

City of Olympia

2017 Stormwater Management Program (SWMP) Plan

Prepared February 2017

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INTRODUCTION

Purpose of the Stormwater Management Program Plan (SWMP)

All stormwater runoff flowing through Olympia's pipes, ponds, and ditches is managed according to the requirements of a permit first issued by the Washington State Department of Ecology (WDOE) in January of 2007. The *Western Washington Phase II Municipal Stormwater Permit* (Permit) requires the City to take actions like; educating the public and encouraging non-polluting behaviors, looking for illegal dumping and cross-connections, enforcing erosion and sediment control at construction sites, and using best practices for land management and stormwater system maintenance.

This SWMP is designed to reduce the discharge of pollutants from Olympia's regulated MS4 (municipal separate storm sewer system) to the maximum extent practicable, meet state AKART (all known and reasonable technologies) requirements, and protect water quality.

Implementation Timing

The Permit is now in its second issuance for the City of Olympia. The current Permit is effective for five years, from August 2013 through August 2018. Each year, the Permit adds new requirements for the City to come into compliance. Low impact development requirements of the Permit were completed by December 31, 2016.

Olympia Storm and Surface Water Utility - Other Activities

The Utility maintains over 155 miles of underground pipe, over 7,000 storm drains, and 50 stormwater ponds that carry stormwater runoff from roads and rooftops to our streams and Budd Inlet. We work on many levels to protect water quality, aquatic habitat, and prevent flooding. This involves working closely with residents, businesses and other government agencies to maintain a safe and healthy environment for people and wildlife.

Relationship to Other Plans

The Storm and Surface Water Utility is guided by the 2003 Storm and Surface Water Master Plan. The Master Plan aligns with Olympia's Comprehensive Plan and focuses on the programs and policies of the Utility. This SWMP Plan represents a subset of the work performed by the Utility; specifically, those areas that are governed by the Permit.

The Permit as Document Map

This Plan generally follows the S5 section of the Permit. Each year this Plan is required to be updated and planned activities will move to current activities when they are scheduled as work items for the upcoming calendar work year. The current activities listed are the City's on-going, permit-related programs and practices.

The remainder of this document details the required elements of the SWMP as noted in Condition S5.C of the Permit, and notes current and planned compliance activities.

PUBLIC EDUCATION AND OUTREACH

Permit Requirements

Permit Section S5.C.1 outlines the required elements of a public education and outreach program. Specifically,

- Provide an education and outreach program designed to educate target audiences about stormwater problems and provide specific actions they can follow to minimize these problems. Prioritize the target audiences and messages for awareness building campaigns, as well as behavior change campaigns.
- Create stewardship opportunities and encourage residents to participate in activities such as stream teams, storm drain marking, volunteer monitoring, riparian plantings and education activities.
- Summarize public education and outreach efforts annually and submit with Annual Report.

Current Activities

The Olympia Storm and Surface Water Utility has a long-standing and robust public outreach and education program. The following are some of the current activities of our program.

- Production of a quarterly Stream Team newsletter with distribution of over 2,300 copies annually.
- Stormwater-related messaging in the City's Utility Bill Insert, which is produced every other month.
- Distribute and install pet waste stations. Nine pet waste stations were installed in 2016.
- Provide monetary incentives for the construction of rain gardens. Two incentives were granted in 2016.
- Developed and implemented the Great Yards Get-together natural lawn and yard care demonstration workshop event. Produced eight natural lawn care videos for regional use. Created Kasey Keller natural lawn care challenge through utility bill insert article, received 165 pledges. Sent quarterly natural lawn care tip emails to 215 residents.
- Signed an Interlocal contract between Thurston County, City of Lacey, and City of Tumwater to formally recognize the environmental education program known as Stream Team. This effort is internally known as the Regional Education Partnership.
- Signed a five year Interlocal contract between Thurston County, City of Lacey, City of Tumwater, to continue funding efforts of Thurston Conservation Districts South Sound Green Program. This program provides stormwater educational and presentation opportunities to school children in grades four through twelve.

Planned Activities

The following activities (Table 1) are planned for 2017 in order to continue Olympia's compliance with permit requirements. The City of Olympia has met the permit obligation of section S5.C.1 through implementation of the Natural Lawn Care Program. The following activities planned for 2017 are because of our commitment to excellence and achievement of clean water.

Table 1. Public Education and Outreach: 2017 Work Plan

Action Item	Target Audience	Goal and/or Behaviors Promoted
Construction Site Erosion Control	Construction Businesses	Correct installation of Erosion Control Best Management Practices (BMPs)
Develop 2017 Workplan for Regional Education Partnership	Citizens of Olympia and Thurston County Region	Promote positive behavior change activities

PUBLIC INVOLVEMENT IN SWMP PLAN DEVELOPMENT

Permit Requirements

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

- Create opportunities for the public to participate in the decision-making processes involving the development, implementation and update of the SWMP.
- Make the SWMP Plan and annual report available to the public, including on the City's website.

Current Activities

The most recent SWMP Plan is posted on the City's website, along with the most current Annual Permit Compliance Report.

Planned Activities

Activities planned for continued compliance with Permit Section S5.C.2 are listed below (Table 2).

Table 2. Public Involvement in SWMP Plan Development: 2017 Work Plan

Action Item	Staff Involved	Schedule Notes
Present the 2017 SWMP to the City's Utility Advisory Committee and provide opportunity for public comment.	Storm and Surface Water (SSW) Utility	Scheduled for March 2017 Utility Advisory Committee meeting.
Post the 2017 SWMP on the City's website.	SSW Utility	To be completed by May 31, 2017.
Update the SWMP for 2018 planned activities.	SSW Utility, in coordination with other city staff	Begin December 2017

ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

Permit Requirements

The Permit (Section S5.C.3) requires the City to implement an ongoing program to prevent, detect, characterize, trace and eliminate illicit connections and illicit discharges into the MS4.

- Continue to update and refine mapping of the MS4 (municipal separate storm sewer system).
- Implement a regulatory mechanism to effectively prohibit non-stormwater, illicit discharges into the stormwater system to the maximum extent allowable under state and federal law. Update the regulatory mechanism, if necessary, by February 2, 2018.
- Implement a compliance strategy that includes informal compliance actions, as well as the enforcement provisions of the regulatory mechanism.
- Implement a field screening methodology appropriate to the characteristics of the MS4 and water quality concerns. Complete field screening for at least 40% of the MS4 no later than December 31, 2017, and on average 12% each year thereafter.
- Publicly list and publicize a hotline for public reporting of spills and other illicit discharges.
- Implement an ongoing training program for all municipal field staff that might come into contact with or observe an illicit discharge.
- Inform public employees, businesses and the general public of hazards associated with illicit discharges and improper disposal of waste.
- Implement an ongoing program to address illicit discharges into the MS4. Program elements should include:
 - Procedures for characterizing the nature of any illicit discharge. Procedures shall address the evaluation of whether the discharge must be immediately contained and steps to be taken for containment of the discharge.
 - Procedures for tracing the source of an illicit discharge.
 - Procedures for eliminating the discharge.
- Train staff that are responsible for identification, termination, cleanup, and reporting of illicit discharges and illicit connections to conduct these activities. Conduct follow-up training as needed to address changes in procedures, techniques, requirements or staffing.
- Summarize activities in the Annual Report.

Current Activities

Current illicit discharge detection and elimination activities that are part of ongoing permit compliance include:

- Olympia maintains a GIS (geographic information systems) database of the MS4. Mapping of the public/private stormwater system continues. Standard procedures are in place for maintaining the GIS database to document new connections, changes/alterations to the existing system, and corrections based on field verification. Drainage areas and land use have been identified for outfalls 24" or greater in size. Maps are available to Ecology and other permittees (NPDES permitted jurisdictions) upon request.
- Olympia Municipal Code Chapter 13.16 prohibits illicit discharges and provides for escalating enforcement.
- MS4 field screening is accomplished through multiple methodologies including but not limited to video inspections, catch basin/manhole inspections, ditch inspections, and stormwater BMP (best management practices) inspections.

- The City advertises a Spill Hotline (360-753-8333) to the public for reporting spills and illicit discharges. Records are kept of calls and emails received, and follow-up actions are taken by City staff to investigate and respond appropriately.
- The City condition rated a total of 60,300 lineal feet (over 7%) of stormwater pipe in 2016, with 522,000 total linear feet (over 62%) of the stormwater pipe system rated by December 31, 2016.

Planned Activities

In addition to continuing the IDDE programs required previously by the Permit, the following activities (Table 3) are planned for 2017.

Table 3. Illicit Discharge Detection and Elimination: 2017 Work Plan

Action Item	Staff Involved	Schedule Notes
Continue to refine and implement the Illicit Discharge Detection and Elimination program.	SSW Utility	Ongoing
Televise and condition rate approximately 50,000 lineal feet of stormwater pipe.	SSW Utility	Required to field screen 40% of the MS4 no later than December 31, 2017.

CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT AND CONSTRUCTION SITES

Permit Requirements

The Permit (Section S5.C4) requires Olympia to implement and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction sites. The program applies to private and public development, including roads. Specifically:

- Review all stormwater site plans for proposed development activities.
- Require legal authority to inspect private stormwater facilities and enforce maintenance standards.
- Conduct inspections prior to clearing and construction.
- Conduct inspections during construction to verify proper installation and maintenance of required erosion and sediment controls. Enforce as necessary based on the inspection.
- Conduct post-construction inspections to ensure proper installation of stormwater system elements.
- Conduct inspections during construction for all permanent stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments (every six months until 90% of the lots are constructed or when construction is stopped and the site is fully stabilized). Enforce compliance with maintenance standards as needed.
- Implement a regulatory mechanism to require construction site operators to prepare and implement a Construction Stormwater Pollution Prevention Plan.

- Make available the “Notice of Intent for Construction Activity” to representatives of proposed new development and redevelopment. Continue to enforce local ordinances controlling runoff from sites that are covered by other stormwater permits issued by Ecology.
- Implement maintenance standards.
- Train staff involved in construction site inspections and enforcement.
- Implement an ongoing training program for employees who have primary O&M (Operations and Maintenance) job functions that may impact stormwater quality.
- Keep records of inspections and enforcement actions.

Current Activities

For many years, Olympia has had a program to control stormwater runoff from new development, redevelopment, and construction sites. The following are some of Olympia’s ongoing program activities.

- The *Drainage Design and Erosion Control Manual for Olympia* was updated and adopted by City Council on December 31, 2016. This update makes the City’s manual equivalent to the Department of Ecology’s 2012 *Stormwater Management Manual for Western Washington* and Appendix 1 of the Permit.
- The Community Planning and Development, and Public Works Departments coordinate a program to review development plans, inspect sites during construction, and to take enforcement action when necessary.
- Records of reviews, construction inspections, and enforcement actions are maintained by both the Community Planning and Development and Public Works Department staff.
- The Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity applications are available for project applicants on the City’s development applications webpage.
- Staff receive training on erosion control, LID techniques, and stormwater design, inspection and modeling on an ongoing basis as needed.
- Post-construction inspections of private stormwater systems are performed by Storm and Surface Water staff according to the Permit’s regulated timelines. Records of these inspections and maintenance compliance are maintained by Storm and Surface Water staff.
- Ordinance #7027 was adopted by City Council to make LID standards the preferred method to control stormwater runoff.

Planned Activities

The following activities (Table 4) are planned for 2017 to continue compliance with permit requirements.

Table 4. Controlling Runoff from New Development, Redevelopment and Construction Sites: 2017 Work Plan

Action Item	Staff Involved	Schedule Notes
Continue to refine and implement Olympia's program to Control Runoff from New Development, Redevelopment and Construction Sites.	Community Planning & Development, SSW Utility	Ongoing

POLLUTION PREVENTION AND OPERATION AND MAINTENANCE FOR MUNICIPAL OPERATIONS

Permit Requirements

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

- Implement maintenance standards at least as protective as those specified in Chapter 4 of Volume V of the 2012 Stormwater Management Manual for Western Washington.
- Perform annual inspections of all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities, and take appropriate maintenance actions in accordance with maintenance standards.
- Perform spot checks of potentially damaged permanent stormwater treatment and flow control BMPs/facilities after major storm events. Conduct repairs or take appropriate maintenance action in accordance with maintenance standards, based on the results of the inspections.
- Inspect all catch basins and inlets owned or operated by the City at least once no later than August 1, 2017 and every two years thereafter. Clean catch basins if the inspection indicates cleaning is needed to comply with the maintenance standard. Properly dispose of decant water (water that has separated from sludge and is removed from the layer of water above the settled sludge).
- Implement practices, policies and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the City, including road maintenance activities under functional control of the City.
- Implement an ongoing training program for employees whose primary construction, operations or maintenance job functions may impact stormwater quality.
- Implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned by the City.
- Maintain records of inspections and maintenance or repair activities.

Current Activities

The following ongoing programs have been developed to comply with permit requirements.

- Publicly owned and operated stormwater treatment and flow control facilities are inspected annually. If an inspection identifies exceedance of an applicable maintenance standard, the timelines in S5.C.5.a.ii are followed.
- Catch basins are inspected, and cleaned when the maintenance standard is exceeded, on a schedule that meets Permit requirements. Of the 7,434 known catch basins, over 4,227 (>55%) were inspected and cleaned in 2016.
- Ongoing pollution prevention training is provided to municipal maintenance and operation field staff.
- Stormwater Pollution Prevention Plans (SWPPPs) have been developed and are continuously implemented at the Olympia Public Works Maintenance Center and Olympia Parks Priest Point Park Maintenance facilities.
- Olympia has an Integrated Pest Management (IPM) Plan that was developed by the Olympia Parks Department.
- Staff maintains a “hot spot” list of potentially vulnerable stormwater infrastructure. These sites are monitored during and after major storm events.

Planned Activities

Activities planned for 2017 in order to continue compliance with permit requirements are listed below (Table 5).

Table 5. Pollution Prevention and Operation and Maintenance for Municipal Operations: 2017 Work Plan

Action Item	Staff Involved	Schedule Notes
Continue to implement and refine Pollution Prevention and Operation and Maintenance activities and programs	SSW Utility, O&M staff city wide	Ongoing

COORDINATION

Permit Requirements

Permit Section S5.A.5 requires that there is coordination between Permittees, as well as within departments within the City in order to eliminate barriers to compliance with the terms of the Permit.

- Develop coordination mechanisms to clarify roles and responsibilities for the control of pollutants between physically interconnected MS4s.
- Coordinate stormwater management activities for shared water bodies among Permittees to avoid conflicting plans, policies and regulations.

Current Activities

Listed below are ongoing coordination activities:

- Public Works Water Resources performs a lead role in coordinating Permit and municipal stormwater related activities among City departments. Most departments in the City are affected in some way by Permit requirements.
- Olympia staff participate in a regional Stormwater Technical Advisory Committee (StormTAC) that includes staff from the other Phase II Permittee jurisdictions (Lacey, Tumwater, Thurston County), as well as, both local Phase II Secondary Permittees (Port of Olympia, Washington State Department of Enterprise Services (DES)) and LOTT wastewater alliance. StormTAC meets bi-monthly and discusses stormwater topics related to the Phase II Permit, as well as other watershed planning projects and studies. Participating jurisdictions rotate the responsibility of hosting these meetings on a yearly basis. The City of Olympia has been coordinating this effort since early 2016. Olympia plans on continuing this support role through December 2017, when responsibility is handed to another jurisdiction.

Planned Activities

Coordination activities planned for 2017 are listed below (Table 6).

Table 6. Coordination: 2017 Work Plan

Action Item	Staff Involved	Schedule Notes
Continue to implement current coordination activities.	City staff, staff from adjacent Phase II Permit jurisdictions, LOTT	Ongoing
Begin the process of developing and convening a Construction Stormwater Workgroup for the purpose of ensuring compliance with NPDES permit standards.	Community Planning & Development, Public Works	Produce a written charter by end of 2017

COMPLIANCE WITH TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

Permit Requirements

Olympia has two additional requirements that stem from the Henderson Inlet Watershed TMDL (Appendix 2).

- For areas discharging to Henderson Inlet via the MS4, require phosphorus control for new and redevelopment projects that discharge via MS4 to Woodard Creek and meet the project thresholds in Appendix 1.
- Continue to implement a coordinated plan with the City of Lacey to monitor and reduce fecal coliform bacteria discharges from the Fones/Taylor wetland treatment facilities.

Current Activities

Current activities for the Henderson TMDL are:

- Development and redevelopment projects that are located within city limits and discharge via MS4 to Woodard Creek and meet the project thresholds in Appendix 1 are required to include phosphorus control in the stormwater design of their project.
- In coordination with the City of Lacey, staff collaborated to update a joint stormwater sampling plan known as Henderson TMDL – Coordinated Sampling Plan (November 6, 2013) to monitor fecal coliform bacteria in the area in and adjacent to the Fones/Taylor wetland treatment facilities. The City of Olympia continues to coordinate with the City of Lacey to implement this sampling plan.

Planned Activities

In 2017, the following additional Henderson TMDL related activities are planned (Table 7).

Table 7. Total Maximum Daily Load: 2017 Work Plan

Action Item	Staff Involved	Schedule Notes
Following completion of sampling activities, draft a summary report on findings.	City of Lacey, SSW Utility	Summary report will be submitted to Ecology in each annual report.

MONITORING AND ASSESSMENT

Permit Requirements

Section S8 of the Permit outlines requirements for monitoring and assessment.

- Provide a description in each Annual Report of any stormwater monitoring or stormwater-related studies conducted by or on behalf of the City.
- Participate in status and trends monitoring, stormwater management program effectiveness studies, and source identification and diagnostic monitoring. Olympia is given the option to pay into a regional program to perform these activities or may choose to complete the monitoring activities individually and submit monitoring results annually to Ecology.

Current Activities

Olympia has chosen to participate in the Puget Sound Regional Monitoring Program (PSRMP) in order to meet the Permit requirements for status and trends monitoring, effectiveness studies, and source identification and diagnostic monitoring. The City of Olympia will continue to submit funds annually to the PSRMP.

Other stormwater monitoring or studies will be undertaken periodically in association with TMDL requirements and as otherwise needed.

Planned Activities

The following monitoring or assessment activities are planned for 2017 (Table 8).

Table 8. Monitoring and Assessment: 2017 Work Plan

Action Item	Staff Involved	Schedule Notes
Continue funding the PSRMP for Puget Sound monitoring activities.	SSW Utility	Annual payment of \$31,338 due in 2017.
Contract with Thurston County Environmental Health Department to conduct monthly sampling on Percival, Chambers, and Moxlie Creeks.	SSW Utility and Thurston County Environmental Health	Not required by the Permit, but sampling of local creeks has been an ongoing activity of the SSW Utility for over a decade.

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