IT	Begin by August 19, 2009
IDDE-6	Continue IDDE training program.	Public Works O&M	Ongoing

Table 5-1 2009 Illicit Discharge Detection and Elimination Work Plan			
Task ID	Task Description	Lead Departments	Schedule Notes
<b>IDDE-7</b>	Summarize annual activities for "Illicit Discharge Detection and Elimination" component of Annual Report; identify any updates to Program document.	Engineering, Public Works O&M	Submit by March 31, 2009

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

This Section describes the Permit requirements related to Controlling Runoff from New Development, Redevelopment and Construction Sites, including current and planned compliance activities.

### 6.1 Permit Requirements

The Permit (Section S5.C.4) requires the City to:

- Develop, implement, and enforce a program to reduce pollutants in stormwater runoff (for example, sediment, construction site wastes, and illicit discharges) to the municipal separate storm sewer system from new development, redevelopment and construction site activities. The program must apply to both private and public projects, including roads, and address any construction/development-associated pollutant sources.
- Adopt regulations (codes and standards) and implement plan review, inspection, and escalating enforcement SOPs necessary to implement the program in accordance with Permit conditions, including the minimum technical requirements in Appendix 1 of the Permit (i.e., 2005 Ecology Stormwater Management Manual for Western Washington, equivalent Phase 1 Manual or one of the Manual options with a Fife-specific basin-planning overlay).
- Provide provisions and SOPs (plan review, inspection, and enforcement) to allow non-structural preventive actions and source reduction approaches such as Low Impact Development techniques (LID), measures to minimize the creation of impervious surfaces and measures to minimize the disturbance of native soils and vegetation.
- Adopt regulations (codes and standards) and provide provisions to verify adequate long-term operations and maintenance of new post-construction permanent stormwater facilities and best management practices (i.e., private drainage system inspections) in accordance with Permit conditions, including an annual inspection frequency and/or approved alternative inspection frequency and maintenance standards for private drainage systems as protective as those in Chapter IV of the 2005 Ecology Stormwater Management Manual for Western Washington.
- Provide training to staff on the new codes, standards, SOPs and create public outreach and education materials.
- Develop and define a process to record and maintain all inspections and enforcement actions by staff for inclusion in the Annual compliance Report.
- Summarize annual activities for the “Controlling Runoff” component of the Annual compliance Report: identify any update to Program document.

## 6.2 Current Activities

Current compliance activities associated with the above Permit requirements include:

- Selected and adopted 2005 Ecology Stormwater Management Manual for Western Washington via Ordinance 1670 effective April 30, 2008.
- Updated Chapter 15.32 (Drainage of Surface Water) of the FMC to reflect the new manual and Appendix 1.
- The City requires applicants to obtain a General Construction Stormwater Permit from Ecology (for projects that disturb greater than 1 acre) and submittals of water quality analysis required by the Permit.
- The City conducted site inspections during the pre-construction and construction phases.
- The City provides copies of Notices of Intent (NOI) for construction and industrial activities in the pre-application meeting with developers.
- The City continued to inspect existing private stormwater quality and detention ponds and vaults. Prior to each site visit staff reviewed site specific and readily available drainage report and as-built information and contacted the owner for permission. The requirements used for inspection were the regulations in place at time of the approved design. Staff documented observations and provided owners a follow up letter describing any non-compliant items. Staff also researched utility billing software to confirm that storm pond owners were credited with a discount on their stormwater utility bill in accordance with FMC 13.18.080 C.

## 6.3 Planned Activities

Fife has programs to help reduce stormwater runoff from existing and new development and construction sites but updates will be necessary to maintain compliance as Ecology phases in Permit requirements. Actions that are recommended for continued compliance include:

- Continue to revise plan review, inspection, enforcement and compliance documentation and tracking SOPs for general accordance with the new manual and Permit.
- Staff hosted and attended (on February 25th and 26th, 2009 at Fife Community Center) a short course taught by Gary Minton, PE, PhD titled “Stormwater Treatment for the Practicing Engineer.” Gary provided background information and recommendations for design aspects of storm pond sizing in accordance with the 2005 Ecology Manual and his experience.
- Review and implement new LID Code introduced to FMC via Ordinance 1685 effective January 20, 2009.
- Summarize annual activities for the “Controlling Runoff from New Development, redevelopment, and Construction Sites” component of the Annual Report

(including the post-construction private drainage system inspection and maintenance requirements); including updates to the SWMP documents.

Table 6-1 is the work plan for 2009 SWMP activities related to control of runoff from new development, redevelopment and construction sites. These tasks were developed after staff review of the Permit requirements.

<b>Table 6-1. 2009 Controlling Runoff From New Development, Redevelopment, and Construction Sites Work Plan</b>			
<b>Task ID</b>	<b>Task Description</b>	<b>Lead Departments</b>	<b>Schedule Notes</b>
<b>CTRL-1</b>	Charter City implementation team.	City Management	Completed 2008
<b>CTRL-2</b>	Select Stormwater Manual.	Engineering	Selected May 2008
<b>CTRL-3</b>	Review existing new code language for managing stormwater runoff from development, redevelopment, and construction sites for conformance with new manual and Appendix I.	Building, Engineering, Legal	Revised and Adopted April 2008
<b>CTRL-4</b>	If existing requires modification, establish new permitting process SOPs to implement new manual.	Building, Engineering	Complete by August 19, 2009
<b>CTRL-5</b>	Train staff responsible for implementing the controlling runoff program from new development, redevelopment, and construction sites, including plan review.	Engineering	Complete by August 19, 2009
<b>CTRL-6</b>	Track and report construction, new development, and redevelopment permits, inspections, and enforcement actions.	Engineering	Complete by August 19, 2010

## 7. POLLUTION PREVENTION AND OPERATION AND MAINTENANCE FOR MUNICIPAL OPERATIONS

This Section describes the Permit requirements related to Pollution Prevention and Operation and Maintenance for Municipal Operations, including current and planned compliance activities.

### 7.1 Permit Requirements

The Permit (Section S5.C.5) requires the City to:

- Develop and implement an operations and maintenance (O&M) program with the ultimate goal of preventing or reducing pollutant runoff from the municipal separate stormwater system and municipal operations and maintenance activities.
- Establish maintenance standards for the municipal separate stormwater system that are at least as protective as those specified in the 2005 *Stormwater Management Manual for Western Washington*.
- Perform inspection of stormwater flow control and treatment facilities and catch basins at the required frequencies, unless previous inspection data show that a reduced frequency is justified.
- Have SOPs in place to reduce stormwater impacts associated with runoff from municipal operation and maintenance activities for streets, parking lots, roads or highways owned or maintained by the city, and to reduce pollutants in discharges from all lands owned or maintained by the City.
- Train staff to implement the modified SOPs and document that training.
- Prepare Stormwater Pollution Prevention Plans (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City.
- Summarize annual activities for the “Pollution Prevention and Operations and Maintenance for Municipal Operations” component of the Annual Compliance Report; including any updates to the SWMP.

### 7.2 Current Activities

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

- The City has a program for catch basin debris removal.
- Many of the City’s landscaped, open space, and facility management activities are managed to minimize the potential for stormwater pollution.
- Hosted Pollution Prevention Training taught by Robin Lee, PE of Brown and Caldwell on June 11, 2008 at Fife Community Center; 56 total attendees (26 Fife staff) from 8 other Phase II municipalities.

### 7.3 Planned Actions

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

- Update inspection, operation and maintenance SOPs for City-owned or operated stormwater catch basins and flow control and treatment facilities.
- Adopt 2005 Ecology manual maintenance standards for City-performed maintenance activities.
- Develop land and building maintenance SOP's.
- Develop and establish SOPs to reduce pollutants in stormwater discharges from lands owned or maintained by the City.
- Create and implement Stormwater Pollution Prevention Plans (SWPPPs) for City facilities.
- Summarize annual activities for the "Pollution Prevention and Operation and Maintenance" component of the Annual Report; including updates to the SWMP document.

Table 7-1 is the work plan for 2009 SWMP activities related to pollution prevention and operations and maintenance activities. These tasks were developed through review of the Permit.

Table 7-1 2009 Pollution Prevention and Operations and Maintenance Work Plan			
Task ID	Task Description	Lead Departments	Schedule Notes
PPOM-1	Charter City implementation team	City Management	Completed in 2008
PPOM-2	Update municipal storm system inspection and operations and maintenance SOPs as needed.	Public Works O&M	Complete by February 19, 2010
PPOM-3	Continue to develop curricula and define staff training requirements for pollution prevention training program.	Public Works O&M, Engineering	Complete by February 19, 2010
PPOM-4	Summarize annual activities for "Pollution Prevention and Operation and Maintenance" component of Annual Report, identify any updates to Program document.	Public Works O&M, Engineering	Submit by March 31, 2009
PPOM-5	Set up processes to adopt new Stormwater Manual maintenance standards.	Engineering	Complete by February 19, 2010
PPOM-6	Refine data management systems to track maintenance activities and inspections.	Engineering	Complete by February 19, 2010
PPOM-7	Begin creating Stormwater Pollution Prevention Plans for affected City facilities.	Engineering	Complete by February 19, 2010

## 8. MONITORING

This Section describes the Permit requirements related to water quality monitoring, including current and planned activities.

### 8.1 Permit Requirements

The Permit (Section S8) does not require municipalities to conduct water quality sampling or other testing during this permit term, with the following exceptions:

- Water quality monitoring required for compliance with TMDL's [total maximum daily pollutant loads, a.k.a., water quality clean-up plans]; currently, not applicable to Fife because TMDL's have not yet been developed for Fife water quality limited water bodies.
- Any sampling or testing required for characterizing illicit discharges pursuant to Program's illicit Discharge Detection and Elimination conditions.
- Preparation for future, comprehensive, long-term water quality monitoring efforts consistent with current Phase I monitoring requirements. According to the Permit, this program would include two components: general stormwater quality monitoring and targeted Stormwater Management Program effectiveness monitoring. The stormwater monitoring is intended to characterize stormwater runoff quantity and quality at a limited number of locations. This characterization would allow for analysis of pollutants and changes in conditions over time and across the City. The Stormwater Management Program effectiveness monitoring is intended to improve stormwater management efforts by evaluating various stormwater controls. Results of the monitoring will be used to support the adaptive management process for improving programs over time.
- Identification of three outfalls where permanent stormwater sampling stations can be installed and operated for future monitoring (by the end of the Permit term and with the 4<sup>th</sup> Annual Report). The three outfalls must represent commercial, high-density residential, and industrial land uses. The monitoring shall include plans for stormwater, sediment or receiving water monitoring of physical, chemical, and/or biological characteristics.
- Identification of two suitable Program questions and sites where targeted Program effectiveness monitoring can be conducted together with development of a monitoring plan for these questions and sites. The proposed effectiveness monitoring should be prepared to answer the following types of questions:
  - How effective is a specific targeted action or a narrow suite of actions?
  - Is the Stormwater Management Program achieving a targeted environmental outcome?

In addition, the city is required to provide the following monitoring and/or assessment data in Annual Reports:

- A description of stormwater monitoring or studies conducted by the City during the reporting period. If stormwater monitoring was conducted on behalf of the City, or if studies or investigations conducted by other entities were reported to the City, a brief description of the type of information gathered or received shall be included in the Annual Report.
- An assessment of the appropriateness of the best management practices identified by the City for components of the Stormwater Management Program; and changes made, or anticipated to be made, to the practices that were previously selected to implement the Program and why those changes are desirable.

## 8.2 Current Activities

- Attend Stormwater Workgroup sponsored by AWC; purpose of this group is to provide recommendations to develop a monitoring plan for next NPDES permit that supports efforts to clean up Puget Sound and recover salmon.
- Council approved a water quality monitoring budget for 2009.

## 8.3 Planned Activities

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

- Implement the monitoring compliance strategy, including development of monitoring plans necessary to implement the following Permit requirements and activities.
  - Pollutant spill response (a.k.a., illicit discharge response) monitoring.
  - Identification of two suitable Program questions and sites where targeted Program effectiveness monitoring can be conducted and develop a monitoring plan for these questions and sites.
- Summarize annual monitoring activities for the annual compliance report; including updates to the SWMP document.

Table 8-1 is the work plan for 2009 SWMP monitoring activities. These tasks were developed by staff review of Section S8 of the Permit.

Table 8-1 2009 Monitoring Work Plan			
Task ID	Task Description	Lead Departments	Schedule Notes
<b>MNTR-1</b>	Charter City implementation team.	City Management	Completed in 2008
<b>MNTR- 2</b>	Develop a monitoring strategy for the current and future Permit water quality monitoring conditions.	Engineering	Complete by December 31, 2010
<b>MNTR- 3</b>	Summarize annual monitoring activities for the Annual Report; identify any updates to the Program document.	Engineering	Submit by March 31, 2009

**Acronyms and Definitions**

## APPENDIX A

### ACRONYMS AND DEFINITIONS

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

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

**Basin Plan** is a surface water management process consisting of three parts: a scientific study of the basin's drainage features and their quality; developing actions and recommendations for resolving any deficiencies discovered during the study; and implementing the recommendations, followed by monitoring.

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

**BMP** means Best Management Practice.

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

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

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

**Ecology's Western Washington Phase I Municipal Stormwater Permit** regulates discharges from municipal separate storm sewers owned or operated by Clark, King, Pierce and Snohomish Counties, and the cities of Seattle and Tacoma.

**Ecology's Western Washington Phase II Municipal Stormwater Permit** covers certain "small" municipal separate stormwater sewer systems.

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

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

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

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

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

**IDDE-** Illicit discharge detection and elimination

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

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

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

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

**MEP** means Maximum Extent Practicable.

**MTRs** means Minimum Technical Requirements.

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

(i) owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over

disposal of wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.

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

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

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

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

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

**O&M-** Operations and Maintenance

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

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

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

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

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

a. Owned or operated by a city, town, county, district, association or other public body created pursuant to State law having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer districts, flood control districts or drainage districts, or similar entity.

b. Designed or used for collecting or conveying stormwater.

c. Not a combined sewer system,

d. Not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

e. Not defined as “large” or “medium” pursuant to 40 CFR 122.26(b)(4) & (7) or designated under 40 CFR 122.26 (a)(1)(v).

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

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

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

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

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

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

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