



**THE CITY OF EDGEWOOD
STORMWATER MANAGEMENT PROGRAM**

Updated March 2017



Prepared By – City of Edgewood, Surface Water Management

2224 104th Avenue East, Edgewood, WA 98372

For use in NPDES Phase II implementation

Prepared in compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1251 et seq.

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Introduction

The National Pollutant Discharge Elimination System (NPDES) permit program is a requirement of the federal Clean Water Act. The permit was initiated to protect water quality through detection and elimination of pollutant discharges. The federal Environmental Protection Agency (EPA) has delegated permit authority to state environmental agencies towards developing, implementing, and enforcing stormwater regulations and policies. In the State of Washington, the permit authority is the Department of Ecology (DOE).

This document has been prepared to address the NPDES requirements for the City of Edgewood (City), as required by the Western Washington Phase II Municipal Stormwater Permit (Permit), which calls for the development and annual update of a Stormwater Management Program (SWMP). This SWMP has been prepared to protect water quality by reducing the discharge of pollutants from the City's Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable (MEP), accomplished through the application of Best Management Practices (BMPs) and compliance with Washington State's All Known, Available, and Reasonable Treatment (AKART) requirements. All Permit-required SWMP components are included in the City's Program, including:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination (IDDE)
- Controlling Runoff from New Development, Redevelopment and Construction Sites
- Pollution Prevention and Operation and Maintenance for Municipal Operations
- Monitoring and Reporting

This document is intended to be used in conjunction with background information compiled in the 1997 Surface Water Management Plan prepared by Kato & Warren, Inc, for which a comprehensive update is planned this year.

The Permit requires an annual report each year by March 31st, describing the Permit requirements, prior year's activities, plans for the coming year, and an update to the SWMP. New in 2016, the City hired a Surface Water Program Manager to implement the SWMP more effectively, helping to set priorities and ensure compliance with Permit requirements by evaluating and tracking SWMP development and implementation efforts on an on-going basis. The costs for each SWMP component are also being tracked, including the number of inspections, enforcement actions, and public education activities, as required by the respective program components. All of this information is included in the annual report.

Edgewood is a Phase II community, as identified by DOE. The currently effective Phase II Permit was issued in 2012, modified by DOE in 2014, and is set to expire on July 31, 2018. Prior to expiration of the current Permit and issuance of the next version, draft updates are expected for City review by late 2017. Any changes to the SWMP required by the new Permit will be addressed in the next annual update.

Section 1: Public Education and Outreach

The SWMP includes a public education and outreach program aimed at anyone interacting with its MS4 and surface waters within the City of Edgewood: residents, businesses, industries, elected officials, policy makers, and City staff. Educational material and information is made available at City Hall, on the City's website, and through the City's quarterly newsletter. The goal of the program is to reduce or eliminate behaviors and practices that can cause or contribute to adverse stormwater impacts. In summary, the Permit requires the City to:

- educate target audiences about stormwater problems and provide specific actions to minimize the problem (build general awareness),
- achieve measurable improvements in the target audience's understanding of the stormwater problem and what can be done to solve it through outreach (behavior change), and
- track and maintain records of public education and outreach activities.

To build general awareness, the Permit identifies the following target audiences and subjects:

- General public
 - General impacts of stormwater flows into surface waters
 - Impacts from impervious surfaces
 - Impacts of illicit discharges and how to report them
 - Low impact development (LID) principles and BMPs
 - Opportunities to become involved in stewardship activities
- Engineers, contractors, developers, review staff, and land use planners
 - Technical standards for stormwater site and erosion control plans
 - LID principles and BMPs
 - Stormwater treatment and flow control BMPs/facilities

For behavior change, the Permit identifies the following target audiences and BMPs:

- General public, 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
- Residents, landscapers, and property managers
 - Yard care techniques protective of water quality
 - Use and storage of pesticides and fertilizers and other household chemicals
 - Carpet cleaning and auto repair and maintenance
 - Vehicle, equipment and home/building maintenance
 - Pet waste management and disposal
 - LID principles and BMPs
 - Stormwater facility maintenance
 - Dumpster and trash compactor maintenance

Current Activities

While the City of Edgewood does not have a formal public education program in place, one is being developed with considerable influence from various regional efforts. Even so, educational opportunities have and continue to occur from time to time. For instance, the Planning Commission was able to take a tour of the Washington State University Extension facility in Puyallup last fall, learning about the performance and composition of porous pavements, bio-retention soil media development, and the effects of urbanized runoff on juvenile fish in the Puget Sound region.

Current policy requires stormwater management facilities, serving other than individual single-family residential lots, be owned and maintained by the homeowners' association, property owner, or other private-party designee. The developer is required to execute and record an *Agreement to Maintain Stormwater Facilities and Implement a Pollution Source Control Plan*, which contains an Operations and Maintenance Plan and facility inspection requirements. This document requires annual inspection and reporting by the responsible party, providing an education and outreach opportunity for City staff.

Other educational materials such as brochures on lawn and yard care have been posted on the City's website, and seasonal articles have been included in the City's quarterly Edgewood Magazine. The City also has hard copies of the *Rain Garden Handbook for Western Washington* available at City Hall, for Edgewood residents interested in small development projects. The City provides these resources to residents at no charge.

Planned Future Activities

In addition to continuing the activities listed above, the City hopes to develop 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 educational activities. The City may work with the Pierce Conservation District to create or support existing "Stream Teams", which coordinate efforts to maintain and monitor stream ecology for streams and creeks within the City's or adjacent jurisdictions. Staff is also working with the Puyallup School District on possible educational opportunities, and with selected property owners to preserve sensitive areas through Pierce County Parks' Conservation Futures grant program.

Sponsored community workshops have been hosted by the City in the past, and additional workshops are anticipated in the future. These provide hands-on opportunities for residents to discuss and review stormwater related topics including: rain gardens, other LID BMPs, fish-friendly activities, and conservation programs. These are commonly supported by the Co-op Extension programs, Pierce County Conservation District, and other local and regional conservancy programs. Any future workshops will have published public notices and be advertised on the City's Surface Water Management web page.

Finally, to ensure this program's success, there must be some measurement of the behaviors and understanding of water quality in the community. As part of this year's comprehensive update to the City's Surface Water Management Plan, the citizens of Edgewood will be invited to participate through providing comments and feedback. The results of this process will be used as a basis to guide the public education and outreach program moving forward.

Section 2: Public Involvement and Participation

The Permit requires that ongoing opportunities for public involvement be provided, through advisory councils, watershed committees, participation in developing rate-structures, stewardship programs, environmental activities, and/or other similar activities. The City has and will continue to comply with applicable State and local public notice requirements when developing and implementing the SWMP, and all associated documents and annual reports are made available on the City's Surface Water Management website.

Current Activities

The City creates opportunities for the public to participate in the decision-making processes involving the development, implementation, and update of the City's SWMP, including its Site Development Regulations. Any updates to the development code are formally noticed per the Edgewood Municipal Code (EMC) and reviewed with the Planning Commission and City Council, with opportunities to provide both informal and formal written and oral comments at Public Hearings before both groups. In 2016, the City's Site Development Regulations were updated as required by the Permit following this process.

Planned Future Activities

The City will make this SWMP, the annual report, and all other submittals required by the Permit available to the public, both on the City's Surface Water Management website and by hard copy at City Hall, no later than May 31st each year. General information related to programs and public outreach and education will be updated periodically on the City's website and at public locations where the City maintains display boards.

As with the public education and outreach, the citizens of Edgewood will be invited to participate through this year's comprehensive update to the City's Surface Water Management Plan by providing comments and feedback. The results of this process will be used to prioritize the capital improvement projects identified in the updated Surface Water Management Plan and develop revised utility rates as needed.

Section 3: Illicit Discharge Detection and Elimination (IDDE)

This component of the Permit requires implementation of an ongoing program to prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the City's MS4, including the following elements:

- Ongoing mapping of the City's MS4
- Effective prohibition by ordinance of non-stormwater, illicit discharges into the MS4
- Develop and implement a program to detect and identify non-stormwater discharges and illicit connections into the City's MS4
- Implement a program to address illicit discharges, including spills and illicit connections, into the City's MS4
- Provide appropriate training to City employees on IDDE into the City's MS4
- Implement procedures for program evaluation and assessment which includes a program to track spills and illicit discharges (both number and type), record inspections made and record any feedback received from public education efforts

Current Activities

The City has a MS4 base map available through Pierce County's CountyView subscription-based GIS platform, originally developed in 2009 with Pierce County GIS Services, that is updated each year following annual maintenance inspections performed by Pierce County Public Works staff (under Interlocal Agreement).

Edgewood adopted EMC 13.25, updated in 2016 by Ordinance 16-0484, to define and address illicit discharges to the MS4. The City is continually implementing a program to detect and identify non-stormwater discharges and illicit connections, including appropriate investigation procedures and field screening techniques. Staff is trained to be aware of any potential hazards when performing routine inspections, reporting illicit discharges that may be non-compliant with the Permit. Residents are encouraged to contact City Hall to report any suspected spills or illicit discharges, and City staff respond and coordinate appropriate action immediately upon request.

Planned Future Activities

- The City is working with Pierce County GIS staff to maintain and update its MS4 mapping every year, incorporating as-built record data from ongoing development activity and this year's comprehensive update to the City's Surface Water Management Plan
- With recent new hires, the City plans to enroll staff in training, workshops, and / or participation in other public education opportunities within the coming year
- All IDDE activity will continue to be tracked and recorded by the City, pursuant to Permit Condition S5.C.3.f

Section 4: Controlling Runoff from New Development, Redevelopment and Construction Sites

The City has implemented and is enforcing a program to reduce pollutants in stormwater runoff to its MS4 from new development, redevelopment, and construction site activities, as required by the Permit, for all private and public development, including roads. Included in this program are the following elements:

- Adopt regulations (codes and standards) and implement plan review, inspection, enforcement, and long-term maintenance provisions necessary to implement the program in accordance with Permit conditions, including the Minimum Requirements, thresholds, and definitions in Appendix 1 of the Permit or an equivalent approved by DOE under the 2013 NPDES Phase I Municipal Stormwater Permit, for new development, redevelopment, and construction sites
- Make available copies of the “*Notice of Intent for Construction Activity*” and / or “*Notice of Intent for Industrial Activity*” for representatives of new developments and redevelopments, as applicable to stormwater permits issued by DOE
- Develop and implement a training program for staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites including permitting, plan review, construction site inspections, and enforcement

Current Activities

EMC Chapter 13.05 contains the City’s Site Development regulations, updated in 2016 by Ordinance 16-0484, which address stormwater runoff from new development, redevelopment, and construction site projects in accordance with the Permit. Said regulations have adopted the 2015 Pierce County Stormwater Management and Site Development Manual (PCM), as modified under EMC 13.05.170 to be more restrictive to address local conditions, as a Phase I equivalent approved by DOE to meet this requirement.

Integrated with this regulation update, the City has reviewed and revised local development codes, rules, and standards to incorporate and require LID principles and BMPs, making LID the preferred and commonly-used approach to site development. The revisions aim to minimize impervious surfaces, native vegetation loss, and stormwater runoff in all types of development situations.

Qualified City staff review all stormwater site plans for proposed development activities, inspect all permitted development sites prior to clearing and construction activity, verify proper installation and maintenance of Temporary Erosion and Sediment Control (TESC) facilities during construction, confirm installation of approved stormwater BMPs, and compile appropriate as-built records prior to permit closeout. Enforcement actions are taken, as necessary, based on inspection results and Citizen Action Requests. All reviews and inspections are documented and retained in City permit records in accordance with the Permit and the City’s records retention schedule.

While copies of DOE stormwater permit forms are now available on their website for electronic completion and submittal, hard copies are available at City Hall upon request.

Planned Future Activities

Along with the adoption of the 2015 PCM, the City is developing a long-term Operation and Maintenance (O&M) program to ensure stormwater treatment and flow control BMPs

continue to function as designed into perpetuity. Annual inspections and reporting, performed by responsible private parties, are required through the execution of an *Agreement to Maintain Stormwater Facilities and Implement a Pollution Source Control Plan*, which contains an O&M Plan with facility inspection requirements, and is recorded on property title. City staff will be reaching out to responsible parties in late May / early June this year, including those facilities without executed agreements, in order to identify any deficiencies and establish an annual maintenance and inspection program.

The City will also verify that all staff and contracted agents responsible for implementing this program are trained appropriately. Follow-up training will be provided as needed to address changes in procedures, techniques, or staffing. The City will document and maintain records of the training provided and the staff trained.

Section 5: Municipal Operation and Maintenance

As required by the Permit, the City is developing and implementing an O&M program that includes a training component and prevents and/or reduces pollutant runoff from municipal operations. Minimum performance measures include:

- Establishing maintenance standards equal to or better than those specified in Chapter 4 of Volume V of the 2012 DOE *Stormwater Management Manual for Western Washington* (SMMWW)
- Developing an inspection program for all municipally owned or operated permanent stormwater treatment and flow control facilities, with at minimum annual frequency, and spot checks after major storm events (10 year or greater recurrence interval)
- Developing an inspection program for all municipally owned or operated catch basins and inlets, with all assets inspected at least once by August 1, 2017, and every two (2) years thereafter
- Implementing practices, policies, and procedures to reduce stormwater impacts associated with runoff from City-owned land and road maintenance activities
- Implementing an ongoing training program for staff whose primary functions may impact stormwater quality
- Developing a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance yards and material storage facilities owned or operated by the City

Current Activities

The City's Site Development regulations (EMC Chapter 13.05), as updated in 2016 by Ordinance 16-0484, adopt the 2015 PCM. The maintenance standards contained therein meet or exceed those specified in the 2012 DOE SMMWW. A majority of Edgewood's municipal maintenance and inspection activities are performed by Pierce County Public Works crews, through Interlocal agreement. Accordingly, the City is in compliance the inspection program requirements to-date, having an established inspection program and asset inspection rate of more than 95%.

City staff with job functions that may impact stormwater quality, including maintenance and inspection personnel, are Construction Erosion and Sediment Control Lead (CESCL) certified. Pierce County Public Works maintenance crews are trained in the policies and procedures outlined in the Regional Program. These training programs address the importance of protecting water quality, the Permit requirements, O&M standards, inspection procedures, BMP appropriateness, reporting procedures, and methods to prevent or minimize impacts to water quality. Follow-up training will be provided as needed to address changes in procedures, techniques or requirements. The City documents and maintains a record of all training provided.

Planned Future Activities

While the City does not currently have an established maintenance and storage yard, it is looking to develop one in the future. As plans for said yard come to fruition, an ongoing SWPPP will be prepared in accordance with the Permit.

Section 6: Compliance With Total Maximum Daily Load (TMDL) Requirements

In accordance with Section S7 of the Permit, the City must demonstrate compliance with the “*Puyallup Watershed Water Quality Improvement Project*” (Puyallup TMDL), which is an EPA-approved Fecal Coliform TMDL listed in Appendix 2 of the Permit. As required therein, the City will designate areas discharging through its MS4 to Jovita Creek as the highest priority areas for IDDE routine field screening, implementing the schedules and activities identified in S5.C.3 of the Permit (Section 3 of this SWMP).

The City will keep records of all actions required by the Permit that are relevant to the Puyallup TMDL. The status of the Puyallup TMDL implementation will be included as part of the annual report submitted to DOE. Each annual report will include a summary of relevant SWMP and Appendix 2 activities conducted in the Puyallup TMDL area to address the fecal coliform TMDL parameter.

During 2016, there were several permitted construction activities within the Edgewood City Limits with stormwater runoff tributary to Jovita Creek: 2 residential subdivisions, 2 residential building permits, 2 commercial building permits, 2 public road maintenance / improvement projects, and a drainage course / box culvert maintenance project. None of the permitted activities produced any illicit discharges or adversely impacted the known TMDL, according to City records. Furthermore, staff did not discover any illicit discharges to or through the MS4 during routine field screening in this area in 2016.

Section 7: Monitoring

As required under Section S8 of the Permit, the City shall provide a description of any stormwater monitoring or stormwater-related studies conducted during the annual reporting period. A Hydrologic Surface Water Analysis was commissioned for the 108th Avenue East neighborhood (between 8th Street East and approximately 12th Street East), prepared by Gray & Osborne, Inc. This analysis was not yet complete as of December 31, 2016.

The City pays annually into a collective fund to implement the Regional Stormwater Monitoring Program (RSMP), as required by the Permit and DOE, for status and trends monitoring (small streams and marine nearshore in Puget Sound), stormwater management program effectiveness studies, and source identification and diagnostic monitoring (Source Identification Information Repository, or SIDIR).

Section 8: Reporting Requirements

The City must submit an annual report and SWMP update each year by March 31st. The reporting period for all annual reports is the previous calendar year (i.e., 2016 for this report). Reports are submitted electronically using DOE’s Water Quality Permitting Portal (WQWebPortal), posted on the City’s Surface Water Management website, made available at City Hall by request, and kept on file for at least five years. The following pages are a complete record of this year’s submittal to DOE. If you have any questions, comments, or concerns, please contact the City of Edgewood Surface Water Program Manager, Jeremy Metzler, PE, at jeremy@cityofedgewood.org, or by phone at (253) 952-3299 x114.