

CITY OF PUYALLUP



2015 STORMWATER MANAGEMENT  
PROGRAM PLAN  
(SWMPP)

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Prepared by  
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# CITY OF PUYALLUP 2015 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 *Western Washington Phase I NPDES Municipal Stormwater Permit*. With Puyallup’s 1990 census falling below the 100,000 threshold, the City must comply with the *Western Washington 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 31<sup>st</sup> of each year) on progress in a SWMPP Program implementation for the prior year. The Permit also requires submittal of documentation that describes proposed SWMP activities for the coming year. Implementation of various Permit conditions is phased throughout the Permit term. A list of the permits the City has been covered under includes:

- February 16, 2005 through July 31, 2012.
- August 1, 2012 to July 31, 2013. (AKA the “interim” permit)
- August 1, 2013 through July 31, 2018.

The (2005-2012) Permit was revised and reissued at the end of this period. A 2011 legislative change directed Ecology to reissue the existing Phase II permits unchanged for the interim period 2012-2013. A fully-updated Phase II, five year NPDES municipal stormwater general permit (MSWGP) was issued with an effective date of August 2013 through July 2018.

This document is the City's written documentation of the *Stormwater Management Program Plan (SWMPP)*. The remainder of this 2015 SWMPP document describes actions Puyallup will take to maintain compliance over the seventh year of the Permit term (i.e., January 1, 2014 through January 1, 2015).

## 1.2 Phased Permit Requirements

Ecology began work on the *Western Washington Phase II Municipal Stormwater Permit* 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 was modified on June 17, 2009 to implement the outcomes of appeals. The Permit issued by Ecology became effective on February 16, 2007 and expires on February 15, 2012. Ecology is re-issuing the current permit for one additional year. The new expiration date for the re-issued permit will be July 31, 2013. Upon its expiration, a new permit will be effective beginning August 1, 2013 and ending on July 31, 2018.

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 SWMPP 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 SWMPP and annual report on the web.

This SWMPP includes the following attachments:

- Appendix A - Acronyms and Definitions from the Permit.
- Appendix B - 2015 City of Puyallup Future Stormwater Monitoring Plan
- Appendix C - 2015 Effectiveness Monitoring Plan
- Appendix D – 2015 Education and Outreach Plan

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/phaseIIww/wvphiipermit.html>.

## 1.3 Department Responsibilities

The Permit requirements affect departments across the City organization. Implementation of the various tasks and activities required by the permit are handled by the most closely-related City department according to the specific task(s) including; Public Works Engineering, Development Services, Public Works (maintenance), Facilities, and Parks & Recreation. The Stormwater Engineer provides oversight of the Permit and receives direct reports from each responsible City department on related activities and programs. This is accomplished through annual reporting as well as quarterly and as-needed meetings.

## 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](http://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.

## 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 2015.
- **Section 3.0** addresses Permit requirements for Public Education and Outreach for 2015.
- **Section 4.0** addresses Permit requirements for Public Involvement and Participation for 2015.
- **Section 5.0** addresses Permit requirements for Illicit Discharge Detection and Elimination for 2015.
- **Section 6.0** addresses Permit requirements for Controlling Runoff from New Development, Redevelopment and Construction Sites for 2015.
- **Section 7.0** addresses Permit requirements for Pollution Prevention and Operation and Maintenance for Municipal Operations for 2015.

- **Section 8.0** addresses Permit requirements for the Water Quality Monitoring section of the Permit for 2015.

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



## CITY OF PUYALLUP 2015 STORMWATER MANAGEMENT PROGRAM

### 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 (SWMPP) for submittal to Ecology on March 31, 2013; and update the SWMPP 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 Plan is to include the actions and activities described in Sections 3 through 8 of this SWMPP.
- Submit annual reports beginning in 2013 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 is on track to comply with Ecology's requirements for submittal of the SWMPP documentation by March 31, 2015. The Public Works 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 by individual departments. The desire for the future is to work closely with the City's HR department for tracking of training activities.
- The City has defined its strategy for cost tracking (Finance).
- The City is on track to comply with Ecology's requirements for submittal of the seventh Annual Report and SWMPP by March 31, 2015.

#### 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 2015 SWMPP administration activities. These tasks will continue to be refined through an iterative process of interviews and workshops with staff from affected City departments.

| <b>Table 2-1. 2014 Stormwater Management Administration Program Work Plan</b> |  |                          |  |
|---|--|--------------------------|--|
| <b>Task ID</b>  | <b>Task Description</b>  | <b>Lead</b>              | <b>Schedule Notes</b>  |
| SWMP-1  | Refine and implement NPDES cost accounting strategy for time spent on each component of Permit.                                    | Finance                  | Ongoing process.   |
| SWMP-2  | Refine and implement training tracking procedures and systems.   | HR                       | Ongoing process  |
| SWMP-3  | Provide new employee IDDE training.  | Individual department/HR | Development of PowerPoint training provided by consultant for initial training for all field personnel at time of orientation. |
| SWMP-4  | Summarize annual activities for "Stormwater Management Program" component of Annual Report; identify any updates to SWMP document. | Public Works-Stormwater  | The SWMP and Annual Compliance Report are due on or before March 31st of each year.  |

## CITY OF PUYALLUP 2015 STORMWATER MANAGEMENT PROGRAM

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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:

- Provide an education and outreach program for the area served by the MS4. The program shall be designed to build general awareness and effect behavior change to select target audiences in specific subject areas and on selected BMPs.
- Create stewardship opportunities and/or partner with existing organizations to encourage residents to participate in activities such as stream teams, storm drain marking, volunteer monitoring, riparian plantings and education activities.
- Measure the understanding and adoption of the targeted behaviors for at least one target audience in at least one subject area. No later than February 2, 2016, Permittees shall use the resulting measurements to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors.

#### 3.2 Current Activities

The City's Education and Outreach Program was developed in 2008 and has been updated annually to reflect changes in the program, meet permit requirements, and meet the needs of the City. The 2015 program is discussed in detail in the '2015 City of Puyallup Stormwater Education and Outreach Plan', found in Appendix D. The plan outlines the outreach activities and programs the City will implement in order to achieve measurable improvements in the various target audiences' understanding of stormwater and ways to improve and protect water quality.

Over the past several years the City's Education and Outreach Programs have strengthened and grown. Staff have shared their experiences and lessons-learned with many regional jurisdictions, and shaped the direction of these programs based on these lessons. Below is a summary of just some of the programs that will continue into 2015. Please refer to Appendix D for further details on the City's Education and Outreach Program.

- Stormwater Management webpage Continued updating and management of this education and outreach component includes: posting information and documents related to stormwater, listing public service announcements, promoting stormwater education and outreach events, and posting the telephone number for the City's Illicit Discharge Hotline.
- Puyallup's Rain Garden Program During 2014 this program underwent growth while transitioning to the cost-share based program. Additional changes will be done in 2015 to support expansion of the program.
- Educational Flyers/Materials/Promotion through City (non-Stormwater) Outlets. The City strives to include stormwater-related information in City publications when possible. Spring and Fall clean-up

brochures mailed to waste disposal customers will include stormwater-related information for pollution prevention or LID BMPs.

- **Silver-Meeker Creek Restoration.** Providing education and outreach as well as serving to improve water quality in our local streams, Silver and Meeker creeks have been the focus of riparian restoration for the City for several years now. In 2015 this effort will expand to include the restoration of a 1,000 foot section of Meeker Creek, restoring it to a natural meandering channel. This will be a large, widely visible project that will create many opportunities for public participation and outreach and education.

### 3.3 Local Source Control

The program was launched in 2012 as an outreach program targeting local businesses that provided training and education on the effects of their business practices on the environment. The Local Source Control Program provides one-on-one site visits of business facilities to help operators and managers identify potential environmental risks, hazards, and ways to reduce their waste and exposure to regulatory violations. In 2015 the main focus will remain the Automotive Industry, Gasoline Stations and Property Management Companies. In 2015, the LSC Specialist position will be a full time city position with back funding from Ecology through 7/2015. Additional extensions of this grant will be sought by staff to extend it though 7/2017.

### 3.4 Planned Activities

The City plans to expand its Education and Outreach program in 2015 through the continued expansion of collaborative partnerships with local organizations and other permittees including involvement in the local EcoNet group, regional STORM group, and local SOG group as a subset of STORM. In addition, the City hopes for continued funding for the upcoming biennium from Washington Department of Ecology to continue the Local Source Control Program to the City.

The City had previously adopted and incorporated the Puget Sound Starts Here logo on its catch basin markers and is continuing to integrate the branding on publications where possible, to build on the regional efforts to build a recognizable brand and message across jurisdictions. The City of Puyallup has also worked closely with other jurisdictions when opportunities have presented themselves. The City's active participation in the Puget Sound NPDES Coordinators Group has helped identify some of those opportunities.

Table 3-1 is a work plan that summarizes the anticipated 2015 SWMPP public education and outreach activities including those that will be continued from 2014 and detailing anticipated expansions of the program to include new focus on audiences such as school-age children and businesses.

| Table 3-1. 2015 Public Education and Outreach Work Plan |  |                       |  |
|---|--|-----------------------|--|
| Task ID   | Task Description   | Lead                  | Schedule Notes   |
| EDUC-1  | Implementation of education and outreach plan.                                       | Stormwater Department | See Appendix D for full project details; Note specific projects for 2015 below                             |
| EDUC-2  | Measure the understanding and adoption of stormwater BMPs by select target audience. | Stormwater Department | Measure participation in events, installation of GSI elements, and reduction in untreated stormwater flows |

| Table 3-1. 2015 Public Education and Outreach Work Plan |  |   |   |
|---|--|---|---|
| Task ID   | Task Description   | Lead  | Schedule Notes  |
| EDUC-3  | Summarize annual activities for "Public Education and Outreach" component of Annual Report; identify any updates to SWMP document.   | Stormwater Department                                     | The SWMP and Annual Report submittal is due on or before March 31st of each year. |
| EDUC-4  | Research potential for local collaboration to produce contractor-focused Rain Garden Workshop and pre-qualification program;   | Stormwater Department, Pierce Conservation District (PCD) | Ongoing 2015  |
| EDUC-5  | Volunteer installations of new and replace existing (as needed) storm drain markers in high profile areas of City, e.g. near City facilities, parks and schools. Goal of 1,500 markers per season. | Stormwater Department, PCD                                | Installations May-September   |
| EDUC-6  | Stormwater-related articles in quarterly Puyallup Today and seasonal informational publications  | City Management, Stormwater Department                    | Ongoing 2015  |
| EDUC-7  | Stormwater related stories in PCD publication.   | Stormwater Department, PCD                                | Ongoing 2015  |
| EDUC-8  | Meeker Creek Stream and Riparian Restoration project volunteer maintenance and fill-in planting events   | Stormwater Department, PCD                                | March -November   |
| EDUC-9  | Silver-Meeker creek riparian restoration project – continued maintenance and restoration of Silver and Meeker Creeks with volunteer labor. Interpretive signs on trails part of project.           | Stormwater Department, PCD                                | March-November  |
| EDUC-10   | Outreach to Puyallup School District for stormwater educational calendar project   | Stormwater Department                                     | Ongoing 2015  |
| EDUC-11   | Permeable pavement for residential applications workshops  | Stormwater Department                                     | Ongoing 2015  |
| EDUC-12   | Puyallup's Rain Garden Program – transition to citizen-led installations providing guidance, training, and cost-reimbursement strategy   | Stormwater Department, PCD                                | Ongoing 2015  |
| EDUC-13   | Streamside landscaping demonstration plantings at volunteer sites. With volunteers providing labor.  | Stormwater Department, PCD                                | Ongoing 2015  |
| EDUC-14   | Develop private storm system owner maintenance and reporting program and provide education and information (beginning with Rain Garden recipients, and 2005-SWMMWW-permitted facilities).          | Stormwater Department                                     | Ongoing 2015  |
| EDUC-15   | Refine and continue IDDE public employee, business and general public outreach program, solicit feedback, and produce report   | Collections, Stormwater Department                        | Ongoing 2015  |
| EDUC-16   | Utilize various media to promote the stormwater message and program  | City Management, Planning, Stormwater Department          | Ongoing 2015  |

| <b>Table 3-1. 2015 Public Education and Outreach Work Plan</b> |   |                       |  |
|--|---|-----------------------|--|
| <b>Task ID</b>   | <b>Task Description</b>   | <b>Lead</b>           | <b>Schedule Notes</b>  |
| EDUC-17  | Update City Manager's brief monthly as needed. This also includes posting updated materials on website in relation to the education and outreach work plan. | Stormwater Engineer   | Ongoing 2015   |
| EDUC-18  | Involve City staff in stormwater promotional events   | Stormwater Department | Puget Sound Starts Here month, Tacoma Rainiers Night, riparian planting events |
| EDUC-19  | Track types of public education and outreach activities implemented, # of activities implemented  | Stormwater Department | Ongoing 2015   |

## CITY OF PUYALLUP 2015 STORMWATER MANAGEMENT PROGRAM

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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 SWMPP 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 public involvement activities intended to meet the Permit requirements for public involvement in development of its update to the SWMPP. The draft SWMPP was made available on the City's website for comment.
- The City defined its process for annual SWMPP updates, publication on the website soliciting public input.
- The City posted the Draft 2015 SWMPP and the 2014 Annual Report on the City website.
- The City recently completed a Clarks Creek focused effort with multiple stakeholders to address issues concerning excessive elodea growth in the creek. The stakeholders developed consensus short term and long term approaches to elodea management, including measures that will address root causes of the problem, sediment, nutrients and shading.
- The City has invited extensive citizen participation in the Meeker Creek Channel Restoration project, with two public meetings and two City Council meetings as the project enters its design phase. Citizen involvement has been significant to date.
- The City has been hosting the Puyallup River Watershed Council board meetings and forums at City Hall, providing an opportunity for citizens to be involved. The City is also represented on the PRWC board by the City Engineer.

#### 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 SWMPP and Annual Report available to public by posting on the City website.
- The City summarizes associated activities in its Annual Report by March 31<sup>st</sup> of each year
- The City has completed a Stormwater Comprehensive Plan update in 2011. It was made available to the public via workshops and public hearings.
- The City has an ongoing process of public participation in its proposed Meeker Creek Restoration project that is currently funded through the Department of Ecology. The participation will take place during the design phase and ask for public input on the key aspects of the design.
- The City will continue to host the PRWC (Puget Sound Regional Watershed Council) at City Hall. The City actively participates on the Board of Directors as well as advertises the meetings to involve the public.

Table 4-1 is the work plan for 2015 SWMP public involvement activities. These tasks will be refined through an iterative process of interviews and workshops with staff from affected City departments.

| <b>Table 4-1. 2015 Public Involvement Work Plan</b> |   |                     |  |
|---|---|---------------------|--|
| <b>Task ID</b>                                      | <b>Task Description</b>   | <b>Lead</b>         | <b>Schedule Notes</b>  |
| PI-1  | Provide public involvement opportunities for annual SWMP update.  | Stormwater Engineer | Public involvement opportunities will be available before and after 3/31/2015 submittal. |
| PI-2  | Make SWMP document and Annual Report available to public by posting on the City website.  | Stormwater Engineer |  |
| PI-3  | Summarize annual activities for "Public Involvement and Participation" component of Annual Report; identify any updates to SWMP document. | Stormwater Engineer | The SWMP and Annual Report submittal is due on or before March 31st of each year.        |



## CITY OF PUYALLUP 2015 STORMWATER MANAGEMENT PROGRAM

### 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 SWMPP document.

#### 5.2 Current Activities

The City currently implements activities and programs that meet 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 the information and data necessary to create the required maps. The vast majority of the stormwater system has been mapped in GIS.
- City code adopted in August 2009 specifies IDDE program and enforcement provisions.
- The City summarizes associated activities in its Annual Report by March 31<sup>st</sup> of each year.
- First Responder training was conducted in August 2009 and will be updated as needed. Eight key staff attended the training at that time. Since that initial training, 82 additional City staff, both office and field personnel, have attended formal IDDE training.

### 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 2015 SWMP Illicit Discharge Detection and Elimination (IDDE) activities. These tasks will be refined through an iterative process of interviews and workshops with staff from affected City departments.

| Table 5-1. 2015 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.   | Public Works Collections, Stormwater          | Ongoing  |
| IDDE-2  | Update current GIS stormwater layer to include recently annexed areas, expand level of detail   | Public Works Collections                      | Ongoing  |
| IDDE-3  | Continue to review and revise current IDDE response process as needed to ensure City-wide IDDE response and enforcement process and procedures are adequate.  | Public Works, Legal, Stormwater Department    | Ongoing  |
| IDDE-4  | Train municipal field staff on the identification, investigation, termination, cleanup, and reporting of illicit discharges, improper disposal and illicit connections.   | Public Works O&M, HR                          | Initial First Responders training occurred in 2009, awareness training occurred in February 2011. Train new employees as they are hired. |
| IDDE-5  | Incorporate awareness of illicit discharges into public outreach and education program.   | City Management, Stormwater                   | ongoing  |
| IDDE-6  | Summarize annual activities for "Illicit Discharge Detection and Elimination" component of Annual Report; identify any updates to SWMP document.  | Public Works Collections                      | The SWMP and Annual Report submittal is due on or before March 31st of each year.  |
| IDDE-7  | Track number of hotline calls and number of follow up actions taken during the year   | Public Works Collections, Stormwater Engineer | Ongoing  |
| IDDE-8  | Improve visibility and frequency of appearance of hot line number on web site   | City Management, Stormwater Department        | Ongoing  |
| IDDE-9  | Develop and implement an ongoing program to detect and address non-stormwater illicit discharges, including spills, and illicit connections into the MS4.   | Public Works Collections, Stormwater Engineer | Ongoing  |
| IDDE-10   | Develop procedures for locating priority areas likely to have illicit discharges, including at a minimum: evaluating land uses and associated business/industrial activities present; areas where complaints have been registered in the past; and areas with storage of large quantities of materials that could result in illicit discharges, including spills. | Public Works Collections, Stormwater Engineer | Ongoing  |
| IDDE-11   | Implement field assessment activities, including visual inspection of priority outfalls identified during dry weather and for the purposes of verifying outfall locations, identified previously unknown outfalls, and detected illicit discharges.   | Public Works Collections, Stormwater Engineer | Ongoing  |

| <b>Table 5-1. 2015 Illicit Discharge Detection and Elimination Work Plan</b> |  |   |                       |
|--|--|---|-----------------------|
| <b>Task ID</b>   | <b>Task Description</b>  | <b>Lead</b>                                   | <b>Schedule Notes</b> |
| IDDE-12  | Conduct field assessments for three high priority water bodies.  | Public Works Collections, Stormwater Engineer | Ongoing               |
| IDDE-13  | Conduct field assessments on at least one high priority water body.  | Public Works Collections, Stormwater Engineer | Ongoing               |
| IDDE-14  | Update the Developed and implemented Spill Response Plan decision and phone trees  | Public Works Collections, Stormwater Engineer | Ongoing               |
| IDDE-15  | Develop and implement procedures for tracing the source of an illicit discharge; including visual inspections, and when necessary, opening manholes, using mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures.  | Public Works Collections, Stormwater Engineer | Ongoing               |
| IDDE-16  | Develop and implement procedures for removing the source of the illicit discharge, including notification of appropriate authorities; notification of the property owner; technical assistance for eliminating the discharge; follow-up inspections; and escalating enforcement and legal actions if the discharge is not eliminated | Public Works Collections, Stormwater Engineer | Ongoing               |
| IDDE-17  | Track the number of illicit discharges, including spills, identified   | Public Works Collections                      | Ongoing               |
| IDDE-18  | Track number of inspections for Illicit Connections  | Public Works Collections                      | Ongoing               |

## CITY OF PUYALLUP 2015 STORMWATER MANAGEMENT PROGRAM

### 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 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 31<sup>st</sup> 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 2015 SWMP activities related to control of runoff from new development, redevelopment and construction sites. These tasks will be refined through an iterative process of interviews and workshops with staff from affected City departments.

| Table 6-1. 2015 Controlling Runoff from Development, Redevelopment, and Construction Sites Work Plan |   |                    |   |
|--|---|--------------------|---|
| Task ID  | Task Description  | Lead               | Schedule Notes  |
| CTRL-1   | Adopt 2005 DOE Stormwater manual for developments 1 acre or greater.  | Engineering, Legal | Stormwater Manual was adopted by 2/16/2010.                                       |
| CTRL-2   | Draft and adopt new code language for managing stormwater runoff from development, redevelopment, and construction sites.   | Engineering, Legal | Codes were adopted by 2/16/2011.  |
| CTRL-3   | Establish new permitting process SOPs to implement new code.  | Engineering        | SOPs were completed by 2/16/2011 and continue to be an ongoing process.           |
| CTRL-4   | Develop and deploy system for project record keeping regarding permitting, plan review, construction site inspections, and enforcement actions.                                     | Engineering        | Ongoing   |
| CTRL-5   | Train staff responsible for implementing the controlling runoff program from new development, redevelopment, and construction sites.  | Engineering        | Ongoing   |
| 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,       | The SWMP and Annual Report submittal is due on or before March 31st of each year. |
| CTRL-7   | Conduct Stormwater Site Plan reviews for new development and redevelopment projects over 1 acre in size, track number of site plans reviewed during the year.                       | Engineering        | Ongoing   |

| Table 6-1. 2015 Controlling Runoff from Development, Redevelopment, and Construction Sites Work Plan |  |                                       |                |
|--|--|---------------------------------------|----------------|
| Task ID  | Task Description   | Lead                                  | Schedule Notes |
| CTRL-8   | Inspect, prior to clearing and construction, all known development sites that have high potential for sediment transport as determined by plan review and requirements in Appendix 7 of the permit, track number of sites inspected during the year.         | Engineering                           | Ongoing        |
| CTRL-9   | Inspect construction phase stormwater controls at permitted sites to verify proper installation and maintenance of erosion and sediment controls, track number of sites inspected during the year.   | Engineering                           | Ongoing        |
| CTRL-10  | Enforce erosion and sediment controls as necessary at new development and redevelopment sites, track number of enforcement actions taken during the year.  | Engineering                           | Ongoing        |
| CTRL-11  | Inspect permitted development sites upon completion and prior to final approval or occupancy to ensure proper installation of permanent stormwater controls, track number of sites and number of sites inspected.  | Engineering                           | Ongoing        |
| CTRL-12  | Verify a maintenance plan is completed and responsibility for maintenance is assigned.   | Engineering                           | Ongoing        |
| CTRL-13  | Enforce regulations as needed based on inspections, e.g. require systems brought in to compliance before final acceptance, track number of enforcement actions taken during the year.  | Engineering                           | Ongoing        |
| CRTL-14  | Develop and implement an enforcement strategy to respond to issues of non-compliance.  | City Management, Legal, Engineering   | Ongoing        |
| CRTL-15  | Provide copies of the <b>Notice of Intent for Construction Activity</b> and <b>Notice of Intent for Industrial Activity</b> to representatives of proposed new development and redevelopment (private development) or submit to Ecology (public development) | Engineering                           | Ongoing        |
| CRTL-16  | Begin LID Code change. Process to review /revise City Code to emphasize Low Impact Development   | Public Works, Planning, Dev. Services | Ongoing        |

## CITY OF PUYALLUP 2015 STORMWATER MANAGEMENT PROGRAM

### 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 (MS4) 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 (Corporate Yards, Parks Maintenance, WPCP).
- Summarize annual activities for the “Pollution Prevention and Operations and Maintenance for Municipal” component of the Annual Report; identify any update to the SWMPP.

#### 7.2 Current Activities

The City currently has activities and programs that meet 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.
- The City has a regular street sweeping program.
- 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), they are Corporate Yards, Wastewater Treatment Plant, and Parks Maintenance Facility.
- The City summarizes associated activities in its Annual Report by March 31<sup>st</sup> of each year.

- The fueling island stormwater retrofit, identified in the Corporate yard SWPPP, is expected to be begin in 2015.
- The City is beginning the process to improve the existing decant facility at the Corporate Yards Maintenance Facility.
- The Materials Storage Shed, identified in the Corporate yard SWPPP, is expected to begin in 2015.

### 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. Table 7-1 is the work plan for 2015 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. 2015 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 Collections               | Standards adopted by 2/16/2010.   |
| PPOM-2  | Refine data management systems to track maintenance activities and inspections (Cartegraph CMMS).   | Public Works Collections, IT&C         | Ongoing   |
| PPOM-3  | Implement Stormwater Pollution Prevention Plan (SWPPP) for Corporate Yards, Waste Water Treatment Plant and Parks Maintenance Facilities.   | Public Works, Parks                    | Update of Corporate Yard SWPPP completed in 2011                                  |
| PPOM-4  | Implement Fuel Island Stormwater Retrofit identified in Corporate Yards SWPPP   | Public Works                           | By December 2015  |
| PPOM-6  | Develop and establish policies and procedures to reduce pollutants in stormwater discharges from lands owned or maintained by the City.   | Public Works                           | Ongoing   |
| PPOM-7  | Establish annual inspection program for City-owned flow control and runoff treatment facilities and perform identified maintenance within prescribed Permit timelines.  | Public Works                           | Ongoing   |
| PPOM-8  | Develop curricula and define staff training requirements for pollution prevention training program.   | Public Works O&M,                      | Ongoing   |
| PPOM-9  | Summarize annual activities for "Pollution Prevention and Operation and Maintenance" component of Annual Report; identify any updates to SWMP document.   | Public Works, Public Works Collections | The SWMP and Annual Report submittal is due on or before March 31st of each year. |
| PPOM-8  | Inspect post construction stormwater controls, including structural BMPs, at new development and redevelopment projects (Private systems) per the approved maintenance plan, track the number of sites, number of structural BMP's and number of enforcement actions during the year. | Public Works Collections,              | Ongoing   |



| <b>Table 7-1. 2015 Pollution Prevention and Operations and Maintenance Work Plan</b> |   |                               |                       |
|--|---|-------------------------------|-----------------------|
| <b>Task ID</b>   | <b>Task Description</b>   | <b>Responsible</b>            | <b>Schedule Notes</b> |
| PPOM-9   | Establish program to annually inspect all stormwater treatment and flow control facilities (other than catch basins) and catch basins every 6 months, track number of treatment facilities and number of catch basins maintained during the year.   | Public Works Collections      | Ongoing               |
| PPOM-10  | Inspect all new stormwater treatment and flow control facilities owned or operated, including catch basins, for new residential developments that are a part of a larger common plan of development or sale, every 6 months during the period of heaviest house construction to identify maintenance needs and enforce compliance with maintenance standards as needed, track the number of facilities inspected during the year. | Public Works Collections      | Ongoing               |
| PPOM-11  | Implement process to maintain records on inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, other enforcement records, maintenance inspections and maintenance activities.   | Public Works Collections      | Ongoing               |
| PPOM-12  | Verify and maintain staff training, permitting, plan review, construction site inspections and enforcement, track number of trainings and number of staff trained.  | HR                            | Ongoing               |
| PPOM-13  | Conduct spot checks of stormwater facilities after major storms (>3"/24 hr), track number of facilities inspected after storms for the year.  | Public Works Collections      | Ongoing               |
| PPOM-14  | Maintain GIS database of number of stormwater facilities other than catch basins (public and private), track number of facilities and inspections   | Public Works Collections      | Ongoing               |
| PPOM-15  | Inspect all public inlets and catch basins.   | Public Works Collections      | Ongoing               |
| PPOM-16  | Track number of catch basins inspected and number cleaned for reporting period  | Public Works Collections      | Ongoing               |
| PPOM-17  | Train staff on Operations and Maintenance procedures contained in Regional Road Maintenance ESA Program Guidelines, track number of trainings   | Public Works, Collections, HR | Summer 2013           |
| PPOM-18  | Install a material storage shed to cover loose rock, sand and gravel materials. Identified in Corporate Yards SWPPP   | Public Works                  | By Dec. 2015          |

## CITY OF PUYALLUP 2015 STORMWATER MANAGEMENT PROGRAM

### 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. The City has currently initiated several projects supporting the Clarks Creek DO/Sediment TMDL prior to it being required by the permit. Projects underway in support of that include:
  - 15<sup>th</sup> St Stormwater Quality
  - Meeker Creek Channel Restoration
  - Clarks Creek Channel Stabilization PR05 and PR 06 projects
  - 39<sup>th</sup> Ave SW 11<sup>th</sup> to 17<sup>th</sup> (LID implementation with basin)
  - Porous Alley Initiative
  - Pioneer Place II Wetland Restoration
  - Clarks Creek Riparian Conservation Futures project (Craig Peck property)
  - Deadman's Pond property acquisition
  - Riparian Planting Program for private property owners
  - Silver Creek property acquisition, etc.
- Any sampling or testing required for characterizing illicit discharges pursuant to the Permit's Illicit Discharge Detection and Elimination (IDDE) 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 (SWMP) 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 SWMP 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 4<sup>th</sup> 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 (BMP) 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). Most recently the Puyallup Tribe completed a pollution reduction study (Clarks Creek sediment reduction action plan, by Brown and Caldwell march 2013) that analyzed, through modeling, the various sediment input source and factors. The resulting sediment reduction study identified biological and surface impacts as well as in-channel erosion as the contributors to the sediment loading issues.

## 8.3 Planned Activities

Beginning in the current permit term (August 2013 through July 2018), the City will begin to participate in Ecology's monitoring and assessment program. The program requires each jurisdiction to pay a specific monetary amount in order to address a specific element that needs to be addressed as a part of the NPDES. These include Status and Trends, Effectiveness, and Source Identification. Table 8-1 presents the work plan for 2015 SWMP monitoring activities.

| Table 8-1. 2015 Water Quality Monitoring Work Plan |   |                               |  |
|--|---|-------------------------------|--|
| Task ID  | Task Description  | Lead                          | Schedule Notes                                   |
| MNTR -1  | Pay Ecology's specified fees for monitoring for the NPDES | Public Works                  | Ongoing  |
| MNTR-2   | Prioritize three receiving waters for visual inspection.  | City Management, Public Works | Completed February 16, 2010. Continue to monitor |

|        |   |                     |   |
|--------|---|---------------------|---|
| MNTR-3 | Conduct field assessment on at least one high priority water body.  | Public Works        | Ongoing   |
| MNTR-4 | Summarize annual monitoring activities for the Annual Report; identify any updates to the SWMP document.                        | Public Works        | The SWMP and Annual Report submittal is due on or before March 31st of each year. |
| MNTR-5 | Identification of two outfalls where permanent stormwater sampling stations can be installed and operated for future monitoring | Stormwater Engineer | Completed 2012.   |
| MNTR-6 | Identification of two suitable SWMP Program questions   | Stormwater Engineer | Completed 2012.   |
| MNTR-7 | 15 <sup>th</sup> Street stormwater improvements   | Stormwater Engineer | Ongoing 2014-2017   |

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## APPENDIX A

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### **Acronyms and Definitions**

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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 firefighting 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.

**2015 City of Puyallup City Future Stormwater Monitoring Plan**

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CITY OF PUYALLUP



## FUTURE STORMWATER MONITORING PLAN

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Prepared by  
City of Puyallup Public Works Department  
December, 2015

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# Section 1

## Monitoring Overview

This section provides a brief overview of the monitoring requirements that are set forth in the Washington State Phase II Municipal Stormwater Permit for Western Washington (Phase II Permit). Due to the overlapping permit coverage in 2013, the monitoring falls under two permits, the 2012 “interim” permit, and the newly issued 2013 to 2018 permit that will take effect as of August 1, 2013.

The interim permit is still required to fall under the old monitoring requirements that were established for the 2007-2012 permit. These requirements are outlined in section 1 and 2, and will be effective from January 1, 2013 to July 31, 2013. On August 1, 2103, the new five year permit requirements will take effect. These requirements are outlined in section 3.

## Section 2

### 2.0 August 1, 2013 Phase II Permit Monitoring Requirements

In 2008, Ecology convened the *Puget Sound Stormwater Workgroup (SWG)* to develop a comprehensive, sustainable, stormwater monitoring strategy for Puget Sound, as well as monitoring requirements for the next Phase I and Phase II permits. The SWG members represent caucuses of local, state, and federal agencies, environmental and business organizations, tribes and agriculture. The SWG submitted the comprehensive strategy in July 2010 to Ecology (in a document titled *2010 Stormwater Monitoring and Assessment Strategy for the Puget Sound Region*). Based on this strategy, the SWG submitted monitoring recommendations for the next NPDES Phase I and II permits on October 29, 2010, in a document titled *Recommendations for Municipal Stormwater Permit Monitoring*.

The SWG recommends that Ecology designate an independent entity to administer the stormwater-related monitoring and assessment activities in the next municipal stormwater permits. This recommendation is called the “pay-in” option. The SWG recommended receiving water monitoring rather than the outfall monitoring described in the current Phase II Permit. Moreover, the SWG recommended that the regional entity (rather than by each permittee) administer the program effectiveness monitoring and focus on questions of regional significance.

More information on the SWG is available at <http://www.ecy.wa.gov/programs/wq/psmonitoring/swworkgroup.html>.

The Phase II Permit regulates stormwater discharges for small municipal separate storm sewer systems (MS4s) as established in Title 40 CFR, part 122.26. The Phase II Permit, issued in 2012 and effective on August 1, 2013, includes requirements for permittees to pay into a collective fund developed and administered by Ecology.

The Phase II Monitoring Program described in Section S8.C includes three types of monitoring:

- Stormwater Status and Trends Monitoring (S8.B). Puyallup’s portion is \$9,498.
- Stormwater Program Effectiveness Studies (S8.C). Puyallup’s portion is \$15,826.
- Stormwater Source identification and Diagnostic Monitoring (S8.D). Puyallup’s portion is \$1,468.

Status and Trends Monitoring (S8.B) will implement a RSMP (Regional Stormwater Monitoring Program) for small streams and marine nearshore status and trends monitoring program for the Puget Sound.

Effectiveness Monitoring (S8.C) will implement RSMP effectiveness studies.



Source identification and Diagnostic Monitoring (S8.D) will implement RSMP Source Identification Information Repository (SIDIR) for the state.

By opting to participate in the collective fund option, the City will fully satisfy its obligations under the Monitoring and Assessment section of the 2013-2018 permit. This is also the most cost effective way since the alternative method to meet this requirement is not financially feasible to the City.

**2015 Effectiveness Monitoring Plan**

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CITY OF PUYALLUP



FUTURE STORMWATER AND  
SWMP EFFECTIVENESS  
MONITORING PLAN

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## Section 1

### **Effectiveness Monitoring Overview**

This section provides a brief overview of the monitoring requirements that are set forth in the Washington State Phase II Municipal Stormwater Permit for Western Washington (Phase II Permit). This only applies to the 2012 “interim permit. Any information related to the 2013-2018 permit, effective August 1, 2013, is covered in the Monitoring Plan.

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**2015 City of Puyallup Stormwater Education and Outreach Plan**



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# 2015 City of Puyallup Stormwater Education and Outreach Plan

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## Summary

The Education and Outreach (E&O) Plan provides an overview of the activities intended for the 2015 calendar year to meet requirements set forth in the NPDES Phase II Municipal Stormwater General Permit (MSWGP) for Education and Outreach (E&O). All programs and activities will be implementing based on available funding, grants, and staffing levels, with all minimum requirements of the MSWGP met.

## Overview

Based on the options presented in the 2013-2018 NPDES MSWGP, Puyallup has made the following selections for outreach groups and topics to meet the S5.C.1 requirements for Public Education and Outreach:

- a. Create an education and outreach program to educate target audiences about the stormwater problem and actions to minimize the problem:
  - i. To build general awareness: *general public (including school age children) and businesses (including home-based and mobile businesses)* on:
    - General impacts of stormwater on surface waters
    - Impacts from impervious surfaces
    - Impacts of illicit discharges and how to report them
    - Low impact development (LID) principles and LID BMPs
    - Opportunities to become involved in stewardship activities
  - ii. To effect behavior change: *general public (which may include school age children), businesses (including home-based and mobile businesses)*
    - Use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials
    - Equipment maintenance
    - Prevention of illicit discharges

The **Outreach Plans** section of this document describes how the above objectives will be reached through various programs and projects planned for 2015. These programs will each offer opportunities for residents to address the next permit requirement of this section:

- b. Creating stewardship opportunities to encourage residents to participate in activities

The **Analysis** section of this document includes discussion and plans to address the remaining S5.C.1 requirement:

- c. Measure the understanding and adoption of one target audience in one subject area listed above

The plan is organized by the two target audiences: General Public and Business. This division of efforts relates to funding sources and current programs within the City. Where possible, efforts are combined to realize benefits of leveraging efforts and funds. The Outreach Plans detailed below include individual projects and programs designed to deliver stormwater pollution prevention and water quality improvement messages to the relevant audience(s). Each Plan is designed and implemented as a living document, allowing for program/project changes to meet the available funding, staffing levels, and audience needs.

## Outreach Plans

### General Public-Directed Outreach Programs

## **Puyallup's Rain Garden Program**

This program will continue into its 8<sup>th</sup> year in 2015. Based on the seven-year foundation of successful projects within the City, this program will continued dedicated funding from the Stormwater Budget in 2015. Coordination with Pierce Conservation District will continue. This partnership allows the program to leverage City staff expertise and funding with PCD's plant expertise and

The 2015 program focus on promotion of the program and streamlining of the process to encourage more applicants. The program will continue to promote active homeowner involvement in the design, building, and on-going maintenance of rain gardens, permeable pavements, and rain barrels on private properties.

City involvement in this program and support to citizen participants includes design guidance, training, and cost reimbursement. The program as a whole will include various LID elements and is not limited to promotion of only rain gardens:

- Rain gardens
- Permeable pavements
- Rain barrels
- Riparian planting

## **Porous Driveway Initiative**

This program has been incorporated into the larger umbrella program: Rain Garden Program, and will continue in 2015 utilizing the dedicated budget funding.

Goals for this program include:

- Demonstration of LID technique(s) to homeowners
- Reduce stormwater runoff volume and associated pollutant loading
- Focus on Clarks Creek Basin

## **Riparian/Streamside Plantings**

In 2013 a stand-alone program to promote planting of streamside properties in the Clarks Creek basin (along Meeker, Silver, and Clarks creeks) was developed and will continue in 2015. This program is funded in the NPDES stormwater budget. Participating homeowners receive design assistance, coordination of volunteers for installation efforts, and free plants – the average dollar amount per participating property is \$250. The amount varies based on the linear footage of the creek frontage, and potential impact to the creek.

Based on positive feedback received in both the fall and spring of 2014, mailings will be completed throughout 2015 to again promote the program, educate the public, and gain additional interest and involvement in this program throughout the year.

## **Porous Alley Initiative**

The first two years of this Initiative resulted in the retrofit of three alley locations, as well as pre-design of five additional locations. In addition, support from Puyallup's Street Department has resulted in the retrofit of various shoulder areas in the City as "Porous Shoulders" to address drainage and standing-water issues.

However, additional required from current grant funding has delayed movement toward final documents for construction of the pre-designed areas. Additional testing will be completed for some of the locations to meet funding requirements. Other locations will be completed using City-only funds, City-forces, and on-call asphalt paving contract(s). This will leverage existing funds and staff to address at least two existing impervious alleys that are in need of repair, and are contributing to stormwater runoff.

When the existing grant funding is depleted, Puyallup will evaluate the program and identify additional alley locations that would benefit from this program as well as provide water quality benefits back to the watershed while evaluating potential funding sources to continue the program.

Again, alleys in the Clarks Creek basin will be addressed first. Where and when possible, excavation of the existing alley and installation of the aggregate layers will be done by City crews.

The goal of this program is to provide demonstration sites for porous asphalt as an LID technique in the community to increase the public, and local businesses understanding of its application and function.

## **Stormwater Pollution Prevention Artwork Contest/Calendar Program**

The second-year Stormwater Calendar Program (completed in 2014) has successfully educated over 100 school-age children directly, and many more citizens through the distribution of the calendars. The reach of this program will continue throughout 2015 as each month in the calendar includes a call-to-action for citizens to learn about stormwater or complete actual stormwater pollution prevention activities.

This program will continue with implementation of the 2013-based effort as well as development and design of a 2016 calendar to extend into the next reporting period.

## **Business-Directed Outreach Plans**

### **Local Source Control Program**

Funding through an interagency agreement with Ecology, the City has tailored and will implement the Local Source Control (LSC) Program in partnership with Ecology and in collaboration with other regional LSC Programs as well as supporting local organizations including WSU-Puyallup and the Washington Stormwater Center.

This program will provide a focused educational program for local businesses, specifically small quantity generators of dangerous waste, to identify sources of pollution on business sites and adopt and implement good housekeeping BMPs. The main focus of our LSC program in 2015 will be property management companies and to complete the current focus of gasoline stations and auto repair facilities.

This program is working hand-in-hand with the Fish Friendly Car Wash Program and the Private Catch Basin Marking Program to bring awareness not only to business owners but also to the general public.

### **Fish Friendly Car Wash Program**

Implemented as a local-concern focus of the LSC Specialist and program, the City has developed the Fish Friendly Car Wash (FFCW) Program to include cooperation with local businesses to serve as points-of-presence and destinations for hosting community FFCW events. Our LSC Specialist will also reach out to the Schools and churches in the area to ensure they are aware of the program and will utilize the kits when fundraising.

The program is used to not only prevent stormwater runoff pollution from car wash activities – such as fundraising events – but also to educate the public on the effects of soap and other pollutants when they enter the stormwater system as well as ways to prevent this pollution.

### **Private Catch Basin Marking**

To expand the reach and influence of the *Only Rain Down the Drain* catch basin marker program, the City will expand the program to include marking of storm drains on private property including areas such as the Puyallup Fair Grounds, South Hill Mall, and other businesses with significant visibility and foot traffic. The City will consult with business owners during site visits with in the LSC program to obtain permissions to mark the drains on private property.

## **Illicit Discharge, Detection, and Elimination (IDDE) Program**

Dissemination of IDDE awareness and education will again be a focus to the City's outreach and education program as part of other existing efforts.

In addition, the IDDE message will be highlighted as part of the Local Source Control (LSC) Program to deliver the message directly to local businesses. This program will also offer support to identify, control, reduce, or eliminate pollutant sources and stormwater runoff by offering technical assistance and information on Best Management Practices (BMP's).

Coordination of this effort is made with the City's IDDE

## **Educational Messages**

The goal of the 2015 Education and Outreach Plan is to deliver to the community various stormwater-related messages while inspiring specific actions that address pollution prevention, LID techniques and applications, stormwater management, and impacts to our local waterways. Each Education and Outreach Program will strive to incorporate the following messages and invoke actions:

- The cumulative effort of individual citizens can create significant impacts/detriments to our waterways
- Only Rain Down the Drain – general message
- Fish Friendly Car Washing
- Scoop Fido's Poo
- Streamside Landscaping
- Don't Feed the Ducks!
- Plant a Rain Garden
- Remove Impervious Surfaces (pave permeably!)
- Get Disconnected from the stormwater system
- LID applications: permeable pavement, rain gardens, rain barrels

## **Analysis**

Measurement of the understanding and adoption of stormwater awareness and behavior changes will be focused in the Local Source Control Program, targeting businesses to encourage proper storage and handling of dangerous and hazardous materials.

During visits to selected businesses Staff discuss which BMPs can be implemented to improve on or incorporate in their day to day practices. Summary letters are sent to the businesses within two weeks of the site visits, outlining the BMPs recommended and giving information on how to implement them as well as suggested timelines. As part of the summary information a feedback survey is provided in which the business is asked to identify any BMPs they have already adopted. A follow-up visit is made within two months to review with the business on-site the actions they have taken and record their adopted behaviors that have resulted from the LSC program site visits, information, and outreach.

This data is compiled to evaluate which BMPs are most-often adopted, noted barriers to adoption, and costs associated with any changes made by the business.

## **Evaluation and Adjustments**

This section is reserved for use in years 2016 and beyond to direct the program in accordance with the adoption measurements and targeted behavior changes.

