

CITY OF PUYALLUP
2009 STORMWATER MANAGEMENT
PROGRAM (SWMP)

Prepared for
City of Puyallup, WA
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CITY OF PUYALLUP 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 communities and must comply with Ecology’s Phase I NPDES Municipal Stormwater Permit. With Puyallup’s 1990 census falling below the 100,000 threshold, the City must comply with the Phase II Municipal Stormwater Permit. About 100 other municipalities in Washington must now comply with the Phase II Permit, along with Puyallup, as operators of small municipal separate storm sewer systems (MS4s).

The Permit allows municipalities to discharge stormwater runoff from municipal drainage systems into the State’s waterbodies (i.e., streams, rivers, lakes, wetlands) as long as municipalities implement programs to protect water quality by reducing the discharge of “non-point source” pollutants to the “maximum extent practicable” (MEP) through application of Permit-specified “best management practices” (BMPs). The practices specified in the Permit are collectively referred to as the Stormwater Management Program (SWMP) and grouped under the following components:

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

The Permit requires the City to report annually (March 31st of each year) on progress in SWMP Program implementation for the prior year. The Permit also requires submittal of documentation that describes proposed SWMP 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. The Permit will be revised and reissued at the end of this period.

This report is the City’s Draft Stormwater Management Program (SWMP) document. The remainder of this 2009 SWMP document describes actions Puyallup will take to maintain compliance over the third year of the Permit term (i.e., February 16, 2009 through February 16, 2010).

1.2 Phased Permit Requirements

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. On March 31 of each year, beginning in 2008, the City must:

1. Submit its SWMP document to Ecology describing compliance activities planned for the coming year.
2. Submit an annual report documenting Permit compliance activities for the previous calendar year.
3. Post the SWMP document and annual report on the web.

This SWMP document includes the following attachments:

- Appendix A - Acronyms and Definitions from the Permit.

The Western Washington Phase II Municipal Stormwater Permit and additional information can be found on Ecology's website: http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phase_ii_ww/ww_ph_ii_permit.html.

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. To encourage collaboration and efficient use of resources the City plans to charter implementation teams for each Permit component. These teams would consist of members from affected departments. Those departments include City Management (CM), Engineering, Information Technology (IT), Finance, Water Pollution, Buildings, Public Works (PW), Legal, and Human Resources (HR). While the teams for each task may be cross-departmental, the lead department has been identified in the task tables 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 TMDLs. Applicable TMDLs are TMDLs 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.

All TMDLs 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 TMDLs were developed, municipal stormwater was considered a subset of non-point discharges, rather than a permitted discharge. As a result, very few TMDLs statewide contain requirements for municipal stormwater sources. Few TMDLs 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 TMDLs 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.”
- If stormwater was identified as a source of pollutants and specific WLAs, LAs 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 TMDLs 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 Puyallup 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 Operations 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.

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2. STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

This Section describes Permit requirements related to overall Stormwater Management Program administration, including current and planned compliance activities.

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 SWMP annually thereafter. The purpose of the Stormwater Management Program is to reduce the discharge of pollutants from the municipal stormwater system to the maximum extent practicable (MEP) thereby protecting water quality. The Stormwater Management Program is to include the actions and activities described in Sections 3 through 8 of this SWMP document.
- Submit annual reports beginning in 2008 to Ecology by March 31st (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 is on track to comply with Ecology's requirements for submittal of the SWMP documentation by March 31, 2009. The Engineering Department, with the assistance of an internal Steering Committee, is currently leading City development of the future planned activities.
- The City has set up the systems for tracking training.
- The City has defined its strategy for cost tracking.
- The City is on track to comply with Ecology's requirements for submittal of the second Annual Report and SWMP by March 31, 2009.

2.3 Planned Activities

Puyallup has positioned itself well to maintain compliance as Ecology phases in the future Permit deadlines. Table 2-1 presents the proposed work plan for the 2009 SWMP administration activities. These tasks were developed through an iterative process of interviews and workshops with staff from affected City departments.

Table 2-1. 2009 Stormwater Management Administration Program Work Plan			
Task ID	Task Description	Lead	Schedule Notes
SWMP-1	Refine and implement NPDES cost accounting strategy for time spent on each component of Permit.	Finance	New cost tracking procedures must be in place by 1/01/2009.
SWMP-2	Refine and implement training tracking procedures and systems.	HR	First training to be completed by 8/19/2009.
SWMP-3	Summarize annual activities for "Stormwater Management Program" component of Annual Report; identify any updates to SWMP document.	Engineering	The SWMP and Annual Compliance Report are due on or before March 31st of each year.

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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 an Education and Outreach program for stormwater-quality related topics; however, the City has performed some public education and outreach regarding water quality problems in the past. The City does not currently have any activities to track but it will track them as they are implemented throughout 2009.

3.3 Planned Activities

The City plans on developing and building its Education and Outreach program in 2009. Puyallup may be able to take advantage of regional efforts intended to meet NPDES permit requirements, thereby reducing City efforts and costs.

Table 3-1 is the work plan for 2009 SWMP public education and outreach activities. These tasks were developed through an iterative process of interviews and workshops with staff from affected City departments.

Table 3-1. 2009 Public Education and Outreach Work Plan			
Task ID	Task Description	Lead	Schedule Notes
EDUC-1	Develop education and outreach plan. Begin implementing appropriate activities.	City Management, Engineering	Complete education and outreach plan and begin implementing activities by 2/16/2009.
EDUC-2	Develop strategy and process to evaluate understanding and adoption of target behaviors.	City Management	
EDUC-3	Summarize annual activities for "Public Education and Outreach" component of Annual Report; identify any updates to SWMP document.	City Management	The SWMP and Annual Report submittal is due on or before March 31st of each year.

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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 Stormwater Management Program.
- Make the SWMP document and Annual 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 implemented a series of public involvement activities intended to meet the Permit requirements for public involvement in development of its first SWMP. This process involved presentations to the City Manager and City Council at sessions open to the public. The City also presented the 2008 SWMP document in multiple Planning Commission sessions open to the public and held a formal Open House in February 2008.
- The City defined its process for annual SWMP updates, which includes discussions at multiple Planning Commission sessions open to the public and workshops/council meetings before the Puyallup City Council.
- The City posted the Draft 2008 SWMP document and the 2009 Annual Report on the City website.

4.3 Planned Activities

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

- Make most current SWMP document and Annual Report available to public by posting on the City website.
- The City summarizes associated activities in its Annual Report by March 31st of each year

Table 4-1 is the work plan for 2009 SWMP public involvement activities. These tasks were developed through an iterative process of interviews and workshops with staff from affected City departments.

Table 4-1. 2009 Public Involvement Work Plan			
Task ID	Task Description	Lead	Schedule Notes
PI-1	Provide public involvement opportunities for annual SWMP update.	City Management, Engineering	Public involvement opportunities will be available before 3/31/2009 submittal.
PI-2	Make SWMP document and Annual Report available to public by posting on the City website.	City Management	
PI-3	Summarize annual activities for "Public Involvement and Participation" component of Annual Report; identify any updates to SWMP document.	City Management	The SWMP and Annual Report submittal is due on or before March 31st of each year.

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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. An illicit discharge means “any discharge to a municipal storm system that is not composed entirely of stormwater...” and illicit connection means “any man-made conveyance that is connected to a municipal storm system without a permit (excluding roof drains and other similar type connections) such as sanitary sewer connections, floor drains, etc.”
- Develop a storm sewer system map, have 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 staff on proper IDDE response procedures and processes 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 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 City currently has an IDDE program.
- The City has an emergency phone number posted on the City’s website that allows citizens to report illicit discharges or illicit dumping.
- 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 is in the process of creating a GIS strategic plan to outline all necessary data requirements for the future.
- City codes and standards have sections that address some illicit discharges and civil infractions.
- The City summarizes associated activities in its Annual Report by March 31st of each year.
- The City has received a Department of Ecology grant and is using the funds to develop a GIS map of the City’s storm sewer system. This work is approximately 55% complete and is anticipated to be completed by December, 2009.

5.3 Planned Activities

Puyallup 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. Table 5-1 is the work plan for 2009 SWMP illicit discharge detection and elimination activities. These tasks were developed through an iterative process of interviews and workshops with staff from affected City departments.

Table 5-1. 2009 Illicit Discharge Detection and Elimination Work Plan			
Task ID	Task Description	Lead	Schedule Notes
IDDE-1	Define and implement City-wide IDDE Program and develop any necessary supplemental IDDE activities.	Engineering	Program development to be completed by 8/19/2011.
IDDE-2	Using existing AutoCAD inventory, create initial storm drain GIS layers.	Engineering	Continue through 2009.
IDDE-3	Revise current IDDE response process into a standard, City-wide IDDE response and enforcement process and procedure.	Engineering, Legal	Enforcement strategy and implementation SOPs in place by 8/16/2009.
IDDE-4	Update IDDE codes as needed to address Permit requirements.	Engineering, Public Works O&M, Legal	Ordinance and code updates to be adopted by 8/16/2009.
IDDE-5	Create and publicize hotline for public reporting of spills and other illicit discharges.	City Management, IT	Implement hotline by 2/16/2009.
IDDE-6	Select issue tracking/resolution system and tie into new hotline.	IT, Public Works O&M	Implement tracking system by 2/16/2009.
IDDE-7	Train municipal field staff on the identification, investigation, termination, cleanup, and reporting of illicit discharges, improper disposal and illicit connections.	Public Works O&M	Training program, including training tracking, must be developed by 8/16/2009.
IDDE-8	Incorporate awareness of illicit discharges into public outreach and education program.	City Management	Refinements to existing public education and outreach activities to be in place by 2/16/2009.
IDDE-9	Summarize annual activities for "Illicit Discharge Detection and Elimination" component of Annual Report; identify any updates to SWMP document.	Engineering, Public Works O&M	The SWMP and Annual Report submittal is due on or before March 31st of each year.

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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 all construction/development-associated pollutant sources.
- Adopt regulations (codes and standards) and implement plan review, inspection, and escalating enforcement processes and procedures 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 I Manual or one of the Manual options with a Puyallup-specific basin-planning overlay).
- Provide provisions and processes and procedures (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, processes and procedures 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 Report.
- Summarize annual activities for the “Controlling Runoff” component of the Annual Report; identify any update to SWMP document.

6.2 Current Activities

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

- The City has developed and implemented a program to reduce pollutants in stormwater runoff to the municipal separate storm sewer system from some development and construction site activities. The City enforces this program through the Civil Code.
- The City requires submittal of Erosion and Sediment Control (ESC) plans and stormwater management plans (i.e., for post-construction, permanent site drainage, and water quality facilities).
- The City conducts construction and stormwater site inspections during the pre-construction and construction phases.
- The City provides copies of Notices of Intent (NOI) for construction and industrial activities during the permit review process with developers.
- The City summarizes associated activities in its Annual Report by March 31st, of each year.

6.3 Planned Activities

Puyallup has a program to help reduce stormwater runoff from new development and construction sites but updates will be necessary to maintain compliance as Ecology phases in Permit requirements. 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 through an iterative process of interviews and workshops with staff from affected City departments.

Table 6-1. 2009 Controlling Runoff from Development, Redevelopment, and Construction Sites Work Plan			
Task ID	Task Description	Lead	Schedule Notes
CTRL-1	Select new Stormwater Manual.	Engineering	Stormwater Manual adopted by 8/16/2009.
CTRL-2	Draft and adopt new code language for managing stormwater runoff from development, redevelopment, and construction sites.	Building, Engineering, Legal	Codes adopted by 8/16/2009.
CTRL-3	Establish new permitting process SOPs to implement new code.	Building, Engineering	SOPs completed by 8/16/2009.
CTRL-4	Develop and deploy system for project record keeping regarding plan review, construction site inspections, and enforcement actions.	Building, Engineering, IT	Tracking of inspections and enforcement actions by 8/16/2009.
CTRL-5	Train staff responsible for implementing the controlling runoff program from new development, redevelopment, and construction sites.	Engineering	Training completed by 8/16/2009.
CTRL-6	Summarize annual activities for "Controlling Runoff from New Development, Redevelopment, and Construction Sites" component of Annual Report; identify any updates to SWMP document.	Engineering, Building, Public Works O&M	The SWMP and Annual Report submittal is due on or before March 31st of each year.

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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 processes and procedures 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 processes and procedures 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” component of the Annual Report; identify any update to SWMP document.

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 and inlet inspections.
- Many of the City’s landscape, open space, and facility management activities are managed to minimize the potential for stormwater pollution.
- The City has created a list of City owned properties that will need Stormwater Pollution Prevention Plans (SWPPP).
- The City summarizes associated activities in its Annual Report by March 31st, of each year.

7.3 Planned Actions

Puyallup 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. No activities are required until 2010 but preparing for requirements due in early 2010 will be necessary. 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 an iterative process of interviews and workshops with staff from affected City departments.

Table 7-1. 2009 Pollution Prevention and Operations and Maintenance Work Plan			
Task ID	Task Description	Responsible	Schedule Notes
PPOM-1	Update municipal storm system inspection and operations and maintenance processes and procedures for new Stormwater Manual maintenance standards.	Public Works O&M	Standards to be adopted by 2/16/2010.
PPOM-2	Refine data management systems to track maintenance activities and inspections.	Public Works O&M, Engineering	Tracking systems in place by 2/16/2010.
PPOM-3	Begin creating Stormwater Pollution Prevention Plans.	Public Works O&M, Engineering	Begin creating SWPPPs in 2009, implementing SWPPP SOPs by 2/16/2010.
PPOM-4	Develop and establish policies and procedures to reduce pollutants in stormwater discharges from lands owned or maintained by the City.	Public Works O&M, Engineering	Begin development in 2009; begin implementing SOPs by 2/16/2010.
PPOM-5	Establish annual inspection program for City-owned flow control and runoff treatment facilities and perform identified maintenance within prescribed Permit timelines.	Public Works O&M, Engineering	Begin development in 2009; begin implementing SOPs by 2/16/2010.
PPOM-6	Develop curricula and define staff training requirements for pollution prevention training program.	Public Works O&M, Engineering	Training completed by 2/16/2009.
PPOM-7	Summarize annual activities for "Pollution Prevention and Operation and Maintenance" component of Annual Report; identify any updates to SWMP document.	Public Works O&M, Engineering	The SWMP and Annual Report submittal is due on or before March 31st of each year.

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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 TMDLs [total maximum daily pollutant loads, a.k.a., water quality clean-up plans]. The City's current Permit does not include TMDL requirements because there were no EPA-approved TMDLs affecting the City prior to the cut-off date (February 2006) for inclusion in the current Permit.
- Any sampling or testing required for characterizing illicit discharges pursuant to the Permit'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: 1) general stormwater quality monitoring and, 2) 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 two outfalls where permanent stormwater sampling stations can be installed and operated for future monitoring (by the end of the Permit term and with the 4th Annual Report). The two 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 SWMP Program questions and sites where targeted SWMP 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 Stormwater Management Program and why those changes are desirable.

8.2 Current Activities

The City, in partnership with the Puyallup Tribe and Department of Ecology, conducted a 15-month monitoring program for the Clarks Creek Watershed Pollution Reduction Project. The monitoring results were used to identify pollutant sources and estimate pollutant loads. The results of the monitoring are described in the *Clarks Creek Watershed Pollution Reduction Project Submittal Report* (URS and Brown and Caldwell, February 2005).

8.3 Planned Activities

Puyallup will likely need to create a Water Quality Monitoring Program to maintain compliance during the next Permit term. Except for summarizing monitoring activities no actions are required until 2010. Table 8-1 presents the work plan for 2009 SWMP monitoring activities. These tasks were developed through an iterative process of interviews and workshops with staff from affected City departments.

Table 8-1. 2009 Water Quality Monitoring Work Plan			
Task ID	Task Description	Lead	Schedule Notes
MNTR -1	Develop a monitoring strategy for the current and future Permit water quality monitoring conditions.	Engineering	Continue through 2009.
MNTR -2	Summarize annual monitoring activities for the Annual Report; identify any updates to the SWMP document.	Engineering	The SWMP and Annual Report submittal is due on or before March 31st of each year.

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 storm water 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.