

City of Sumner
Stormwater Management Program



February 2011

Stormwater Management Program 2011

1. INTRODUCTION	3
2. NPDES PHASE II PROGRAM COMPONENTS	4
2.1 Public Education and Outreach.....	4
2.2 Public Involvement and Participation	8
2.3 Illicit Discharge Detection and Elimination.....	10
2.4 Controlling Runoff from New Development, Redevelopment, and Construction Sites	12
2.5 Pollution Prevention and Operation and Maintenance for Municipal Operations	15
2.6 Monitoring.....	17
3. CONCLUSION.....	19
 APPENDICES	
B.....	Sumner Stormwater Public Education Material
C.....	Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan

1. INTRODUCTION

The National Pollutant Discharge Elimination System (NPDES) permit program is a requirement of the Federal Clean Water Act. The permit was initiated to protect water quality through the development and implementation of programs and procedures to detect and eliminate pollutant discharges. The Federal Environmental Protection Agency (EPA) has delegated permit authority to state environmental agencies towards developing, implementing and enforcing stormwater regulations and policies. In Washington, the NPDES-delegated permit authority is the Washington State Department of Ecology (Ecology).

This document is updated annually by the City of Sumner to meet the requirements for a Stormwater Management Program (SWMP) as required by the NPDES Phase II Permit issued by Ecology. The SWMP was developed to outline the City's advancement and strategy for implementing Permit required programs and policies. The SWMP also illustrates the City's individual approach towards the reduction of pollutant discharges from the City's Municipal Separate Storm Sewer System (MS4).

The overall purpose of this program is to protect water quality by reducing pollutant discharges to the maximum extent possible (MEP). This will be done through the application of Best Management Practices (BMP's) and compliance with the Washington State's All Known and Reasonable Treatment (AKART) requirements where applicable in the major divisions of the NPDES Permit listed below:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment and Construction Sites
- Pollution Prevention and Operation and Maintenance for Municipal Operations

The Permit requires a comprehensive annual report describing completed requirements and deadlines for future requirements. This report must be submitted to the Ecology, by March 31st of the following year. The SWMP document is an element of the annual report that provides an explanation of the Permit requirements and previous year's activities as well as a summary of potential plans based on future requirements of the Permit in the forthcoming years. An updated SWMP is required with each year's annual report to Ecology.

2. NPDES PHASE II PROGRAM COMPONENTS

Sumner is defined as a Phase II community by the Washington State Department of Ecology (Ecology), and therefore, is required to comply with the requirements of the Phase II National Pollution Discharge Elimination System Stormwater (NPDES) Permit. Phase II communities are those that:

- Own and operate a storm drain system.
- Discharge to surface waters.
- Are located in urbanized areas.
- Have a population of more than 1,000.

Phase II communities were required to complete an NPDES Phase II Stormwater Permit Application and submit to DOE by March 10, 2003. The NPDES Phase II Permit (Permit) was issued to Sumner on January 17, 2007 and went into effect on February 16, 2007. The Permit, as it stands now, expires on February 15, 2012. A new Permit is set to be issued in the summer of 2012 and will likely contain content similar to the current Permit with additional requirements in the monitoring section of the Permit.

The program divisions listed in the current Permit are as follows:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment and Construction Sites
- Pollution Prevention and Operation and Maintenance for Municipal Operations

The requirements of these program components and how the City of Sumner is currently addressing and plans to address future requirements are discussed in greater detail in the sections below. In general, the City of Sumner has activities and programs in place that meet current NPDES Phase II Permit requirements. As future requirements are introduced, the City will need to develop and implement more programs, training, educational materials, and update policies and procedures to manage current specifications and demands.

2.1 PUBLIC EDUCATION AND OUTREACH

2.1.1 *Permit Requirements*

This component aims to implement a public education program that actively provides educational materials, learning opportunities, and activities regarding stormwater management to the community. More specifically, this program focuses to distribute significant and applicable stormwater information to various audiences including: the

general public, businesses, homeowners, engineers, contractors and City staff. The messages in these materials contain a general theme concerning the impacts of stormwater discharges on local and regional water bodies. These materials can be distributed in an assortment of ways including but not limited to: seminars, trainings, events, commercials, online postings, newsletters, posters, coloring books and brochures.

A portion of this program focuses on providing informative steps the general public can adopt to reduce the amount of pollutants in stormwater runoff generated from the homeowner. Other segments focus on business and property management, maintenance of stormwater facilities, and hazardous materials. The education program will target a variety of groups, in an effort to contact and inform a large percentage of those most likely to impact stormwater.

To ensure that the program is successful, a measurement of the behaviors and understanding of water quality was recorded after a regional survey developed in conjunction with Pierce County was administered to the citizens of Sumner. The data and results provided will be used as a basis to guide future public education and outreach programs. Additional surveys will be administered intermittently to determine whether or not the current methods of informing the public are effectively educating and reducing pollutant discharge. This program promotes a positive change in behaviors to ensure and protect water quality in local and regional waters of the state.

2.1.2 2010 Public Education Activities

The City of Sumner has had a public education program in place for the last several years, which addresses the various requirements within the Public Education and Outreach component of the Permit.

- Sumner policy requires that stormwater control facilities, serving other than single-family residential developments, be owned and maintained by the homeowners' association, property owner or other designee. The developer is required to execute and record an *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan* in instances where the City will not assume ownership and maintenance of a stormwater facility.
- Sumner Municipal Code was updated to reflect and coincide with the regulations and guidelines of the adopted 2005 Stormwater Management Manual for Western Washington. Pre-existing SMC's mandate that BMP's be installed and completed before permits are issued so that all construction at new commercial operations are required to include basic water quality pollution prevention of the facility. In addition to mandatory stormwater education for commercial employees, the City encourages high customer volume businesses to display water quality practice informational brochures.

Stormwater Management Program 2011

- A River Clean-up event was coordinated with the Tacoma Chapter of Trout Unlimited in April of this past year. Approximately 75 volunteers helped to remove 2.76 tons of garbage and debris from the banks of the Puyallup River.
- City staff accompanied the Tacoma-Pierce County Health Department during Local Source Control inspections of auto repair shops and golf courses.
- Pierce Conservation Districts Stream Team worked with a local Eagle Scout to coordinate a habitat restoration project on Salmon Creek. The Eagle Scout along with other troop members and volunteers removed evasive foliage and planted trees to prevent the detrimental foliage from re-establishing itself near the creek waters.
- The City maintains a list of Stormwater Maintenance Agreement holders and conducts annual inspections of the businesses stormwater facility with property managers or maintenance staff. Proper maintenance and repairs are explained during the walk-through inspection of the facility.
- The City's Community Connection Newsletter was utilized to post articles on the differences of Storm and Sewer treatment, lawn care and excess fertilizers as well as fall clean-up events for yard waste and leaf disposal.

Other educational materials such as brochures and posters on car washing, natural yard care, and pet waste have been posted on the City's website or at sites around town.

2.1.3 Future Public Education Activities

As a part of the ongoing requirements of the NPDES Permit, the City has fabricated an Education/Outreach Program list of innovative methods and approaches in continuing to educate the community of Sumner on the topic of water quality.

- Newsletter/Internet website postings
- Surveys
- Utility billing flyers
- Brochures
- Coloring placemats for local restaurants
- Garden/Nursery seminars
- Charity car wash programs
- Posters
- Events – River Clean-up, Recycling, Habitat Restoration
- List of local recycling businesses
- TV Commercials

The list above contains several simple methods in promoting a change to the detrimental behaviors that impact the water quality our local and regional waterways. To avoid

Stormwater Management Program 2011

creating large quantities of reading material, there are also a couple activities planned for the community to participate in, those of which include a shred and clean event, and coffee sleeve/coaster program described below.

In recognition of Earth Day a Shred and Clean event is being organized to accept items such as paper, appliances and (hopefully) paint and hazardous material disposal.

The City of Sumner is also working with Pierce County during the month of April to promote the organization and storm messages from Puget Sound Starts Here. The City has solicited to acquire a list of participating coffee stands and restaurants and plans to distribute the promotional coffee sleeves and coasters for use during the week identified by Pierce County.

Other education and outreach ideas that have yet to be scheduled or planned are listed below in the Stormwater Public Education and Activities Plan for 2011.

Stormwater Public Education and Activities Plan for 2011

APRIL

- Puget Sound Starts Here (PSSH)-Coffee Sleeve and Coaster project
- Shred & Clean Event
- Windmill Gardens -Yard Care Infomercial
- Utility Billing Stormwater Fact

MAY

- Design and publish colored placemats for restaurants
- LID Brochure with Pierce County
- Utility Billing Stormwater Fact

JUNE- AUGUST

- Sumner University Event
- LID Brochure with Pierce County
- Utility Billing Stormwater Fact

SEPTEMBER

- Survey Administered
- Utility Billing Stormwater Fact
- Stream Team Booth

Ideas & Activities not yet scheduled

- Geocaching with Pierce County
- Salmon Creek clean-up Event
- Curb Marking
- Charity Car Wash promotion

Stormwater Management Program 2011

This is a general schedule of activities and other ideas to be coordinated and organized in satisfying the next annual Public Education and Outreach Permit requirements. Additional materials such as posters, brochures and newsletters will also be structured in the Communication Department as an annual segment of this program. By the end of 2011 all required materials will have been distributed or presented to all suggested audiences to fulfill the Permit requirements.

2.2 PUBLIC INVOLVEMENT AND PARTICIPATION

2.2.1 *Permit Requirements*

This program component requires that the City of Sumner develop a public involvement and participation program that complies with state and local public notice requirements. The City of Sumner currently participates in various groups and organizations pertaining to the importance of water quality and future issues. The City also has a program available for the public to partake in the development and formation of this SWMP.

2.2.2 2010 Public Involvement and Participation Activities

The City of Sumner has a public involvement and participation program in place that meets requirements of this program component, by providing opportunities for the public to learn, comment or propose suggestions regarding stormwater projects, programs and policy.

The City is a leading member of the Puyallup River Watershed Council (PRWC) hosting the monthly meetings at Sumner's City Hall. This group works to coordinate water quality programs, activities, and organizes discussions concerning environmental and habitat issues in the Puyallup River basin.

Another environmental organization the City has partnered with is Puget Sound Starts Here (PSSH). This group focuses on promoting stormwater tips for the homeowner in several categories such as: natural yard care, car maintenance and washing, and pet waste. The City utilizes the promotional materials provided by PSSH to propagate the same messages creating a regional effort to reduce pollutants from entering the water systems of Puget Sound.

The Community Development Department has formed its own program called Sumner University. This curriculum presents information regarding local government, giving the citizens of Sumner the opportunity to learn discuss various departments and programs in their jurisdiction.

During the Puyallup Fair, City staff worked a booth for Pierce Conservation Districts Stream Team Program. Staff provided answers to questions from Fair guests regarding the Rain Barrel demonstration and other displays. Children were asked if they wanted to feed Sammy the Salmon, in an effort to educate the youth on salmon habitat and how they directly impact their quality of living environments.

Stormwater Management Program 2011

The City is also an active member of the South Puget Sound Phase II Coordinator's Group. This organization meets bi-monthly to discuss stormwater related issues and address methods of compliance regarding NPDES Permit deadlines.

Another group the City has become affiliated with is the Stormwater Work Group. This group meets quarterly to discuss specific topics of the overall plan to provide Ecology with a proposal for a regional monitoring system that would satisfy the monitoring requirements of the Permit.

In addition to involvement in the PRWC, the South Puget Sound Phase II Coordinator's Group, and the local caucus group, the City has Sumner Municipal Code (SMC's) stormwater regulations require that all industrial and commercial sites paint or emboss "DUMP NO WASTE – DRAINS TO STREAM" adjacent to all storm drain inlets. Sumner also has a public involvement and participation activity for car washes. The City has implemented the use of a car wash kit designed to collect water from car washes so that it can be pumped into the sanitary sewer system. There is also an informational handout for this activity in Appendix A.

The public had the opportunity to aid in the development of the City's SWMP through an online survey. Citizens were encouraged through the Sumner Community Connection Newsletter to go online, read the SWMP and complete the survey with commentary. The SWMP, annual report(s) and other submittals are made available to the public on our City website. Comments are being addressed accordingly.

2.2.3 Future Public Involvement and Participation Activities

The City will post the updated versions of the SWMP and annual report on its website (www.ci.sumner.wa.us) by March 31st. Any other submittals required by the Permit will also be posted as necessary on the website. The public will continue to have the opportunity to comment on the SWMP by means of the online survey. The City also hosts several council meetings for which the public can attend and voice their opinions on various stormwater projects.

The City plans to coordinate and work with the Puget Sound Partnership to organize a Rain Garden Installation Program, to get local citizens involved with learning how they can contribute to the health of the Puget Sound by performing simple operations in the setting of their own home.

Another organization the City plans to collaborate with this year is Pierce Conservation Districts Stream Team. Various Capital Improvement Projects offer the opportunity to provide additional habitat restoration near the rivers and creeks of Sumner.

In April the City will distribute promotional coasters and coffee sleeves to local participating restaurants to use and support stormwater messages provided by PSSH. This project goal is to generate awareness of PSSH and the information they provide concerning stormwater impacts and management.

Stormwater Management Program 2011

Active involvement with the various groups and organizations as well as coordination between municipal departments will continue in support of protecting water quality. The City of Sumner plans to be a part of the EPA Puget Sound Watershed Management Assistance Grant in collaboration with the City of Puyallup and many other municipalities in the Pierce County region.

2.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

2.3.1 *Permit Requirements*

Compliance with this program component requires the City to implement and enforce an Illicit Discharge Detection and Elimination (IDDE) program for the City's MS4. Required program elements are as follows:

- Develop a municipal storm sewer system map that includes information on the City's MS4 (e.g. outfalls, receiving waters, connection points, areas that don't discharge to surface water, etc.).
- Effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater, illegal discharges, and dumping into the City's MS4.
- Develop and implement a program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping into the City's MS4.
- Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper waste disposal.
- Implement procedures for program evaluation and assessment which includes a program to track spills and illicit discharges (both number and type), record inspections made and record any feedback received from public education effort.
- Provide appropriate training to City employees on IDDE into the City's MS4.

2.3.2 2010 Illicit Discharge Detection and Elimination Activities

The City of Sumner has a Municipal Separate Storm Sewer System (MS4) base map that is regularly updated by the City to include development and redevelopment projects upon completion and receipt of as-built information. Additional information is periodically provided by Pierce County (due to Interlocal agreement).

A supplementary map of the MS4s known outfall sites and structural BMPs owned, operated, or maintained has also developed in response to Permit requirements. Other maps illustrate land uses, areas served by the MS4 and those that do not discharge surface waters.

Another measure the City has employed to satisfy Permit requirements includes training. City representatives attended the Illicit Discharge Detection and Elimination (IDDE)

Stormwater Management Program 2011

Response and Enforcement Level Training sponsored by Herrera to learn about proper identification, indicators, and methods of response when developing an IDDE program. The City has also conducted several in house training seminars to educate staff and field personnel regarding identification and elimination of various discharges, and procedures to follow to remedy the situation.

A phone hotline has also been created and is currently displayed on our City website for citizens to use and report incidents. The number will either contact the City's Maintenance and Operations Facility or the Police to respond.

During outfall reconnaissance and field inspections, an illicit discharge was identified exiting a stormwater pipeline. This prompted the use and application of our IDDE program. A cooperative investigation with the Tacoma-Pierce County Health Department has been initiated to find the source and resolve this situation.

Sumner ordinances and other programs are in place and meet requirements for the IDDE component of the Permit. Sumner Municipal Code (SMC) and other programs currently in place concerning illicit discharge control are as follows:

- SMC 13.48.233 Illicit connection, this code defines an illicit connection according to the City
- SMC 13.48.234 Illicit discharge, this code defines an illicit discharge according to the City.
- SMC 13.48.820, Illicit discharges, this code prohibits illicit discharge.
- SMC 13.48.830, Enforcement, this code defines how the City will enforce the codes.
- SMC 13.48.860, Penalty, this code defines how the City will penalize failure to comply with the codes.
- Nonpublic stormwater facility operators are required to execute and record an *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan* as shown in Appendix C. Operation, maintenance and repair responsibility resides on the facility owner. Included in this plan is a maintenance checklist which contains line items regarding identification of oil and chemical sheens or odors. A database for properties possessing recorded Stormwater Maintenance Agreements has been created to monitor inspections, annual report submissions and maintenance/repair activities.
- Stormwater Pollution Prevention Plans have been developed for Sumner-maintained streets, the Sumner WWTP, and the Sumner Meadows Golf Links. The golf course and WWTP plans state that dry weather surveys will be conducted annually for IDDE.
- Illicit discharges to the Sumner storm system are detected during routine catch basin and stormwater conveyance system maintenance activities. Catch basin and stormwater conveyance cleaning is typically conducted on an as-needed basis.

- Documentation of activities including when inspections take place, times and types of spills, public feedback from education efforts and training for municipal staff has been implemented and recorded.

2.3.3 Future Illicit Discharge Detection and Elimination Activities

The City will maintain the ongoing program to detect Illicit Discharges and Illicit Connections to the MS4 as well as continue training staff to document illicit connections and spills. Staff will also be trained to continue to perform field assessments and visual inspections of high priority outfalls and water bodies in preparation for regulated monitoring of receiving waters and source identification.

The planned activities stated earlier for public education and outreach will include information on IDDE in an effort to decrease the number of IDDE's found throughout the City.

In response to a report developed by Ecology, the City of Sumner has initiated an investigation on Fecal Coliform sources discharging to Salmon Creek. Water samples from various locations on the Creek are currently being tested to determine the location(s) of the significant contributors (source identification). This examination of Salmon Creek will continue until Ecology determines the quality of water in the Creek is in acceptable condition.

Newly revised City code addressing issues of Illicit Discharges and Illicit Connections and enforcement procedures will be utilized by inspectors and staff to resolve actions of stormwater pollution.

A summary report of program evaluation, implemented and adopted procedures, and tracking for the IDDE program will be submitted as required in the NPDES Annual Report.

The City will continue to develop its map of the MS4 including the locations of all known stormwater outfalls and structural BMP's. Methods for locating and tracking areas with a higher probability for having illicit discharges will be developed. The City will also continue to develop, modify, and implement procedures for source identification and proper response when contamination is acknowledged.

2.4 CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT, AND CONSTRUCTION SITES

2.4.1 *Permit Requirements*

Compliance with this program component requires the City to develop, implement, and enforce a program to reduce pollutants in stormwater runoff to the municipal stormwater infrastructure from any new development, redevelopment and construction site activities that result in a land disturbance, development or sale. The minimum elements included in this program component are:

Stormwater Management Program 2011

- An ordinance or other regulatory mechanism to address runoff from new development, redevelopment and construction site projects. City codes, ordinances and development specifications may require smaller sites to comply with these requirements as well.
- Develop and implement a permit process with plan review, inspection and enforcement capability including adequate long-term operation and maintenance of the stormwater facilities and BMP's.
- Develop and implement procedures for documenting inspections and enforcement actions.
- Make available copies of the *Notice of Intent for Construction Activity* and *Notice of Intent for Industrial Activity* for representatives of new developments and redevelopments.
- Develop and implement a training program for 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.
- Provide in the annual report submitted no later than March 31, 2011 a summary describing identified barriers for usage of Low Impact Development (LID), and a report of LID practices, goals and non – structured actions.

2.4.2 2010 Runoff and Development Activities

The City of Sumner has adopted the 2005 Stormwater Management Manual for Western Washington as well as revised enforceable mechanisms that meet requirements for controlling runoff from new development, redevelopment and construction sites. These enforceable mechanisms currently in place related to this requirement include:

- The *City of Sumner Development Specifications and Standard Details* Chapter 5, Section 5.2 *Standard Specifications* lists and describes all the applicable references for standards that control runoff from new development, redevelopment and construction site activity in the City including the WSDOE 2005 *Stormwater Management Manual for Western Washington* (SMMWW); the *Low Impact Development Technical Guidance Manual for Puget Sound*; *WSDOT Standard Specifications for Road, Bridge and Municipal Construction*; *1992 King County Surface Water Design Manual* (KCSWDM) and others.
- The *City of Sumner Development Specifications and Standard Details* Chapter 5, Section 5.3, *Stormwater System Design Requirements* describes the process that new development, redevelopment and construction sites must go through prior to approval and acceptance from the City. Also included in Section 5.6 *Maintenance Responsibilities* are requirements for an *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan*. This agreement is shown in Appendix C.

Stormwater Management Program 2011

- SMC 16.04 requires public comment for projects subject to SEPA requirements. SMC 18.56 requires public comment during a Land Use Permit application process requiring a Type II, IV, V, VI.a, or VI.b decision.
- Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity are provided to representatives of proposed new development or redevelopment.

To enforce these regulations, the City has employed inspectors to document and address compliance issues and correction methods to be implemented. Inspection reports are completed at various stages of construction to provide documentation of incidents and response from the contractors, managing the site.

As a part of our ongoing training program, the City arranged for two staff members to attend a National Pollutant Discharge Eliminations System (NPDES) Phase II Permit Compliance Training course on “Illicit Discharge Detection and Elimination, Response & Enforcement Level Training” presented by Herrera Environmental Consultants. City representatives were educated on the proper identification of an unknown substance, documentation, investigation, and enforcement or elimination procedures. Municipal program development was also discussed as a part of NPDES Permit requirements.

Another training seminar the City attended was involved a presentation on “Stormwater Treatment Technologies”. This particular seminar was provided by Kennedy/Jenks Consultants. This lecture discussed expected future NPDES regulations regarding water quality monitoring and treatment and some of the current technologies available to resolve these issues.

Additional information on new stormwater technologies was made available to the City through a tour of Washington State University’s (WSU) Puyallup Research and Extension Center located in Puyallup. City staff listened to a presentation explaining the new stormwater technologies WSU’s extension is currently testing and the early results they have received from experimental testing. A guided tour was also offered where attendees were able to see these technologies first hand.

A BMP presentation on spill situations and containment was administered to City representatives in Public Works, Maintenance and Operations, and the Police Departments. These selected departments represent the staff most likely to be in the field and witness illicit discharges, illegal dumping, and water quality issues. Staff watched a video presentation explaining common misguided maintenance behaviors and learned about the implementation of good housekeeping procedures. .

As required, a report has been created to identify barriers, goals, non-structural actions, and practices of Low Impact Development within the City of Sumner. This document has been included as a part of 2010 NPDES Annual Report.

2.4.3 Future Runoff and Development Activities

The City will continue to enforce adopted Sumner Municipal Code and modified Development Specifications and Standard Details to reflect the requirements of the NPDES Permit. In addition, the inspectors will continue to perform their duties and

Stormwater Management Program 2011

record enforcement actions, and training will be provided to staff impacted by the NPDES Permit and for those responsible for regulating the requirements of this program component.

Permit and development review staff will utilize new guidelines and amend design flaws for new development, redevelopment and construction sites. New standards and details for LID requirements will be used to implement LID where feasible within the City of Sumner.

Scheduled maintenance activities will be performed as planned and records will be updated. Spot checks will be performed in areas that have had significant issues historically. The City also has resources available to manage complaints are phoned in on the "Report a Problem" hotline.

Currently, the City of Sumner enforces municipal code in compliance with the standards and regulations of the NPDES Permit. Methods of enforcement are described in the City's municipal code. Trainings are provided annually for City staff to gain knowledge about up to date technologies, standards, and Permit requirements, so that they can be implemented and enforced jurisdictionally.

2.5 POLLUTION PREVENTION AND OPERATION AND MAINTENANCE FOR MUNICIPAL OPERATIONS

2.5.1 *Permit Requirements*

This minimum control measure requires that the City develop and implement an operations and maintenance (O&M) program, including a training component, that has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

The minimum elements included in this program component are:

- The City will develop and implement O&M standards for municipal facilities that are as protective, or more protective, than those in Chapter 4 of Volume V of Ecology's 2005 SWMMWW.
- The City will develop an annual inspection program for flow control facilities, and will do spot checks after major storm events for damage.
- The inspection program will include inspection of all catch basins and inlets in the MS4 before the Permit expiration date.
- The inspections will be documented and work done or needed on the stormwater facilities will be noted according to the Permit requirements for reporting.
- The City will develop and implement a program to reduce the stormwater impacts from streets, parking lots, roads, highways and other lands owned, operated or maintained by the City, including road maintenance.

Stormwater Management Program 2011

- The City will develop and implement a training program for City employees whose construction, operation and maintenance job functions may impact stormwater quality.
- The City will develop a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance yards and material storage facilities owned or operated by the City that is not required to have coverage under the Industrial Stormwater General Permit.

2.5.2 2010 Maintenance and Operations Activities

The City's maintenance standards for stormwater facilities are typically addressed in the *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan* as shown in Appendix C or in a SWPPP specific to the site. The agreement standards are very similar to those specified in Chapter 4 of Volume V of Ecology's 2005 SWMMWW and addresses various types of BMP's, identifiable water quality issues, as well as proper maintenance of each BMP.

Catch basins are currently inspected with routine maintenance activities. These smaller activities are done on an as-needed basis. However, a complete cleaning of the MS4 system is also performed bi-annually to ensure good housekeeping behaviors are followed.

Stormwater Pollution Prevention Plans (SWPPP's) were developed for City facilities likely to discharge pollutants to the City stormwater infrastructure. These facilities include: the Sumner Wastewater Treatment Facility (WWTF), Sumner Meadows Golf Links, and Street Maintenance Division. Each SWPPP describes implemented measures to reduce stormwater impacts including pollutant discharges from all the areas owned by the City. They also include on-going training programs for employees. The SWPPP's for each City facility contain recommendations for routine pollution prevention, stormwater facility maintenance, stormwater facility inspection schedules, and training related to stormwater pollution prevention. SWPPP's for City facilities are contained in separate documents entitled *City of Sumner Wastewater Treatment Facility Stormwater Pollution Prevention Plan*, *City of Sumner Sumner Meadows Golf Links Stormwater Pollution Prevention Plan*, and *City of Sumner Street Maintenance Stormwater Pollution Prevention Plan*. An *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan* was previously executed for the City Shop.

To satisfy the requirements of this component of the Permit for City owned facilities, the City has developed and implemented a plan to inspect of all the inlets, ponds, oil water separators and grease interceptors stormwater treatment and flow control facilities owned and operated by the City. Our Maintenance and Operations crew annually inspects all City owned stormwater facilities, verifying proper function and managing maintenance when necessary. The plan also includes spot checks on potentially damaged permanent treatment and flow control facilities after major storm events. Catch basins are cleaned bi-annually due to the efficiency of our scheduled sweeping of the City roadways. The

plan also includes documentation of the inspections and work performed or needed on the stormwater facilities.

2.5.3 Future Maintenance and Operations Activities

The City will continue to inspect and maintain facilities as described by the SWPPP's, Maintenance Agreements and in accordance with NPDES Permit regulations established for City owned equipment and structures. Maintenance checklists will be documented and recorded to reflect the current maintenance and operating status of the facility.

Spot checks and annual inspections of the City's MS4 will continue as scheduled. Maintenance will be performed to resolve any identified issues or water quality concerns. The City will continue to identify and develop methods for reducing stormwater pollution from roadways, parking lots and other City owned facilities in accordance with the NPDES Permit standards.

Training seminars will be scheduled to maintain the status of currently certified employees as well as certify other staff as this program continues to develop.

The Maintenance and Operations program for preventing pollution generated from City owned facilities will continue to modify its current processes and maintenance programs in an effort to develop efficient practices and methods for pollution reduction. In order to accomplish this objective, the City will utilize training opportunities and informational seminars to learn and educate staff of the potential means and methods of maintenance and operations applicable to City owned facilities.

2.6 Monitoring

The Clean Water Act requires municipalities to obtain an NPDES Permit and to develop a stormwater management programs to prevent harmful pollutants from reaching local water bodies. The current NPDES Phase II Permit cycle does not require any water quality monitoring unless it is pursuant to a TMDL requirement or part of the IDDE program. Due to the size of Sumner (population under 10,000), the City is not required to develop a monitoring program. However, as a result of the subsequent 2012 NPDES Permit and projected future monitoring requirements, the City has established a Groundwater and Stream Low Flow Monitoring program to satisfy a portion of the anticipated monitoring requirements.

This monitoring program consists of 12 shallow groundwater monitoring wells and 4 stream gauges. The groundwater monitoring wells measure the depth of the groundwater and record the data using data loggers. The stream gauges located in Salmon Creek, Middle Creek and Milwaukee Ditch (2) measure depth and velocity of the flow and record using data loggers as well. The goal of this monitoring is to estimate groundwater gradients within the White River Valley to assess whether development has an effect on groundwater flow patterns and stream base flows.

Stormwater Management Program 2011

The City has also implemented another monitoring program. This monitoring program has been established to track stormwater runoff from a small LID in Sumner. The equipment purchased in 2007 includes a rain gauge, soil saturation meter, weir and other related telemetry and controls. The runoff/weather station was installed in 2008 and has then been programmed to record data regarding the amount of rainfall, and soil moisture to try and determine the infiltration rate and efficiency of the implemented LID system. Data from this station has been collected and is in the process of being converted and formatted to better understand the results of LID implementation.

Another monitoring project the City has recently initiated is water quality testing of Salmon Creek. The Department of Ecology presented the City with a draft report "Water Quality Improvement Report" - Puyallup River Watershed Fecal Coliform Total Maximum Daily Load which identified Salmon Creek as a tributary in need of fecal reduction.

In response to this report, the City of Sumner began to study and sample various locations on the Creek to identify potential causes and source of the Fecal contaminating the stream. Currently, there are two investigations in progress to locate sources of significant measurements of Fecal identified during water quality testing. Samples of the creek and testing of the water will continue until fecal rates are below the water quality standards identified in the TMDL report.

Although the City of Sumner is not required to submit an established plan and site locations for future long term monitoring, the City was required to develop a plan for two effectiveness monitoring experiments. This plan identifies two hypotheses to be tested, sites for which the data will be retrieved and an explanation of why these suggested plans would be of significance use to other jurisdictions. This document is included as a part of the annual Permit to be submitted to Ecology for the year 2010.

As this Permit cycle comes to an end the City will continue to fully develop its program components to remain in compliance with Permit standards and regulations. It is currently unknown what to anticipate for future monitoring requirements. However, the City will continue to observe and examine organizational, group efforts attempting to establish a plan coordinated with Ecology.

3. CONCLUSION

The City of Sumner has met all the minimum requirements for the 2010 reporting period. The City has an established stormwater utility that is and will continue to be a funding source for stormwater facility improvements and permit requirements. There are many projects and activities that the City is performing and executing that line up with Permit requirements. In the coming years there will be several more programs to develop and implement to remain in compliance.

The Public Education and Outreach component for the SWMP is well underway and on track. During the next reporting period the City will need to develop and distribute more educational materials to target audiences listed in the Permit. The City also needs to continue documenting the progress of the behaviors of the targeted audiences and compare the results with those from the administered survey.

The City is actively participating in several watershed groups as part of their Public Involvement and Participation component. This relationship will continue and promote involvement of local residents in the development of this SWMP document. The City also needs to continue to create programs and events such as a stencil or emboss “Dump No Waste – Drains to Stream” project near all stormwater inlets, or a restoration project on Salmon Creek to keep local citizens involved and aware of the impacts they can have on the environment.

The City has developed a stable Illicit Discharge Detection and Elimination program. The MS4 maps include the City’s existing infrastructure and will continue to develop as more information and as-builts are gathered. The SMC’s clearly state procedures for managing and resolving illicit connections and discharges. Documentation of the inspections, spills, feedback and training is currently in place to meet the Permit requirements.

The revised *City of Sumner Development Specifications and Standard Details* and SMC’s now reflect the requirements for Controlling Runoff from New Development, Redevelopment and Construction Sites. These modifications will bring the City standards into alignment with many future requirements of the Permit. Additional work will be necessary to maintain documentation of inspection and enforcement actions and continue training for City staff according to the Permit requirements.

The Maintenance and Operations component of the SWMP has a solid agreement in place for maintaining stormwater facilities and pollution source control plans. The SWPPP’s created for Street Maintenance; Sumner Meadows Golf Links and the Wastewater Treatment Facility have established guidelines and requirements for reducing and preventing pollution during operation and maintenance of Municipal facilities. The City shops operate under an *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan*.

Stormwater Management Program 2011

The City's monitoring programs are gathering a substantial amount of information about groundwater levels in the area near Sumner. The LID weather station will be analyzed to verify the effectiveness of the implemented system, infiltration rates and ground water retention. The Fecal Coliform investigation and sampling program will continue to proceed and eliminate sources until water quality standards are met for the fresh water stream. All of the above information will continue to be analyzed with the intention that conclusions can be extracted regarding the BMP's implemented in the City.

City of Sumner
Stormwater Management Program



February 2011

Stormwater Management Program 2011

1. INTRODUCTION3

2. NPDES PHASE II PROGRAM COMPONENTS4

 2.1 Public Education and Outreach4

 2.2 Public Involvement and Participation8

 2.3 Illicit Discharge Detection and Elimination.....10

 2.4 Controlling Runoff from New Development, Redevelopment, and
 Construction Sites12

 2.5 Pollution Prevention and Operation and Maintenance for Municipal
 Operations15

 2.6 Monitoring.....17

3. CONCLUSION.....19

APPENDICES

B..... Summer Stormwater Public Education Material

C..... Agreement to Maintain Stormwater Facilities and to Implement a Pollution
Source Control Plan

1. INTRODUCTION

The National Pollutant Discharge Elimination System (NPDES) permit program is a requirement of the Federal Clean Water Act. The permit was initiated to protect water quality through the development and implementation of programs and procedures to detect and eliminate pollutant discharges. The Federal Environmental Protection Agency (EPA) has delegated permit authority to state environmental agencies towards developing, implementing and enforcing stormwater regulations and policies. In Washington, the NPDES-delegated permit authority is the Washington State Department of Ecology (Ecology).

This document is updated annually by the City of Sumner to meet the requirements for a Stormwater Management Program (SWMP) as required by the NPDES Phase II Permit issued by Ecology. The SWMP was developed to outline the City's advancement and strategy for implementing Permit required programs and policies. The SWMP also illustrates the City's individual approach towards the reduction of pollutant discharges from the City's Municipal Separate Storm Sewer System (MS4).

The overall purpose of this program is to protect water quality by reducing pollutant discharges to the maximum extent possible (MEP). This will be done through the application of Best Management Practices (BMP's) and compliance with the Washington State's All Known and Reasonable Treatment (AKART) requirements where applicable in the major divisions of the NPDES Permit listed below:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment and Construction Sites
- Pollution Prevention and Operation and Maintenance for Municipal Operations

The Permit requires a comprehensive annual report describing completed requirements and deadlines for future requirements. This report must be submitted to the Ecology, by March 31st of the following year. The SWMP document is an element of the annual report that provides an explanation of the Permit requirements and previous year's activities as well as a summary of potential plans based on future requirements of the Permit in the forthcoming years. An updated SWMP is required with each year's annual report to Ecology.

2. NPDES PHASE II PROGRAM COMPONENTS

Sumner is defined as a Phase II community by the Washington State Department of Ecology (Ecology), and therefore, is required to comply with the requirements of the Phase II National Pollution Discharge Elimination System Stormwater (NPDES) Permit. Phase II communities are those that:

- Own and operate a storm drain system.
- Discharge to surface waters.
- Are located in urbanized areas.
- Have a population of more than 1,000.

Phase II communities were required to complete an NPDES Phase II Stormwater Permit Application and submit to DOE by March 10, 2003. The NPDES Phase II Permit (Permit) was issued to Sumner on January 17, 2007 and went into effect on February 16, 2007. The Permit, as it stands now, expires on February 15, 2012. A new Permit is set to be issued in the summer of 2012 and will likely contain content similar to the current Permit with additional requirements in the monitoring section of the Permit.

The program divisions listed in the current Permit are as follows:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment and Construction Sites
- Pollution Prevention and Operation and Maintenance for Municipal Operations

The requirements of these program components and how the City of Sumner is currently addressing and plans to address future requirements are discussed in greater detail in the sections below. In general, the City of Sumner has activities and programs in place that meet current NPDES Phase II Permit requirements. As future requirements are introduced, the City will need to develop and implement more programs, training, educational materials, and update policies and procedures to manage current specifications and demands.

2.1 PUBLIC EDUCATION AND OUTREACH

2.1.1 *Permit Requirements*

This component aims to implement a public education program that actively provides educational materials, learning opportunities, and activities regarding stormwater management to the community. More specifically, this program focuses to distribute significant and applicable stormwater information to various audiences including: the

general public, businesses, homeowners, engineers, contractors and City staff. The messages in these materials contain a general theme concerning the impacts of stormwater discharges on local and regional water bodies. These materials can be distributed in an assortment of ways including but not limited to: seminars, trainings, events, commercials, online postings, newsletters, posters, coloring books and brochures.

A portion of this program focuses on providing informative steps the general public can adopt to reduce the amount of pollutants in stormwater runoff generated from the homeowner. Other segments focus on business and property management, maintenance of stormwater facilities, and hazardous materials. The education program will target a variety of groups, in an effort to contact and inform a large percentage of those most likely to impact stormwater.

To ensure that the program is successful, a measurement of the behaviors and understanding of water quality was recorded after a regional survey developed in conjunction with Pierce County was administered to the citizens of Sumner. The data and results provided will be used as a basis to guide future public education and outreach programs. Additional surveys will be administered intermittently to determine whether or not the current methods of informing the public are effectively educating and reducing pollutant discharge. This program promotes a positive change in behaviors to ensure and protect water quality in local and regional waters of the state.

2.1.2 2010 Public Education Activities

The City of Sumner has had a public education program in place for the last several years, which addresses the various requirements within the Public Education and Outreach component of the Permit.

- Sumner policy requires that stormwater control facilities, serving other than single-family residential developments, be owned and maintained by the homeowners' association, property owner or other designee. The developer is required to execute and record an *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan* in instances where the City will not assume ownership and maintenance of a stormwater facility.

- Sumner Municipal Code was updated to reflect and coincide with the regulations and guidelines of the adopted 2005 Stormwater Management Manual for Western Washington. Pre-existing SMC's mandate that BMP's be installed and completed before permits are issued so that all construction at new commercial operations are required to include basic water quality pollution prevention of the facility. In addition to mandatory stormwater education for commercial employees, the City encourages high customer volume businesses to display water quality practice informational brochures.

Stormwater Management Program 2011

- A River Clean-up event was coordinated with the Tacoma Chapter of Trout Unlimited in April of this past year. Approximately 75 volunteers helped to remove 2.76 tons of garbage and debris from the banks of the Puyallup River.
- City staff accompanied the Tacoma-Pierce County Health Department during Local Source Control inspections of auto repair shops and golf courses.
- Pierce Conservation Districts Stream Team worked with a local Eagle Scout to coordinate a habitat restoration project on Salmon Creek. The Eagle Scout along with other troop members and volunteers removed evasive foliage and planted trees to prevent the detrimental foliage from re-establishing itself near the creek waters.
- The City maintains a list of Stormwater Maintenance Agreement holders and conducts annual inspections of the businesses stormwater facility with property managers or maintenance staff. Proper maintenance and repairs are explained during the walk-through inspection of the facility.
- The City's Community Connection Newsletter was utilized to post articles on the differences of Storm and Sewer treatment, lawn care and excess fertilizers as well as fall clean-up events for yard waste and leaf disposal.

Other educational materials such as brochures and posters on car washing, natural yard care, and pet waste have been posted on the City's website or at sites around town.

2.1.3 Future Public Education Activities

As a part of the ongoing requirements of the NPDES Permit, the City has fabricated an Education/Outreach Program list of innovative methods and approaches in continuing to educate the community of Sumner on the topic of water quality.

- Newsletter/Internet website postings
- Surveys
- Utility billing flyers
- Brochures
- Coloring placemats for local restaurants
- Garden/Nursery seminars
- Charity car wash programs
- Posters
- Events – River Clean-up, Recycling, Habitat Restoration
- List of local recycling businesses
- TV Commercials

The list above contains several simple methods in promoting a change to the detrimental behaviors that impact the water quality our local and regional waterways. To avoid

Stormwater Management Program 2011

creating large quantities of reading material, there are also a couple activities planned for the community to participate in, those of which include a shred and clean event, and coffee sleeve/coaster program described below.

In recognition of Earth Day a Shred and Clean event is being organized to accept items such as paper, appliances and (hopefully) paint and hazardous material disposal.

The City of Sumner is also working with Pierce County during the month of April to promote the organization and storm messages from Puget Sound Starts Here. The City has solicited to acquire a list of participating coffee stands and restaurants and plans to distribute the promotional coffee sleeves and coasters for use during the week identified by Pierce County.

Other education and outreach ideas that have yet to be scheduled or planned are listed below in the Stormwater Public Education and Activities Plan for 2011.

Stormwater Public Education and Activities Plan for 2011

APRIL

- Puget Sound Starts Here (PSSH)-Coffee Sleeve and Coaster project
- Shred & Clean Event
- Windmill Gardens -Yard Care Infomercial
- Utility Billing Stormwater Fact

MAY

- Design and publish colored placemats for restaurants
- LID Brochure with Pierce County
- Utility Billing Stormwater Fact

JUNE- AUGUST

- Sumner University Event
- LID Brochure with Pierce County
- Utility Billing Stormwater Fact

SEPTEMBER

- Survey Administered
- Utility Billing Stormwater Fact
- Stream Team Booth

Ideas & Activities not yet scheduled

- Geocaching with Pierce County
- Salmon Creek clean-up Event
- Curb Marking
- Charity Car Wash promotion

Stormwater Management Program 2011

This is a general schedule of activities and other ideas to be coordinated and organized in satisfying the next annual Public Education and Outreach Permit requirements. Additional materials such as posters, brochures and newsletters will also be structured in the Communication Department as an annual segment of this program. By the end of 2011 all required materials will have been distributed or presented to all suggested audiences to fulfill the Permit requirements.

2.2 PUBLIC INVOLVEMENT AND PARTICIPATION

2.2.1 *Permit Requirements*

This program component requires that the City of Sumner develop a public involvement and participation program that complies with state and local public notice requirements. The City of Sumner currently participates in various groups and organizations pertaining to the importance of water quality and future issues. The City also has a program available for the public to partake in the development and formation of this SWMP.

2.2.2 2010 Public Involvement and Participation Activities

The City of Sumner has a public involvement and participation program in place that meets requirements of this program component, by providing opportunities for the public to learn, comment or propose suggestions regarding stormwater projects, programs and policy.

The City is a leading member of the Puyallup River Watershed Council (PRWC) hosting the monthly meetings at Sumner's City Hall. This group works to coordinate water quality programs, activities, and organizes discussions concerning environmental and habitat issues in the Puyallup River basin.

Another environmental organization the City has partnered with is Puget Sound Starts Here (PSSH). This group focuses on promoting stormwater tips for the homeowner in several categories such as: natural yard care, car maintenance and washing, and pet waste. The City utilizes the promotional materials provided by PSSH to propagate the same messages creating a regional effort to reduce pollutants from entering the water systems of Puget Sound.

The Community Development Department has formed its own program called Sumner University. This curriculum presents information regarding local government, giving the citizens of Sumner the opportunity to learn discuss various departments and programs in their jurisdiction.

During the Puyallup Fair, City staff worked a booth for Pierce Conservation Districts Stream Team Program. Staff provided answers to questions from Fair guests regarding the Rain Barrel demonstration and other displays. Children were asked if they wanted to feed Sammy the Salmon, in an effort to educate the youth on salmon habitat and how they directly impact their quality of living environments.

The City is also an active member of the South Puget Sound Phase II Coordinator's Group. This organization meets bi-monthly to discuss stormwater related issues and address methods of compliance regarding NPDES Permit deadlines.

Another group the City has become affiliated with is the Stormwater Work Group. This group meets quarterly to discuss specific topics of the overall plan to provide Ecology with a proposal for a regional monitoring system that would satisfy the monitoring requirements of the Permit.

In addition to involvement in the PRWC, the South Puget Sound Phase II Coordinator's Group, and the local caucus group, the City has Sumner Municipal Code (SMC's) stormwater regulations require that all industrial and commercial sites paint or emboss "DUMP NO WASTE – DRAINS TO STREAM" adjacent to all storm drain inlets. Sumner also has a public involvement and participation activity for car washes. The City has implemented the use of a car wash kit designed to collect water from car washes so that it can be pumped into the sanitary sewer system. There is also an informational handout for this activity in Appendix A.

The public had the opportunity to aid in the development of the City's SWMP through an online survey. Citizens were encouraged through the Sumner Community Connection Newsletter to go online, read the SWMP and complete the survey with commentary. The SWMP, annual report(s) and other submittals are made available to the public on our City website. Comments are being addressed accordingly.

2.2.3 Future Public Involvement and Participation Activities

The City will post the updated versions of the SWMP and annual report on its website (www.ci.sumner.wa.us) by March 31st. Any other submittals required by the Permit will also be posted as necessary on the website. The public will continue to have the opportunity to comment on the SWMP by means of the online survey. The City also hosts several council meetings for which the public can attend and voice their opinions on various stormwater projects.

The City plans to coordinate and work with the Puget Sound Partnership to organize a Rain Garden Installation Program, to get local citizens involved with learning how they can contribute to the health of the Puget Sound by performing simple operations in the setting of their own home.

Another organization the City plans to collaborate with this year is Pierce Conservation Districts Stream Team. Various Capital Improvement Projects offer the opportunity to provide additional habitat restoration near the rivers and creeks of Sumner.

In April the City will distribute promotional coasters and coffee sleeves to local participating restaurants to use and support stormwater messages provided by PSSH. This project goal is to generate awareness of PSSH and the information they provide concerning stormwater impacts and management.

Active involvement with the various groups and organizations as well as coordination between municipal departments will continue in support of protecting water quality. The City of Sumner plans to be a part of the EPA Puget Sound Watershed Management Assistance Grant in collaboration with the City of Puyallup and many other municipalities in the Pierce County region.

2.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

2.3.1 *Permit Requirements*

Compliance with this program component requires the City to implement and enforce an Illicit Discharge Detection and Elimination (IDDE) program for the City's MS4. Required program elements are as follows:

- Develop a municipal storm sewer system map that includes information on the City's MS4 (e.g. outfalls, receiving waters, connection points, areas that don't discharge to surface water, etc.).
- Effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater, illegal discharges, and dumping into the City's MS4.
- Develop and implement a program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping into the City's MS4.
- Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper waste disposal.
- Implement procedures for program evaluation and assessment which includes a program to track spills and illicit discharges (both number and type), record inspections made and record any feedback received from public education effort.
- Provide appropriate training to City employees on IDDE into the City's MS4.

2.3.2 2010 Illicit Discharge Detection and Elimination Activities

The City of Sumner has a Municipal Separate Storm Sewer System (MS4) base map that is regularly updated by the City to include development and redevelopment projects upon completion and receipt of as-built information. Additional information is periodically provided by Pierce County (due to Interlocal agreement).

A supplementary map of the MS4s known outfall sites and structural BMPs owned, operated, or maintained has also developed in response to Permit requirements. Other maps illustrate land uses, areas served by the MS4 and those that do not discharge surface waters.

Another measure the City has employed to satisfy Permit requirements includes training. City representatives attended the Illicit Discharge Detection and Elimination (IDDE)

Stormwater Management Program 2011

Response and Enforcement Level Training sponsored by Herrera to learn about proper identification, indicators, and methods of response when developing an IDDE program. The City has also conducted several in house training seminars to educate staff and field personnel regarding identification and elimination of various discharges, and procedures to follow to remedy the situation.

A phone hotline has also been created and is currently displayed on our City website for citizens to use and report incidents. The number will either contact the City's Maintenance and Operations Facility or the Police to respond.

During outfall reconnaissance and field inspections, an illicit discharge was identified exiting a stormwater pipeline. This prompted the use and application of our IDDE program. A cooperative investigation with the Tacoma-Pierce County Health Department has been initiated to find the source and resolve this situation.

Sumner ordinances and other programs are in place and meet requirements for the IDDE component of the Permit. Sumner Municipal Code (SMC) and other programs currently in place concerning illicit discharge control are as follows:

- SMC 13.48.233 Illicit connection, this code defines an illicit connection according to the City
- SMC 13.48.234 Illicit discharge, this code defines an illicit discharge according to the City.
- SMC 13.48.820, Illicit discharges, this code prohibits illicit discharge.
- SMC 13.48.830, Enforcement, this code defines how the City will enforce the codes.
- SMC 13.48.860, Penalty, this code defines how the City will penalize failure to comply with the codes.
- Nonpublic stormwater facility operators are required to execute and record an *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan* as shown in Appendix C. Operation, maintenance and repair responsibility resides on the facility owner. Included in this plan is a maintenance checklist which contains line items regarding identification of oil and chemical sheens or odors. A database for properties possessing recorded Stormwater Maintenance Agreements has been created to monitor inspections, annual report submissions and maintenance/repair activities.
- Stormwater Pollution Prevention Plans have been developed for Sumner-maintained streets, the Sumner WWTP, and the Sumner Meadows Golf Links. The golf course and WWTP plans state that dry weather surveys will be conducted annually for IDDE.
- Illicit discharges to the Sumner storm system are detected during routine catch basin and stormwater conveyance system maintenance activities. Catch basin and stormwater conveyance cleaning is typically conducted on an as-needed basis.

- Documentation of activities including when inspections take place, times and types of spills, public feedback from education efforts and training for municipal staff has been implemented and recorded.

2.3.3 Future Illicit Discharge Detection and Elimination Activities

The City will maintain the ongoing program to detect Illicit Discharges and Illicit Connections to the MS4 as well as continue training staff to document illicit connections and spills. Staff will also be trained to continue to perform field assessments and visual inspections of high priority outfalls and water bodies in preparation for regulated monitoring of receiving waters and source identification.

The planned activities stated earlier for public education and outreach will include information on IDDE in an effort to decrease the number of IDDE's found throughout the City.

In response to a report developed by Ecology, the City of Sumner has initiated an investigation on Fecal Coliform sources discharging to Salmon Creek. Water samples from various locations on the Creek are currently being tested to determine the location(s) of the significant contributors (source identification). This examination of Salmon Creek will continue until Ecology determines the quality of water in the Creek is in acceptable condition.

Newly revised City code addressing issues of Illicit Discharges and Illicit Connections and enforcement procedures will be utilized by inspectors and staff to resolve actions of stormwater pollution.

A summary report of program evaluation, implemented and adopted procedures, and tracking for the IDDE program will be submitted as required in the NPDES Annual Report.

The City will continue to develop its map of the MS4 including the locations of all known stormwater outfalls and structural BMP's. Methods for locating and tracking areas with a higher probability for having illicit discharges will be developed. The City will also continue to develop, modify, and implement procedures for source identification and proper response when contamination is acknowledged.

2.4 CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT, AND CONSTRUCTION SITES

2.4.1 *Permit Requirements*

Compliance with this program component requires the City to develop, implement, and enforce a program to reduce pollutants in stormwater runoff to the municipal stormwater infrastructure from any new development, redevelopment and construction site activities that result in a land disturbance, development or sale. The minimum elements included in this program component are:

Stormwater Management Program 2011

- An ordinance or other regulatory mechanism to address runoff from new development, redevelopment and construction site projects. City codes, ordinances and development specifications may require smaller sites to comply with these requirements as well.
- Develop and implement a permit process with plan review, inspection and enforcement capability including adequate long-term operation and maintenance of the stormwater facilities and BMP's.
- Develop and implement procedures for documenting inspections and enforcement actions.
- Make available copies of the *Notice of Intent for Construction Activity* and *Notice of Intent for Industrial Activity* for representatives of new developments and redevelopments.
- Develop and implement a training program for 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.
- Provide in the annual report submitted no later than March 31, 2011 a summary describing identified barriers for usage of Low Impact Development (LID), and a report of LID practices, goals and non – structured actions.

2.4.2 2010 Runoff and Development Activities

The City of Sumner has adopted the 2005 Stormwater Management Manual for Western Washington as well as revised enforceable mechanisms that meet requirements for controlling runoff from new development, redevelopment and construction sites. These enforceable mechanisms currently in place related to this requirement include:

- The *City of Sumner Development Specifications and Standard Details* Chapter 5, Section 5.2 *Standard Specifications* lists and describes all the applicable references for standards that control runoff from new development, redevelopment and construction site activity in the City including the WSDOE 2005 *Stormwater Management Manual for Western Washington* (SMMWW); the *Low Impact Development Technical Guidance Manual for Puget Sound*; *WSDOT Standard Specifications for Road, Bridge and Municipal Construction*; *1992 King County Surface Water Design Manual* (KCSWDM) and others.
- The *City of Sumner Development Specifications and Standard Details* Chapter 5, Section 5.3, *Stormwater System Design Requirements* describes the process that new development, redevelopment and construction sites must go through prior to approval and acceptance from the City. Also included in Section 5.6 *Maintenance Responsibilities* are requirements for an *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan*. This agreement is shown in Appendix C.

Stormwater Management Program 2011

- SMC 16.04 requires public comment for projects subject to SEPA requirements. SMC 18.56 requires public comment during a Land Use Permit application process requiring a Type II, IV, V, VI.a, or VI.b decision.
- Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity are provided to representatives of proposed new development or redevelopment.

To enforce these regulations, the City has employed inspectors to document and address compliance issues and correction methods to be implemented. Inspection reports are completed at various stages of construction to provide documentation of incidents and response from the contractors, managing the site.

As a part of our ongoing training program, the City arranged for two staff members to attend a National Pollutant Discharge Eliminations System (NPDES) Phase II Permit Compliance Training course on “Illicit Discharge Detection and Elimination, Response & Enforcement Level Training” presented by Herrera Environmental Consultants. City representatives were educated on the proper identification of an unknown substance, documentation, investigation, and enforcement or elimination procedures. Municipal program development was also discussed as a part of NPDES Permit requirements.

Another training seminar the City attended was involved a presentation on “Stormwater Treatment Technologies”. This particular seminar was provided by Kennedy/Jenks Consultants. This lecture discussed expected future NPDES regulations regarding water quality monitoring and treatment and some of the current technologies available to resolve these issues.

Additional information on new stormwater technologies was made available to the City through a tour of Washington State University’s (WSU) Puyallup Research and Extension Center located in Puyallup. City staff listened to a presentation explaining the new stormwater technologies WSU’s extension is currently testing and the early results they have received from experimental testing. A guided tour was also offered where attendees were able to see these technologies first hand.

A BMP presentation on spill situations and containment was administered to City representatives in Public Works, Maintenance and Operations, and the Police Departments. These selected departments represent the staff most likely to be in the field and witness illicit discharges, illegal dumping, and water quality issues. Staff watched a video presentation explaining common misguided maintenance behaviors and learned about the implementation of good housekeeping procedures. .

As required, a report has been created to identify barriers, goals, non-structural actions, and practices of Low Impact Development within the City of Sumner. This document has been included as a part of 2010 NPDES Annual Report.

2.4.3 Future Runoff and Development Activities

The City will continue to enforce adopted Sumner Municipal Code and modified Development Specifications and Standard Details to reflect the requirements of the NPDES Permit. In addition, the inspectors will continue to perform their duties and

Stormwater Management Program 2011

record enforcement actions, and training will be provided to staff impacted by the NPDES Permit and for those responsible for regulating the requirements of this program component.

Permit and development review staff will utilize new guidelines and amend design flaws for new development, redevelopment and construction sites. New standards and details for LID requirements will be used to implement LID where feasible within the City of Sumner.

Scheduled maintenance activities will be performed as planned and records will be updated. Spot checks will be performed in areas that have had significant issues historically. The City also has resources available to manage complaints are phoned in on the "Report a Problem" hotline.

Currently, the City of Sumner enforces municipal code in compliance with the standards and regulations of the NPDES Permit. Methods of enforcement are described in the City's municipal code. Trainings are provided annually for City staff to gain knowledge about up to date technologies, standards, and Permit requirements, so that they can be implemented and enforced jurisdictionally.

2.5 POLLUTION PREVENTION AND OPERATION AND MAINTENANCE FOR MUNICIPAL OPERATIONS

2.5.1 *Permit Requirements*

This minimum control measure requires that the City develop and implement an operations and maintenance (O&M) program, including a training component, that has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

The minimum elements included in this program component are:

- The City will develop and implement O&M standards for municipal facilities that are as protective, or more protective, than those in Chapter 4 of Volume V of Ecology's 2005 SWMMWW.
- The City will develop an annual inspection program for flow control facilities, and will do spot checks after major storm events for damage.
- The inspection program will include inspection of all catch basins and inlets in the MS4 before the Permit expiration date.
- The inspections will be documented and work done or needed on the stormwater facilities will be noted according to the Permit requirements for reporting.
- The City will develop and implement a program to reduce the stormwater impacts from streets, parking lots, roads, highways and other lands owned, operated or maintained by the City, including road maintenance.

Stormwater Management Program 2011

- The City will develop and implement a training program for City employees whose construction, operation and maintenance job functions may impact stormwater quality.
- The City will develop a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance yards and material storage facilities owned or operated by the City that is not required to have coverage under the Industrial Stormwater General Permit.

2.5.2 2010 Maintenance and Operations Activities

The City's maintenance standards for stormwater facilities are typically addressed in the *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan* as shown in Appendix C or in a SWPPP specific to the site. The agreement standards are very similar to those specified in Chapter 4 of Volume V of Ecology's 2005 SWMMWW and addresses various types of BMP's, identifiable water quality issues, as well as proper maintenance of each BMP.

Catch basins are currently inspected with routine maintenance activities. These smaller activities are done on an as-needed basis. However, a complete cleaning of the MS4 system is also performed bi-annually to ensure good housekeeping behaviors are followed.

Stormwater Pollution Prevention Plans (SWPPP's) were developed for City facilities likely to discharge pollutants to the City stormwater infrastructure. These facilities include: the Sumner Wastewater Treatment Facility (WWTF), Sumner Meadows Golf Links, and Street Maintenance Division. Each SWPPP describes implemented measures to reduce stormwater impacts including pollutant discharges from all the areas owned by the City. They also include on-going training programs for employees. The SWPPP's for each City facility contain recommendations for routine pollution prevention, stormwater facility maintenance, stormwater facility inspection schedules, and training related to stormwater pollution prevention. SWPPP's for City facilities are contained in separate documents entitled *City of Sumner Wastewater Treatment Facility Stormwater Pollution Prevention Plan*, *City of Sumner Sumner Meadows Golf Links Stormwater Pollution Prevention Plan*, and *City of Sumner Street Maintenance Stormwater Pollution Prevention Plan*. An *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan* was previously executed for the City Shop.

To satisfy the requirements of this component of the Permit for City owned facilities, the City has developed and implemented a plan to inspect of all the inlets, ponds, oil water separators and grease interceptors stormwater treatment and flow control facilities owned and operated by the City. Our Maintenance and Operations crew annually inspects all City owned stormwater facilities, verifying proper function and managing maintenance when necessary. The plan also includes spot checks on potentially damaged permanent treatment and flow control facilities after major storm events. Catch basins are cleaned bi-annually due to the efficiency of our scheduled sweeping of the City roadways. The

plan also includes documentation of the inspections and work performed or needed on the stormwater facilities.

2.5.3 Future Maintenance and Operations Activities

The City will continue to inspect and maintain facilities as described by the SWPPP's, Maintenance Agreements and in accordance with NPDES Permit regulations established for City owned equipment and structures. Maintenance checklists will be documented and recorded to reflect the current maintenance and operating status of the facility.

Spot checks and annual inspections of the City's MS4 will continue as scheduled. Maintenance will be performed to resolve any identified issues or water quality concerns. The City will continue to identify and develop methods for reducing stormwater pollution from roadways, parking lots and other City owned facilities in accordance with the NPDES Permit standards.

Training seminars will be scheduled to maintain the status of currently certified employees as well as certify other staff as this program continues to develop.

The Maintenance and Operations program for preventing pollution generated from City owned facilities will continue to modify its current processes and maintenance programs in an effort to develop efficient practices and methods for pollution reduction. In order to accomplish this objective, the City will utilize training opportunities and informational seminars to learn and educate staff of the potential means and methods of maintenance and operations applicable to City owned facilities.

2.6 Monitoring

The Clean Water Act requires municipalities to obtain an NPDES Permit and to develop a stormwater management programs to prevent harmful pollutants from reaching local water bodies. The current NPDES Phase II Permit cycle does not require any water quality monitoring unless it is pursuant to a TMDL requirement or part of the IDDE program. Due to the size of Sumner (population under 10,000), the City is not required to develop a monitoring program. However, as a result of the subsequent 2012 NPDES Permit and projected future monitoring requirements, the City has established a Groundwater and Stream Low Flow Monitoring program to satisfy a portion of the anticipated monitoring requirements.

This monitoring program consists of 12 shallow groundwater monitoring wells and 4 stream gauges. The groundwater monitoring wells measure the depth of the groundwater and record the data using data loggers. The stream gauges located in Salmon Creek, Middle Creek and Milwaukee Ditch (2) measure depth and velocity of the flow and record using data loggers as well. The goal of this monitoring is to estimate groundwater gradients within the White River Valley to assess whether development has an effect on groundwater flow patterns and stream base flows.

Stormwater Management Program 2011

The City has also implemented another monitoring program. This monitoring program has been established to track stormwater runoff from a small LID in Sumner. The equipment purchased in 2007 includes a rain gauge, soil saturation meter, weir and other related telemetry and controls. The runoff/weather station was installed in 2008 and has then been programmed to record data regarding the amount of rainfall, and soil moisture to try and determine the infiltration rate and efficiency of the implemented LID system. Data from this station has been collected and is in the process of being converted and formatted to better understand the results of LID implementation.

Another monitoring project the City has recently initiated is water quality testing of Salmon Creek. The Department of Ecology presented the City with a draft report "Water Quality Improvement Report" - Puyallup River Watershed Fecal Coliform Total Maximum Daily Load which identified Salmon Creek as a tributary in need of fecal reduction.

In response to this report, the City of Sumner began to study and sample various locations on the Creek to identify potential causes and source of the Fecal contaminating the stream. Currently, there are two investigations in progress to locate sources of significant measurements of Fecal identified during water quality testing. Samples of the creek and testing of the water will continue until fecal rates are below the water quality standards identified in the TMDL report.

Although the City of Sumner is not required to submit an established plan and site locations for future long term monitoring, the City was required to develop a plan for two effectiveness monitoring experiments. This plan identifies two hypotheses to be tested, sites for which the data will be retrieved and an explanation of why these suggested plans would be of significance use to other jurisdictions. This document is included as a part of the annual Permit to be submitted to Ecology for the year 2010.

As this Permit cycle comes to an end the City will continue to fully develop its program components to remain in compliance with Permit standards and regulations. It is currently unknown what to anticipate for future monitoring requirements. However, the City will continue to observe and examine organizational, group efforts attempting to establish a plan coordinated with Ecology.

3. CONCLUSION

The City of Sumner has met all the minimum requirements for the 2010 reporting period. The City has an established stormwater utility that is and will continue to be a funding source for stormwater facility improvements and permit requirements. There are many projects and activities that the City is performing and executing that line up with Permit requirements. In the coming years there will be several more programs to develop and implement to remain in compliance.

The Public Education and Outreach component for the SWMP is well underway and on track. During the next reporting period the City will need to develop and distribute more educational materials to target audiences listed in the Permit. The City also needs to continue documenting the progress of the behaviors of the targeted audiences and compare the results with those from the administered survey.

The City is actively participating in several watershed groups as part of their Public Involvement and Participation component. This relationship will continue and promote involvement of local residents in the development of this SWMP document. The City also needs to continue to create programs and events such as a stencil or emboss “Dump No Waste – Drains to Stream” project near all stormwater inlets, or a restoration project on Salmon Creek to keep local citizens involved and aware of the impacts they can have on the environment.

The City has developed a stable Illicit Discharge Detection and Elimination program. The MS4 maps include the City’s existing infrastructure and will continue to develop as more information and as-builts are gathered. The SMC’s clearly state procedures for managing and resolving illicit connections and discharges. Documentation of the inspections, spills, feedback and training is currently in place to meet the Permit requirements.

The revised *City of Sumner Development Specifications and Standard Details* and SMC’s now reflect the requirements for Controlling Runoff from New Development, Redevelopment and Construction Sites. These modifications will bring the City standards into alignment with many future requirements of the Permit. Additional work will be necessary to maintain documentation of inspection and enforcement actions and continue training for City staff according to the Permit requirements.

The Maintenance and Operations component of the SWMP has a solid agreement in place for maintaining stormwater facilities and pollution source control plans. The SWPPP’s created for Street Maintenance; Sumner Meadows Golf Links and the Wastewater Treatment Facility have established guidelines and requirements for reducing and preventing pollution during operation and maintenance of Municipal facilities. The City shops operate under an *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan*.

Stormwater Management Program 2011

The City's monitoring programs are gathering a substantial amount of information about groundwater levels in the area near Sumner. The LID weather station will be analyzed to verify the effectiveness of the implemented system, infiltration rates and ground water retention. The Fecal Coliform investigation and sampling program will continue to proceed and eliminate sources until water quality standards are met for the fresh water stream. All of the above information will continue to be analyzed with the intention that conclusions can be extracted regarding the BMP's implemented in the City.