

Section 3—City's Stormwater Management Plan

Section 3: City's Stormwater Management Program

Introduction

Section 3 provides an overview of the Purpose and Mission of the City's Stormwater Management Program together with a summary of current organization and staffing, utility rates and annual revenues, existing capital projects list, and annual SWM activities and services. Regulatory requirements and other surface water obligations are compiled, including those associated with the City's Phase II Permit, the Underground Injection Control Rule, the Puget Sound Partnership Action Agenda, and WRIA #8 Chinook Salmon Conservation Plan and the City's ESA Habitat Assessment Report. The City's Maintenance Program and the CSWM capital needs are described in additional detail in Sections 4 and 5, respectively.

Purpose and Mission

The City's Stormwater Management Program is dedicated to addressing public safety, protecting properties and structures, supporting continued economic development, and protecting and preserving the natural environment and its functions. The City's Stormwater Management Plan addresses economic development:

- By providing clarity during the planning process regarding the City of Woodinville's stormwater standards, and the developer or business contributions towards stormwater infrastructure.
- By providing clear and straightforward recommendations as to the priority investments over the next 20 years, six years and two years regarding the City's capital investment program.

The goals of the City's SWM Program are to:

- Promote public safety by minimizing uncontrolled stormwater runoff.
- Provide for the comprehensive, integrated management and administration of the City's stormwater facilities and operations.
- Achieve compliance with the various SWM-related regulatory requirements, specifically the Phase II Permit.
- Actively maintain the design capacity of the City's drainage infrastructure.
- Develop an annual program to design and construct capital projects to reduce flooding, enhance conveyance capacity and protect habitat.

To this end, the City's SWM Program routinely conducts numerous activities and services, ranging from program administration to complaint response, and includes education and outreach, development review, water quality monitoring, habitat enhancement, facility maintenance and capital improvement design and construction.



Organization and Staffing

The City of Woodinville is organized into five major departments, including the Public Works Department. The City's SWM Program is included within the Public Works Department, which is responsible for the City's stormwater management operations, capital improvements and regulatory compliance. In the Public Works Department, the Director and the Assistant Director provide management and administration of the City's SWM Program, providing activities and operations with support from the Construction Inspector, Engineering Technician, the Maintenance Manager and the Maintenance Technicians.

Utility Rates and Revenues

The Surface Water Utility (Utility) was formed in 1993 by Ordinance No. 26 and is currently administered by the Public Works Department. The Utility was established to pay for stormwater management activities, including but not limited to basin planning, stormwater system operations, maintenance, construction of facilities, regulatory compliance and water quality.

The initial stormwater management fees established in 1993 were equivalent to those established by King County in 1992 and included a flat fee service charge for single family residential parcels, with the fee based on percent of impervious area. Businesses and other larger parcels of land pay more based on the amount of impervious area.

In January of 2002, the Council adopted Ordinance No. 313 which allowed stormwater management fees to be amended by resolution of the City Council. Resolution No. 311 established a one-time increase of 2.5% that went into effect in January of 2006, raising fees to levels shown in Table 3-1. These rates have continued to be in effect to today. According to the City's 2010 Budget, total SWM Fund revenues are projected to be \$915,000.

Table 3-1 Woodinville Stormwater Management Fees		
Rate Category	Percent Impervious Surface	Annual Service Charge
1. Residential: Single-family home	NA	\$87.15/parcel
2. Very Light	≤ 10%	\$87.15/parcel
3. Light	More than 10%, ≤ 20%	\$203.36/acre
4. Moderate	More than 20%, ≤ 45%	\$421.25/acre
5. Moderate Heavy	More than 45%, ≤ 65%	\$813.43/acre
6. Heavy	More than 65%, ≤ 85%	\$1,031.31/acre
7. Very Heavy	More than 85%, ≤ 100%	\$1,350.89/acre

Impervious area calculations are computed and utility rates are assigned by City staff. Any appeals of SWM utility fees by property owners are processed by City staff in accordance

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with WMC 13.03 – Storm and Surface Water Utility. Utility fees are then billed and collected through an interlocal agreement with King County. The County includes the City's annual SWM utility fees on its annual property tax statement; fees are collected by the County and distributed to the City. The City pays the County a small service charge and customer service fee of \$1.54 per SWM utility account billed plus an annual charge of 1% of projected annual service charge revenue to be collected. In 2010, the City utility accounts numbered 3,831 and the County billing fee amounted to \$5,959. Utility revenues received by the City are placed in the Surface Water Management Fund and are used to support SWM program activities such as public education, stormwater system maintenance, regulatory compliance, administration and capital projects. For capital projects, the Surface Water Management Fund transfers funds to the Surface Water Capital Project Fund.

For 2011 and 2012, the City anticipates that \$880K and \$810K, respectively, of SWM Fund revenue will be needed to support SWM Program operations activities. Any remaining SWM Fund revenue will be allocated to support of capital projects.

The City does offer discounts to property owners when their parcels are served by one or more retention/detention facilities that meet City code provisions and are maintained at the expense of the property owner. Non-residential parcels are charged at the rate of one lower rate category than it is classified by its percentage of impervious area, with the exception of non-residential parcels in the light category which are charged the equivalent of the residential rate/acre/year. Qualifying residential parcels and parcels in the very light rate category are charged half the residential flat rate. Discounts range from a high of 57% rate reduction to a minimum of 21% rate reduction. According to the City, there are 80 properties that qualify for discounts at this point in time.

Grants are an additional source of income for the City's SWM Program. In 2008, the City received a \$50,000 grant from Ecology to implement the Phase II Permit. In 2009, the City received another \$75,000 grant from Ecology for additional implementation of Phase II Permit activities. Both of the grants went towards funding the development of this SWM Plan to help guide the City in identifying additional activities to achieve compliance. In 2010, the City received an additional \$100,000 from Ecology for additional implementation of Phase II Permit activities. The activities of implementation for this grant have not yet been determined.



The City's SWM Program is primarily funded through utility fees. To date, utility fees, along with periodic grants and a small amount of investment income, have been used to cover the annual costs of the various SWM Program activities and capital projects.

Activities and Services

The City's SWM Program includes six major activities and services that are organized as listed below:

1. *Capital Improvement Program*
2. *Stormwater System Maintenance*
 - Complaint Response
 - Catch Basin Cleaning Program
 - Minor Stormwater Improvements
3. *Phase II Permit compliance, which includes:*
 - Public Education and Outreach
 - Public Involvement and Participation
 - Illicit Discharge Detection and Elimination, and facility inventory/mapping
 - Development Review: Controlling Runoff from New Development, Redevelopment and Construction Sites
 - Pollution Prevention and Operations and Maintenance for Municipal Operations
4. *Compliance with other local, regional and state regulatory requirements including: Endangered Species Act/Water Resource Inventory Area activities*
5. *Water Quality Monitoring*
6. *Program Management and Administration*

Capital Improvement Program

The City has historically developed, funded and administered its SWM CIP Program, with CIPs being identified, designed and constructed on an as-needed basis, using local funding provided by the City's SWM Utility Fund.

Stormwater System Maintenance

The City's SWM Program includes an annual stormwater facilities maintenance program. This program includes maintaining the proper function of SWM facilities through cleaning, mowing, inspection and repair/replacement activities. In addition, street sweeping is annually



Routine maintenance is key to sustained stormwater facility performance.

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conducted to help reduce particulate and pollutant loading to the conveyance system and local receiving waters. Much of the City's stormwater system maintenance activities are driven by the requirements of the Phase II Permit for inspection with maintenance of facilities being provided according to prescribed frequencies and maintenance standards. The City's stormwater maintenance and operations program is discussed in greater detail in Section 4, along with any potential impacts to the City's maintenance program associated with annexation of the City's urban growth area (UGA). The Phase II Permit required maintenance standards are presented in Appendix I.

Complaint Response

The City's SWM Program is responsible for receiving and responding to public complaints. Drainage concerns are documented and responded to using maintenance referrals or Customer Service Request Forms, as submitted by citizens. Depending on the nature and magnitude of the problem, City staff either addresses it internally or brings in assistance from outside agencies or contractors. Response to water quality complaints and spill reports will become part of the City's emerging Illicit Discharge Detection and Elimination program that is required by the Phase II Permit.

Catch Basin Cleaning

The City annually cleans catch basins and other conveyance facilities in order to maintain flow capacities and to decrease the threat of flooding. Currently, the City is inspecting and cleaning catch basins on a rotating schedule such that all catch basins are inspected and cleaned at least once every five years in accordance with the City's maintenance standards and the Phase II Permit.

Minor Surface Water Improvements

City crews also actively investigate and address minor stormwater issues such as localized flooding or erosion problems, and repairs. Most of these repairs are made in the field and are routinely conducted by the maintenance crew. In the last three years, the City has completed four minor surface water improvements including catch basin repairs and replacements in the Wallington neighborhood, replacing a cross culvert at NE 162nd Street, two berming projects at Lake Leota and other catch basin repair and replacements performed on an as-needed basis.

Status of City's Compliance with Regulatory Requirements

The City has been implementing the requirements of its Phase II Permit over the past several years. Documentation of the City's compliance activities is organized in accordance with the five regulatory compliance elements and components and is summarized in its 2007, 2008, and 2009 Annual Reports, which are posted on the City website and are available for review at City Hall.

As part of this CSWM planning process, the City evaluated its SWM Program for compliance with regulatory obligations in the Fall of 2009. The results of this regulatory gap analysis are summarized in Table 6-1, located at the end of Section 6. This analysis focuses on the Phase II Permit but also includes the City's other stormwater-related obligations. Regulatory requirements have been listed, along with milestone dates, current activities, and future activities needed for compliance, together with due dates. As outlined in this Section, the City's existing SWM Program already includes many of the required legal authorities, policies, and programmatic activities needed for compliance. Some of these activities will need to be enhanced or expanded for full compliance in the future. Table 6-1 and Section 7 provide more information on both existing activities and the new activities the City will need to implement to come into full compliance. A brief description of existing activities organized by the five regulatory compliance elements is presented below.

Public Education and Outreach

The City has developed a brochure titled "Simple Ways You Can Help Save Our Salmon", which describes stream/runoff friendly alternatives to pesticides, fertilizers, and household cleaning products. Car wash kits are also available to fund raising groups. Articles about stormwater are published in the City's newsletter and posted on the City's website. A video on stormwater issues, including proper vehicle washing, has been sponsored by the City and shown on the local television station. The City has implemented additional passive educational tools such as interpretative signage around habitat areas and catch basin stenciling. The City also organizes volunteer planting events as part of the Sammamish Releaf project and holds an annual Earth Day event. At the City's annual Spring Garden Fair, rain barrels and compost bins are offered at a subsidized rate. In 2009, the City participated in a community survey to determine current stormwater understanding within the City. The survey revealed that proper vehicle washing is the highest priority topic for the City's education programming to focus on.

The City will follow as a similar route as Snohomish County who has adopted Low Impact Development Standards (Amended Ordinance No. 06-115) specific to the Little Bear Creek Watershed. The City's LID standards should be similar to the LID Technical Guidance Manual for Puget Sound which contains detailed guidance on how best to design, construct and maintain LID practices.

Public Involvement and Participation

In 2008, 2009 and 2010, the City posted its Annual Reports to Ecology and SWM Program documents on its website. In 2009, as part of this CSWM planning effort, the City conducted a stormwater survey to request information about known stormwater problems. In 2010, the City's draft Stormwater Management Comprehensive Plan has been made available for public review and comment prior to adoption.

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Illicit Discharge Detection and Elimination

In January 1993, the City created and established citywide Water Quality Standards by the adoption of City Ordinance No. 24, codified in the WMC Chapter 14.06. These standards make it unlawful for any person to discharge any contaminants into receiving water bodies, including surface waters, ground water, or Puget Sound. In 2003, the City reinforced its commitment to protecting water quality by adopting City Ordinance No. 350, codified in WMC Chapter 1.07 (see Appendix J), that established the discharge of contaminants into surface water, stormwater or ground water as a civil violation. In 2009, the City established a "Hazardous Spill" hotline and posted it on the City website. City has also recently updated its stormwater system mapping and responds to reported drainage and water quality problems. WMC Chapter 1.07 will need to be updated to meet NPDES Phase II Permit requirements.

Controlling Runoff from New Development, Redevelopment, and Construction Sites

The City's oversight of development is codified in WMC 14.09 – Surface Water Runoff Policy, which establishes surface water runoff policy, adopts the KCSWDM, requires inspection and maintenance of stormwater facilities, and includes enforcement authority. WMC 1.03, 1.06 and 1.07 set forth a progressive set of penalties and enforcement procedures as required by the Phase II Permit. In 2008, the City adopted by rule the 2005 KCSWDM, outlining stormwater requirements for new developments and redevelopments. The City anticipates adopting the 2009 KCSWDM by October 1, 2010. The City conducts a permit review process that includes plan review, site inspections and enforcement to ensure that all required BMPs are installed as designed and proper erosion and sediment control methods are being used.

Existing City inspectors have been certified by Washington State Department of Transportation (WSDOT) in erosion and sediment control methods. If necessary, the Code Enforcement Officer can also provide assistance with enforcement. The City contracts with the King County Water and Land Resources Division to provide stormwater facility inspections for all private systems to verify that the facilities are properly maintained and functioning.

Pollution Prevention and Operation and Maintenance for Municipal Operations

City maintenance crews perform maintenance and spot checks of problem areas as needed. Currently, the City contracts with a private vendor to perform catch basin, pipe, and culvert inspections and cleaning. The City also conducts regular street sweeping with a high efficiency street sweeper purchased in 2003. The City contracts with King County to perform annual facility inspections.

In April 2002, the Regional Road Maintenance ESA Guidelines were adopted by the City via Resolution No. 222. These guidelines describe the recommended BMPs for completing road maintenance tasks with the least amount of environmental impacts. Following these guidelines protects the City from “take” liability under the ESA 4(d) rule and satisfies the Phase II Permit requirements for roadway maintenance practices that reduce stormwater impacts. The City’s maintenance staff have attended Regional Road Maintenance ESA Guidelines training. See Section 6 for a more detailed information on current compliance activities, a compliance assessment of Phase II Permit requirements, and recommendations for future compliance activities.



City Maintenance Activities

Review of City SWM Maintenance Program

Findings from this regulatory review indicate that the City’s Operations and Maintenance Program has made good progress in meeting the Phase II Permit requirements. Areas that need attention include updating maintenance standards, developing and implementing a nutrient and integrated pest management plan, as well as creating a facilities maintenance plan to reduce pollutant discharge from public lands, continuing staff training, developing and implementing a Stormwater Pollution Prevention Plan for the City’s maintenance facility, and enforcing private facility maintenance.

Maintenance activities that will be continued on an annual basis include:

- **Complaint Response**—This activity will continue. Water quality complaints and spill reports will be investigated as part of the City’s emerging IDDE program.
- **Catch Basin Cleaning**—This activity will continue on a schedule that allows all catch basins within the City to be inspected every five years and cleaned as necessary in accordance with the City’s maintenance standards.
- **Minor Stormwater Facility Repairs/Improvement**—Inspection and repair of the City’s drainage system occurs on an ongoing basis. This activity will continue according to future SWM Fund maintenance forecasts.

Other Regulatory Requirements/Stormwater-Related Obligations: Endangered Species Act and Water Resource Inventory Area Improvements

The City is part of WRIA #8 in the Lake Washington Watershed. In July 2005 the City participated in the development of the Chinook Salmon Conservation Plan, which it ratified on July 11, 2005. Over a number of years, the City has undertaken a variety of actions to

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protect and restore habitat consistent with this Plan. The activities completed to date cover a broad range that include interjurisdictional coordination and collaboration; habitat restoration and enhancement; updates to policies, programs and regulations; and water quality monitoring.

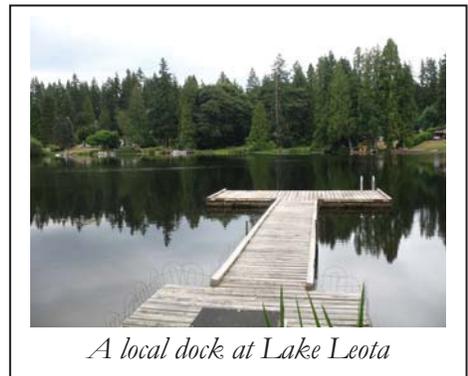
In April 2002, the Regional Road Maintenance ESA Program Guidelines were adopted through Resolution No. 222. These guidelines describe the recommended BMs to complete road maintenance tasks with the least amount of environmental impacts. Maintenance staff have been attending trainings to better understand these maintenance guidelines.

The City annually sets aside operating budget funds for projects that involve stream and riparian area plantings and maintenance. Often, the work is performed by community volunteers. These are generally habitat-related projects that provide additional benefits such as erosion control and aesthetics. Some of the volunteer projects have included partnerships with King County, Washington State, Northshore School District, and Woodinville Water District. The City also seeks volunteer groups, such as Boy Scout and Girl Scout troops to stencil "Dump no waste - drains to stream" along the side of stormwater catch basins. This program educates both the volunteers and the general public.

In addition, the City participates in the King County Salmon Watchers Program and performs annual fish counts along with visits to known fish habitat areas. Specific sites and guidelines are established for volunteers to perform counts consistently and accurately. This information provides a basis for producing a long range history which is used to determine the wellness and function of habitat and surface water control systems for flow and water quality.

Water Quality Monitoring

Since 2000, the City has had an ongoing Water Quality Monitoring Program that includes monthly grab samples at Little Bear Creek, Woodin Creek and Derby Creek. Temperature monitors have also been placed at each of these three creeks and have been collecting hourly temperature data since 2003. Samples are analyzed for seven parameters including fecal coliform, Nitrate/Nitrite, Total Phosphorous, Total Suspended Solids, Lead, Zinc, and Copper. Fecal Coliform measurements for all three creeks exceed the established standard, however, on the average, all other parameters are within their respective limits. For more information about the City's Water Quality Monitoring Program, see Appendix F.



Program Management and Administration

Management and administration responsibilities include activities needed to support the development and implementation of the SWM Program. Typical activities include policy and procedure development, budgeting, contract administration, staff supervision and direction, performance tracking and reporting (including Phase II Permit compliance tracking and reporting), program evaluation, communications, customer service, internal and agency coordination, and utility administration.