



**CITY OF RENTON**

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**STORMWATER MANAGEMENT PROGRAM (SWMP)**

for the  
**National Pollutant Discharge Elimination System (NPDES)  
Phase II Permit**

**(March 31, 2008 Ecology Due Date)**

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## **Introduction**

*This document has been prepared to meet the City of Renton's Western Washington Phase II Municipal Stormwater Permit (Permit) requirement for development of a Stormwater Management Program (SWMP).*

*The City's SWMP is designed to reduce the discharge of pollutants from the City's Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable (MEP) to 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 SWMP.*

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

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

*This SWMP will be updated at least annually for submittal with the City's Annual Report to Ecology. The following document sections are arranged per the Permit requirements as laid out in **section S5.C**. This SWMP includes a description of each City program component per S5.C and additional actions implemented by the City as an extra to the Permit or as a response to compliance with Total Maximum Daily Load Requirements (TMDLs).*

The following SWMP is formatted with permit requirements in regular text type and italic text is how the City is addressing the permit requirements.

## **Section 1: Public Education and Outreach (S5.C.1)**

The City's SWMP includes 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 City will take the following actions and conduct the following activities:

### **Public Education and Outreach Program (S5.C.1.a)**

No later than February 16, 2009, the City will 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 BMPs and environmental stewardship actions and opportunities in the areas of pet waste, vehicle maintenance, landscaping and buffers.

*The City Surface Water Utility, Water Utility and Solid Waste Section each maintain a web page dedicated to providing information concerning each of the programs mentioned above. The web pages also include links to the Department of Ecology and King County web sites that provide additional information.*

*The City of Renton will be setting up additional storm-water website information related to impacts from impervious surface runoff. Currently, the City has in classroom presentations that are offered to 3<sup>rd</sup> grade classes and the majority of teachers take advantage of this educational opportunity. The highly interactive presentations help children understand the water cycle, nature of groundwater aquifers, how parents' actions can affect the health of the City's water resource (water quality), and provides kids ways they can help conserve and protect water resources.*

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.

*The City currently provides information to the general public and businesses about the Envirostars and Local Hazardous Waste Management Program (LHWMP). This program provides the public with general descriptions of how Renton and the LHWMP work cooperatively to protect natural resources and the environment. This program works to protect Renton's aquifer that directly benefits the City's Water Utility and provides clean water to residents and businesses. The City has allocated resources that protect water resources for the purpose of drinking water, wildlife habitat, and recreation. In addition, the LHWMP minimizes the risks to people and property presented by storage and use of hazardous chemicals by providing invaluable information to businesses and by collecting household hazardous wastes.*

*The City participates in WRIA 8 Salmon Recovery Council and the WRIA 9 forum involved in improving fish habitat water quality in response to the ESA listing for Chinook salmon.*

*The Renton Aquifer Protection Program includes land use restrictions in the Aquifer Protection Area, regulations that govern operating procedures for facilities located in the APA, public education, aquifer monitoring, and emergency response to chemical spills.*

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 techniques, including site design, pervious paving, retention of forests and mature trees.*
- *Stormwater pond maintenance.*

*The City currently has a natural yard care program that targets two neighborhoods each year where City staff conducts five workshops per neighborhood. This program targets alternative lawn care practices with emphasis on reducing or eliminating pesticides and efficient use of water for gardens. This program will be maintained as outlined in the Solid Waste Section work plan.*

*The City currently conducts a household hazardous waste reduction education program that annually provides hands on hazardous waste*

*reduction workshops to elementary school classes between grades 1 to 5. The goal of the workshop is to teach children how to identify hazardous waste, illustrate what happens to hazardous waste when it is not disposed of properly and provide strategies that reduce or eliminate the use of hazardous household products. The City plans on maintaining the current number of workshops as outlined in the Solid Waste Section work plan and since teachers are continuously encouraging City workers to educate children about.*

*The City holds workshops to teach residents how to compost yard waste using a backyard compost bin and compost food waste using worm bins. Over 1000 backyard and worm compost bins have been distributed to City residents and through the backyard composting program.*

*The City holds an event called Renton River Days every year in the summer whereby residents receive information staffed by City employees. This information includes demonstrations, brochures and handouts to the public concerning the aquifer protection program, hazardous waste management program, integrated pest management program, catch basin inserts for car washes and salmon recovery efforts in the City.*

*The City follows landscaping pesticide use according to the "Landscape Management Practices / Plan" that references City pesticides, insecticides, and fungicides management program and chemical usage information. Within this document is also a residential educational outreach program that would be targeted to frequent park users and high visitation sites by the public as well as outreaching and receiving comments from the public on relevant homeowner pest and chemical management concerns.*

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

- Technical standards for stormwater site and erosion control plans.
- Low Impact Development techniques, including site design, pervious paving, retention of forests and mature trees.
- Stormwater treatment and flow control BMPs.

*The City has a permit review process through Development Services that reviews erosion control plans, practices, and field applications. Standards must be met to control storm-water and erosion control onsite.*

*The City plans on continuing all these education and outreach efforts as well as planning future mailings to select businesses that affect both the aquifer protection program as well as receiving surface water bodies within the City of Renton.*

**Measurement (S5.C.1.b)**

*The City will measure the understanding and adoption of the targeted behaviors among the targeted audiences. The resulting measurements will be used to direct education and outreach resources more effectively, as well as to evaluate changes in adoption of the targeted behaviors. The City plans on conducting a survey to create an awareness from which to measure future improvements and to participate in a regional effort to find effective ways to track measurable improvements. The City plans on continuing to track it's education and outreach efforts by documenting if outreach efforts are working after discussions with outreach participants are conducted. The following is a **sample** hierarchy of effectiveness measures the City plans on recording after each discussion with business owners, classroom participants, and other outreach participants:*

EXAMPLE USE ONLY (TO BE MODIFIED PRIOR TO PERMIT DEADLINE FOR THIS TASK.

<i>Good</i>	<i>Documentation of education and outreach activities</i>	<i>Count the number of natural yard care brochures distributed.</i>
<i>Better</i>	<i>Knowledge and awareness</i>	<i>Determine the percentage of homeowners who know that misused and over applied pesticides and fertilizers pollute stormwater.</i>
<i>Best</i>	<i>Behavior change</i>	<i>Determine the percentage of homeowners or business owners who reduce their use of pesticides, harmful detergents, and fertilizers in response to City brochures.</i>

**Tracking (S5.C.1.c)**

*The City will track and maintain records of public education and outreach activities. The City currently tracks salmon in the Cedar River Watershed through the Salmon Watcher Program. The City of Renton along with other regional jurisdictions participates in the Salmon Watcher Program. This program is designed to solicit active participation of citizens within the community. Staff members meet several times a year to develop programs that will encourage the participation of citizen volunteers. Volunteers are*

*trained on how to identify, count and record salmon species as they spawn in local streams.*

## **Section 2: Public Involvement and Participation (S5.C.2)**

The SWMP 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 SWMP.

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

### **Opportunities for Public Participation (S5.C.2.a)**

No later than **February 16, 2008**, the City will create opportunities for the public to participate in the decision-making processes involving the development, implementation and update of the City's SWMP document for the NPDES Permit. *In addition, the City is currently updating it's entire Renton Surface Water Utility Master Plan (RSWMP) that will provide a more detailed surface water management plan. The RSWMP shall contain the City's future capital program, maintenance operations, financial impacts and FTE analyses, history, policies, coordination of planning process, drainage basin descriptions, regulatory requirements, current surface water program, future program needs, and recommendations. The City will develop and implement a process for consideration of public comments on its RSWMP and give the community the opportunity to comment on the RSWMP.*

*The City currently has a series of Council Committees comprised of residents and business owners in the City of Renton who participate by commenting and decision making processes. The City Council and Utilities Committee have budget and policy authority over all Surface Water Utility projects and programs. In addition, the City has public meetings to discuss projects and plans relevant to surface water issues. These meetings are open to the public and to public comments.*

*Renton plans on continually complying with the permit by including the following:*

- 1. Defining public involvement opportunities for each annual SWMP update and reporting process.*
- 2. Making the NPDES SWMP document and annual report available on the City website for public viewing.*
- 3. Continually updating the City NPDES SWMP document and summarizing annual activities within this document.*

**Availability of Documents (S5.C.2.b)**

The City will make its SWMP, the annual report required under S9.A of the City's Permit, and all other submittals required by the Permit, available to the public. The annual report and the previous year's SWMP document, will be posted on the City's website.

*The City has establish a website with the annual report and the past year's NPDES SWMP document available for public access. In addition, the City is providing the document electronically to Ecology.*

### **Section 3: Illicit Discharge Detection and Elimination (IDD&E) (S5.C.3)**

Within the Permit Section S5.C.3 the SWMP will include an ongoing program to detect and remove illicit connections and contaminated 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:

#### **Development of MS4 Map (S5.C.3.a)**

A municipal storm sewer system map 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 conveyances (indicate type, material, and size where known).
  - Associated drainage areas.
  - Land use.

*The City plans on continuing to update the storm system map to address data gaps and Permit conditions. Data will be corrected and or added to missing or questionable attribute and connectivity data. In addition, the City plans on addressing new storm system connection information that fills in missing data gaps by publishing a RFP to field map the City's storm system.*

- ii. *The City has initiated a program to develop and maintain a map of all connections to the municipal separate storm sewer authorized or allowed by the City. This program allows the City to better isolate and contain IDDE problems and spills. The City storm map is continually being updated to include new developments and identifying upstream tributary connections with missing or inaccurate information. In addition, new annexations will be included and planned into the City storm mapping with updates provided into each annual report.*

- iii. Geographic areas served by the City's MS4 that do not discharge stormwater to surface waters.
- 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.

*The City's storm system mapping is public information that is available in the City Hall Development Services help desk area. In addition, the City is working on providing storm system mapping information that would be accessible through the internet to the general public.*

### **IDD&E Ordinance (S5.C.3.b)**

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. A current IDDE ordinance has been in effect in the City of Renton and may meet the minimum permit timeline for adoption of August 16, 2009 depending on what the existing ordinance covers within its language. Review of existing ordinances and codes will be accomplished well before the August 2009 permit deadline in order to ensure all permit conditions are met.

*Currently, the City runs a telephone dispatch service through the police department that allows residents to call in and report a spill or other storm drainage problem, even after hours. The dispatcher relays the message to the respective City department and division responsible for response to that call. The City tracks the call and if there is a response to any actions necessary, or if enforcement is needed. In addition, the City has a published phone number and email that allows the public to post questions and problems through the City website.*

*The City plans on reviewing and updating IDDE codes to stay in compliance with the NPDES IDDE program. Steps the City plans on conducting include educating the public on IDDE and how public actions affect the downstream conditions, developing an outfall screening program prior to the end of the first permit term, training staff on IDDE problems and how to resolve the problems, and summarizing what steps the City is implementing in each annual report and SWMP document provided to Ecology.*

- i. It is understood that 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 City's 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. 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.
  - Dechlorinated 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 will not be discharged to the MS4.
  - 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.

*The City currently implements activities and programs associated with IDDE that complies with much of the program. The current compliance activities associated with the Permit requirements include:*

- *City currently has an IDDE program.*
- *The City has codes and standards that address illicit discharges and civil infractions.*
- *City maintains an up to date storm sewer map with maintenance and conversions of the mapping occurring. The City has a standard operating procedure for keeping the municipal separate storm sewer system map and inventory up-to-date. The map is updated with new facilities or corrected for inconsistencies based on field verification.*
- *The City has a hotline that allows citizens to call in with surface water complaints including illicit discharges, flooding, and other surface water related issues.*

*The City plans on reviewing current and future public education and outreach programs for minimizing pollutant discharges, creating IDDE training program, reviewing updated IDDE codes to comply with the Permit, tracking and reporting issues that arise throughout all City departments affecting IDDE.*

### **Ongoing IDD&E Program (S5.C.3.c)**

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. 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; including 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; including notification of appropriate authorities; notification of the property owner; technical assistance for eliminating the discharge; follow-up inspections; and escalating enforcement and legal actions if the discharge is not eliminated.

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, and the party 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.

*The City plans on reviewing and developing it's IDDE program including developing a written procedures program that includes immediate response, revising response roles to address spills immediately, field assessing, creating standard enforcement process and response, identification of illicit discharges, communicating to various stakeholders, configuring and deploying IDDE response system, tracking/resolving the system tie ins, reporting to proper personnel (internally and externally), coordinating with various permit and resource agencies, and summarizing actions/results to all stakeholders. Each incident should be immediately characterized accordingly into a response matrix that addresses all of the above IDDE components. The City plans on reviewing and further developing it's IDDE program by complying with the NPDES permit requirements.*

#### **Public Information (S5.C.3.d)**

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. No later than February 16, 2009, the City will publicly list and publicize 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*).

#### **Program Evaluation and Assessment (C5.C.3.e)**

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*).

#### **Training for Municipal Staff (S5.C.3.f)**

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.

*Currently the City has personnel trained in identifying, investigating, and cleaning up illicit discharges. The City's IDDE program shall be reviewed prior to August 16, 2009 to determine if the program complies with all requirements of the Permit. Any IDDE permit deficiencies will be identified with training in the procedures and techniques provided to personnel in order to comply with the Permit.*

- 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.

*The City currently has a training program that is assessed and planned during each employees' yearly performance review. The training review implements an ongoing employee training to more efficiently affect their abilities out in the field to assess storm-water maintenance issues which does not preclude the City's IDDE program. In the future, the City plans on attending and sending employees to additional NPDES training opportunities and relaying better implementation techniques to field assess sources of IDDE problems, construction related issues, and detecting/identifying sources of contamination. Field and in-house staff have been sent to get certification on erosion and sediment control techniques that further assists in controlling runoff. Last year the City sent field personnel and field management to NPDES training opportunities in Tacoma that was sponsored by the Washington Department of Ecology as well as by the AWC with developing personnel able to assess erosion control issues. These training opportunities, as well as other training opportunities by AWC and other non-profit organizations will enabled the City employees to enhance their knowledge base on IDDE, controlling runoff, ordinances, monitoring,*

*etc. In the past educational opportunities have been limited, but we expect more classes and seminars will be offered in the near future whereby personnel can better informed and educated.*

## **Section 4: Controlling Runoff from New Development, Redevelopment and Construction Sites (S5.C.4)**

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:*

### **Ordinance (S5.C.4.a)**

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 Permit an ordinance or other regulatory mechanism will be in place prior to August 16, 2009. Existing City requirements to apply stormwater controls at smaller sites, or at lower thresholds than required pursuant to Section 4, will be retained. In addition, existing City ordinances will remain in place that currently may meet or exceed the minimum Permit requirements. 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.

*The City is currently developing a stormwater manual that meets or exceeds the minimum requirements, thresholds and definitions of the City's Permit (Appendix 1) or an equivalent as approved by Ecology under the NPDES Phase I. The manual will ensure that all development over 1 acre have it's minimum requirements met per section S5.C.4.a of the Phase II NPDES permit. The City is also*

*considering and developing additional stormwater guidelines that would provide guidance to developments, redevelopments and construction sites that disturb less than 1 acre of a development plan. The City will also review it's current ordinance and fully develop a replacement ordinance if further modifications are necessary. The ordinance will be in place prior to August 16, 2009.*

- 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 will document how the criteria and requirements will protect water quality, reduce the discharge of pollutants to the maximum extent practicable, and satisfy State AKART requirements.

*The City is currently reviewing and developing a stormwater manual that is based upon both the "2005 Stormwater Management Manual for Western Washington", and the current "King County Stormwater Manual". The City also plans on adding in additional stormwater requirements that affect developments less than 1 acre, floodplain requirements, and other additional factors that may adversely affect stormwater.*

- iii. The legal authority, through the approval process for new development, to inspect private stormwater facilities that discharge to the City's MS4.

*At the minimum, the City shall require by ordinance new, private stormwater facilities to grant permission to the City for inspection purposes.*

- 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.

*Currently, the City does not provide any incentives for LID on stormwater quality runoff, nor does the City disallow the use of LID techniques within areas not subject to contamination of it's groundwater protection areas. Within the City's future stormwater manual, LID shall be addressed or implemented, depending on the development area location. Location determines if uses of infiltration, rain gardens, etc. are allowable direct discharges into*

*the City's groundwater aquifer that is its main source of drinking water supply.*

- v. If the City chooses to allow construction sites to apply the "Erosivity Waiver" in Appendix 1 of the City's Permit, Minimum Requirement #2, the ordinance or regulatory mechanism will include appropriate, escalating enforcement sanctions for construction sites that provide notice to the City of their intention to apply the waiver but do not meet the requirements (including timeframe restrictions, limits on activities that result in non-stormwater discharges, and implementation of appropriate BMPs to prevent violations of water quality standards) to qualify for the waiver.

*The Erosivity Waiver shall be reviewed during the City's review, selection, and its adoption of the new Stormwater Manual.*

#### **Permitting Process (S5.C.4.b)**

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. Except as provided in Section 4.b.vii. below, review of all stormwater site plans for proposed development activities.

*The City currently has a review process for all of its stormwater site plans for proposed development activities. The clearing and grading code addresses construction site temporary erosion and sedimentation control. In addition, the construction of permanent storm flow control and water quality treatment facilities are reviewed by the City during the permit review process and construction activities. Monitoring is recorded by City inspectors. The City Surface Water Utility Section provides drainage review of new developments and redeveloped site plans to ensure compliance with all sections of the City adopted 1990 King County Surface Water Design Manual. In addition, the City currently uses SEPA to condition projects to follow the 2005 KCSWDM or the Department of Ecology's Stormwater Management Manual for Western Washington on projects in certain areas of the City.*

- ii. Except as provided in Section 4.b.vii. below, inspect, 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.*

*Areas where the City knows of high potential for sediment transport have been determined within the City. New annexed areas will be evaluated on an on-going project basis with new developments having high erosivity areas marked. All new developments is brought through the plan review process which includes a requirement on provide for BMPs to control erosivity.*

- iii. Except as provided in Section 4b.vii. below, inspect 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.

*Inspection of projects is assigned through the assignment of a City construction inspector for all projects requiring a Public Works Construction Permit to inspect on-site erosion and sediment control BMPs.*

- 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.

*The City inspectors currently conduct a final inspection of all newly constructed stormwater facilities, redlines any discrepancies between what was constructed and the plans, and turns the plans over to maintenance personnel for final redlines prior to final approval or occupancy. Currently, inspection logs are kept for each project. The inspection recordkeeping process will be reviewed and potentially overhauled by August 16, 2009.*

- 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.
- vii. If the City chooses to allow construction sites to apply the "Erosivity Waiver" in Appendix 1 of the City's Permit, Minimum Requirement #2, the City is not required to review the construction stormwater pollution prevention plans as part of the site plan review in (i) above, and is not required to perform the construction phase inspections identified in (ii) and (iii) above related to construction sites which are eligible for the erosivity waiver.

*The City will evaluate it's inspection program prior to August 2009 and evaluate how records are kept, and modify existing inspection policies as needed to comply with the Permit. As part of the evaluation, an enforcement strategy will be developed, applied, and implemented into the inspection program. Updates of the City's existing codes and standards through the development of a stormwater manual will allow the City to better plan review, inspect, enforce, document compliance, and track the processes results. The City plans on conducting staff training of it's new stormwater manual that is planned to be completed and adopted by early 2009 into it's inspection program. Within the manual will be post construction private and public drainage system maintenance standards.*

*The City also currently summarizes annual installations of publicly owned stormwater systems and facilities that are included within the Surface Water Utility's Annual Report and Asset Management System.*

#### **Long-term Operation and Maintenance (S5.C.4.c)**

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.

*Maintenance responsibilities, inspections, and it's ordinances within the City will be reviewed, compared, and re-issued if a lack of clarity exists on who is responsible for what and how facilities are inspected within the City. This task shall be accomplished before August 16 2009 as required by the Permit.*

*City operations and maintenance crews are already applying some of the methods to containing and minimizing pollutant runoff from municipal operations. Some City responsibilities include inspections of problem areas, inspections of customer complaints, and maintaining areas via vactoring out the pollutants from problem areas each year.*

*The City currently does not inspect private flow control and treatment facilities except there is a reported or observed problem. The inspection schedule shall be modified and reporting of inspected facilities shall be instituted. Municipal operation and maintenance activities related to utility installations, street cleaning, ditch maintenance and other City activities include, but is not limited to, public streets, receiving*

*public/private parcels, and parking shall also be evaluated and changed to comply with the permit terms.*

*The Surface Water Utility Maintenance Section currently has 12 FTEs, three tractor trucks and other equipment used to maintain and operate publicly owned stormwater management systems and facilities.*

#### **Record Keeping (S5.C.4.d)**

The program will include 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.

*Currently, the City crews utilize a Maintenance Management System (MMS) that records time and resources spent on all cleaned pipelines, catch basins, ditches, replaced storm pipelines, cleaned vaults, and cleaned ponds related to the City's O&M activities. In addition, the City records areas cleaned and inspected on a yearly basis via hard paper maps.*

*The City plans on updating its record keeping by developing a GIS capable system that can integrate or expand into a system that records what has been inspected, cleaned, and when the tasks were done. A new MMS system will also be integrating with the GIS for future operations activities. The GIS system has an unknown delivery date due to having to include necessary field mapping information of unknown system areas that the City plans on collecting in 2008 and 2009. It is anticipated that the City maintenance management and reporting strategy will start its conversion late 2008 to middle of 2009 to coincide with the conclusion of the field mapping project.*

*The City currently maintains a record keeping system that includes permitting, enforcements, construction inspections on private and public facilities construction projects.*

#### **Availability of NOIs (S5.C.4.e)**

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.

*NOI forms and information are currently provided within the City's Department of Community & Economic Development (Development Services*

*Division.) Currently, Development Services directs proposed new and redevelopment projects to obtain these NOIs.*

*Development Services is considering on providing this information to applicants at pre-application meetings to make them aware of this requirement if it is obvious that the project will be disturbing more than one acre of land or more.*

#### **Training (S5.C.4.f)**

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.

*Ongoing operations and maintenance training is currently provided, but will be documented for future annual compliance program reports. Curricula and staff training requirements for pollution prevention is currently on-going in-house but will be supplemented with further classes as offered through AWC and DOE when they become available.*

*A review of existing City staff training programs that are 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 will be conducted. Modifications to existing staff training programs or new training programs will be developed as necessary to satisfy the requirements of the permit by August 16, 2009.*

## **Section 5: Pollution Prevention and Operation and Maintenance for Municipal Operations (S5.C.5)**

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:

### **Maintenance Standards (S5.C.5.a)**

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.

*Maintenance standard guidelines shall be established as to comply with the permit requirements within three years of the effective date of the Permit (February 16, 2010). These maintenance standards shall contain the following:*

1. *Training components for municipal operations.*
2. *Development of maintenance standards prior to inspecting facilities.*

3. *Annual inspection frequencies for structures in public and private facilities of all permanent stormwater treatment and flow control facilities.*
4. *Certification of inspected facilities in accordance with G19 of the Permit.*
5. *Total inspection of all catch basins and inlets owned by the City at least once prior to the end of the Permit term with cleaning conducted on them if they are deemed out of compliance with the maintenance standards.*
6. *Including policies and procedures for pest management, fertilization, and sediment/erosion control on City owned facilities. The City currently follows a Pest Management Plan that contains guidance, procedures, and standard operating procedures for storing chemicals to applying fertilizer and/or pest spraying on City owned facilities.*

*Erosion and sediment control of City projects and facilities are followed according to SWPPPs developed for each project that are greater than 1 acre in size and smaller projects, if drainage review is required, that includes the erosion control plans, practices, and procedures. In addition, general erosion and sediment control practices are followed according to the City's Operations Manager, who is a CESCL.*

*City code requires SWPPPs for project that add greater than 5,000 SF of impervious surface with permit review.*

### **General Inspections (S5.C.5.b)**

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*.

*Inspections are currently done at historical problem areas within the City. The frequency of inspections and cleanup include pipe cleaning, culvert cleaning, ditch maintenance, street cleaning, road/pipe repairs, and maintaining roadside areas including vegetation management. The City shall start an inspection program with a certification of signature attached to the inspection reports.*

### **Post-Storm Inspections (S5.C.5.c)**

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.

*Major post storm checks are currently a work item of City personnel.*

### **Catch Basins and Inlet Inspections (S5.C.5.d)**

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.

*Inspections are currently being conducted by the City on an annual basis for problem area inlets. The inspection frequency will be increased to comply with the Permit requirements and to establish a circuit basis for the inspections.*

### **Compliance(S5.C.5.e)**

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.

*This compliance criteria shall be part of the maintenance and inspection standards to be established by the City prior to February 16, 2010.*

### **Reduction of Stormwater Impacts (S5.C.5.f)**

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 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

*The City currently has an Operations and Maintenance Department that conducts all of these activities.*

### **Policies and Procedures (S5.C.5.g)**

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.

*The City currently possesses and follows a Pest Management Plan that is applied to parks and open spaces. In addition, erosion control is applied upon projects to control sediment-laden runoff on City projects as well as private development projects.*

### **Training (S5.C.5.h)**

Develop and implement an on-going training program for employees of the City whose construction, operations or maintenance job functions may impact stormwater quality. 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.

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.

*The City has maintenance crews who attend training programs geared toward erosion control, maintenance recording, documenting, following illicit discharge detections and inspections. Additionally, the Maintenance Department attends the County Road Standards and Compliance meetings in order to apply the latest in developing of set Maintenance standards. Future training programs will be recorded by the Maintenance Manager.*

*Existing training staff programs will be reviewed to determine if they need to be modified or if new training is necessary to comply with the permit requirements.*

### **Special Facility Requirements (S5.C.5.i)**

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.

*SWPPPs are developed for projects that are greater than 1 acre in size on projects. In addition, SWPPPs are required for private facilities with heavy maintenance or storage yards.*

*Stormwater Pollution Prevention Plans for City heavy equipment maintenance storage yards and storage facilities (Airport, Public Works, Maintenance Shop, Parks Maintenance Shop) will be developed by February 16, 2010, as required by the Permit.*

### **Record Keeping (S5.C.5.j)**

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*.

*Some records of inspections and maintenance or repair activities are currently kept in project file folders that are kept in storage files along with the project contents. In the future, inspections/maintenance and repair activities are to be provided in one storage are that can be easily accessible per S9 of the Permit.*