



**THE CITY OF EDGEWOOD**  
**STORMWATER MANAGEMENT PROGRAM**  
(March 2009 DRAFT)



**Prepared By - Department of Public Works**

**City of Edgewood, WA 98372**

**For use in the NPDES Phase II implementation**

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

# TABLE OF CONTENTS

<b>Title</b>	<b>Page No.</b>
Introduction: .....	1
Section 1: Public Education and Outreach.....	<del>22</del>
Section 2: Public Involvement and Participation .....	<del>33</del>
Section 3: Illicit Discharge Detection and Elimination (IDD&E) .....	<del>44</del>
Section 4: Controlling Runoff from New Development, Redevelopment and Construction Sites .....	<del>88</del>
Section 5: Pollution Prevention and Operation and Maintenance for Municipal Operations .....	<del>1212</del>
Section 6: Compliance With Total Maximum Daily Load Requirements ..	<del>1516</del>
Section 7: Monitoring .....	<del>1616</del>
Section 8: Reporting Requirements .....	<del>1717</del>

# THE CITY OF EDGEWOOD

## STORMWATER MANAGEMENT PROGRAM

(03/20/09 DRAFT)

### **Introduction:**

This document has been prepared to meet the requirements of the National Pollutant Discharge Elimination System (NPDES) and State of Washington Water Pollution Control Law requirements for small cities and towns in Western Washington. The City of Edgewood is entering into Phase II of the Municipal Stormwater Permit (Permit) that calls for development of a Stormwater Management Program (SWMP or Program).

The City's SWMP is designed to reduce the discharge of pollutants from the City's Small Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable (MEP), meet Washington State's All Known and Reasonable Treatment (AKART) requirements, and protect water quality. This goal is accomplished by the inclusion of all Permit SWMP components and implementation schedules in the City's Program.

This document can be used in conjunction with background information compiled in the 1997 Surface Water Management Plan by Kato & Warren, Inc.

The major components of the City's Program are:

1. An adopted current Stormwater Management Plan and regulations Manual.
2. Identification of actual and potential point and non-point pollutant sources. This is known as Illicit Discharge Detection and Elimination (IDDE).
3. Establish an on-going review, permitting and monitoring process for new and redevelopment activities within the City. The goal is to control water quality associated with construction surface water runoff. (Part of ESC)
4. Development of record keeping/tracking system for industrial/commercial, and residential connections to the City's MS4. (Part of IDDE)
5. Identify areas of existing or future problem discharges to/from the MS4. (Part of IDDE)
6. Establish a set of corrective measures as well as preventative maintenance activities to deal with problem areas. Prioritize, budget and implement an action plan for City's MS4 that address water quality issues. (O&M Pollution Prevention)
7. Establish working relationships with adjacent agencies to foster inter-agency coordination where systems/waterways cross jurisdictional boundaries.
8. Conduct a number of public information/education and outreach activities dealing with surface water quality. These will bring the programs goals, objectives, and policies to the awareness of the City's residents.
9. Prepare yearly reports that outline the program activities and accomplishments for submittal to Department of Ecology and public posting.

Where the City is already implementing actions or activities called for in the Program, the City will continue those actions or activities irregardless of the schedule called for in the Permit.

As part of the implementation of the City's Program, the City will gather, track, maintain and use information on an on-going basis to evaluate the Program development, implementation, Permit compliance, and to set priorities. Beginning no later than January 1, 2009, the City began to track the cost (or estimated cost) of development and implementation of each component of the Program.

This Program will be updated at least annually for submittal with the City's Annual Report to Ecology.

### **Section 1: Public Education and Outreach**

The City's Program will include an education program aimed at residents, businesses, industries, elected officials, policy makers, planning staff and other employees of the City. The goal of the education program will be to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. The City's education program may be developed locally or regionally. The Pierce Conservation District has an ongoing arrangement with smaller local jurisdictions to handle many of the public education and outreach functions in conjunction with unincorporated portions of Pierce County. They have formed "Stream Teams" for various watersheds that in turn coordinate staff and volunteer efforts to maintain and monitor stream ecology. The City may utilize the services of the Pierce Conservation District in a similar manner.

The City will take the following actions and conduct the following activities:

a. Education and Outreach Program:

No later than February 16, 2009, the City will continue to provide an education and outreach program for the area served by its Municipal Separate Storm Sewer System (MS4). The outreach program will be designed to achieve measurable improvements in the target audience's understanding of the problem and what they can do to solve it.

Education and outreach efforts will be prioritized to target the following audiences and subject areas:

i. General public

- General impacts of stormwater flows into surface waters.
- Impacts from impervious surfaces.
- Source control Best Management Practices (BMPs) and environmental stewardship actions and opportunities in the areas of pet waste, vehicle care, landscaping maintenance and buffers.

ii. General public, businesses, including home-based and mobile businesses

- BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials.
- Impacts of illicit discharges and how to report them.

iii. Homeowners, landscapers and property managers

- Yard care techniques protective of water quality.
- BMPs for use and storage of pesticides and fertilizers.
- BMPs for carpet cleaning and auto repair and maintenance.
- Low Impact Development (LID) techniques, including site design, pervious paving, retention of forests and mature trees.
- Landscape planting schemes designed with primarily native plant species that minimize the need for supplemental watering during dry seasons.
- Stormwater pond maintenance.

iv. Engineers, contractors, developers, review staff and land use planners

- Technical standards for stormwater site development and erosion control plans.
- Low Impact Development techniques, including site design, pervious paving, roof gardens, rain gardens, use of native plants in landscaping, retention of forest understory and mature trees.
- Stormwater treatment and flow control BMPs, their proper design, application, maintenance & operation (M&O).

b. Measurement:

The City will measure the understanding and adoption of the targeted behaviors among the targeted audiences.

One measure might be the total number of people attending public workshops. Another measure could be the formation of a Stream Team for an affected watershed and the number of organized visits/projects initiated by the Stream Team.

The resulting measurements will be used to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors.

c. Tracking:

The City will track and maintain records of public education and outreach activities. This could be augmented under a contract with the Pierce Conservation District.

## **Section 2: Public Involvement and Participation**

The Program will include ongoing opportunities for public involvement through advisory councils, watershed committees, participation in developing rate-structures, stewardship programs, environmental activities or other similar activities. The City will comply with applicable State and local public notice requirements when developing its Program.

The City will take the following actions and conduct the following activities:

a. Opportunities for Public Participation:

The City will continue to create opportunities for the public to participate in the decision-making processes involving the development, implementation

and update of the City's entire Program. The Pierce Conservation District may be contracted to perform some of or the entire public involvement function. The City will develop and implement a process for consideration of public comments on its Program.

b. Availability of Documents:

The City will make its Program, the annual report to DOE, and all other submittals required by the Permit, available to the public. The annual report, and SWMP that was submitted with the latest annual report, will be posted on the City's website.

**Section 3: Illicit Discharge Detection and Elimination (IDDE)**

The Program will include an ongoing program to detect and remove illicit connections, discharges as defined in 40 CFR 122.26(b)(2), and improper disposal, including any spills not under the purview of another responding authority, into the municipal separate storm sewers owned or operated by the City. The City will fully implement an ongoing illicit discharge detection and elimination program no later than August 19, 2011.

The City will take the following actions and conduct the following activities:

a. Development of MS4 Map:

A municipal storm sewer system map utilizing GIS mapping software will be developed no later than February 16, 2011. The municipal storm sewer system map will be periodically updated and will include the following information:

- i. The location of all known municipal separate storm sewer outfalls and receiving waters and structural stormwater BMPs owned, operated, or maintained by the City. The City will map the attributes listed below for all storm sewer outfalls with a 24-inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems:
  - Tributary conveyance pipes and inlet structures (indicate type, material, and size where known).
  - Associated drainage areas.
  - Land use.
- ii. The City will initiate a program to develop and maintain a map of all connections to the municipal separate storm sewer authorized or allowed by the City after February 16, 2007. The City is contracting with Pierce County GIS services office to accomplish this effort.
- iii. Geographic areas served by the City's MS4 that do not discharge stormwater to surface waters. These will be limited to areas with infiltration/retention facilities or natural depressions with pervious soils.
- iv. The City will make available to Ecology, upon request, the municipal storm sewer system map depicting the information required in i. through iii. above.
- vi. Upon request, and to the extent appropriate, the City will provide mapping information to co-Permittees and secondary Permittees.

b. IDDE Ordinance:

The City will develop and implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illegal discharges, and/or dumping into the City's municipal separate storm sewer system to the maximum extent allowable under State and Federal law. The ordinance or other regulatory mechanism will be adopted no later than August 16, 2009.

- i. The regulatory mechanism does not need to prohibit the following categories of non-stormwater discharges:
  - Diverted stream flows.
  - Rising ground waters.
  - Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)).
  - Uncontaminated pumped ground water.
  - Foundation drains.
  - Air conditioning condensation.
  - Irrigation water from agricultural sources that is commingled with urban stormwater.
  - Springs.
  - Water from crawl space pumps.
  - Footing drains.
  - Flows from riparian habitats and wetlands.
  - Non-stormwater discharges covered by another Permit.
  - Discharges from emergency fire fighting activities.
- ii. The regulatory mechanism will prohibit the following categories of non-stormwater discharges unless the stated conditions are met:
  - Discharges from potable water sources, including water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water (Mt. View-Edgewood water not chlorinated). Planned discharges will be de-chlorinated to a concentration of 0.1 ppm or less, pH-adjusted, if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4.
  - Discharges from lawn watering and other irrigation runoff. These will be minimized through, at a minimum, public education activities (see Section 1) and water conservation efforts.
  - Chlorinated swimming pool discharges. The discharges will be dechlorinated to a concentration of 0.1 ppm or less, pH-adjusted and reoxygenized if necessary, volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4.
  - Swimming pool cleaning wastewater and filter backwash water will not be discharged to the MS4 under any circumstances.

- Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents. The City will reduce these discharges through, at a minimum, public education activities (see section 1) and/or water conservation efforts. To avoid washing pollutants into the MS4, the City must minimize the amount of street wash and dust control water used. At active construction sites, street sweeping must be performed prior to washing the street.
  - Other non-stormwater discharges. The discharges will be in compliance with the requirements of the stormwater pollution prevention plan reviewed by the City, which addresses control of construction site de-watering discharges.
- iii. The City's SWMP will, at a minimum, address each category in ii above in accordance with the conditions stated therein.
  - iv. The SWMP will further address any category of discharges in i or ii above if the discharges are identified as significant sources of pollutants to waters of the State.
  - v. The ordinance or other regulatory mechanism will include escalating enforcement procedures and actions.
  - vi. The City will develop an enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism.

c. Ongoing IDDE Program:

The City will develop and implement an ongoing program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping into the City's municipal separate storm sewer system. The program will be fully implemented no later than August 19, 2011 and will include:

- i. Procedures for locating priority areas likely to have illicit discharges, including at a minimum: evaluating land uses and associated business/industrial activities present; areas where complaints have been registered in the past; and areas with storage of large quantities of materials that could result in spills.
- ii. Field assessment activities, including visual inspection of priority outfalls identified in i, above, during dry weather and for the purposes of verifying outfall locations, identifying previously unknown outfalls, and detecting illicit discharges.
  - Receiving waters will be prioritized for visual inspection no later than three years from February 16, 2007, with field assessments of three high priority water bodies made no later than February 16, 2011. Field assessments on at least one high priority water body will be made each year thereafter.
  - Screening for illicit connections will be conducted using: "*Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*", Center for

Watershed Protection, October 2004, or another methodology of comparable effectiveness.

- iii. Adopt procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges found by or reported to the City. Procedures will include detailed instructions for evaluating whether the discharge must be immediately contained and steps to be taken for containment of the discharge.

Compliance with this provision will be achieved by investigating (or referring to the appropriate agency) within 7 days, on average, any complaints, reports or monitoring information that indicates a potential illicit discharge, spill, or illegal dumping; and immediately investigating (or referring) problems and violations determined to be emergencies or otherwise judged to be urgent or severe.

- iv. Procedures for tracing the source of an illicit discharge will include visual inspections, and when necessary, opening manholes, using mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures.
- v. Procedures for removing the source of the discharge may include notification of appropriate authorities, notification of the property owner, technical assistance for eliminating the discharge, follow-up inspections, and escalating enforcement and legal actions if the discharge is not eliminated.

Compliance with this provision will be achieved by initiating an investigation within 21 days of a report or discovery of a suspected illicit connection to determine:

- The source of the connection
- The nature and volume of discharge through the connection,
- The party or parties responsible for the connection

Upon confirmation of the illicit nature of a storm drain connection, termination of the connection will be verified within 180 days, using enforcement authority as needed.

d. Public Information:

The City will inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

- i. No later than August 19, 2011, the City will distribute appropriate information to target audiences identified pursuant to Section 1.
- ii. The City has publicly listed and publicized a hotline or other local telephone number for public reporting of spills and other illicit discharges. The City will keep a record of calls received and follow-up actions taken in accordance with Section 3.c.ii. through v. above; and will include a summary in the annual report (see section S9 of the City's Permit, *Reporting and Record Keeping Requirements*).

e. Program Evaluation and Assessment:

The City will adopt and implement procedures for program evaluation and assessment, including tracking the number and type of spills or illicit discharges identified; inspections made; and any feedback received from public education efforts. A summary of this information will be included in the City's annual report (see section S9 of the City's Permit, *Reporting and Recordkeeping Requirements*).

f. Training:

The City will provide appropriate training for municipal field staff on the identification and reporting of illicit discharges into MS4s.

i. No later than August 16, 2009, the City will ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting illicit discharges, including spills, improper disposal and illicit connections are trained to conduct these activities. Follow-up training will be provided as needed to address changes in procedures, techniques or requirements. The City will document and maintain records of the training provided and the staff trained.

ii. No later than February 16, 2010, an ongoing training program will be developed and implemented for all municipal field staff, which, as part of their normal job responsibilities, might come into contact with or otherwise observe an illicit discharge or illicit connection to the storm sewer system will be trained on the identification of an illicit discharge/connection, and on the proper procedures for reporting and responding to the illicit discharge/connection.

Follow-up training will be provided as needed to address changes in procedures, techniques or requirements. The City will document and maintain records of the training provided and the staff trained.

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

The City will develop, implement, and enforce a program to reduce pollutants in stormwater runoff to its MS4 from new development, redevelopment and construction site activities. This program will be applied to all sites that disturb a land area 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale. The program will apply to private and public development, including roads. The "Technical Thresholds" in Appendix 1 of the City's Permit will be applied to all sites 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale.

The City will take the following actions and conduct the following activities:

a. Ordinance:

The program will include an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site

projects. Pursuant to S5.A.2. of the City's Permit, in adopting this ordinance or other regulatory mechanism, existing City requirements to apply stormwater controls at smaller sites, or at lower thresholds than required pursuant to Section 4, will be retained. The ordinance or other enforceable mechanism will be in place no later than August 16, 2009. The ordinance or other enforceable mechanism will include, at a minimum:

- i. The Minimum Requirements, technical thresholds, and definitions in Appendix 1 of the City's Permit or an equivalent approved by Ecology under the NPDES Phase I Municipal Stormwater Permit, for new development, redevelopment, and construction sites. Adjustment and variance criteria equivalent to those in Appendix 1 of the City's Permit will be included. More stringent requirements may be used, and/or certain requirements may be tailored to local circumstances through the use of basin plans or other similar water quality and quantity planning efforts. Such local requirements will provide equal protection of receiving waters and equal levels of pollutant control to those provided in Appendix 1 of the City's Permit.
- ii. A site planning process and BMP selection and design criteria that, when used to implement the minimum requirements in Appendix 1 of the City's Permit (or equivalent approved by Ecology under the Phase I Permit) will protect water quality, reduce the discharge of pollutants to the maximum extent practicable and satisfy the State requirement under Chapter 90.48 RCW to apply all known, available and reasonable methods of prevention, control and treatment (AKART) prior to discharge.  

The City chooses to use the site planning process and BMP selection and design criteria in the 2005 *Stormwater Management Manual for Western Washington*, as modified to be more restrictive, as its sole documentation to meet this requirement.
- iii. The legal authority, through the approval process for new development, to inspect private stormwater facilities that discharge to the City's MS4.
- iv. Provisions to allow non-structural preventive actions and source reduction approaches such as Low Impact Development Techniques (LID), measures to minimize the creation of impervious surfaces and measures to minimize the disturbance of native soils and vegetation. Provisions for LID should take into account site conditions, access and long term maintenance.
- v. The City chooses to not allow construction sites to apply the "Erosivity Waiver" in Appendix 1 of the City's Permit, Minimum Requirement #2.

b. Permitting Process:

The program will include a permitting process with plan review, inspection and enforcement capability to meet the standards listed in (i) through (iv) below, for both private and public projects, using qualified personnel (as defined in *Definitions and Acronyms*). At a minimum, this program will be applied to all sites that disturb a land area 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale. The process will be in place no later than August 16, 2009.

- i. The City reviews all stormwater site plans for proposed development activities.
- ii. The City inspects prior to clearing and construction, all known development sites that have a high potential for sediment transport as determined through plan review based on definitions and requirements in Appendix 7 of the City's Permit, *Identifying Construction Site Sediment Transport Potential*.
- iii. The City inspects all known permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. Enforce as necessary based on the inspection.
- iv. Inspect all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater controls such as stormwater facilities and structural BMPs. Also, verify a maintenance plan is completed and responsibility for maintenance is assigned. Enforce as necessary based on the inspection.
- v. Compliance with the inspection requirements in ii, iii and iv above will be determined by the presence and records of an established inspection program designed to inspect all sites and achieving at least 95% of scheduled inspections.
- vi. An enforcement strategy will be developed and implemented to respond to issues of non-compliance.

c. Long-term Operation and Maintenance:

The program will include provisions to verify adequate long-term operation and maintenance (O&M) of post-construction stormwater facilities and BMPs that are permitted and constructed pursuant to (b) above. These provisions will be in place no later than August 16, 2009 and will include:

- i. Adoption of an ordinance or other enforceable mechanism that clearly identifies the party responsible for maintenance, requires inspection of facilities in accordance with the requirements in (ii) through (iv) below, and establishes enforcement procedures.
- ii. The City will establish maintenance standards that are as protective or more protective of facility function than those specified in Chapter 4 of Volume V of the 2005 *Stormwater Management Manual for Western Washington*. For facilities which do not have

maintenance standards, the City will develop a maintenance standard.

- (1) The purpose of the maintenance standard is to determine if maintenance is required. The maintenance standard is not a measure of the facilities required condition at all times between inspections. Exceeding the maintenance standard between the period of inspections is not a Permit violation.
- (2) Unless there are circumstances beyond the City's control, when an inspection identifies an exceedance of the maintenance standard, maintenance will be performed:
  - Within 1 year for wet pool facilities and retention/detention ponds.
  - Within 6 months for typical maintenance.
  - Within 9 months for maintenance requiring re-vegetation.
  - Within 2 years for maintenance that requires capital construction of less than \$25,000.

Circumstances beyond the City's control include denial or delay of access by property owners, denial or delay of necessary permit approvals, and unexpected reallocations of maintenance staff to perform emergency work. For each exceedance of the required timeframe, the City must document the circumstances and how they were beyond their control.

- iii. Annual inspections of all stormwater treatment and flow control facilities (other than catch basins) permitted by the City according to Section 4.b. unless there are maintenance records to justify a different frequency.

Reducing the inspection frequency will be based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the City may substitute written statements to document a specific less frequent inspection schedule. Written statements will be based on actual inspection and maintenance experience and will be certified in accordance with G19 of the City's Permit, *Certification and Signature*.

- iv. Inspections of all new flow control and water quality treatment facilities, including catch basins, for new residential developments that are a part of a larger common plan of development or sale, every 6 months during the period of heaviest house construction (i.e., 1 to 2 years following subdivision approval) to identify maintenance needs and enforce compliance with maintenance standards as needed.

d. Record Keeping:

The City's program includes a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance

inspections and maintenance activities will be maintained. The City will keep records of all projects disturbing more than one acre, and all projects of any size that are part of a common plan of development or sale that is greater than one acre that are approved after February 16, 2007.

e. Availability of NOIs:

The City will make available copies of the "Notice of Intent for Construction Activity" and copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment. The City will continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.

f. Training:

No later than August 16, 2009, the City will verify that all staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Follow-up training will be provided as needed to address changes in procedures, techniques or staffing. The City will document and maintain records of the training provided and the staff trained.

## **Section 5: Pollution Prevention and Operation and Maintenance for Municipal Operations**

By February 16, 2010, the City will develop and implement an operations and maintenance (O&M) program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

The City will take the following actions and conduct the following activities:

a. Maintenance Standards:

The City will establish maintenance standards that are as protective, or more protective, of facility function than those specified in Chapter 4 of Volume V of the 2005 *Stormwater Management Manual for Western Washington*. For facilities which do not have maintenance standards, the City will develop a maintenance standard.

- i. The purpose of the maintenance standard is to determine if maintenance is required. The maintenance standard is not a measure of the facilities required condition at all times between inspections. Exceeding the maintenance standard between inspections and/or maintenance is not a Permit violation.
- ii. Unless there are circumstances beyond the City's control, when an inspection identifies an exceedance of the maintenance standard, maintenance will be performed:
  - Within 1 year for wet pool facilities and retention/detention ponds.
  - Within 6 months for typical maintenance.
  - Within 9 months for maintenance requiring re-vegetation.
  - Within 2 years for maintenance that requires capital construction of less than \$25,000.

Circumstances beyond the City's control include denial or delay of access by property owners, denial or delay of necessary permit approvals, and unexpected reallocations of maintenance staff to perform emergency work. For each exceedance of the required timeframe, the City will document the circumstances and how they were beyond their control.

b. General Inspections:

Annual inspection of all municipally owned or operated permanent stormwater treatment and flow control facilities, other than catch basins, and taking appropriate maintenance actions in accordance with the adopted maintenance standards. The annual inspection requirement may be reduced based on inspection records.

Reducing the inspection frequency will be based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the City may substitute written statements to document a specific less frequent inspection schedule. Written statements will be based on actual inspection and maintenance experience and will be certified in accordance with G19 of the City's Permit, *Certification and Signature*.

c. Post-Storm Inspections:

Spot checks of potentially damaged permanent treatment and flow control facilities (other than catch basins) after major (greater than 24-hour-10-year recurrence interval rainfall) storm events. If spot checks indicate widespread damage/maintenance needs, inspect all stormwater treatment and flow control facilities that may be affected. Conduct repairs or take appropriate maintenance action in accordance with maintenance standards established above, based on the results of the inspections.

d. Catch Basins and Inlet Inspections:

Inspection of all catch basins and inlets owned or operated by the City at least once before the end of the City's Permit term. Clean catch basins if the inspection indicates cleaning is needed to comply with maintenance standards established in the 2005 *Stormwater Management Manual for Western Washington*. Decant water will be disposed of in accordance with Appendix 6 of the City's Permit, *Street Waste Disposal*.

Inspections may be conducted on a "circuit basis" whereby a sampling of catch basins and inlets within each circuit is inspected to identify maintenance needs. Include in the sampling an inspection of the catch basin immediately upstream of any system outfall. Clean all catch basins within a given circuit at one time if the inspection sampling indicates cleaning is needed to comply with maintenance standards established under Section 4.c., above.

As an alternative to inspecting catch basins on a “circuit basis,” the City may inspect all catch basins, and clean only catch basins where cleaning is needed to comply with maintenance standards.

e. Compliance:

Compliance with the inspection requirements in a, b, c and d above will be determined by the presence of an established inspection program designed to inspect all sites and achieving inspection of 95% of all sites.

f. Reduction of Stormwater Impacts:

The City goals in this area include establishment and implementation of practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways owned or maintained by the City, and road maintenance activities conducted by the City. The City and Pierce County (whose forces we contract for roads maintenance) were included in the Regional Road Maintenance ESA Program Guidelines (Regional Program) that describes physical, structural, and managerial best management practices designed so that when they are used, singularly or in combination, they reduce road maintenance activities’ impacts on water and habitat. The following activities will be addressed:

- Pipe cleaning
- Cleaning of culverts that convey stormwater in ditch systems
- Ditch maintenance
- Street cleaning
- Road repair and resurfacing, including pavement grinding
- Snow and ice control
- Utility installation
- Pavement striping maintenance
- Maintaining roadside areas, including vegetation management
- Dust control

g. Policies and Procedures:

Establishment and implementation of policies and procedures to reduce pollutants in discharges from all lands owned or maintained by the City and subject to the City’s Permit, including but not limited to: parks, open space, road right-of-way, maintenance yards, and stormwater treatment and flow control facilities. These policies and procedures will address, but are not limited to:

- Application of fertilizer, pesticides, and herbicides including the development of nutrient management and integrated pest management plans.
- Sediment and erosion control.
- Landscape maintenance and vegetation disposal.

- Trash management.
- Building exterior cleaning and maintenance.

h. Training:

Develop and implement an on-going training program for employees of the City whose construction, operations or maintenance job functions may impact stormwater quality. Pierce County Roads Maintenance contracts for the majority of the City road functions already trains its employees in the policies and procedures outlined in the Regional Road Maintenance ESA Program Guidelines (Regional Program). The training program will address the importance of protecting water quality, the requirements of the City's Permit, operation and maintenance standards, inspection procedures, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns, including potential illicit discharges. Follow-up training will be provided as needed to address changes in procedures, techniques or requirements. The City will document and maintain records of training provided.

i. Special Facility Requirements:

Development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City in areas subject to the City's Permit that are not required to have coverage under the Industrial Stormwater General Permit. Implementation of non-structural BMPs will begin immediately after the pollution prevention plan is developed. A schedule for implementation of structural BMPs will be included in the SWPPP. Generic SWPPPs that can be applied at multiple sites may be used to comply with this requirement. The SWPPP will include periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMP.

j. Record Keeping:

Records of inspections and maintenance or repair activities conducted by the City will be maintained in accordance with S9 of the City's Permit, *Reporting Requirements*.

### **Section 6: Compliance With Total Maximum Daily Load Requirements**

In accordance with this section of the Municipal Stormwater Permit, the City will not be required to show compliance because there is no applicable EPA approved TMDL listed in Appendix 2 to the permit. The City will include such monitoring and record keeping provisions for future TMDLs that EPA may approve in the future. This will be accomplished through the permit modification process established by DOE.

## **Section 7: Monitoring**

The City of Edgewood is not required to conduct water sampling or testing to comply with TMDLs, since no EPA approved sites have been listed. We will institute any sampling or testing required to characterize any suspected or confirmed illicit discharges identified under Section 3 IDDE.

We will produce and file annual reports to DOE that will include a description of any stormwater monitoring or studies conducted during the reporting period. If stormwater monitoring was conducted, or if studies or investigations conducted by other entities were reported to the City, a brief description of the type of information gathered or received shall be included covering the time period(s) the information was received.

An assessment of the appropriateness of the BMPs identified by the City for each component of the SWMP; and any changes made, or anticipated to be made, to the BMPs that were previously selected to implement the SWMP, and why.

### **Preparation for future, long-term monitoring -**

The City will prepare to participate in the implementation of a comprehensive long-term monitoring program. The monitoring program will include two components: stormwater monitoring and targeted Stormwater Management Program (SWMP) effectiveness monitoring.

#### **Stormwater monitoring**

Stormwater monitoring is intended to characterize stormwater runoff quantity and quality at a limited number of locations in a manner that allows analysis of loadings and changes in conditions over time and land use across the basin.

Edgewood is a city having a population between 10,000 and 75,000 and as such we will identify two outfalls or conveyances where stormwater sampling could be conducted. One outfall will represent commercial land use and the second will represent high-density residential land use.

The City will document how these two sites are selected and justify the basin size, based on comparison of the times of concentration with rainfall durations for typical seasonal storms. Each site shall represent a discernible type of land use, but not be a single industrial or commercial complex. Ideally, each site will represent a particular land use, no less than 80% of the area served by the outfall or conveyance will be classified as having that land use. The City may move upstream in the conveyance system to achieve the desired land use, or, if a primarily industrial or commercial area is not present, an area of mixed industrial and commercial land use may be selected.

#### **SWMP effectiveness monitoring**

Stormwater program effectiveness monitoring is targeted to improve stormwater management efforts by evaluating issues that significantly affect the success of, or confidence in, stormwater controls. The monitoring program can include long-term monitoring and short-term studies. The results of the monitoring program will be used to help the City adapt its stormwater management process and lead to refinements of the SWMP.

Edgewood will prepare to conduct monitoring to determine the effectiveness of the SWMP at controlling stormwater-related problems that are directly addressed by actions in the SWMP. This component of the monitoring program shall be designed to answer the following types of questions:

- How effective is a targeted action or narrow suite of actions?
- Is the SWMP achieving a targeted environmental outcome?

No later than December 31, 2010, the City will identify at least two suitable questions and select sites where monitoring will be conducted. This monitoring shall include analysis of discharged stormwater, sediment or receiving water for physical, chemical and/or biological characteristics.

For each question, the City will develop a monitoring plan containing the following elements:

- A statement of the question, an explanation of how and why the issue is significant to the City and a discussion of whether and how the results of the monitoring may be significant to other MS4s.
- A specific hypothesis about the issue or management actions that will be tested.
- Specific parameters or attributes to be measured.
- Expected modifications to management actions depending on the outcome of hypothesis testing.

Monitoring program reporting requirements

The fourth annual report shall:

Describe the status of identification of sites for stormwater monitoring.

Include a summary of proposed questions for the SWMP effectiveness monitoring and describe the status of developing the monitoring plan, including the proposed purpose, design, and methods.

## **Section 8: Reporting Requirements**

No later than March 31 of each year beginning in 2008, the City will submit an annual report. The reporting period for the first annual report will be from the effective date of this permit through December 31, 2007. The reporting period for all subsequent annual reports will be the previous calendar year.

Two printed copies and an electronic (PDF) copy of each document will be submitted to Ecology. All submittals shall be delivered to:

Department of Ecology Water Quality Program Municipal Stormwater  
Permits P.O. Box 47696 Olympia, WA 98504-7696

The City is required to keep all records related to our permit and the SWMP for at least five years. Except for the requirements of the annual reports described in this permit, records shall be submitted to Ecology only upon request,

The City will make all records related to this permit and the City's SWMP available to the public at reasonable times during business hours. The City will provide a copy of the most recent annual report to any individual or entity, upon request.

1. A reasonable charge may be assessed by the City for making photocopies of records.
2. The City may require reasonable advance notice of intent to review records related to this Permit.

The annual report for cities, towns, and counties

Each annual report will include the following:

1. A copy of the City's current Stormwater Management Program
2. Submittal of Appendix 3 – *Annual Report Form for Cities, Towns, and Counties*, which is intended to summarize City compliance with the conditions of its permit, including:
  - a. Status of implementation of each component of the SWMP in section S5 *Stormwater Management Program for Cities, Towns and Counties*.
  - b. An assessment of the City's progress in meeting the minimum performance standards established for each of the minimum control measures of the SWMP.
  - c. A description of activities being implemented to comply with each component of the SWMP, including the number and type of inspections, enforcement actions, public education and involvement activities, and illicit discharges detected and eliminated.
  - d. The City's SWMP implementation schedule and plans for meeting permit deadlines, and the status of SWMP implementation to date. If permit deadlines are not met, or may not be met in the future, include: reasons why, corrective steps taken and proposed, and expected dates that the deadlines will be met.
  - e. A summary of the City's evaluation of their SWMP.
  - f. If applicable, notice that the MS4 is relying on another governmental entity to satisfy any of the obligations under this permit.
  - g. Updated information from the prior annual report plus any new information received during the reporting period.
  - h. Certification and signature pursuant to G19.D, and notification of any changes to authorization pursuant to G19.C.

The City will include with the annual report, notification of any annexations, incorporations or jurisdictional boundary changes resulting in an increase or decrease in the City's geographic area of permit coverage during the reporting period, and implications for the SWMP.