

# Stormwater Management Plan Final

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Prepared for  
City of Fairview, Oregon  
March 2011

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## SECTION 1

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### EXECUTIVE SUMMARY

The City of Fairview (City) is a co-permittee with the City of Gresham on the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Discharge Permit. As part of the permit requirements, the City needs to implement a Stormwater Management Plan (SWMP), which is a Plan that describes the measures the City has been and will be conducting to reduce the discharge of pollutants, protect water quality, and satisfy applicable requirements of the Clean Water Act. These measures, commonly known as best management practices (BMPs), are defined as any program, technology, process, siting criteria, operating method, measure, or device, which controls, prevents, removes, or reduces pollution.

### REGULATORY BACKGROUND

The Clean Water Act (Act) of 1972 established regulations to control discharges to public waterways from industrial sources and municipal wastewater treatment plants. In 1987, Congress expanded the Act to regulate non-point source pollution, which includes stormwater runoff from agricultural and urban areas.

In September 1995 the Oregon Department of Environmental Quality (DEQ) issued NPDES MS4 permit #101315 to the City of Fairview, the City of Gresham, the Oregon Department of Transportation (ODOT), and Multnomah County. The permit required the implementation of a stormwater management plan (SWMP), stormwater monitoring program, and the submittal of annual reports. The specific regulatory components that established the basis for the SWMP are listed in 40 CFR 122.26(d)(2).

In March 2004, DEQ renewed NPDES permit #101315 with the City of Fairview, City of Gresham, and Multnomah County. ODOT was issued their own permit; thus they were removed as a co-permittee. The permit was further amended by DEQ in July 2005, and as a result, the City was required to submit an interim evaluation report (IER) to DEQ in May 2006. The IER included an updated SWMP that reflected the requirements of the amended permit. The SWMP was approved by DEQ in June 2006.

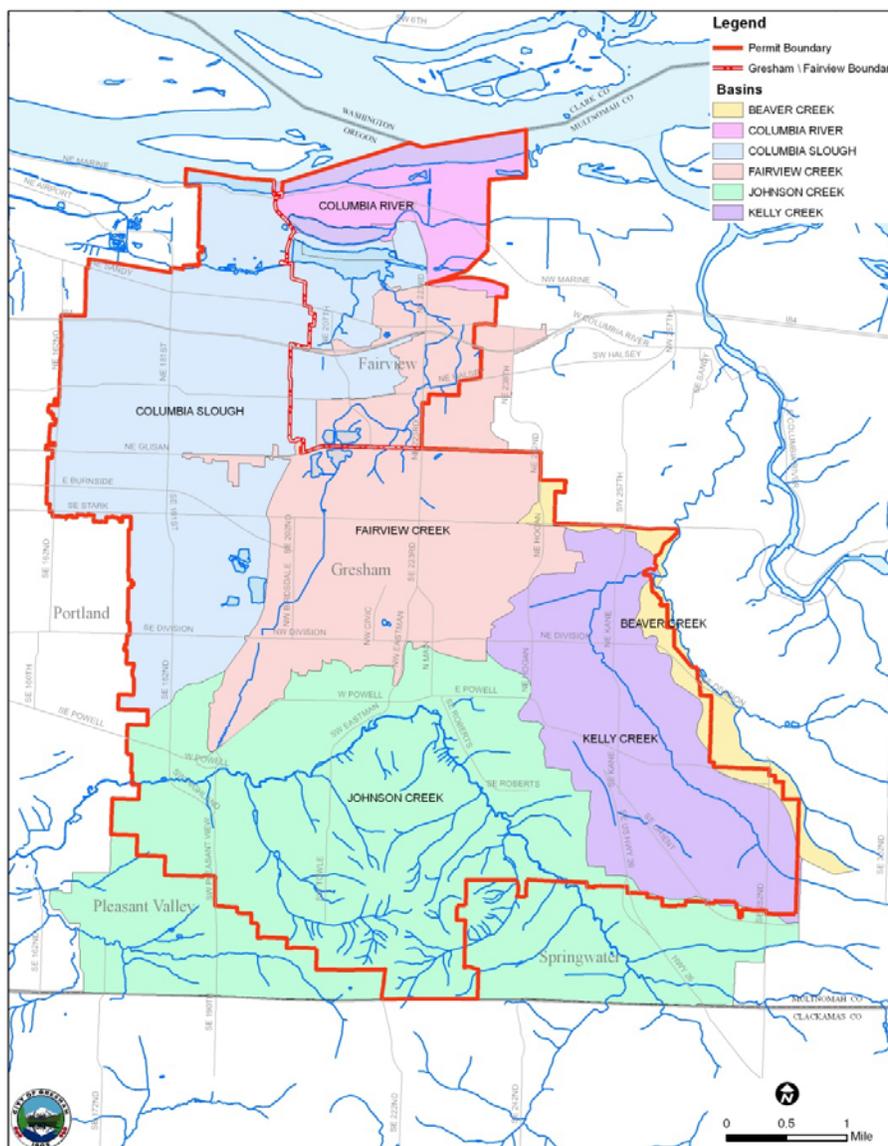
In August 2008, the City submitted the permit renewal application package to DEQ, which included an evaluation of their SWMP, total maximum daily load (TMDL) pollutant load reduction benchmarks, a water quality trends analysis and effectiveness evaluation, and a description of the City's public involvement process. The Draft SWMP submitted to DEQ as part of the permit renewal application was developed based on the anticipated permit requirements to be reflected in the reissued permit.

From August 2008 to August 2010, the City was involved in discussions and negotiations with DEQ related to the reissuance of their NPDES MS4 permit. Permit requirements and SWMP requirements were refined during this period. In August 2010, at the request of DEQ, the City submitted the Revised Draft SWMP to reflect the proposed permit language and requirements

resulting from the discussions and negotiations. Following a 45-day public comment period and subsequent resulting edits to the permit, the City of Fairview’s NPDES MS4 permit was reissued on December 30, 2010. Multnomah County was issued their own permit and removed as a co-permittee in this reissued permit.

### DESCRIPTION OF THE PERMIT AREA

The permit area for the City includes all areas within the city boundary. This includes the Columbia River, Fairview Creek, Fairview Lake, Blue Lake, Osburn Creek, and Salmon Creek, as seen in Figure 1-1. Fairview Creek originates in Gresham and along with Osburn Creek flows into Fairview Lake. Salmon Creek discharges to the Columbia River. The City is responsible for managing stormwater within its permit boundaries.



**Figure 1-1. City of Fairview and City of Gresham Permit Areas**

## **STORMWATER MANAGEMENT PROGRAM ORGANIZATION AND COORDINATION WITH OTHER JURISDICTIONS**

The City has a population of approximately 10,000 people. The Stormwater Program is managed out of the Public Works Department under the direction of the Public Works Director. This includes presentation of any associated intergovernmental agreement(s) (IGA) pertaining to the SWMP for approval by the Fairview City Council, and the implementation, as necessary, of all other pertinent documents referenced in this SWMP. The City Attorney works with City staff to ensure legal authority. Currently, and under approved IGAs, the City of Gresham performs water quality monitoring, spill response, and inspections for the wellhead protection program. Similarly, Multnomah County has an approved IGA to assure maintenance of county roads within the City and to perform street sweeping on City of Fairview streets. These activities and partnerships are discussed further in Section 2 - Program Management and in the associated BMPs.

### **SWMP REVISIONS AND RATIONALE**

This section summarizes changes that have been made to the City's SWMP and associated BMPs from 2008 to 2011 and provides the rationale for those revisions.

#### **2008 SWMP Revisions**

As part of the permit renewal application in 2008, the City hired the engineering firm of Brown and Caldwell to evaluate the 2006 SWMP (submitted as part of the IER). To complete the evaluation and update, Brown and Caldwell reviewed the City's existing stormwater permit, most recent annual report, *Stormwater Management Plan Evaluation* (URS, 2005), and applicable total maximum daily loads (TMDLs). Brown and Caldwell also evaluated the City's existing stormwater management program and interviewed the City's Senior Engineering Technician using guidelines and worksheets in the U.S. EPA's *MS4 Program Evaluation Guidance* (2007).

Organizational changes to the SWMP included the addition of Chapter 2, *Program Management*, and modification of the BMP table format to include measurable goals. The addition of Chapter 2 serves as a guidance document for City staff managing stormwater and provides information related to program coordination, organization, and implementation priorities. The inclusion of measurable goals, or quantifiable targets to measure progress toward achieving the BMP, is based on EPA's guidance (see <http://cfpub.epa.gov/npdes/stormwater/measurablegoals/part2.cfm>, accessed April 9, 2008).

Table 1-1 outlines the additional, BMP-specific revisions made to the 2006 SWMP for the 2008 permit renewal submittal.

Table 1-1. Summary of Specific BMP Updates to the City's 2006 SWMP

BMP Element	Revisions and Rationale
Element #1, <i>Structural and Source Control BMPs</i>	<p>For the BMP, <i>Operation and maintenance plan (O&amp;M Plan)</i>:</p> <ul style="list-style-type: none"> <li>Removed the goal, "Develop an O&amp;M Plan by June 2007," since it was accomplished.</li> <li>Updated the activity to reflect the change in focus from developing the plan to implementing the plan.</li> </ul> <p>Renamed the BMP, <i>Maintenance frequency</i>, with a more descriptive title, <i>Maintain public storm facilities</i>.</p> <p>Renamed the BMP, <i>Enforce regulations</i> with a more descriptive title, <i>Private storm facilities</i>.</p> <p>Added a target to the BMP, <i>Private storm facilities</i>, to develop criteria to prioritize facility inspections and a checklist for use during inspections.</p> <p>Added a target to the BMP, <i>Design standards</i>, to include in the contract language or in an informational brochure, for contracted planners and engineers, that post-construction water quality BMPs need to be incorporated into project design.</p> <p>Replaced the two BMPs, <i>Retrofit of public drainage facilities</i> and <i>Update stormwater capital improvements plan</i> with the BMP <i>Consolidated Stormwater Master Plan (CSMP)</i> since the CSMP was completed in 2007 and includes plans for retrofits and a capital improvements plan.</p>
Element #2, <i>Illicit Discharges</i>	<p>Updated the activity for the BMP, <i>Illicit discharge field screening procedures</i>, to include reference to the Stormwater Operation and Maintenance Manual which includes procedures for detecting and preventing illegal discharges.</p> <p>For the BMP, <i>Report illegal dumping and illegal connections</i>:</p> <ul style="list-style-type: none"> <li>Removed the goal, "Develop public reporting program by November 2007," since a program was developed as part of the Stormwater O&amp;M Manual.</li> <li>Updated the activity to include reference to the Stormwater O&amp;M Manual.</li> </ul> <p>Added a new BMP, <i>Sanitary sewer system program</i>, to document City procedures for limiting wastewater infiltration.</p>
Element #3, <i>Industrial and Commercial Facilities</i>	<p>For the BMP, <i>Industrial inspection priorities and procedures</i>:</p> <ul style="list-style-type: none"> <li>Renamed with a more descriptive title, "<i>Industrial and commercial facility inspections</i>."</li> <li>Updated the activity to include reference to procedures in the Stormwater O&amp;M Manual.</li> <li>Removed the goal, "Develop an Industrial Stormwater Management Program by November 2007," since it was accomplished.</li> </ul>
Element #4, <i>Construction Sites</i>	<p>Added a target to the BMP, <i>Development review</i>, to develop a checklist for use during design and/or review of public projects and make available on-line and at the Plan Review Counter.</p> <p>Combined Requirements (2) and (3) rather than listing BMPs for each requirement separately.</p> <p>Added a target to the BMP, <i>Erosion control activities</i>, to develop standard conditions that incorporate post-construction installation and maintenance requirements into the plan review process.</p> <p>Added the following targets to the BMP, <i>Construction site inspections</i>:</p> <ul style="list-style-type: none"> <li>Develop standard inspection checklist or inspection form for use during inspections that includes post-construction requirements for water quality treatment.</li> <li>Audit or review existing codes to ensure legal and escalation clauses exist for site design, source control, stormwater treatment BMPs, and post-construction BMPs.</li> <li>Add to contract language for contracted inspectors the minimum inspection, maintenance, and reporting requirements.</li> </ul> <p>Added the BMP, <i>Private storm facilities</i>, to meet Requirement (3).</p>
Element #5, <i>Public Education</i>	<p>Combined the list of BMPs rather than separating out by individual element.</p>

## 2010 SWMP Revisions

From August 2008 to August 2010, DEQ coordinated with the NPDES MS4 Phase I communities including the City, and developed permit language to meet the EPA's goals and direction for stormwater management in Phase I communities while considering the capabilities of the individual permittees.

Because the SWMP is incorporated by reference into the Permit, both the SWMP and Permit are required to go out for public comment prior to permit reissuance. As a result, the City was required to update the 2008 SWMP to correlate with requirements reflected in the draft Permit.

The City updated the 2008 Draft SWMP to reflect the new proposed permit requirements and submitted the revision to DEQ in August 2010. The Revised Draft SWMP resulted in a reorganization to reflect eight program components instead of the former four program elements. Commitments (measurable goals and tracking measures) were also reviewed to ensure they were implementable for the City.

Table 1-2 outlines the additional, BMP-specific revisions made to the 2008 Draft SWMP to meet the requirements of the draft, 2010 NPDES MS4 permit.

Table 1-2. Summary of Specific BMP Updates to the City's 2008 Draft SWMP	
BMP Program Component	Revisions and Rationale
Component #1, <i>Illicit Discharges Detection and Elimination</i>	For the BMP, <i>Illicit Discharge Investigation Procedures</i> added a commitment to develop documented standard operating procedures by June 2012. For the BMP, <i>Illicit Discharge Field Screening Procedures</i> added a commitment to map outfalls.
Component #2, <i>Industrial and Commercial Facilities</i>	Added a new BMP, <i>Screen New Industries/ Businesses and Track NPDES Permits</i> , to review new and existing industries and check to see whether they need industrial stormwater permits.
Component #3, <i>Construction Site Runoff Control</i>	For the BMP, <i>Erosion Control Activities</i> , added thresholds for the applicability of erosion control requirements and some additional detail regarding site plan reviews. For the BMP, <i>Construction Site Inspections</i> added a commitment to review existing codes to ensure legal and escalation clauses exist for site design, source control, stormwater treatment BMPs, and post-construction BMPs by June 2014. Also added language to describe how existing requirements address other construction site wastes in addition to sediment.
Component #4, <i>Education and Outreach</i>	Added a new BMP, <i>Participate in a Public Education Effectiveness Evaluation</i> , regarding the new permit requirement to conduct or participate in an evaluation to determine the effectiveness of public education efforts. For the BMP, <i>Staff Education and Training</i> , added commitment to provide annual training to personnel involved in stormwater management.
Component #5, <i>Public Involvement and Participation</i>	Added a new BMP, <i>Provide for Public Participation with SWMP and Benchmark Submittals</i> , to meet the new permit requirement.
Component #6, <i>Post Construction Site Runoff</i>	Added a new BMP, <i>Review Applicable Code and Development Standards for Stormwater Management</i> , regarding the new permit requirement to eliminate LID and green infrastructure barriers to code and ordinances by January 1, 2014. For the BMP, <i>Development Review for Private Projects</i> , added commitment to map private water quality facilities.

Table 1-2. Summary of Specific BMP Updates to the City's 2008 Draft SWMP	
BMP Program Component	Revisions and Rationale
Component #7, <i>Pollution Prevention for Municipal Operations</i>	For the BMP, <i>Litter Receptacles</i> , added information related to yard debris pick up within the City. For the BMP, <i>Track Municipal Facilities</i> described how a review of stormwater runoff from municipal facilities has been conducted and what stormwater treatment is provided. Provided an explanation that fire fighting activities are the responsibility of the Gresham Fire Department.
Component #8, <i>Structural Stormwater Controls Operation and Maintenance</i>	There were no changes proposed to the BMPs under this component.

### 2011 SWMP Revisions

A 45-day public comment period was held by DEQ to solicit comments on the draft Permit and the City's Revised Draft SWMP submitted to DEQ in August 2010. In response to public comments obtained, DEQ proposed revisions to select measurable goals. In addition, some compliance dates were adjusted and permit language edited for clarity. The City's NPDES MS4 permit was reissued on December 30, 2010. An interim compliance date of April 1, 2011 was established for the City to update the SWMP to include the finalized permit language and proposed revisions to select measurable goals.

As a general change to the City's 2010 Revised Draft SWMP, quoted permit language references throughout the SWMP were updated for consistency with the reissued permit. Table 1-3 summarizes the other BMP-specific changes made to the 2010 SWMP to meet the requirements of the final, reissued NPDES MS4 permit.

Table 1-3. Summary of Specific BMP Updates to the City's 2010 SWMP	
BMP Program Component	Revisions and Rationale
Component #1, <i>Illicit Discharges Detection and Elimination</i>	For the BMP, <i>Illicit Discharge Investigation Procedures</i> the compliance date for developing revised illicit discharge investigation procedures was changed from June 30, 2012 to July 1, 2012.
Component #2, <i>Industrial and Commercial Facilities</i>	There were no changes proposed to the BMPs under this component.
Component #3, <i>Construction Site Runoff Control</i>	For the BMP, <i>Construction Site Inspections</i> compliance for auditing review existing codes to ensure legal and escalation clauses exist for site design, source control, stormwater treatment BMPs, and post-construction BMPs was changed from June 30, 2014 to January 1, 2014.
Component #4, <i>Education and Outreach</i>	For the BMP, <i>Participate in a Public Education Effectiveness Evaluation</i> , compliance for conducting this evaluation has been changed from the end of the permit term (i.e., December 30, 2015) to November 1, 2014.
Component #5, <i>Public Involvement and Participation</i>	There were no changes proposed to the BMPs under this component.

Table 1-3. Summary of Specific BMP Updates to the City's 2010 SWMP

BMP Program Component	Revisions and Rationale
Component #6, <i>Post Construction Site Runoff</i>	Due to new permit language, the BMP <i>Review Applicable Code and Development Standards for Stormwater Management</i> was revised to add that the City will document their post-construction inspection and enforcement response procedures by January 1, 2014. Also, the compliance date for the tasks to review current standards for compliance with new permit language and ensure barriers to LID techniques are minimized and eliminated has been changed from June 30, 2014 to January 1, 2014.
Component #7, <i>Pollution Prevention for Municipal Operations</i>	For the BMP, <i>O&amp;M Plan</i> , the City's commitment to reviewing the O and M Plan annually was changed to reviewing the O and M Plan by November 1, 2013.
Component #8, <i>Structural Stormwater Controls Operation and Maintenance</i>	For the BMP, <i>Inspect and Maintain Public Storm Facilities</i> , the City's commitment to clean catch basins and inspect adjacent pipes in one third of the City was revised to clarify that this is an annual commitment.

## SWMP ORGANIZATION

The City's 2011 SWMP is organized into the eight program components to align closely with permit requirements. The eight program components are specifically identified in Schedule A.4 of the City's NPDES MS4 permit.

The following summarizes the SWMP organization and includes a listing of the City's BMPs under each SWMP component.

### Component #1 Illicit Discharge Detection and Elimination BMPs

- Illicit discharge enforcement
- Illicit discharge field screening procedures
- Illicit discharge investigation procedures
- Spill prevention
- Spill clean-up
- Municipal vehicle monitoring and maintenance
- Water line flushing

### Component #2 Industrial and Commercial Facility BMPs

- Industrial and Commercial Facility Inspections
- Screen New Industries/ Businesses and Track NPDES Stormwater Permits

- Component #3 Construction Site Runoff Control BMPs
- Erosion Control Activities
  - Erosion Control Program Training
  - Construction Site Inspections
- Component #4 Education and Outreach BMPs
- Educational Activities
  - Report Illegal Dumping and Illicit Connections
  - Illegal Dumping and Illicit Connections Public Education
  - Participate in Public Education Effectiveness Evaluation
  - Staff Education and Training
- Component #5 Public Involvement and Participation BMPs
- Provide for Public Participation with SWMP and Benchmark Submittals
- Component #6 Post-Construction Site Runoff BMPs
- Development Review for Private Projects
  - Review Applicable Code and Development Standards related to Stormwater Management
  - Design Standards for Public Projects
- Component #7 Pollution Prevention for Municipal Operations BMPs
- O&M Plan
  - Right of way–O&M
  - Street Sweeping
  - De-icing and Yard Debris Activities
  - Native Vegetation
  - Integrated Pest Management
  - Chemical Applicator Licensing
  - Track Municipal Facilities
  - Litter Receptacles
  - Sanitary Sewer System Program
  - Consolidated Stormwater Master Plan
- Component #8 Structural Stormwater Controls Operations and Maintenance
- Inspect and Maintain Public Storm Facilities
  - Private Water Quality Facilities Inspection and Maintenance

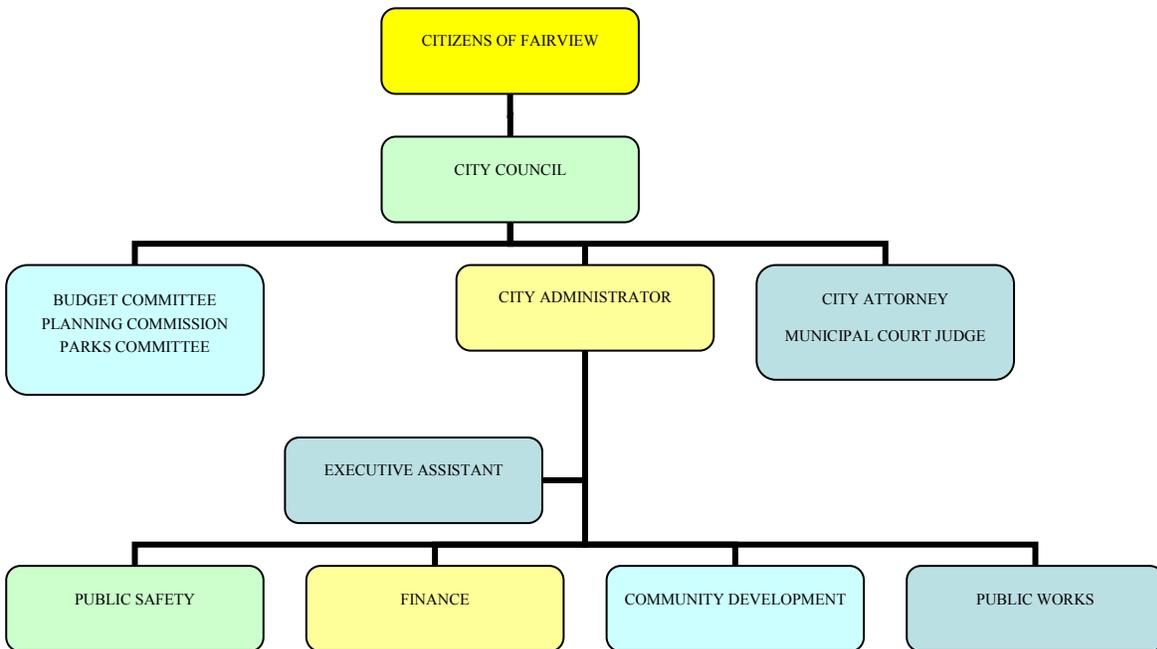
## SECTION 2

### PROGRAM MANAGEMENT

The purpose of this chapter is to serve as a guidance document for managing stormwater in the City of Fairview (City). This chapter includes information on internal and external program coordination, ongoing activities to meet permit requirements, and documents that need to be maintained; and summarizes the process for determining program implementation priorities. It also includes organizational charts and contact names and numbers.

#### PROGRAM COORDINATION

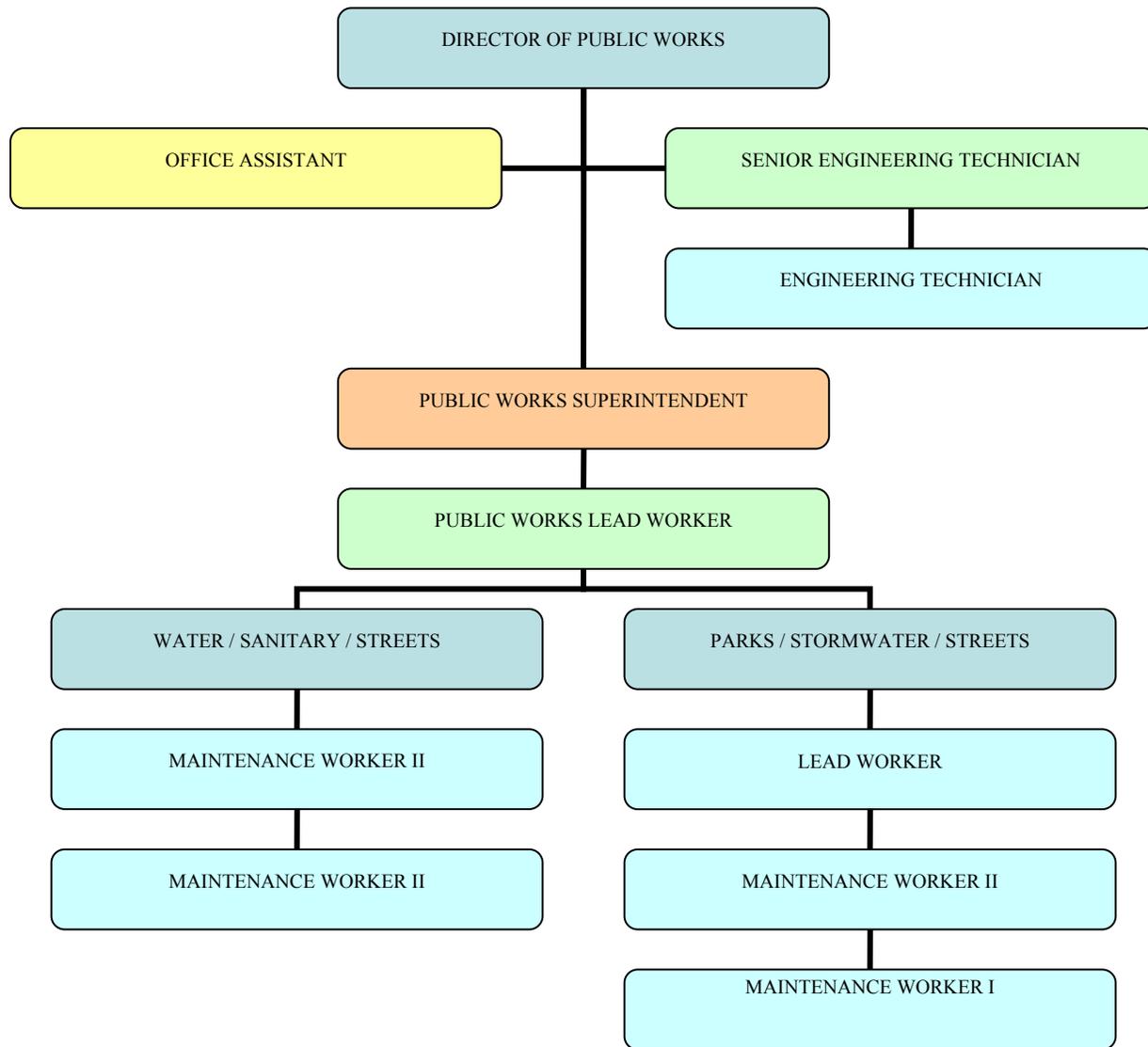
Effective program management is essential to guide Stormwater Management Plan (SWMP) development, implementation, administration, and continued assessment. The City has a management process that facilitates coordination between its departments, between co-permittees, and between the permittee and other organizations and agencies interested in stormwater quality.



**Figure 2-1. City Organizational Chart**

**Internal**

The City is comprised of four departments—Public Safety, Finance, Community Development, and Public Works—as shown in Figure 2-1. The Public Works Department has primary responsibility for implementation of the stormwater program and consists of eleven people including the Director, Superintendent, Lead Worker, Senior Engineering Technician, Parks Maintenance, Maintenance Workers, and Office Support Staff. The organizational chart is shown in Figure 2-2. The stormwater program staff list is included as Table 2-1.



**Figure 2-2. Public Works Department Organizational Chart**

Table 2-1. City Stormwater Program Staff List

Title	Name	Contact Number	Responsibility
Director of Public Works	Allan Berry	503-674-6235	Oversees stormwater program
Senior Engineering Technician	Linda Hulme	503-674-6234	Manages stormwater program—prepares and submits annual reports and the permit renewal application; updates and implements the stormwater management plan; and manages intergovernmental agreements and outside contracts.
Public Works Superintendent	Steven Richards	503-674-6238	Maintains City's stormwater infrastructure.

### External

In addition to internal coordination, the City works together with outside jurisdictions on preparation of annual reports, permit renewal applications, and daily operations of the stormwater program.

**Co-permittees.** The City is a co-permittee with the City of Gresham. Gresham acts as the lead permittee and coordinates annual report submittals and the permit renewal application. The City also has intergovernmental agreements with Gresham for water quality monitoring and spill response. The co-permittee primary contact is listed in Table 2-2.

**Other Organizations.** The City coordinates with Multnomah County for routine road maintenance within the city and street sweeping on city streets. Additionally, the City has partnerships with Metro for waste disposal and the City of Portland for its wellhead protection program that monitors and controls pollutants from industrial facilities. The primary contacts for these organizations are listed in Table 2-2.

Table 2-2. Additional Stormwater Contacts

Jurisdiction	Name	Contact Number	Responsibility
City of Gresham Stormwater Division	Lynne Kennedy	503-618-2634	Lead Permittee and Permit Deliverable Coordinator
Multnomah County	Gary Safley	503-988-5050	Road Maintenance Activities
Metro	Jenny Stein	503-797-1684	Community Relations Assistant
City of Portland	Rebecca Geisen	503-823-7493	Water Resources

## ONGOING ACTIVITIES

There are several ongoing activities that are important to the stormwater program.

### Permit Reporting Requirements

The City is required to submit an annual system-wide report by November 1 of each year for the time period July 1 through June 30. The report is coordinated by the City of Gresham and contains

the status of the stormwater program. In addition, approximately every 5 years the City is required to submit a permit renewal application package that synthesizes the implementation and findings of the current permit cycle to support the proposed SWMP for the renewed permit. Both of these are discussed in detail in Schedule B of the permit.

### **Stormwater Operation and Maintenance (O&M)**

The City has an ongoing stormwater maintenance program that is documented in its Stormwater O&M Manual. The maintenance program enhances stormwater and stream quality by removing excessive sediment, trash and debris. The manual provides basic procedures for common stormwater system maintenance activities that integrate water-quality friendly practices. The manual assists City personnel in performing proper maintenance of the system and also helps with the reporting and documentation of maintenance activities, observations, and citizen contact.

### **Illicit Discharge Detection and Elimination Program**

The Illicit Discharge Detection and Elimination (IDDE) program is an important tool in reducing dry weather discharges that may contribute pollutants. Illicit flows may come from many sources including sanitary wastewater, industrial and commercial discharges, failing septic systems and vehicle maintenance activities. The City will be updating their standard operating procedures for field screening and illicit discharge investigation procedures by July 1, 2012.

### **Columbia South Shore Well Field Wellhead Protection Program**

In order to protect the City of Fairview and Portland's groundwater reserves, the City of Portland Water Bureau works with the Cities of Fairview and Gresham, Portland Fire and Rescue, the Columbia Corridor Association and area businesses to protect water quality in the Columbia South Shore Well Field. The groundwater protection program is a regulatory program in place to protect the region's groundwater supply from contamination from hazardous chemicals. The program has residual benefits to stormwater in terms of providing pollution prevention. Businesses are regulated in this area if they use over a certain quantity of chemicals of concern. Information on what chemicals are regulated, the quantities that are regulated and regulatory requirements can be found on the City of Portland website: <http://www.portlandonline.com/water/groundwater>. Regulations vary from structural best management practices to contain and prevent chemical spills to operational best management practices. There is also an inspection and reporting component to the program.

### **Consolidated Stormwater Master Plan**

The City developed the Consolidated Stormwater Master Plan (CSMP) to combine all needed infrastructure improvements including retrofit opportunities along with federal and state water quality requirements for each project into one comprehensive document. 28 projects (11 of these on private properties or within Multnomah County right-of-way) were developed to address water quantity and quality issues, utilizing hydrologic and hydraulic modeling as well as information from the TMDL regulatory program and the NPDES stormwater discharge permit. The City will use this information for updating stormwater rates and system development charges. The project analysis sheets, cost estimates, and maps can also be used to apply for grant funding or to begin

conversations with other agencies and jurisdictions on opportunities to work cooperatively on stormwater enhancements.

### **Development Review**

The City implements code regulations through its Community Development Department and Public Works Department. New development and redevelopment projects are reviewed for conformance to the following existing City regulations:

- Fairview Comprehensive Plan, June 2004 – provides the guiding direction to protect the natural environment and ensure that long-term growth does not adversely affect the natural resources.
- Land Use and Building Permits – compels conformity to the State Building Code standards.
- Title 19, Development Code – guides the development and use of land in accordance with the Fairview Comprehensive Plan.
- Riparian Buffer Regulations – protects and regulates the City’s major water features of the Columbia River and the Fairview Creek Watershed: Fairview Creek, Osburn Creek, No Name Creek, Salmon Creek, Fairview Lake, Columbia Slough, and associated wetlands and riparian areas.
- Fairview Municipal Code Chapter 13 – regulates the operation and use of the water, sanitary sewer and stormwater systems.
- City of Fairview Standard Specifications for Public Works Construction – establishes standard construction specifications for public and private transportation facilities and utilities consistent with the design standards of the development Code and application of engineering principles.
- City of Portland Stormwater Management Manual – was adopted by the City of Fairview to provide developers and design professionals with specific requirements for reducing the impacts of increased stormwater runoff and pollution resulting from new development and redevelopment.
- Ordinance 3-1993 – adopts an erosion control plan for the City including an Erosion Control Technical Guidance Handbook (Technical Guidance) that describes regulations, standards and provisions for erosion control.

### **DOCUMENTS**

The Stormwater Program adheres to and maintains the following documents:

- Stormwater NPDES Permit – serves as the primary basis for the program.
- SWMP – describes the overall management structure of the program.

- Annual Reports – contains the status of the stormwater program.
- Intergovernmental Agreements or other written agreements – summarizes agreements between or among co-permittees or other agencies stipulating arrangements and responsibilities for meeting permit requirements.

### **PROCESS FOR DETERMINING PROGRAM IMPLEMENTATION PRIORITIES**

Each year during the annual report process, staff reviews activities and determines where more focus is needed. For example, during the 2007-08 reporting year, the City completed a Consolidated Stormwater Master Plan, updated its Capital Improvement Plan, developed an IDDE program, and completed an inventory of the underground injection control (UIC) systems. Based on results of the CSMP and the ongoing SWMP evaluations and updates, the City plans to focus on implementing the capital improvement program, provide more guidance to the development community, and continue to refine procedures for improving water quality in conjunction with the measurable goals identified in the 2011 SMWP.

## SECTION 3

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# MAXIMUM EXTENT PRACTICABLE DETERMINATION PROCESS

*The City of Fairview is a co-permittee with the City of Gresham which results in commonalities between the two programs. This section has been based on text from the City of Gresham's 2008 Permit Renewal Submittal.*

Municipal Separate Storm Sewer System (MS4) permittees must develop and implement a stormwater management program to reduce the discharge of pollutants to the maximum extent practicable (MEP). This program must address the elements as required by the U.S. Environmental Protection Agency's (EPA) Title 40 Code of Federal Regulations 122.26 (d)(2), Section iv, Proposed Management Program and the City of Fairview's (City) National Pollutant Discharge Elimination System (NPDES) Permit No: 101315. The program components and measurable goals are described in the Stormwater Management Plan (SWMP) and Monitoring Plan. These program elements vary by permitted municipality because they take into consideration site-specific conditions.

The City developed and established the program that met MEP as part of its original 1993 permit application, which has become the foundation of the City's program since the Phase 1 MS4 NPDES permit was issued in 1995. The overall program has been continuously evaluated and adaptively managed based upon new data, technology, and/or program evaluation of individual best management practices (BMPs) with on-going oversight and approval from the Oregon Department of Environmental Quality (DEQ). As such, the 2008 SWMP and Monitoring Plan and subsequent revisions to the SWMP and Monitoring Plan reflect the City's best professional judgment regarding resource allocation and optimization to reduce or eliminate the discharge of stormwater pollutants from MS4 based upon site-specific conditions and other factors as described further below.

The City has used the following sequential processes to ensure its SWMP meets the MEP standard:

- I. The original development of the SWMP submitted with the 1993 permit application.
- II. The continual adaptive management process reported in annual reports and the following updates to the SWMP.
  - a. The SWMP review conducted for the 2000 permit renewal application.
  - b. The SWMP review conducted for the 2006 Interim Evaluation Report.
  - c. The SWMP review conducted for the 2008 permit renewal application and subsequent revisions as a result of permit negotiations with DEQ from 2008 to 2010.

These processes are described below.

## I. PERMIT APPLICATION (1993)

To comply with requirements set forth by the 1987 amendments to the Clean Water Act, the City and its co-permittees (City of Gresham, Multnomah County, and the Oregon Department of Transportation) submitted Part 1 of the NPDES MS4 permit application in May 1992, which contained a brief description of existing management programs implemented by the co-applicants. No comments were received from DEQ on this section of the Part 1 application; therefore, no adjustments were made.

The Part 2 application contained an SWMP that was designed to address the most critical existing stormwater quality problems, as identified within the permit area. The City and co-permittees participated in workshops to define the problems and develop strategies to address them. Pollutants of concern were identified using a national literature search and from data collected locally by the City of Portland.

A public process was held to elicit the public's concerns, understanding, priorities, and willingness to support a stormwater management program that included stormwater consultants, watershed committee representatives, developers, and a neighborhood association representative. One hundred and twenty candidate BMPs were identified and selection criteria were developed in order to prioritize the BMPs based upon available and future projected resources to support their implementation. The factors for selection included:

- Reasonable life-cycle costs
- Meets a regulatory requirement
- Addresses a pollutant of concern
- Ability to implement (which included public acceptability and willingness to pay)
- Reliability/Sustainability

Based upon scoring criteria applied by committee representatives, the BMPs were narrowed to 45. Using professional feedback, detailed BMP fact sheets and another complete review by the City and its co-permittees, the BMPs were narrowed to the 35 that were submitted and accepted in 1993.

## II. ADAPTIVE MANAGEMENT

To ensure the ongoing effectiveness of the City's SWMP and Monitoring Plan, the BMPs and monitoring program are evaluated annually during the preparation of the NPDES Annual Report to DEQ. The Annual Reports include the following:

- The status of implementing the components of the SWMP.
- Proposed changes to the SWMP components and/or newly proposed BMPs.

### **III. 2000 PERMIT RENEWAL SUBMITTAL**

The City's NPDES Permit required a permit renewal submittal to be completed 180 days prior to the permit's expiration. As such, the City's renewal submittal consisted of an updated SWMP and Monitoring Plan with the rationale for the proposed changes. At this time, the Oregon Department of Transportation was removed as a co-permittee in order to receive its own permit.

During the permit renewal process, third party environmental groups expressed concern that the DEQ permit was not protective enough to ensure that creeks, streams, and rivers would eventually meet water quality standards. As a result, DEQ convened an advisory group to help determine what water quality goals would be included in the new permits—a process that lasted over 3 years. In March 2004, the City's new permit was issued and later reconsidered as a result of a third party appeal. The permit was reissued in 2005 and contained more specific requirements relating to the SWMP including:

- The establishment of performance measures aimed at assisting with SWMP evaluation.
- Estimates of pollutant load reductions based upon what is known about BMP effectiveness.
- The evaluation of progress toward meeting those estimates.
- The application of an adaptive management process until the estimates are projected to be achieved.
- An overall evaluation of the SWMP.

### **IV. INTERIM EVALUATION REPORT (2006)**

Because of the 5-year delay between the 2000 permit renewal submittal and the reissuance of the permit (in 2005), DEQ required that the City and its co-permittees prepare an Interim Evaluation Report that included:

- A review of the City's estimated progress toward meeting the established total maximum daily loads (TMDLs) for permitted streams.
- An analysis of the SWMPs ability to help reduce pollutants on the 303(d) list for permitted streams.
- A review of sources of non-stormwater discharges.
- A review of the previously submitted SWMP and Monitoring Plan with proposed updates.

Related to this effort, the City of Gresham hired a consultant team with a national reputation for expertise in stormwater to assist in the review of its programs and the preparation of some of the documents listed above. The City contributed financially to the City of Gresham's consultant contract to review its stormwater program in concert with the City of Gresham's. The City also hired its own consultant to update its SWMP independent of Gresham's.

The City met MEP in 2006 by implementing the programs listed in the SWMP, complying with permit requirements, and implementing adaptive management, including an update to the 2000 SWMP. The SWMP underwent a public review process and adoption by City Council. Discussion of MEP can be found in the Executive Summary of the 2006 SWMP.

#### **V. PERMIT RENEWAL SUBMITTAL (2008) and SUBSEQUENT SWMP UPDATES (2010 AND 2011)**

As with the 2000 Permit Renewal Submittal, the City's 2008 Permit Renewal Submittal was due 180 days prior (August 1, 2008) to the expiration of the City's permit (January 31, 2009). Prior to this renewal submittal, the City worked with DEQ and other Phase I NPDES municipalities to develop a template for a process to make an MEP determination that included the following three factors:

1. **Program Effectiveness:** Describe how your program continues to address pollutants of concern in MS4 discharges to local receiving waters.
2. **Local Applicability:** Describe how your program continues to be appropriate for local conditions (climate, geology, hydrology, MS4 size, etc.).
3. **Program Resources:** Describe how you continue to allocate program resources appropriately (e.g., current ability to finance the program, capacity to perform operation and maintenance, tax base, public acceptability).

The City's overall process to update their SWMP and Monitoring Plan for the permit renewal submittal was as follows:

1. Evaluate the SWMP based on the U.S. EPA's *MS4 Program Evaluation Guidance* (2007)
2. Conduct internal review to optimize BMPs
3. Review technical information from external sources and monitoring data
4. Review staff data and knowledge of program effectiveness
5. Discuss best practices and technical issues with other jurisdictions including other Phase I permitted municipalities.
6. Consider fiscal constraints
7. Solicit input from the general public
8. Ensure deliberation by City Council

A public comment period for the 2008 updated SWMP included advertisement in the local newspaper, release of the draft documents to the general public via the City's website, and availability of hard copies at City Hall.

From 2008 to 2010, DEQ received significant guidance and feedback from EPA related to stormwater management provisions that should be incorporated into reissued NPDES MS4 permits. Such guidance and feedback resulted in significant changes to the (anticipated) draft permit language that was used as a guide for the 2008 SWMP. The general process for subsequent (2010 and 2011) SWMP revisions, as a result of the changes in permit language is outlined below.

1. Participate in discussions with ACWA, DEQ, and other Phase I municipalities related to anticipated requirements of the new permit.
2. Prepare coordinated responses to DEQ on proposed permit language as part of ACWA and as a co-permittee with Gresham.
3. Review staff knowledge and data with respect to current program implementation and commitments outlined in the 2008 SWMP.
4. Update the 2008 SWMP to reflect requirements outlined in the April 2010 draft permit, and submit the updated (2010) SWMP to DEQ.
5. Present the 2010 SWMP to City Council, highlighting new requirements and significant changes from the 2008 SWMP version.
6. In coordination with DEQ, issue the 2010 SWMP and draft permit for a 45-day public comment period.
7. Consult with DEQ related to permit language changes (and associated, required SWMP changes) as a result of public comments.
8. Following reissuance of the City's NPDES MS4 permit (December 30, 2010), modify the 2010 SWMP to reflect permit language changes resulting from public comments.
9. Present the (2011) SWMP to City Council, highlighting modifications to the 2010 SWMP as a result of public comment.
10. Submit the 2011 SWMP to DEQ in accordance with the compliance date specified in the reissued permit.

These above processes outline changes to the SWMP for the permit renewal submittal and for the permit reissuance. The City's program and associated SWMP addresses MEP through consideration of program effectiveness, local applicability, and appropriate allocation of program resources.

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## SECTION 4

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### STORMWATER MANAGEMENT PLAN

#### SWMP OVERVIEW

In accordance with the City of Fairview's Municipal Separate Storm Sewer (MS4) National Pollutant Discharge Elimination System (NPDES) Permit, Permit number 10135, the City of Fairview implements Best Management Practices (BMPs) as outlined in the Stormwater Management Plan (SWMP). A Draft SWMP was submitted to Oregon Department of Environmental Quality (DEQ) in accordance with the City's MS4 NPDES Permit Renewal Application in September 2008. This revised SWMP (dated 2011) was developed based on an iterative review process with DEQ to correspond with permit language now reflected in the DEQ December 30, 2010 issuance of the MS4 NPDES Permit.

The SWMP is organized into the eight major stormwater program components listed below. The eight major elements correspond to those outlined in the MS4 NPDES draft permit template (i.e., Schedule A(4)(a-h)).

Component #1:	Illicit Discharge Detection and Elimination
Component #2:	Industrial and Commercial Facilities
Component #3:	Construction Site Runoff Control
Component #4:	Education and Outreach
Component #5:	Public Involvement and Participation
Component #6:	Post-Construction Site Runoff
Component #7:	Pollution Prevention for Municipal Operations
Component #8:	Structural Stormwater Facilities and Controls Operations and Maintenance

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## SWMP Element #1 Illicit Discharge Detection and Elimination

NPDES permit requirements are listed below, followed by Fairview’s relevant BMPs that address the permit requirement. In some cases, language for the listed permit requirements has been condensed. Applicable provisions are outlined under Schedule A.4.a of the City’s MS4 NPDES Permit. **See Table 4-1** for the City of Fairview’s BMPs that address the permit requirements that are listed below.

SWMP Element #1: Illicit Discharge Detection and Elimination							
Schedule A.4.a Permit Requirement	Applicable BMPs						
	Illicit Discharge Enforcement	Illicit Discharge Field Screening Procedures	Illicit Discharge Investigation Procedures	Spill Prevention	Spill Clean Up	Municipal Vehicle Monitoring and Maintenance	Water Line Flushing
i. <i>Prohibit, through ordinance or other regulatory mechanism, illicit discharges into the permittee's MS4.</i>	■						
ii. <i>Include documentation in an enforcement response plan or similar document by <b>November 1, 2011</b>, describing the enforcement response procedures the permittee will implement when an illicit discharge investigation identifies a responsible party.</i>	■						
iii. <i>Develop or identify pollutant parameter action levels that will be used as part of the field screening. The action levels will identify concentrations for identified pollutants that, if exceeded, will require further investigation, including laboratory sample analyses, to identify the source of the illicit discharge. The pollutant parameter action levels and rationale for using the action levels must be documented in an enforcement response plan</i>		■					

SWMP Element #1: Illicit Discharge Detection and Elimination							
Schedule A.4.a Permit Requirement	Applicable BMPs						
	Illicit Discharge Enforcement	Illicit Discharge Field Screening Procedures	Illicit Discharge Investigation Procedures	Spill Prevention	Spill Clean Up	Municipal Vehicle Monitoring and Maintenance	Water Line Flushing
<i>or similar document, and reported to the Department by July 1, 2012.</i>							
iv. <i>Conduct annual dry-weather inspection activities during the term of the permit. By July 1, 2012, the dry-weather inspection activities must include identified priority locations documented by the permittee and field screening at these locations at a minimum of once per calendar year.</i>		■	■				
v. <i>Identify response procedures to investigate portions of the MS4 that, based on the results of general observations, field screening, laboratory analysis or other relevant information, such as a complaint or referral, indicates the likely presence of an illicit discharge.</i>			■				
vi. <i>Maintain a system for documenting illicit discharge complaints or referrals, and suspected illicit discharge investigation activities.</i>			■				
vii. <i>Once the source of an illicit discharge is determined, the co-permittee must take appropriate action to eliminate the illicit discharges, including an initial evaluation of the feasibility to eliminate the discharge, within 5 working days. If the co-permittee determines that the elimination of the illicit discharge will take more than 15 working days due to technical, logistical or other reasonable issues, the co-permittee must develop and implement an action plan to eliminate the illicit discharge in an expeditious manner.</i>			■				

SWMP Element #1: Illicit Discharge Detection and Elimination							
Schedule A.4.a Permit Requirement	Applicable BMPs						
	Illicit Discharge Enforcement	Illicit Discharge Field Screening Procedures	Illicit Discharge Investigation Procedures	Spill Prevention	Spill Clean Up	Municipal Vehicle Monitoring and Maintenance	Water Line Flushing
viii. Describe and implement procedures to prevent, contain, respond to and mitigate spills that may discharge into the MS4. Spills, or other similar illicit discharges, that may endanger human health or the environment must be reported in accordance with all applicable federal and state laws, including proper notification to the Oregon Emergency Response System.				■	■	■	
ix. In the case of a known illicit discharge that originates within the co-permittee's MS4 regulated area and that discharges directly to a storm sewer system or property under the jurisdiction of another municipality, the co-permittee must notify the affected municipality as soon as practicable, and at least <b>within one working day</b> of becoming aware of the discharge.			■				
x. In the case of a known illicit discharge that is identified within the co-permittee's MS4 regulated area, but is determined to originate from a contributing storm sewer system or property under the jurisdiction of another municipality, the co-permittee must notify the contributing municipality or municipality with jurisdiction as soon as practicable, and at least <b>within one working day</b> of identifying the illicit discharge.			■				
xi. Maintain maps identifying known co-permittee-owned MS4 outfalls discharging to waters of the State. The dry-weather screening priority locations must be specifically identified on maps by <b>July 1, 2012</b> . If the co-permittee identifies the need to modify these maps, the maps must be updated in digital or hard-copy <b>within six months</b> of identification.		■					

SWMP Element #1: Illicit Discharge Detection and Elimination							
Schedule A.4.a Permit Requirement	Applicable BMPs						
	Illicit Discharge Enforcement	Illicit Discharge Field Screening Procedures	Illicit Discharge Investigation Procedures	Spill Prevention	Spill Clean Up	Municipal Vehicle Monitoring and Maintenance	Water Line Flushing
<p>xii. <i>Unless the following non-stormwater discharges are identified in a particular case as a significant source of pollutants to waters of the State by the permittee or the Department, they are not considered illicit discharges and are authorized by this permit:(see Schedule A.4.xii for list of discharges). If any of these non-stormwater discharges under the co-permittee's jurisdiction is a significant source of pollutants, the permittee must develop and require implementation of appropriate BMPs to reduce the discharge of pollutants associated with the source.</i></p>							■

**TABLE 4-1 – Illicit Discharge Detection and Elimination BMPs**

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>NPDES Permit Requirement</b> – (i). <i>Prohibit, through ordinance or other regulatory mechanism, illicit discharges into the permittee's MS4.</i></p> <p><b>NPDES Permit Requirement</b> – (ii). <i>Include documentation in an enforcement response plan or similar document by <b>November 1, 2011</b>, describing the enforcement response procedures the permittee will implement when an illicit discharge investigation identifies a responsible party.</i></p>		
<p><b>Illicit Discharge Enforcement</b></p>	<p>Implement City code sections 13.40.050 and 13.40.110:</p> <ul style="list-style-type: none"> <li>• City code section 13.40.050 prohibits constructing, using, maintaining, or continuing an illicit connection to the storm drain system.</li> <li>• City code section 13.40.110 discusses enforcement actions for failing to comply with control of non-stormwater discharge. The penalty for a first violation is \$250. A penalty of \$1,000 may be imposed for each subsequent failure to comply and each day of a continuing violation shall constitute a separate offense. The City may order compliance by written notice that includes performance of monitoring, analysis, and reporting; elimination of illicit connections or discharges; abatement or remediation; payment of fines; and implementation of source control or treatment BMPs. The public works director may also exercise authority to enforce a construction permit or NPDES permit through a stop work order if necessary.</li> </ul> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• For identified illicit discharges conduct appropriate enforcement actions.</li> </ul>	<p>Track number, location and resolution of enforcement actions.</p>

City of Fairview BMP Name	BMP Implementation	Tracking Measures
	<p><b>NPDES Permit Requirement – (iii)</b> <i>Develop or identify pollutant parameter action levels that will be used as part of the field screening. The action levels will identify concentrations for identified pollutants that, if exceeded, will require further investigation, including laboratory sample analyses, to identify the source of the illicit discharge. The pollutant parameter action levels and rationale for using the action levels must be documented in an enforcement response plan or similar document, and reported to the Department by <b>July 1, 2012</b>.</i></p> <p><b>NPDES Permit Requirement – (iv)</b> <i>Conduct annual dry-weather inspection activities during the term of the permit. By <b>July 1, 2012</b>, the dry-weather inspection activities must include identified priority locations documented by the permittee and field screening at these locations at a minimum of once per calendar year. Priority locations must, where possible, be located at an accessible location downstream of any source of suspected illegal or illicit activity or other location as identified by the co-permittee. Priority locations must be based on a equitable consideration of hydrological conditions, total drainage area of the location, population density of the location, traffic density, age of the structures or building in the area, history of the area, land use types, personnel safety, accessibility, historical complaints or other appropriate factors as identified by the co-permittee. The dry-weather field screening activities must occur after an antecedent dry period of at least 72-hours. The dry-weather field screening activities must be documented and include: 1) General observations; 2)Field Screening; and 3) Laboratory Analysis.</i></p> <p><b>NPDES Permit Requirement – (v)</b> <i>Identify response procedures to investigate portions of the MS4 that, based on the results of general observations, field screening, laboratory analysis or other relevant information, such as a complaint or referral, indicates the likely presence of an illicit discharge. The response procedures must reflect the goal to eliminate the illicit discharge in an expeditious manner, as specified in subsection vii. below.</i></p> <p><b>NPDES Permit Requirement - (vi)</b> <i>Maintain a system for documenting illicit discharge complaints or referrals, and suspected illicit discharge investigation activities.</i></p> <p><b>NPDES Permit Requirement – (vii)</b> <i>Once the source of an illicit discharge is determined, the co-permittee must take appropriate action to eliminate the illicit discharges, including an initial evaluation of the feasibility to eliminate the discharge, within 5 working days. If the co-permittee determines that the elimination of the illicit discharge will take more than 15 working days due to technical, logistical or other reasonable issues, the co-permittee must develop and implement an action plan to eliminate the illicit discharge in an expeditious manner. The action plan must be completed in 20 working days of determining the source of an illicit discharge. In lieu of developing and implementing an individual action plan for common types of illicit discharges, the co-permittee may document and implement response procedures, a response plan or similar document. The action plan, response procedures, response plan or similar document must include a timeframe for elimination of the illicit discharge as soon as practicable.</i></p> <p><b>NPDES Permit Requirement – (ix)</b> <i>In the case of a known illicit discharge that originates within the co-permittee's MS4 regulated area and that discharges directly to a storm sewer system or property under the jurisdiction of another municipality, the co-permittee must notify the affected municipality as soon as practicable, and at least within one working day of becoming aware of the discharge.</i></p> <p><b>NPDES Permit Requirement – (x)</b> <i>In the case of a known illicit discharge that is identified within the co-permittee's MS4 regulated area, but is determined to originate from a contributing storm sewer system or property under the jurisdiction of another municipality, the co-permittee must notify the contributing municipality or municipality with jurisdiction as soon as practicable, and at least within one working day of identifying the illicit discharge.</i></p> <p><b>NPDES Permit Requirement – (xi)</b> <i>Maintain maps identifying known co-permittee-owned MS4 outfalls discharging to waters of the State. The dry-weather screening priority locations must be specifically identified on maps by <b>July 1, 2012</b>. If the co-permittee identifies the need to modify these maps, the maps must be updated in digital or hard-copy within six months of identification.</i></p>	

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>Illicit Discharge Field Screening Procedures</b></p>	<p>Conduct dry weather inspections of accessible outfalls following the procedure in the Stormwater Operation and Maintenance (O&amp;M) Manual to search for, detect, and prevent illegal dumping of pollutants and illicit connections (including connections from sanitary sewers and commercial and/or industrial wastewater sewers) to the storm sewer system. Any dry weather flows identified will be reported to the public works department.</p> <p>Annually update maps as necessary to indicate field screening locations.</p> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Inspect accessible outfalls annually.</li> <li>• Maintain maps of outfall inspection locations.</li> </ul>	<p>Track number and percent of outfalls inspected.</p>
<p><b>Illicit Discharge Investigation Procedures</b></p>	<p>Implement follow-up actions on a prioritized basis when problems are reported to the public works department. Follow up actions may include sampling for pH, dissolved oxygen, temperature, conductivity, ammonia, and total chlorine. If elevated results or poor water quality are detected, additional samples could be collected for lab analysis. If screening results indicate a potential problem, staff will conduct upstream investigations.</p> <p>The City will revise and document standard operating procedures to address new permit requirements and to document and update the details of the illicit discharge field screening and investigation procedures by [July 1, 2012].</p> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Develop revised procedures by [July 1, 2012].</li> <li>• Until procedures are revised, investigate problems reported within 2 weeks of the initial report.</li> </ul>	<p>Track number and type of problems reported, and track problem resolutions.</p> <p>Track status of revisions to procedures.</p>
<p><b>NPDES Permit Requirement – (viii).</b> Describe and implement procedures to prevent, contain, respond to and mitigate spills that may discharge into the MS4. Spills, or other similar illicit discharges, that may endanger human health or the environment must be reported in accordance with all applicable federal and state laws, including proper notification to the Oregon Emergency Response System.</p>		
<p><b>Spill Prevention</b></p>	<p><b>Wellhead Protection Program.</b> The wellhead protection program serves to prevent spills and illegal dumping. The City will work to maintain its existing agreement with the City of Gresham for wellhead inspection in the Columbia South Shore Well Field Wellhead Protection Area and continue to implement wellhead protection throughout Fairview for the protection of groundwater. This program is included here because of its residual benefits to stormwater.</p>	<p>Track the number of inspections conducted.</p>

City of Fairview BMP Name	BMP Implementation	Tracking Measures
	<p><b>Wellhead Protection - Intergovernmental Agreement.</b> The City of Gresham and the City of Portland entered into an intergovernmental agreement for the Implementation of the Columbia South Shore Well Field Wellhead Protection Program in 2003 (City of Gresham contract number 1609). This agreement provides protection of the Columbia South Shore Well Field Wellhead Protection Area lying within Gresham and Fairview from contamination by hazardous substances generated at industrial and commercial facilities.</p> <p>Fairview has adopted Ordinance #12-2002 to protect the Columbia South Shore Well Field Wellhead Protection Area from contamination by hazardous substances by establishing an inspection and enforcement program governing the utilization, storage and transportation of hazardous materials in Fairview’s portion of the Columbia South Shore Well Field Wellhead Protection Area.</p> <p>A wellhead inspection is performed at commercial and industrial facilities by the City of Gresham. The entire city, except for a residential area, high school and park, is included in the wellhead protection program.</p> <p>Fairview, Gresham and Portland Staff meet at least annually to discuss any changes to code provisions and any rules promulgated there under by either party.</p> <p><b>Wellhead Protection - City Code and Reference Manual.</b> Wellhead protection is discussed in City code chapter 16.10. A wellhead protection program reference manual has been developed that establishes the wellhead protection boundaries. The code also includes requirements for reporting, standards, and inspections related to the storage, handling, use and transportation of hazardous materials; penalties for violations and enforcement actions; compliance requirements; building and site permit review and approval requirements; and inspection fees.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• Once during the permit term, conduct inspections of all businesses with regulated quantities in the well field.</li> </ul>	

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>Spill Clean-up</b></p>	<p>Maintain agreement with the City of Gresham Fire Department for clean-up after structural fires and vehicular accidents to prevent pollutants and debris from being washed into the storm drain system.</p> <p>When there is a hazardous spill or a spill of any other substance that:</p> <ul style="list-style-type: none"> <li>• Is hazardous in any quantity</li> <li>• Is non-hazardous and greater than 42 gallons on the ground</li> <li>• Or is any quantity that has entered a waterway or a dry well,</li> </ul> <p>the City of Gresham Fire Department staff notifies the Oregon Emergency Response System (OERS). OERS then notifies the Oregon Department of Environmental Quality (DEQ) and other state and local agencies that may be affected. The responsible party, if identified, is required to contact an environmental clean-up company and pay for clean-up costs. Examples could include spillage of a 55-gallon-drum of restaurant grease or sanitary sewer overflows on private property, resulting in or having the risk of resulting in, discharges to the public stormwater system. DEQ remains the enforcement authority in these cases. DEQ may choose to enforce against the responsible party under the following conditions: 1) the party has acted maliciously; 2) the party is a repeat offender; or 3) the party has failed to report the incident to DEQ.</p> <p><b>Non-Hazardous Substances</b></p> <p>Public Works staff will investigate and provide emergency containment and clean-up as necessary. If the responsible party can be identified, he or she is directed to provide containment and site clean-up. If the spill is an imminent threat to waters of the state, the City reserves the right to provide clean-up and bill the responsible party for the work. The responsible party will be invoiced for any response and clean-up provided by the City. Examples include spills or dumping of paint, auto fluids, carpet cleaning wastes or concrete, etc. into catch basins or onto the street.</p> <p>In non-emergency situations, such as dumping of debris on private property near a stream bank, Public Works staff will notify the responsible party, verbally and in writing, and specify a timeframe for clean-up. Staff will refer the incident to Code Enforcement if the responsible party does not respond within the specified time frame. Code enforcement has the authority to issue Abatement Procedures, Violations or Civil Actions.</p>	<p>Track spill locations, type of materials and response activities.</p>

City of Fairview BMP Name	BMP Implementation	Tracking Measures
	<p><b>Releases from Traffic Accidents</b></p> <p>If there is a spill of automotive fluids resulting from a traffic accident, the Gresham Fire Department will spread an absorbent compound (usually clay) and specialized absorbent pads on automotive fluids. Buckets are placed underneath dripping fluids. The road is swept and cleaned and, when necessary, additional protection is placed around the catch basins. Large leaking spills from commercial vehicles or semi-trucks are captured using a children’s plastic pool. From a legal standpoint, the generator of the spill is responsible; therefore the waste materials are bagged and placed inside the wrecked vehicle or given to the tow truck driver for disposal.</p> <p>The City will perform the clean-up or utilize private clean-up contractors in order to continue the spill response program, when no responsible party can be identified.</p> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Maintain agreement with City of Gresham Fire Department.</li> <li>• Investigate spills and provide emergency containment and clean-up as necessary.</li> </ul>	
<p><b>Municipal vehicle monitoring and maintenance</b></p>	<p>Ensure that materials from municipal vehicles do not leak, spill, or otherwise release contaminants onto roadways or open spaces where they may be washed into storm drains or waterways. Municipal vehicles are inspected by the driver during loading and unloading. If any leaks are observed between the regular maintenance the vehicles are repaired immediately.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• Maintain vehicles on a 4-month schedule.</li> </ul>	<p>Track status of municipal vehicle maintenance.</p>
<p><b>NPDES Permit Requirement – (xii).</b> <i>Unless the following non-stormwater discharges are identified in a particular case as a significant source of pollutants to waters of the State by the permittee or the Department, they are not considered illicit discharges and are authorized by this permit: water line flushing; landscape irrigation; diverted stream flows; rising ground waters; uncontaminated groundwater infiltration; uncontaminated pumped ground water; discharges from potable water sources; start up flushing of groundwater wells; potable groundwater monitoring wells; draining and flushing of municipal potable water storage reservoirs; foundation drains; air conditioning condensate; irrigation water; springs; water from crawl space pumps; footing drains; lawn watering; individual residential car washing; charity car washing; flows from riparian habitats and wetlands; dechlorinated swimming pool discharges; street wash waters; discharges of treated water from investigation, removal and remedial actions selected or approved by the Department pursuant to Oregon Revised Statute (ORS) Chapter 465; and, discharges or flows from emergency fire fighting activities.. If any of these non-stormwater discharges under the co-permittee's jurisdiction is a significant source of pollutants, the permittee must develop and require implementation of appropriate BMPs to reduce the discharge of pollutants associated with the source.</i></p>		

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>Water Line Flushing</b></p>	<p>The City periodically flushes all public water lines to ensure the reliability and quality of the domestic water system. To minimize impacts to the storm system, discharges are dechlorinated with the use of ascorbic acid (vitamin C). The flushing crew periodically tests the chlorine levels of the discharge prior to entering the storm system.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• Dechlorinate waterline flushing with vitamin C.</li> </ul>	<p>N/A</p>

## SWMP Element #2 Industrial and Commercial Facilities

NPDES permit requirements are listed below, followed by Fairview’s relevant BMPs that address the permit requirement. In some cases, language for the listed permit requirements has been condensed. Applicable provisions are outlined under Schedule A.4.b. See **Table 4-2** for the City of Fairview’s BMPs that address the requirements that are listed below.

SWMP Element #2: Industrial and Commercial Facilities		
Schedule A.4.b Permit Requirement	Applicable BMP	
	Industrial and Commercial Facility Inspections	Screen New Industries/Businesses and Track NPDES Stormwater Permits
i. <i>Screen existing and new industrial facilities to assess whether they have the potential to be subject to an industrial stormwater NPDES permit or have the potential to contribute a significant pollutant load to the MS4.</i>		■
ii. <i>Within 30 days after the facility is identified, notify the industrial facility and the Department that an industrial facility is potentially subject to an industrial stormwater NPDES permit.</i>		■
iii. <i>Implement an updated strategy to reduce pollutants in stormwater discharges to the MS4 from industrial and commercial facilities where site-specific information has identified a discharge as a source that contributes a significant pollutant load to the MS4. The strategy must include a description of the rationale for identifying commercial and industrial facilities as a significant contributor and, establish the priorities and procedures for inspection of and implementation of stormwater control measures. This strategy must be implemented by <b>January 1, 2013</b>, and applied within one calendar year from the date a new source contributing a significant pollutant load to the MS4 has been identified.</i>	■	

**TABLE 4-2 – Industrial and Commercial Facility BMPs**

City of Fairview BMP Name	BMP Implementation	Tracking Measures
	<p><b>NPDES Permit Requirement</b> – (i). Screen existing and new industrial facilities to assess whether they have the potential to be subject to an industrial stormwater NPDES permit or have the potential to contribute a significant pollutant load to the MS4.</p> <p><b>NPDES Permit Requirement</b> – (ii). Within 30 days after the facility is identified, notify the industrial facility and the Department that an industrial facility is potentially subject to an industrial stormwater NPDES permit.</p> <p><b>NPDES Permit Requirement</b> – (iii). Implement an updated strategy to reduce pollutants in stormwater discharges to the MS4 from industrial and commercial facilities where site-specific information has identified a discharge as a source that contributes a significant pollutant load to the MS4. The strategy must include a description of the rationale for identifying commercial and industrial facilities as a significant contributor and, establish the priorities and procedures for inspection of and implementation of stormwater control measures. This strategy must be implemented by <b>January 1, 2013</b>, and applied within one calendar year from the date a new source contributing a significant pollutant load to the MS4 has been identified.</p>	
<p><b>Industrial and Commercial Facility Inspections</b></p>	<p>Implement the City’s Industrial and Commercial Facility Inspection procedure that is included in the Stormwater Operation and Maintenance Manual to control the discharge of pollutants in stormwater from industrial and commercial facilities to the municipal separate storm sewer system.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• Spend one week (40 hours) implementing commercial and industrial inspection procedures.</li> </ul>	<p>Track number of facility inspections and follow-up.</p>
<p><b>Screen Industries/ Businesses and Track NPDES Stormwater Permits</b></p>	<p>Annually, the City will review their business license inventory to determine whether any new facilities would be subject to an industrial stormwater NPDES permit. This determination will occur based on a review of the applicable SIC codes related to the 1200-series NPDES permit. If a facility is identified that would be subject to an industrial stormwater NPDES permit, the facility and DEQ will be notified within 30 days.</p> <p>During industrial and commercial inspections staff will obtain a copy of the facility’s permit or work with the facility to either obtain a permit, or eliminate the potential for contact of pollutants with stormwater, thereby eliminating the need for a permit. In cases where discharges appear contaminated, the City will send a copy of the inspection report to the Oregon Department of Environmental Quality.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• Annually notify DEQ of any existing or new industrial facilities within the City’s jurisdiction that may potentially be subject to an industrial stormwater NPDES permit.</li> </ul>	<p>Track number and type of new facilities identified as needing permits.</p>

## SWMP Element #3 Construction Site Runoff Control

NPDES permit requirements are listed below, followed by Fairview’s relevant BMPs that address the permit requirement. In some cases, language for the listed permit requirements has been condensed. Applicable provisions are outlined under Schedule A.4.c. See **Table 4-3** for the City of Fairview’s BMPs that address the requirements that are listed below.

SWMP Element #3: Construction Site Runoff Control			
Schedule A.4.c Permit Requirement	Applicable BMPs		
	Erosion Control Activities	Erosion Control Program Training	Construction Site Inspections
<p><i>i. Include ordinances or other enforceable regulatory mechanisms that require erosion prevention and sediment controls be designed, implemented, and maintained to prevent adverse impacts to water quality and minimize the transport of construction-related contaminants to waters of the State. By <b>January 1, 2014</b>, the construction site runoff control program ordinances or other enforceable regulatory mechanism must apply to construction activities that result in a land disturbance of 1,000 square feet or greater.</i></p>	■	■	
<p><i>ii. Require construction site operators to develop erosion prevention and sediment control site plans, and to implement and to maintain effective erosion prevention and sediment control best management practices.</i></p>	■	■	
<p><i>iii. Require construction site operators to prevent or control non-stormwater waste that may cause adverse impacts to water quality such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.</i></p>	■	■	
<p><i>iv. Describe site plan review procedures to ensure that stormwater BMPs are appropriate and address the construction activities being proposed. At a minimum, construction site erosion prevention and sediment control plans for sites disturbing one acre or greater must be consistent with the substantive requirements of the State of Oregon's 1200-C permit site erosion prevention and sediment control plans.</i></p>	■	■	

SWMP Element #3: Construction Site Runoff Control			
Schedule A.4.c Permit Requirement	Applicable BMPs		
	Erosion Control Activities	Erosion Control Program Training	Construction Site Inspections
v. <i>Co-permittee must perform on-site inspections in accordance with documented procedures and criteria to ensure that the approved erosion prevention and sediment control plan is properly implemented. Inspections of construction sites must include disturbed areas of the site, material and waste storage areas, stockpile areas, construction site entrances and exits, sensitive areas, discharge locations to the MS4, and, if appropriate, discharge locations to receiving waters. Inspections must be documented, including photographs and monitoring results as appropriate.</i>			■
vi. <i>Describe in an enforcement response plan or similar document the enforcement response procedures the permittee will implement. The enforcement response procedures must ensure construction activities are in compliance with the ordinances or other regulatory mechanisms.</i>	■		

**TABLE 4-3 – Construction Site Runoff Control BMPs**

City of Fairview BMP Name	BMP Implementation	Tracking Measures
	<p><b>NPDES Permit Requirement – (i).</b> <i>Include ordinances or other enforceable regulatory mechanisms that require erosion prevention and sediment controls be designed, implemented, and maintained to prevent adverse impacts to water quality and minimize the transport of construction-related contaminants to waters of the State. By <b>January 1, 2014</b>, the construction site runoff control program ordinances or other enforceable regulatory mechanism must apply to construction activities that result in a land disturbance of 1,000 square feet or greater.</i></p> <p><b>NPDES Permit Requirement – (ii).</b> <i>Require construction site operators to develop erosion prevention and sediment control site plans, and to implement and to maintain effective erosion prevention and sediment control best management practices.</i></p> <p><b>NPDES Permit Requirement – (iii).</b> <i>Require construction site operators to prevent or control non-stormwater waste that may cause adverse impacts to water quality such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.</i></p> <p><b>NPDES Permit Requirement – (iv).</b> <i>Describe site plan review procedures to ensure that stormwater BMPs are appropriate and address the construction activities being proposed. At a minimum, construction site erosion prevention and sediment control plans for sites disturbing one acre or greater must be consistent with the substantive requirements of the State of Oregon's 1200-C permit site erosion prevention and sediment control plans.</i></p> <p><b>NPDES Permit Requirement – (vi).</b> <i>Describe in an enforcement response plan or similar document the enforcement response procedures the permittee will implement. The enforcement response procedures must ensure construction activities are in compliance with the ordinances or other regulatory mechanisms.</i></p>	
<p><b>Erosion Control Activities</b></p>	<p>Ordinance 3-1993 adopts an erosion control plan. The ordinance includes an Erosion Control Technical Guidance Handbook (Technical Guidance) that describes regulations, standards and provisions for erosion control as well as fees and penalties for violation. The City enforces the erosion control requirements through a permitting process required for sites disturbing 500 ft<sup>2</sup> or more as discussed under the BMP, Development Review.</p> <p>The Technical Guidance prescribes the following four steps to consider in planning for erosion control:</p> <ul style="list-style-type: none"> <li>Step 1: Identify Site Characteristics</li> <li>Step 2: Lay Out Preconstruction Plan and Proposed Base Measure</li> <li>Step 3: Measures During Construction</li> <li>Step 4: Post Construction Measures</li> </ul> <p>The Technical Guidance also has requirements for single-family homes and duplexes on existing lots of record, private developments construction, private construction in public rights-of-way, public works construction, erosion control measures, inspections and enforcements, and penalties. Non-stormwater wastes on construction sites are also addressed through the City’s nuisance ordinance in Chapter 8 of the municipal code.</p>	<p>Track the number of erosion control permits issued annually.</p>

City of Fairview BMP Name	BMP Implementation	Tracking Measures
	<p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Inform all construction site owners that have 1 acre or more of disturbed land that they are required to obtain a 1200-C permit from the Oregon Department of Environmental Quality.</li> <li>• Review development sites required to meet City erosion control requirements.</li> </ul>	
<p><b>Erosion Control Program Training</b></p>	<p>The Technical Guidance describes regulations, standards and provisions for erosion control as well as fees and penalties for violation.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• Provide a copy of the Technical Guidance to all developers and contractors.</li> </ul>	<p>N/A</p>
<p><b>NPDES Permit Requirement</b> – (v) <i>Co-permittee must perform on-site inspections in accordance with documented procedures and criteria to ensure that the approved erosion prevention and sediment control plan is properly implemented. Inspections of construction sites must include disturbed areas of the site, material and waste storage areas, stockpile areas, construction site entrances and exits, sensitive areas, discharge locations to the MS4, and, if appropriate, discharge locations to receiving waters. Inspections must be documented, including photographs and monitoring results as appropriate.</i></p>		
<p><b>Construction Site Inspections</b></p>	<p>The City currently reviews plans and inspects construction sites required to meet the City’s erosion control standards using the following procedures:</p> <ol style="list-style-type: none"> <li>1. Phone call before inspection to make sure BMPs are in place.</li> <li>2. Visit every site over 1 acre after the first significant rainfall event and periodically thereafter.</li> </ol> <p>If time is limited, the City prioritizes inspections by visiting problem sites first, then visiting facilities that would have the highest environmental effect if the erosion control failed.</p> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Inspect all construction sites required to meet City erosion control standards.</li> <li>• Audit or review existing codes to ensure legal and escalation clauses exist for site design, source control, stormwater treatment BMPs, and post-construction BMPs by <b>January 1, 2014.</b></li> </ul>	<p>Track the number of sites that were permitted and inspected.</p> <p>Report the number and type of enforcement actions.</p>

## SWMP Element #4 Education and Outreach

NPDES permit requirements are listed below, followed by Fairview’s relevant BMPs that address the permit requirement. In some cases, language for the listed permit requirements has been condensed. Applicable provisions are outlined under Schedule A.4.d. See **Table 4-4** for the City of Fairview’s BMPs that address the requirements that are listed below.

SWMP Element #4: Education and Outreach					
Schedule A.4.d Permit Requirement	Applicable BMPs				
	Education al Activities	Report Illegal Dumping and Illicit Connections	Illegal Dumping and Illegal Connections Public Education	Participate in Public Education Effectiveness Evaluation	Staff Education and Training
i. <i>Continue to implement a documented public education and outreach strategy that promotes pollutant source control and a reduction of pollutants in stormwater discharges. The strategy must identify targeted pollutants of concern, the targeted audience, specific education activities, and the entity or individual responsible for implementation.</i>	■				
ii. <i>Provide educational materials to the community or conduct equivalent outreach activities describing the impacts of stormwater discharges on water bodies and the steps or actions the public can take to reduce pollutants in stormwater runoff.</i>	■	■	■		
iii. <i>Provide public education on the proper use and disposal of pesticides, herbicides, fertilizers and other household chemicals.</i>	■				
iv. <i>Provide public education on the proper operation and appropriate maintenance of privately-owned or operated stormwater quality management facilities.</i>	See Element #8: Structural Stormwater Controls Operations and Maintenance				

SWMP Element #4: Education and Outreach					
Schedule A.4.d Permit Requirement	Applicable BMPs				
	Education al Activities	Report Illegal Dumping and Illicit Connections	Illegal Dumping and Illegal Connections Public Education	Participate in Public Education Effectiveness Evaluation	Staff Education and Training
	BMP: Maintain and Inspect Private Water Quality Facilities				
v. Provide notice to construction site operators concerning where education and training to meet erosion prevention and sediment control requirements can be obtained.	See Element #3: Construction Site Runoff Control BMP: Erosion Control Program Training				
vi. Conduct or participate in an effectiveness evaluation to measure the success of public education activities during the term of this permit. The effectiveness evaluation must focus on assessing changes in targeted behaviors. The results of the effectiveness evaluation must be used in the adaptive management of the education and outreach program, and reported to the Department no later than <b>November 1, 2014</b> .				■	
vii. Include training for co-permittee employees involved in MS4-related activities, as appropriate. The training should include stormwater pollution prevention and reduction from municipal operations, including, but not limited to, parks and open space maintenance, fleet and building maintenance, new municipal facility construction and related land disturbances, design and construction of street and storm drain systems, discharges from non-emergency fire fighting-related training activities, and stormwater system maintenance.					■
viii. Promote, publicize and facilitate public reporting of illicit discharges through the use of newspapers, newsletters, utility bills, door hangers, radio public service announcements, videos, televised council meetings, brochures, signs, posters or other effective methods.		■	■		

**TABLE 4-4 – Education and Outreach BMPs**

City of Fairview BMP Name	BMP Implementation	Tracking Measures
	<p><b>NPDES Permit Requirement – (i).</b> <i>Continue to implement a documented public education and outreach strategy that promotes pollutant source control and a reduction of pollutants in stormwater discharges. The strategy must identify targeted pollutants of concern, the targeted audience, specific education activities, and the entity or individual responsible for implementation.</i></p> <p><b>NPDES Permit Requirement – (ii).</b> <i>Provide educational materials to the community or conduct equivalent outreach activities describing the impacts of stormwater discharges on water bodies and the steps or actions the public can take to reduce pollutants in stormwater runoff.</i></p> <p><b>NPDES Permit Requirement – (iii).</b> <i>Provide public education on the proper use and disposal of pesticides, herbicides, fertilizers and other household chemicals.</i></p> <p><b>NPDES Permit Requirement – (viii).</b> <i>Promote, publicize and facilitate public reporting of illicit discharges through the use of newspapers, newsletters, utility bills, door hangers, radio public service announcements, videos, televised council meetings, brochures, signs, posters or other effective methods.</i></p>	
<p><b>Educational Activities</b></p>	<p>The City supports community programs, publishes articles in the City newsletter and coordinates with the City of Gresham where appropriate. Current City public education programs that are related to stormwater include educational programs on stormwater quality and the use of nonpolluting alternative garden products, including low-volume uses of pesticides, herbicides, and fertilizers (e.g., household uses). The City also supports the following programs:</p> <ul style="list-style-type: none"> <li>• Programs with local area schools</li> <li>• Programs with volunteer groups</li> <li>• Columbia Slough Watershed Council activities</li> <li>• Business Assistance Program – Private Catch Basin Cleaning</li> <li>• Spring Clean-up</li> <li>• Metro Hazardous Waste Clean-up</li> <li>• Informational kiosks at City events and City Hall</li> <li>• Doggy Don't waste bags</li> </ul> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Publish stormwater related articles in the City newsletter.</li> <li>• Support local education programs.</li> </ul>	<p>Track newsletter articles produced annually.</p> <p>Track activities conducted to support local education programs.</p>

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<b>Report Illegal Dumping and Illegal Connections</b>	Continue to facilitate efforts by the public to report illegal dumping, illicit connections, and other incidents. Implement public reporting program as described in the Stormwater Operation and Maintenance (O&M) Manual. <b>Measurable Goal:</b> <ul style="list-style-type: none"> <li>• Respond to reports and/or complaints from citizens regarding observed water quality problems.</li> </ul>	Track the number of reports/complaints received, and the follow-up actions conducted (including the timing of the follow-up action).
<b>Illegal Dumping and Illegal Connections, Public Education</b>	Educate the public about the harmful effects of dumping oil, antifreeze, pesticides, paints, solvents, and other potentially harmful chemicals into storm sewers or drainage channels. <b>Measurable Goals:</b> <ul style="list-style-type: none"> <li>• Support recycling and disposal programs; programs that provide convenient means to dispose of materials, existing solid waste management programs.</li> <li>• Educate the public regarding the stormwater pollution that results from dumping and illegal connections.</li> </ul>	Track the number of public recycling and disposal programs conducted annually.
<b>NPDES Permit Requirement – (iv).</b> <i>Provide public education on the proper operation and appropriate maintenance of privately-owned or operated stormwater quality management facilities.</i>		
<b>See Element #8:</b> Structural Stormwater Controls Operations and Maintenance <b>BMP:</b> Maintain and Inspect Private Water Quality Facilities (Table 8)		

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>NPDES Permit Requirement</b> – (v). <i>Provide notice to construction site operators concerning where education and training to meet erosion prevention and sediment control requirements can be obtained.</i></p>		
<p><b>See Element #3:</b> Construction Site Runoff Control <b>BMP:</b> Erosion Control Program Training</p>		
<p><b>NPDES Permit Requirement</b> – (vi). <i>Conduct or participate in an effectiveness evaluation to measure the success of public education activities during the term of this permit. The effectiveness evaluation must focus on assessing changes in targeted behaviors. The results of the effectiveness evaluation must be used in the adaptive management of the education and outreach program, and reported to the Department no later than <b>November 1, 2014</b>.</i></p>		
<p><b>Participate in a Public Education Effectiveness Evaluation</b></p>	<p>By November 1, 2014, the City of Fairview will coordinate with other local, Phase I jurisdictions to provide information related to an effectiveness evaluation. The effectiveness evaluation information will focus on assessing changes in targeted behaviors and will allow for additional information that can be used in adaptive management of the City’s education and outreach strategy.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>Coordinate with other local jurisdictions in providing/compiling information regarding a public education effectiveness evaluation by November 1, 2014.</li> </ul>	<p>Report on activities annually.</p>
<p><b>NPDES Permit Requirement</b> – (vii) <i>Include training for co-permittee employees involved in MS4-related activities, as appropriate. The training should include stormwater pollution prevention and reduction from municipal operations, including, but not limited to, parks and open space maintenance, fleet and building maintenance, new municipal facility construction and related land disturbances, design and construction of street and storm drain systems, discharges from non-emergency fire fighting-related training activities, and stormwater system maintenance.</i></p>		
<p><b>Staff Education and Training</b></p>	<p>Conduct training for new employees and contract employees on stormwater requirements and train existing employees when there is a significant update to the documents used by the City that regulates stormwater pollution control activities.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>Provide annual training to personnel involved in stormwater management.</li> </ul>	<p>Track personnel receiving training annually.</p>

## SWMP Element #5 Public Involvement and Participation

NPDES permit requirements are listed below, followed by Fairview’s relevant BMPs that address the permit requirement. In some cases, language for the listed permit requirements has been condensed. Applicable provisions are outlined under Schedule A.4.e. See **Table 5** for the City of Fairview’s BMPs that address the requirements that are listed below.

SWMP Element #5: Public Involvement and Participation	
	Applicable BMPs
Schedule A.4.e Permit Requirement	Provide for Public Participation with SWMP and Benchmark Submittals
<p><i>e. Co-permittees must implement a public participation approach that provides opportunities for the public to effectively participate in the development, implementation and modification of the co-permittee's stormwater management program. The approach must include provisions for receiving and considering public comments on the monitoring plan due to the Department May 1, 2011, annual reports, SWMP revisions, and the TMDL pollutant load reduction benchmark development.</i></p>	■

**TABLE 4-5 –Public Involvement and Participation**

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>NPDES Permit Requirement - (e).</b> <i>Co-permittees must implement a public participation approach that provides opportunities for the public to effectively participate in the development, implementation and modification of the co-permittee's stormwater management program. The approach must include provisions for receiving and considering public comments on the monitoring plan due to the Department May 1, 2011, annual reports, SWMP revisions, and the TMDL pollutant load reduction benchmark development.</i></p>		
<p><b>Provide for Public Participation with the annual report, SWMP and Benchmark Submittals</b></p>	<p>Co-permittees must submit an annual report for the portion applicable to its jurisdiction by November 1 of each year. SWMP revisions and pollutant load reduction benchmarks are required for submittal to DEQ at the permit renewal submittal (180 days prior to permit expiration). Prior to submittal of these items, the City will provide the public with an opportunity to comment on the annual report, revisions to the SWMP and proposed pollutant load reduction benchmarks. The documents will be made available on the City’s website or through web links. Comments on the documents will be collected and considered and a response to comments will be provided.</p> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Provide for public participation with the annual report, SWMP and pollutant load reduction benchmarks prior to the permit renewal application deadline.</li> </ul>	<p>N/A</p>

## SWMP Element #6 Post-Construction Site Runoff

NPDES permit requirements are listed below, followed by Fairview’s relevant BMPs that address the permit requirement. In some cases, language for the listed permit requirements has been condensed. Applicable provisions are outlined under Schedule A.4.f. See **Table 4-6** for the City of Fairview’s BMPs that address the requirements that are listed below.

SWMP Element #6: Post-Construction Site Runoff			
Schedule A.4.f Permit Requirement	Applicable BMPs		
	Development Review for Private Projects	Review Applicable Code and Development Standards related to Stormwater Management	Design Standards for Public Projects
<p>i. By <b>January 1, 2014</b>, the post-construction stormwater pollutant and runoff control program applicable to new development and redevelopment projects that create or replace 1000 ft<sup>2</sup> of impervious surface must meet the following conditions.</p> <ol style="list-style-type: none"> <li>1) Incorporate site-specific management practices to mimic natural surface or predevelopment hydrologic functions as much as practicable. The site-specific management practices should optimize on-site retention based on the site conditions;</li> <li>2) Reduce site specific post-development stormwater runoff volume, duration and rates of discharges to the municipal separate storm sewer system (MS4) to minimize hydrological and water quality impacts from impervious surfaces;</li> <li>3) Prioritize and include implementation of Low-Impact Development (LID), Green Infrastructure (GI) or equivalent planning, design and construction approaches; and</li> <li>4) Capture and treat 80% of the annual average runoff volume, based on a documented local or regional rainfall frequency and intensity.</li> </ol>	■	■	■

SWMP Element #6: Post-Construction Site Runoff			
Schedule A.4.f Permit Requirement	Applicable BMPs		
	Development Review for Private Projects	Review Applicable Code and Development Standards related to Stormwater Management	Design Standards for Public Projects
<p>ii. <i>Co-permittees must identify, and where practicable, minimize or eliminate ordinance, code and development standard barriers within their legal authority that inhibit design and implementation techniques intended to minimize impervious surfaces and reduce stormwater runoff (e.g., Low Impact Development, Green Infrastructure). Such modifications to ordinance, code and development standards are only required to the extent they are permitted under federal and state laws. The co-permittee must review ordinance, code and development standards for modification, minimization or elimination, and appropriately modify ordinance, code and development standard barriers by <b>January 1, 2014</b>. If an ordinance, code or development standard barrier is identified at any time subsequent to <b>January 1, 2014</b>, the applicable ordinance, code or development standard must be modified <b>within three years</b>.</i></p>	■	■	
<p>iii. <i>To reduce pollutants and mitigate the volume, duration, time of concentration and rate of stormwater runoff, the co-permittees must develop or reference an enforceable post-construction stormwater quality management manual or equivalent document by <b>January 1, 2014</b>, that, at a minimum, includes the following:</i></p> <ol style="list-style-type: none"> <li>1) <i>Establish a threshold that is at least as small as set out in f. i. above;</i></li> <li>2) <i>A defined design storm that allows for identification of an acceptable continuous simulation method to address the capture and treatment of 80% of the annual average runoff volume;</i></li> <li>3) <i>Applicable LID, GI or similar stormwater runoff reduction approaches, including the practical use of these approaches;</i></li> <li>4) <i>Conditions where the implementation of LID, GI or equivalent approaches may be impracticable;</i></li> </ol>	■	■	■

SWMP Element #6: Post-Construction Site Runoff			
Schedule A.4.f Permit Requirement	Applicable BMPs		
	Development Review for Private Projects	Review Applicable Code and Development Standards related to Stormwater Management	Design Standards for Public Projects
<p>5) <i>BMPs, including a description of the following:</i></p> <ul style="list-style-type: none"> <li>a. <i>Site-specific design requirements;</i></li> <li>b. <i>Design requirements that do not inhibit maintenance; and,</i></li> <li>c. <i>Conditions where the BMP applies; and,</i></li> </ul> <p>6) <i>Pollutant removal efficiency performance goals that maximize the reduction in discharge of pollutants.</i></p>			
<p>iv. <i>Co-permittees must review, approve and verify proper implementation of post-construction site plans for new development and redevelopment projects applicable to this section.</i></p>	■	■	
<p>v. <i>Where a new development or redevelopment project site is characterized by factors limiting use of on-site stormwater management methods to achieve the post-construction site runoff performance standards, such as high water table, shallow bedrock, poorly-drained or low permeable soils, contaminated soils, steep slopes or other constraints, the Post-Construction Stormwater Management program must require equivalent pollutant reduction measures, such as off-site stormwater quality management. Off-site stormwater quality management may include off-site mitigation, such as using low impact development principles in the construction of a structural stormwater facility within the sub-watershed, a stormwater quality structural facility mitigation bank or a payment-in-lieu program.</i></p>	■	■	
<p>vi. <i>A description of the inspection and enforcement response procedures the co-permittee will follow when addressing project compliance issues with the enforceable post-construction stormwater management performance standards.</i></p>		■	

**TABLE 4-6 – Post-Construction Site Runoff BMPs**

City of Fairview BMP Name	BMP Implementation	Tracking Measures
	<p><b>NPDES Permit Requirement – (i).</b> By <b>January 1, 2014</b>, the post-construction stormwater pollutant and runoff control program applicable to new development and redevelopment projects that create or replace 1000 ft<sup>2</sup> of impervious surface must meet the following conditions.</p> <ol style="list-style-type: none"> <li>1) Incorporate site-specific management practices to mimic natural surface or predevelopment hydrologic functions as much as practicable. The site-specific management practices should optimize on-site retention based on the site conditions;</li> <li>2) Reduce site specific post-development stormwater runoff volume, duration and rates of discharges to the municipal separate storm sewer system (MS4) to minimize hydrological and water quality impacts from impervious surfaces;</li> <li>3) Prioritize and include implementation of Low-Impact Development (LID), Green Infrastructure (GI) or equivalent planning, design and construction approaches; and</li> <li>4) Capture and treat 80% of the annual average runoff volume, based on a documented local or regional rainfall frequency and intensity.</li> </ol> <p><b>NPDES Permit Requirement – (ii).</b> Co-permittees must identify, and where practicable, minimize or eliminate ordinance, code and development standard barriers within their legal authority that inhibit design and implementation techniques intended to minimize impervious surfaces and reduce stormwater runoff (e.g., Low Impact Development, Green Infrastructure). Such modifications to ordinance, code and development standards are only required to the extent they are permitted under federal and state laws. The co-permittee must review ordinance, code and development standards for modification, minimization or elimination, and appropriately modify ordinance, code and development standard barriers by <b>January 1, 2014</b>. If an ordinance, code or development standard barrier is identified at any time subsequent to <b>January 1, 2014</b>, the applicable ordinance, code or development standard must be modified within three years.</p> <p><b>NPDES Permit Requirement – (iii).</b> To reduce pollutants and mitigate the volume, duration, time of concentration and rate of stormwater runoff, the co-permittees must develop or reference an enforceable post-construction stormwater quality management manual or equivalent document by January 1, 2014, that, at a minimum, includes the following:</p> <ol style="list-style-type: none"> <li>1) Establish a threshold that is at least as small as set out in f. i. above;</li> <li>2) A defined design storm that allows for identification of an acceptable continuous simulation method to address the capture and treatment of 80% of the annual average runoff volume;</li> <li>3) Applicable LID, GI or similar stormwater runoff reduction approaches, including the practical use of these approaches;</li> <li>4) Conditions where the implementation of LID, GI or equivalent approaches may be impracticable;</li> <li>5) BMPs, including a description of the following:               <ol style="list-style-type: none"> <li>a. Site-specific design requirements;</li> <li>b. Design requirements that do not inhibit maintenance; and</li> <li>c. Conditions where the BMP applies; and,</li> </ol> </li> <li>6) Pollutant removal efficiency performance goals that maximize the reduction in discharge of pollutants.</li> </ol>	

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>NPDES Permit Requirement – (iv).</b> <i>Co-permittees must review, approve and verify proper implementation of post-construction site plans for new development and redevelopment projects applicable to this section.</i></p>		
<p><b>NPDES Permit Requirement – (v).</b> <i>Where a new development or redevelopment project site is characterized by factors limiting use of on-site stormwater management methods to achieve the post-construction site runoff performance standards, such as high water table, shallow bedrock, poorly-drained or low permeable soils, contaminated soils, steep slopes or other constraints, the Post-Construction Stormwater Management program must require equivalent pollutant reduction measures, such as off-site stormwater quality management. Off-site stormwater quality management may include off-site mitigation, such as using low impact development principles in the construction of a structural stormwater facility within the sub-watershed, a stormwater quality structural facility mitigation bank or a payment-in-lieu program.</i></p>		
<p><b>NPDES Permit Requirement – (vi).</b> <i>A description of the inspection and enforcement response procedures the co-permittee will follow when addressing project compliance issues with the enforceable post-construction stormwater management performance standards.</i></p>		
<p><b>Development Review for Private Projects</b></p>	<p>Implement and enforce regulations which give legal authority to: 1) require site-drainage designs and systems which address water quality; and/or 2) minimize the total volume of runoff and the peak rate of runoff, where local conditions permit.</p> <p>The City implements these regulations through its Community Development Department and Public Works Department. New development and redevelopment projects are reviewed for conformance to the following existing City regulations:</p> <ul style="list-style-type: none"> <li>• Fairview Comprehensive Plan, June 2004—provides the guiding direction to protect the natural environment and ensure that long-term growth does not adversely affect the natural resources.</li> <li>• Community Development Department—Land Use and Building Permits; Land Use Code Enforcement.</li> <li>• Title 19, Development Code—requires accommodation and treatment of stormwater runoff and system installation conforming to standards and specifications adopted by the City.</li> <li>• City of Fairview Standard Specifications for Public Works Construction</li> </ul> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Review development plans for conformance with standards.</li> <li>• Maintain map of private water quality facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Track acreage of new and re-development activities requiring stormwater treatment annually.</li> <li>• Track the number and type of private water quality BMPs built.</li> </ul>

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>Review Applicable Code and Development Standards related to Stormwater Management</b></p>	<p><b>BMP Description:</b> In conjunction with the provisions and timeframe outlined in the City’s MS4 NPDES permit, review and if necessary, revise existing stormwater design standards and relevant code provisions to ensure that they are consistent with applicable permit language. In addition, document the City’s relevant inspection and enforcement response procedures.</p> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Review and the City’s current stormwater treatment standards for compliance with new MS4 NPDES permit language <b>by January 1, 2014.</b></li> <li>• Review the City’s current public works development code provisions to ensure that applicable barriers related to the use of Low Impact Development techniques are minimized and eliminated where practicable <b>by January 1, 2014.</b></li> <li>• If necessary, update the City’s post-construction stormwater design standards and code language.</li> <li>• Document the City’s post-construction inspection and enforcement response procedures by <b>January 1, 2014.</b></li> </ul>	<p>Track progress related to the review of the City’s code and development standards per provisions in the MS4 NPDES permit.</p>
<p><b>Design Standards for Public Projects</b></p>	<p>Follow the Standard Specifications for Public Works Construction which requires treatment of stormwater runoff through the use of BMPs. Maintain database of BMPs that are implemented.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• Ensure that public works stormwater related projects address treatment of runoff as appropriate.</li> </ul>	<p>Number and type of public stormwater quality BMPs built.</p>

## SWMP Element #7 Pollution Prevention for Municipal Operations

NPDES permit requirements are listed below, followed by Fairview’s relevant BMPs that address the permit requirement. In some cases, language for the listed permit requirements has been condensed. Applicable provisions are outlined under Schedule A.4.g. See **Table 4-7** for the City of Fairview’s BMPs that address the requirements that are listed below.

SWMP Element #7: Pollution Prevention for Municipal Operations											
Schedule A.4.g Permit Requirement	Applicable BMPs										
	O&M Plan	Right-of Way – O&M	Street Sweeping	De-icing and Yard Debris Activities	Native Vegetation	Integrated Pest Management	Chemical Applicator Licensing	Track municipal Facilities	Litter Receptacles	Sanitary Sewer System Program	Consolidated Stormwater Master Plan
i. Operate and maintain public streets, roads and highways over which the co-permittee has authority in a manner designed to minimize the discharge of stormwater pollutants to the MS4, including pollutants discharged as a result of deicing activities;	■	■	■	■							
ii. Implement a management program to control and minimize the use and application of pesticides, herbicides and fertilizers on co-permittee-owned properties;					■	■	■				
iii. By <b>January 1, 2013</b> , inventory, assess, and implement a strategy to reduce the impact of stormwater runoff from municipal facilities that treat, store or transport municipal waste, such as yard waste or other municipal waste and are not already covered under a 1200 series NPDES, a DEQ solid waste, or other permit designed to reduce the discharge of pollutants;								■	■		

SWMP Element #7: Pollution Prevention for Municipal Operations											
Schedule A.4.g Permit Requirement	Applicable BMPs										
	O&M Plan	Right-of Way – O&M	Street Sweeping	De-icing and Yard Debris Activities	Native Vegetation	Integrated Pest Management	Chemical Applicator Licensing	Track municipal Facilities	Litter Receptacles	Sanitary Sewer System Program	Consolidated Stormwater Master Plan
iv. <i>Limit infiltration of seepage from the municipal sanitary sewer system to the MS4;</i>										■	
v. <i>Implement a program to prevent or control the release of materials related to fire-fighting training activities; and,</i>	The City of Fairview does not have a BMP to address this requirement as fire fighting activities in Fairview are conducted by the City of Gresham fire department.										
vi. <i>Assess co-permittee flood control projects to identify potential impacts on the water quality of receiving water bodies and determine the feasibility of retrofitting structural flood control devices for additional stormwater pollutant removal. The results of this assessment must be incorporated and considered along with the results of the Stormwater Retrofit Assessment required by this permit.</i>											■

**TABLE 4-7 – Pollution Prevention for Municipal Operations BMPs**

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>NPDES Permit Requirement</b> – (i) Operate and maintain public streets, roads and highways over which the co-permittee has authority in a manner designed to minimize the discharge of stormwater pollutants to the MS4, including pollutants discharged as a result of deicing activities;</p>		
<p><b>O&amp;M Plan</b></p>	<p>Use the O&amp;M Plan as a guide for designing and maintaining public storm facilities in order to maximize water quality benefits while maintaining flood capacity. The O&amp;M Plan is intended to help locate and eliminate pollutants and provides a framework for maintaining field inspections records.</p> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Implement the procedures in the O&amp;M Plan.</li> <li>• Review the O&amp;M Plan by November 1, 2013, and update as necessary to maximize water quality benefits while maintaining flood capacity.</li> </ul>	<p>Track annual changes made to the O&amp;M Plan</p>
<p><b>Right of way–O&amp;M</b></p>	<p>The City contracts with Multnomah County for road maintenance that includes street sweeping, roadside mowing and brushing and pavement maintenance. The maintenance program is substantially similar to, and at least as protective as, the ODOT Routine Road Maintenance program approved under the current 4(d) limit.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• Maintain contract with Multnomah County for road maintenance.</li> </ul>	<p>N/A</p>
<p><b>Street Sweeping</b></p>	<p>The City contracts with Multnomah County for street sweeping (approximately 6 times per year). The frequency is based on weather conditions, road conditions and funding.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• Maintain contract with Multnomah County.</li> </ul>	<p>Track frequency of sweepings.</p>
<p><b>De-icing and Yard Debris Activities</b></p>	<p>Sand and gravel are applied to roadway surfaces to assist with traction during inclement weather. The sand is removed and recycled as soon as possible after the snow or ice event.</p> <p>Yard debris is picked up from residents weekly by the City’s solid waste provider.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• As weather permits, remove gravel when it is no longer needed.</li> </ul>	<p>Track processes conducted for sand and gravel removal.</p>

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>NPDES Permit Requirement – (ii) Implement a management program to control and minimize the use and application of pesticides, herbicides and fertilizers on co-permittee-owned properties;</b></p>		
<p><b>Native Vegetation</b></p>	<p>Encourage the use of native vegetation in riparian areas on private and public property to reduce the need for fertilizers, pesticides, and herbicides. Planting and landscape policies for riparian buffer areas encourage use of vegetation (indigenous or imported) that is self-sustainable without the need for pesticides or herbicides. Riparian buffer permits are issued for alterations to the landscape within 50 feet of Fairview Creek, Fairview Lake, the Columbia Slough and their tributaries (City code chapter 19.106).</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• Review planting plans associated with riparian buffer permits.</li> </ul>	<p>Track number of riparian buffer permits.</p>
<p><b>Integrated Pest Management</b></p>	<p>The City encourages use of the Portland Parks and Recreation Pest Management Guide. This guide emphasizes controlling pests that are harmful to the health or aesthetic value of park plantings in a manner that is cost-effective, safe, and environmentally responsible. It is an approach that uses multi-faceted strategies that minimize negative impacts on the environment and on human health. The controls used in this program include manual, mechanical, cultural, biological and chemical methods. Often a combination of methods is used. Examples of Integrated Pest Management include:</p> <ul style="list-style-type: none"> <li>• Timing of chemical applications to avoid runoff.</li> <li>• Mowing high grass and brush to reduce weed seed crops in rough areas.</li> <li>• Pruning of trees and shrubs to increase air circulation to reduce susceptibility to disease and insect problems.</li> <li>• Appropriate fertilizing to encourage plant health and resistance to pests (i.e., weeds, insects and disease).</li> <li>• Using plants with natural resistance to pests.</li> <li>• Combining turf aeration and over-seeding along with any application of broadleaf weed control to eliminate the cause of the problem, and therefore the need for repeated applications.</li> </ul> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Use Portland Parks and Recreation approved chemicals.</li> <li>• Incorporate native plants in City planting projects to reduce chemical and fertilizer usage, as well as maintenance requirements.</li> </ul>	<p>Track City planting projects that incorporate native plants.</p>

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<b>Chemical Applicator Licensing</b>	Maintain staff certification in public pesticide application and follow Oregon Department of Agriculture (ODA) requirements related to herbicide application.  <b>Measurable Goal:</b> <ul style="list-style-type: none"> <li>• All chemical applications will be supervised by an ODA Certified Applicator.</li> </ul>	N/A
<b>NPDES Permit Requirement – (iii) By <i>January 1, 2013</i>, inventory, assess, and implement a strategy to reduce the impact of stormwater runoff from municipal facilities that treat, store or transport municipal waste, such as yard waste or other municipal waste and are not already covered under a 1200 series NPDES, a DEQ solid waste, or other permit designed to reduce the discharge of pollutants;</b>		
<b>Track Municipal Facilities</b>	The City has one facility that includes the treatment, storage or transport of municipal waste. This facility is the Corporation Yard Dumpster. Collection of waste from municipal litter receptacles is collected and stored in a dumpster at this site until the City’s garbage hauler collects the waste on a weekly basis. The dumpster has a cover on it and runoff from the site is treated by a structural stormwater filter. No additional stormwater management practices are deemed necessary for this site.	N/A
<b>Litter Receptacles</b>	Provide, collect, and maintain litter receptacles in strategic public areas and during major public events to provide disposal of pet waste bags and prevent trash from entering the stormwater system.  <b>Measurable Goal:</b> <ul style="list-style-type: none"> <li>• Maintain at least one litter receptacle at all public parks greater than 1 acre. Provide collection a minimum of once per week.</li> </ul>	Track number of litter receptacles.
<b>NPDES Permit Requirement – (iv) Limit infiltration of seepage from the municipal sanitary sewer system to the MS4;</b>		
<b>Sanitary Sewer System Program</b>	Limit wastewater infiltration through the operation, maintenance and construction of the sanitary sewer infrastructure based on existing conditions and projected sanitary flows.  <b>Measurable Goals:</b> <ul style="list-style-type: none"> <li>• Respond to pump station failures.</li> <li>• Perform cleaning of the problem areas of the City’s sanitary sewer system.</li> <li>• Construct pipe restoration projects to replace defective pipe and reduce inflow and infiltration.</li> </ul>	Track identified sanitary problems and resolutions related to the storm system each year.

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>NPDES Permit Requirement – (v) Implement a program to prevent or control the release of materials related to fire-fighting training activities; and;</b></p>		
<p>The City of Fairview does not have a BMP to address this requirement as fire fighting activities in Fairview are conducted by the City of Gresham’s fire department.</p>		
<p><b>NPDES Permit Requirement – (vi) Assess co-permittee flood control projects to identify potential impacts on the water quality of receiving water bodies and determine the feasibility of retrofitting structural flood control devices for additional stormwater pollutant removal. The results of this assessment must be incorporated and considered along with the results of the Stormwater Retrofit Assessment required by this permit;</b></p>		
<p><b>Consolidated Stormwater Master Plan (CSMP)</b></p>	<p>The Consolidated Stormwater Master Plan (CSMP) adopted in 2007 combines infrastructure improvements including retrofit opportunities with federal and state water quality requirements. Projects were developed to address water quantity and quality issues, utilizing hydrologic and hydraulic modeling as well as information from the TMDL regulatory program and the NPDES stormwater discharge permit.</p> <p><b>Measurable Goal:</b></p> <ul style="list-style-type: none"> <li>• Continue to make progress in the implementation of the CSMP.</li> </ul>	<p>Track the number, type and watershed location of projects that are completed.</p>

## SWMP Element #8

### Structural Stormwater Controls Operations and Maintenance

NPDES permit requirements are listed below, followed by Fairview’s relevant BMPs that address the permit requirement. In some cases, language for the listed permit requirements has been condensed. Applicable provisions are outlined under Schedule A.4.h. See **Table 4-8** for the City of Fairview’s BMPs that address the requirements that are listed below.

SWMP Element #8: Structural Stormwater Controls Operations and Maintenance		
Schedule A.4.h Permit Requirement	Applicable BMPs	
	Inspect and Maintain Public Storm Facilities	Private Water quality Facilities Inspection and Maintenance
<p>i. By <b>January 1, 2013</b> the permittee must inventory and map stormwater structural facilities and controls and implement a program to verify that structural facilities are inspected, operated and maintained for effective pollutant removal, infiltration and/or flow control. At a minimum, the program must include the following: 1) Legal authority to inspect and require effective operation and maintenance; 2) A program to inventory and map public and private stormwater treatment facilities as provided under Schedule A.4.h.ii.; and, 3) Public and private stormwater facility inspection and maintenance requirements to ensure proper operation for stormwater facilities that have been inventoried and mapped as provided under Schedule A.4.h.ii.</p>	■	■
<p>ii. As part of the Stormwater Structural Facilities and Controls Inspection and Maintenance program, co-permittees must develop and implement a strategy that guides the long-term maintenance and management of all co-permittee-owned and identified privately-owned stormwater structural facilities and controls. At a minimum, the strategy must describe the following:</p> <ol style="list-style-type: none"> <li>1. Co-permittee-owned or operated stormwater quality facilities: a. Inventory and mapping process; b. Inspection and maintenance schedule; c. Inspection, operation and maintenance criteria and priorities; d. Description of inspector type and staff position or title; and, e. Inspection and maintenance tracking mechanisms.</li> <li>2. Privately-owned or operated stormwater quality facilities. a. Procedures for and types of stormwater facilities that will be inventoried and mapped, including the rationale and criteria used; b. Inspection criteria, rationale, priorities, frequency and procedures for inspection of private stormwater facilities that have been inventoried and mapped; c. Required training or qualifications to inspect private stormwater facilities; d. Reporting requirements; and, e. Inspection and maintenance tracking mechanism.</li> </ol>	■	■

**TABLE 4-8 – Structural Stormwater Facilities Operations and Maintenance BMPs**

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>NPDES Permit Requirement – (i).</b> By <b>January 1, 2013</b> the permittee must inventory and map stormwater structural facilities and controls and implement a program to verify that structural facilities are inspected, operated and maintained for effective pollutant removal, infiltration and/or flow control. At a minimum, the program must include the following: 1. Legal authority to inspect and require effective operation and maintenance; 2. A program to inventory and map public and private stormwater treatment facilities as provided under Schedule A.4.h.ii.; and, 3. Public and private stormwater facility inspection and maintenance requirements to ensure proper operation for stormwater facilities that have been inventoried and mapped as provided under Schedule A.4.h.ii</p> <p><b>NPDES Permit Requirement – (ii)</b> As part of the Stormwater Structural Facilities and Controls Inspection and Maintenance program, co-permittees must develop and implement a strategy that guides the long-term maintenance and management of all co-permittee-owned and identified privately-owned stormwater structural facilities and controls. At a minimum, the strategy must describe the following:</p> <ol style="list-style-type: none"> <li>1. Co-permittee-owned or operated stormwater quality facilities...(see Schedule A.h.ii.1.)</li> <li>2. Privately-owned or operated stormwater quality facilities...(see Schedule A.h.ii.2)</li> </ol>		
<p><b>Inspect and Maintain Public Storm Facilities</b></p>	<p>Perform inspection and required maintenance as stated in the O&amp;M Plan—clean catch basins and storm pipe, sedimentation manholes, channels and stormwater detention basins in areas where sediment and/or debris tend to accumulate.</p> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Inspect 50 percent of detention lines, ponds, swales and outfalls.</li> <li>• Inspect natural stream channels from bridge and road crossing.</li> <li>• Clean catch basins and inspect adjacent pipes in one third of the City annually.</li> <li>• Clean all water quality manholes (5).</li> <li>• Update maps of City Structural Stormwater Facilities.</li> </ul>	<p>Track facilities inspected and maintained.</p> <p>Track number of catch basins cleaned.</p> <p>Estimate quantity of sediment removed from catchbasins and water quality manholes.</p>

City of Fairview BMP Name	BMP Implementation	Tracking Measures
<p><b>Private Water Quality Facilities Inspection and Maintenance</b></p>	<p>Require plans conforming to the requirements of City of Fairview Standard Specifications for Public Works Construction and City of Portland Stormwater Management Manual at the time of permitting for stormwater facilities related to new private development and redevelopment/retrofitting. Include recording of operations and maintenance plans for stormwater quality facilities.</p> <p><b>Measurable Goals:</b></p> <ul style="list-style-type: none"> <li>• Ensure new private stormwater facility plans conform to City requirements.</li> <li>• Inspect new facilities for conformance to approved O&amp;M plans.</li> </ul>	<p>Track number of inspections conducted and inspection results</p>