

CITY OF KENMORE
STORMWATER MANAGEMENT PROGRAM

Permit # WAR 04-5519

City of Kenmore, WA



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INTRODUCTION

This document presents the City of Kenmore's (City) Stormwater Management Plan (SWMP). Preparation and maintenance of this SWMP is required by the Washington State Department of Ecology (Ecology) as a condition of Section S5.A.2 of the Western Washington Phase II Municipal Stormwater Permit (Permit). The Permit covers discharges from regulated municipal separate stormwater sewer systems (MS4). Based on criteria outlined in the Permit, Ecology considers the City to be an operator of a MS4 and therefore required to obtain permit coverage.

The Permit authorizes the City to discharge stormwater to surface and ground waters of the state pursuant to conditions set forth in the Permit. A component of these conditions requires the City to produce and implement a SWMP as described in section S5 of the Permit. The SWMP is a "living" document and requires many updates throughout the Permit. Implementation dates of requirements contained within S5 have been staggered throughout the Permit cycle in order to ease the transition into compliance for municipalities. Typically, there are updates required each February and August and a copy of the updated SWMP is included with each Annual Report due March 31st following each Permit year. While the actual years of the Permit run from February 16th to February 15th of the next year, the reporting requirements cover a calendar year from January 1st to December 31st.

REGULATORY BACKGROUND

The National Pollutant Discharge Elimination System (NPDES) permit program is a requirement of the federal Clean Water Act of 1972 (as amended in 1977 & 1987), which is intended to protect and restore waters for "beneficial uses" such as fishing and swimming. The federal Environmental Protection Agency (EPA) has delegated permit authority to state environmental agencies and these agencies can set permit conditions in accordance with and in addition to the minimum federal requirements. In Washington State, the NPDES-delegated authority is Ecology.

NPDES permits have been written for discharges from construction sites, concentrated animal feeding operations, industrial activities, publicly-owned wastewater treatment plants and municipal stormwater systems. While there are several types of NPDES permits, the municipal permit is intended to reduce the impacts from both point source (i.e. construction site run-off) and non-point source pollution carried by stormwater.

Ecology defined two types of municipal permits based upon 1990 census populations. Phase I permits were issued to municipalities with populations greater than 100,000 and Phase II permits were issued to municipalities with populations less than 100,000. Ecology issued the City a Phase II Permit on January 17, 2007 and it went into effect on February 16, 2007. The Permit was modified on June 17, 2009 and expires on February 15, 2012.

DOCUMENT ORGANIZATION

This report comprises written documentation of the City's SWMP that is required to be submitted with the Annual Report. In accordance with the Permit terms, the SWMP has been designed to reduce the discharge of pollutants to the maximum extent practicable (MEP), meet state AKART

requirements and protect water quality. The following sections describe the actions that the City has taken, or will take to comply with the requirements of the Permit.

To aid in tracking Permit requirements, this document has been organized into sections that correspond with the Special Conditions and are outlined in the Permit as follows:

- Section 1 - Public Education and Outreach,
- Section 2 - Public Involvement and Participation,
- Section 3 - Illicit Discharge Detection and Elimination,
- Section 4 - Controlling Runoff from New Development, Redevelopment and Construction Sites, and
- Section 5 - Pollution Prevention and Operations and Maintenance for Municipal Operations.

For ease of reading, each section is organized into four subsections:

Subsection 1 “Permit Requirements” begins with an overview of Permit requirements and includes a table that outlines specific section requirements and their associated date of compliance.

Subsection 2 “Current Activities” describes activities that the City has accomplished in meeting compliance deadlines in the Permit year being reported.

Subsection 3 “Previous Activities” describes activities that the City accomplished in meeting compliance deadlines in previous Permit years.

Subsection 4 “TMDL Activities” applies to the City under Special Condition S7 (TMDL) of the Permit. The *Swamp Creek Fecal Coliform Bacteria TMDL Water Quality Improvement Report and Implementation Plan*, dated May 2006, identified Swamp Creek as a TMDL for fecal coliform. The Permit requires that a Bacterial Pollution Control Plan (BPCP) be prepared as a subsection to the SWMP to facilitate the public’s participation in advising on the development, implementation and update of TMDL-related portions of the SWMP. This subsection includes content applicable to sections 1 – 5, above, as required by Appendix 2 and the Bacterial Pollution Control Plan.

Subsection 5 “Planned Activities” describes activities that the City plans to accomplish in order to meet upcoming compliance deadlines.

Special Conditions S1 through S4 and General Conditions G1 through G20 apply to permit holders, though they do not result in specific program activities, nor is the SWMP required to document compliance with these activities. These conditions cover topics such as who is covered by the Permit, what discharges are authorized under the Permit and legal guidelines for transferring, revoking and appealing the Permit. Penalties for non-compliance are also included in these conditions.

SECTION 1 - PUBLIC EDUCATION AND OUTREACH

1.1 PERMIT REQUIREMENTS

The SWMP shall 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 is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. An education program may be developed locally or regionally. Table 1-1 outlines specific Permit requirements.

Table 1-1			
Minimum Performance Measure	Permit Section	Compliance Date	Compliance
Education and outreach program	S5.C1.a	2/15/2009	YES
Measure understanding and adoption	S5.C1.b	8/19/2011	YES
Tracking	S5.C1.c	8/19/2011	YES
Bacterial Pollution Awareness	Appendix 2 Section 4.4	2/16/2009	YES

1.2 CURRENT ACTIVITIES

Measurement and Understanding of Behavior

The City conducted a follow up survey to the 2009 community survey measuring the community’s awareness, attitude and behavior towards stormwater. In 2012 there appeared to be an increase in understanding that untreated stormwater runoff flows into local waterways and Puget Sound. However, only 36% of respondents stated that they were aware of any water pollution problems in their local waterways. When asked to what degree actions taken by their family affect the health of local streams, lakes and rivers, respondents stated the following; significant (34%), insignificant (43%), none (22%) and no answer (1%). Continued efforts to educate and inform citizens about local issues and actions on how to improve water quality will continue.

Additional information can be found in the final 2012 report, compiled by Elway Research, Inc. for the cities of Kenmore, Bellevue, Bothell, Kirkland, Redmond and Shoreline. The report is available on the City’s webpage or in person at City Hall.

Newspaper Ad Campaign

The City purchased space in the Bothell/Kenmore Reporter and ran a water quality message twice during April and May. The advertisement was done in partnership with several other municipalities in the north Lake Washington area. The following photo shows an example of the advertisement.



Catch Basin Marking

The City began placing highly visible plastic markers next to catch basins on City roads. The markers state “Only Rain Down The Drain” and present the logo for Puget Sound Starts Here. A photo of the catch basin marker is shown below.



1.3 PREVIOUS ACTIVITIES

Measurement and Understanding of Behavior

In 2008, the City performed an analysis of its Surface Water Management Program, including Public Education and Outreach components. The final report, completed in October 2008, identified needs in the Public Education and Outreach Program. Additional staff time and funding was arranged for the program. By March 2009, the City contracted with Otak to further assist with program implementation.

The City, partnering with the cities of Duvall, Mill Creek, Mountlake Terrace and Woodinville, contracted with Hebert Research, Inc. in 2009 to conduct a community survey to measure the public’s knowledge and understanding regarding stormwater. Areas of educational need were identified and prioritized based upon the results. Specific details can be found in the Stormwater Community Research Report available on the City’s website or in person at City Hall.

Puget Sound Starts Here

Stormwater Outreach for Regional Municipalities (STORM), Washington State Puget Sound Partnership (PSP) and Ecology launched Puget Sound Starts Here (PSSH) in September, 2009. The City, as an active member of STORM, utilizes this platform to educate Puget Sound citizens of the effects that stormwater has on local streams, rivers, lakes and Puget Sound. Currently, PSSH efforts include focused education on car-washing, pet waste and yard care behaviors that negatively impact stormwater quality. A series of television ads were run in 2009 and another round of ads will be broadcast in 2010.

Source Control BMPs

On November 2, 2009, City Council adopted the 2009 Kenmore Stormwater Pollution Prevention Manual (Ordinance 09-0299). This manual provides best management practices for commercial, multi-family and residential properties in Kenmore. The manual is available online and citizens are encouraged to call the City with any questions or concerns.

Metro Bus Ad Campaign

In collaboration with neighboring cities, the City ran a Metro bus advertisement campaign in spring and fall of 2010 focusing on “Only Rain Down the Drain”. This behavior was identified as a “priority behavior” in the City’s Stormwater Community Research Report requiring further education and outreach effort. Bus ads were still spotted on buses throughout 2011. A photo of the ad is shown below.



Continuing Activities

- City newsletter and event materials
- Promotion of waste reduction through its recycling program
- Encouragement of litter removal through Adopt-A-Road programs
- Distribution of educational materials through its interlocal agreement with King County Water and Land Resources Division (WLRD)

1.4 TMDL ACTIVITIES (BPCP)

The parks maintenance program promotes pet waste removal. Visible signs and pet waste bags are provided in City parks.

The City provides stormwater education materials in the City Newsletter and at City events regarding domestic pet waste. The City's mobile watershed model (used at public events) is also used to demonstrate how pet waste is introduced into the watershed and to educate citizens on pet waste BMPs.

1.5 PLANNED ACTIVITIES

The City continues to engage and educate citizens on surface and storm water issues, including basic topics such as how surface and storm water is collected, conveyed and treated, what the City's role is and what their role is. The City provides information on current BMPs for residential and commercial applications with the goal of preventing degradation of our surface and ground waters through education and behavior change.

The City will also continue to seek out collaborative public education and outreach opportunities with neighboring organizations such as schools, cities, utility districts and PSSH.

The City is continuing to place catch basin markers, eventually marking every structure operated by the City where marker placement is feasible.

SECTION 2 - PUBLIC INVOLVEMENT AND PARTICIPATION

2.1 PERMIT REQUIREMENTS

The SWMP shall 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 shall comply with applicable State and local public notice requirements when developing their SWMP.

Table 2-1			
Minimum Performance Measure	Permit Section	Compliance Date	Compliance
SWMP public input	S5.C2.a	Annually	YES
SWMP availability	S5.C2.b	Annually	YES
BPCP	Appendix 2 Section 4.2	8/19/2011	YES

2.2 CURRENT ACTIVITIES

Surface Water Management Plan (SWMP) update is available online and comments are encouraged and accepted throughout the year.

Annual Report is available online.

2.3 PREVIOUS ACTIVITIES

Public Hearing – KMC 13.45 Water Quality

A public hearing was held on September 28, 2009 regarding the adoption of Kenmore Municipal Code 13.45. Citizens provided comment at the hearing.

Public Hearing – KMC 13.35 Surface Water Runoff Policy

A public hearing was held on December 7, 2009 regarding the adoption of Kenmore Municipal Code 13.35. Citizens provided comment at the hearing.

2.4 TMDL ACTIVITIES (BPCP)

The Bacterial Pollution Control Plan (BPCP) is a subsection for each component in the SWMP that facilitates the public's participation in advising on the development, implementation and update of TMDL-related portions of the SWMP.

2.5 PLANNED ACTIVITIES

Each year, the city will update the SWMP and Annual Report and post it online. Citizens are encouraged to provide comment at any time throughout the year.

SECTION 3 - ILLICIT DISCHARGE DETECTION AND ELIMINATION

3.1 PERMIT REQUIREMENTS

The SWMP shall include an ongoing program to detect and remove illicit connections and discharges as defined in 40 CFR 122.26(b)(2), including any spills not under the purview of another responding authority, into the MS4 owned or operated by the City. The City shall fully implement an ongoing illicit discharge detection and elimination (IDDE) program no later than 180 days prior to the expiration of this Permit.

Table 3-1			
Minimum Performance Measure	Permit Section	Compliance Date	Compliance
MS4 Mapping	S5.C3.a.i-v	2/15/2011	YES
Water Quality Ordinance	S5.C3.b.i-vi	8/15/2009	YES
Procedures for locating priority areas to have illicit discharges	S5.C3.c.i	8/19/2011	YES
Prioritize three receiving waters for inspection	S5.C3.c.ii	2/15/2010	YES
Complete three receiving water inspections	S5.C3.c.ii	2/15/2011	YES
Complete one receiving water inspection	S5.C3.c.ii	2/15/2012	YES
Procedures for characterizing illicit discharges	S5.C3.c.iii	8/19/2011	YES
Procedures for tracing illicit discharges	S5.C3.c.iv	8/19/2011	YES
Procedures for removing illicit discharges	S5.C3.c.v	8/19/2011	YES
Distribute appropriate information to target audiences	S5.C3.d.i	8/19/2011	YES
Publicize a telephone number for reporting spills and discharges	S5.C3.d.ii	2/15/2009	YES
Program for evaluation and assessment	S5.C3.e	8/19/2011	YES
Train municipal staff	S5.f.i	8/15/2009	YES
On-going training	S5.f.ii	2/15/2010	YES
Water Quality Ordinance (TMDL)	Appendix 2 Section 4.1	8/15/2010	YES
BMP Source Control (TMDL)	Appendix 2 Section 4.1	8/15/2009	YES
Water Body Priority (TMDL)	Appendix 2 Section 4.7	2/16/2010	YES

3.2 CURRENT ACTIVITIES

Mapping/Inspections

The City continues to update maps and inspect the entire MS4 each year. The City's MS4 is currently comprised of approximately; 4,200 catch basins, 74 miles of enclosed conveyance, 15 miles of open conveyance, 162 public facilities and 102 private facilities. Maps are available online, in the City's IDDE Program Manual or at City Hall.

Receiving Water Visual Inspections – Outfall Reconnaissance Inventory

The City visually inspected Tributary 0057 in August of 2012 for illicit discharges. No illicit discharges were discovered during the inspections. A detailed report was included with the City's 2012 Annual Report to Ecology and can be found on the City's website at www.kenmorewa.gov.

3.3 PREVIOUS ACTIVITIES

2011 Kenmore IDDE Program Manual

The City developed a manual that outlines all IDDE program elements required by the Permit. The manual is available on the City's website at www.kenmorewa.gov.

Illicit Discharge Telephone Number

During business hours, illicit discharges and spills are reported to the City's main phone line (425-398-8900). The City contracts with King County to receive phone calls after business hours (206-296-8100). These phone numbers are listed on the "Contact Information" page of the City's webpage. The City maintains records of illicit discharges and connections, response actions taken and enforcement actions.

Water Quality Ordinance

The City was required to develop and implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illicit discharges into Kenmore's municipal separate storm sewer system to the maximum extent allowable under State and Federal law.

On November 2, 2009 Kenmore City Council passed ordinance 09-0299 amending Kenmore Municipal Code, Chapter 13.45 "Water Quality". KMC 13.45 also adopted the Kenmore Stormwater Pollution Prevention Manual. Kenmore Municipal Code and the Stormwater Pollution Prevention Manual are available online.

Receiving Water Visual Inspections – Outfall Reconnaissance Inventory

Swamp Creek was visually inspected in 2010. Sammamish River and Lake Washington shoreline were both visually inspected in 2011. More detailed reports can be found on the City's website at www.kenmorewa.gov.

Training

City staff responsible for identification, investigation, termination, cleanup and reporting of illicit discharges, including spills and illicit connections were trained to conduct these activities.

3.4 TMDL ACTIVITIES (BPCP)

Water Quality Ordinance

Ordinance 09-0299, amending KMC Chapter 13.45 “*Water Quality*”, effectively prohibits non-stormwater, illegal discharges from commercial animal handling areas and commercial composting facilities. The ordinance also adopts the 2009 Kenmore Stormwater Pollution Prevention Manual which contains BMPs addressing commercial composting and animal handling areas.

3.5 PLANNED ACTIVITIES

The City will continue to implement the 2011 Kenmore IDDE Manual.

A Receiving Water Visual Inspection – Outfall Reconnaissance Inventory will be conducted in 2013, per the City’s recently issued 2012 – 2013 Permit (effective September 1, 2012 through July 31, 2013).

SECTION 4 - CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT AND CONSTRUCTION SITES

4.1 PERMIT REQUIREMENTS

The City shall develop, implement and enforce a program to reduce pollutants in stormwater runoff to the MS4 from new development, redevelopment and construction site activities.

Table 4-1			
Minimum Performance Measure	Permit Section	Compliance Date	Compliance
Ordinance	S5.C4.a	2/15/2010	YES
Ordinance shall include equivalent language to Appendix 1 of the Permit	S5.C4.a.i	2/15/2010	YES
Ordinance shall include a site planning process and BMP selection/design criteria	S5.C4.a.ii	2/15/2010	YES
Ordinance shall provide legal authority to inspect	S5.C4.a.iii	2/15/2010	YES
Ordinance shall include provisions to allow LID	S5.C4.a.iv	2/15/2010	YES
City not applying Erosivity Waiver	S5.C4.a.v	2/15/2010	YES
Review all applicable site plans	S5.C4.b.i	2/15/2010	YES
Pre-inspect at risk ESC sites	S5.C4.b.ii	2/15/2010	YES
Inspect and enforce ESC	S5.C4.b.iii	2/15/2010	YES
Inspect and enforce post ESC	S5.C4.b.iv	2/15/2010	YES
Achieve at least 80% inspections	S5.C4.b.v	2/15/2010	YES
Developed enforcement strategy	S5.C4.b.vi	2/15/2010	YES
City not applying Erosivity Waiver	S5.C4.b.vii	2/15/2010	YES
Ordinance requires O&M	S5.C4.c.i	2/15/2010	YES
Establish maintenance standards equivalent to Ecology	S5.C4.c.ii	2/15/2010	YES
Annual inspections of flow control and stormwater treatment facilities	S5.C4.c.iii	2/15/2010	YES
Inspections of facilities that are part of a larger common plan	S5.C4.c.iv	2/15/2010	YES
Records of inspections and enforcement actions are kept	S5.C4.d	2/15/2010	YES
NOIs for construction and industrial activity are available	S5.C4.e	2/15/2010	YES
Applicable staff are trained	S5.C4.f	2/15/2010	YES

4.2 CURRENT ACTIVITIES

The City continues to implement all Permit, code and development requirements for development, redevelopment and construction sites in the City.

4.3 PREVIOUS ACTIVITIES

Surface Water Runoff Ordinance

The City council passed Ordinance 10-0305 on January 11, 2010 amending Kenmore Municipal Code 13.35 *Surface Water Runoff Policy*. The ordinance also adopted the King County 2009 Surface Water Design Manual.

- The City conducts stormwater plan review, construction inspection and enforcement services.
- The City follows the maintenance practices from the ESA Regional Road Maintenance Guidelines, which are consistent with Permit standards.
- The City conducts inspections for enforcement of private facility maintenance.
- The City has a system for recordkeeping on construction inspections and maintenance of drainage facilities.
- The City makes copies of the “Notice of Intent for Construction Activity” and the “Notice of Intent for Industrial Activity” available to developers.
- The City is reviewing inspection programs in place with King County Water and Land Resources Division (WLRD) for compliance with Permit requirements.

4.4 TMDL ACTIVITIES

No specific TMDL activities for controlling runoff from development, redevelopment and construction sites were identified in Appendix 2 of the Permit.

4.5 PLANNED ACTIVITIES

The City will continue implementing the 2009 King County Surface Water Design Manual and all other relevant codes and regulations.

SECTION 5 - POLLUTION PREVENTION AND OPERATIONS AND MAINTENANCE FOR MUNICIPAL OPERATIONS

5.1 PERMIT REQUIREMENTS

The City shall 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.

Table 5-1			
Minimum Performance Measure	Permit Section	Compliance Date	Compliance
Adoption of maintenance standards as protective of SMMWW	S5.C5.a	2/15/2010	YES
Annual inspection of flow control and WQ treatment facilities	S5.C5.b	2/15/2010	YES
Spot check facilities after major storms	S5.C5.c	2/15/2010	YES
Inspect and clean all applicable catch basins	S5.C5.d	2/15/2012	YES
Achieve 95% inspection rate	S5.C5.e	8/19/2011	YES
Practices to reduce stormwater impacts	S5.C5.f	2/15/2010	YES
Policies to reduce pollutants in discharges	S5.C5.g	2/15/2010	YES
Develop an ongoing training program	S5.C5.h	2/15/2010	YES
Develop a SWPPP for applicable sites	S5.C5.i	2/15/2010	YES
Records of inspections and maintenance	S5.C5.j	2/15/2010	YES

5.2 CURRENT ACTIVITIES

The City continues to implement the Operations & Maintenance Practices and Policies Manual.

5.3 PREVIOUS ACTIVITIES

Adoption of Maintenance Standards

The City council passed Ordinance 10-0305 on January 11, 2010 amending Kenmore Municipal Code 13.35 *Surface Water Runoff Policy*. The ordinance also adopted the King County 2009 Surface Water Design Manual, which contains the City's maintenance standards (Appendix A).

Operations & Maintenance Practices and Policies Manual

In order to comply with many of the O&M requirements set forth in the Permit, the City developed the Operations & Maintenance Practices and Policies Manual (OMPPM). The OMPPM contains inspection program details, O&M practices, O&M policies, training records, SWPPPs, maintenance standards, nutrient management plan, integrated pest management plan and current O&M contracts. The OMPPM is included in the 2010 annual report submittal.

5.4 TMDL ACTIVITIES (BPCP)

No specific TMDL activities for pollution prevention and operations and maintenance for municipal operations were identified in Appendix 2 of the Permit.

5.5 PLANNED ACTIVITIES

The City will continue to implement the practices and policies outlined in the Operations & Maintenance Practices and Policies Manual.