

City of Sumner

Stormwater Management Program

2017



CITY OF  
**SUMNER**  
WASHINGTON

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## 1. INTRODUCTION

The National Pollutant Discharge Elimination System (NPDES) permit program is a requirement of the Federal Clean Water Act. The Phase I and Phase II municipal stormwater permits were initiated to protect water quality through the development and implementation of programs and procedures designed to regulate, 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 State, the NPDES-delegated permit authority is the Washington State Department of Ecology (Ecology). This permit guides and requires the City to make certain stormwater program modifications in compliance with Permit conditions.

### 1.1 PERMIT BACKGROUND

The first cycle of NPDES municipal stormwater permits was issued by Ecology in January of 2007 to Phase I and Phase II jurisdictions. Ecology designated Phase I Permittees as jurisdictions with a population of 100,000 or greater and Phase II Permittees as jurisdictions with population of less than 100,000 according to the 1990 census. Phase II communities were required to complete an NPDES Phase II Stormwater Permit Application and submit to Ecology by March 10, 2003. The first NPDES Phase II Permit (Permit) was issued to Sumner on January 17, 2007 and went into effect for a 5-year term starting on February 16, 2007.

In June 2009, all permits were modified to reflect changes made in response to a multijurisdictional appeal of the Permit. The first permit cycle expired in June of 2012 but remained in effect until the next permit was issued August 1st, 2012. Following the expiration of the first permit cycle (2005-2012), a provisional permit was issued and remained in effect for a 1- year permit term as directed by legislature in 2011. This one-year permit was essentially a reissuance of the existing Phase II Permit, allowing for a transition period before obligations of the next Permit (2013-2018) came into effect.

Ecology worked with other interested parties to develop draft permits through a permit reissuance process that began in the summer of 2008. A 3-month public comment period ending February 3, 2012 was provided to allow jurisdictions the opportunity to provide constructive feedback on new permit requirements. Ecology reviewed the comments submitted and incorporated changes where applicable to final permits. Following this process, a 1-year and a 5-year Phase II Permit were issued on August 1, 2012 and August 1, 2013 respectively.

As of August 2013, the new 5-year cycle of permits (2013-2018) became effective. In late 2017, the decision was made to extend the current permit cycle ending July 31, 2018 to July 31, 2019.

A Duty to Reapply Notice of Intent (NOI) is required to formalize the permit extension and will be submitted to Ecology before the deadline on February 1, 2018.

## **1.2 STORMWATER MANAGEMENT PLAN (SWMP)**

This document, known as the Stormwater Management Plan (SWMP) describes the annual programs and plans to be implemented in compliance with the NPDES Phase II municipal stormwater permit (Phase II Permit). The SWMP is updated annually by the City of Sumner to meet the requirements of the Phase II Permit. The SWMP outlines the City's progress and future strategies 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 plan is to protect water quality by reducing pollutant discharges to the maximum extent practicable (MEP) and by using application of Best Management Practices (BMP's) and compliance with Washington State's all known, available, and reasonable methods of prevention, control and treatment (AKART) to prevent and control pollution of waters of the State of Washington within the City of Sumner. The primary tactics used to accomplish this purpose include the sections 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
- Monitoring

The Phase II Permit requires a comprehensive annual report describing completed requirements and deadlines for future requirements. This report must be submitted to the Ecology, by March 31<sup>st</sup> 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 upcoming plans to meet current and future requirements of the Permit. An updated SWMP is required with each year's annual report to Ecology.

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## 2. NPDES PHASE II PROGRAM COMPONENTS

The Phase II Permit defines special and general conditions to guide and direct Permittees in developing stormwater code, policies and programs. These programs focus to educate, promote and enforce water quality standards within their jurisdiction. The Phase II Permit contains several sections and subsections pertaining to program requirements and protocol. The components of the current Phase II Permit include:

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

The additional section for monitoring became effective August of 2013 when the new Phase II Permit was issued. The City of Sumner, in the past, was exempt from monitoring requirements due to criteria requiring a population greater than 10,000. New monitoring conditions require all Permittees to participate in some form of monitoring, either regional monitoring or individual monitoring.

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 NPDES Phase II 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 but less than 100,000.

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 following sections. 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 additional programs, training, educational materials, and update policies and procedures to manage current specifications and demands.

## **2.1**      **PUBLIC EDUCATION AND OUTREACH**

This component implements a public education program that actively provides educational materials, learning opportunities, and activities regarding stormwater management to the community. More specifically, this program disseminates significant and applicable stormwater information to various audiences including: the general public, businesses, homeowners, engineers, contractors and City staff. These materials address the impacts of stormwater discharges on local and regional water bodies. These materials are distributed in an assortment of ways including but not limited to: seminars, training sessions, events, commercials, online postings, newsletters, posters, promotional materials, coloring books and brochures.

The education program targets a variety of groups, in an effort to contact and inform a large percentage of those most likely to impact stormwater. Part of this program focuses on informing the general public on methods and behaviors they can adopt to reduce the amount of pollutants in stormwater runoff generated from residential sources. The rest of the program focuses on outreach related to business and property management, maintenance of stormwater facilities, and tracking and disposal of hazardous materials. The education program targets 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's 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 are used as a baseline 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.

### **2.1.1**      **Permit Requirements**

Permit requirements per Section S5.C.1. include the following:

- Develop an education and outreach program designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts and encourage the public to participate in stewardship activities. This program should target students, businesses, residents/homeowners, landscapers, property managers, engineers, contractors, developers, and land use planners.
- Track and maintain records of public education and outreach activities.
- Measure the understanding and adoption of targeted behaviors for the audience and conduct education and outreach to inform the audience about the stormwater problem and actions they can take to minimize the impacts.

### 2.1.2 Public Education & Outreach Activities (Ongoing)

The City of Sumner’s public education program addresses the requirements identified in the Public Education and Outreach component S5.C.1 of the Permit. Annual requirements have been met in the past through the implementation of the following activities:

#### ***Stormwater Webpage***

The Stormwater Management Program webpage is a central location where users of all types (contractors, residents, vendors) can find out various information regarding the City’s stormwater programs as well as helpful tips on good stewardship and housekeeping.

The City has several web pages dedicated to providing information related to stormwater and water quality issues. Several of these webpages also provide contact information for reporting a problem, “LET US KNOW!”. This webpage is also where users can find our latest NPDES Annual Report and a copy of the SWMP. Check out our Stormwater Management page at:

<http://sumnerwa.gov/living/environment/stormwater/>

The City’s website and Stormwater webpage are continuously updated and revised to provide the most current and up-to-date information relating to the City and our programs.

#### ***Stormwater Maintenance Agreements***

City 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* during the permit phase, in instances where the City will not assume ownership and maintenance of a stormwater facility.

The City maintains a list of Stormwater Maintenance Agreement holders and conducts inspections of the businesses stormwater facility with property managers or maintenance staff. Proper BMP’s, maintenance and repair issues are explained during the walk-through inspection of the facility with the intent of improving stormwater education as well as the overall function of their stormwater system and water quality of their facilities discharge.



***Local Source Control Program***

The City of Sumner was awarded a Local Source Control Partnership Contract from the Washington State Department of Ecology to employ a Local Source Control Specialist for the last four biennial budgets, (2011-2013, 2013-2015, 2015-2017, 2017-2019). The Local Source Control Specialist conducts site and facility inspections of small quantity generator businesses (businesses that produce 0-220lbs of hazardous waste a month) and provides technical assistance to businesses needing implementation of Best Management Practices (BMP's) for water quality protection. This partnership provides an opportunity to interact directly with businesses, utilizing site inspections for technical assistance regarding maintenance of BMP's/good housekeeping and correction of illicit discharge issues, partnering Local Source Control inspections with annual inspections of the City's Stormwater Maintenance Agreements and satisfying NPDES Permit requirements.

The City of Sumner renewed this partnership with a fourth biennial contract for (2017-2019) to continue this program. So long as funding opportunities are available, the City of Sumner has intentions of continuing this program.

***Fish Friendly Car Wash Kit***

The City of Sumner promotes fish friendly car washes and washing activities through the City's Car Wash Kit Program. The City of Sumner helps reduce soaps and harmful runoff from entering the storm system through the reservation and use of an easy-to-use Car Wash Kit. The kit is made available for local residents, fundraiser groups and businesses in the area to "check-out", use and return after their wash event.

This kit uses a storm drain insert and a pump to route car-wash runoff to the sewer system for proper treatment instead of being released untreated to the local rivers and streams. For more information on this program visit our Car Wash webpage at:

<http://sumnerwa.gov/living/environment/car-wash/>

***Prescription Drug Disposal***

The City of Sumner was supplied with a medical take-back bin, by the Tacoma Pierce County Health Department as a part of an initiative to protect families, communities and the environment, by providing a safe and secure medication disposal program. Sumner's police department manages the medical take-back bin at Sumner City Hall, and accepts expired prescription drugs during normal business hours. This program promotes a proper and safe way to dispose of unneeded or expired prescription drugs. Medicines that are flushed down the toilet or drains can pollute waterways and streams as the sewer treatment facility are not designed remove all chemical components from

prescription medications. The medications collected are taken to an EPA approved facility, where they are incinerated. In 2017, the City collected 627.2 pounds of miscellaneous unused medicines and their containers from the take-back bin.

The City of Sumner promotes the take-back program at Sumner's local pharmacies. The City also participates in two national campaigns each year (spring and fall) sponsored by the US Drug Enforcement Administration.

### ***Community Connection Newsletter***

The City of Sumner has a quarterly newsletter which discusses the projects and events going on in the City and the region. The "Community Connection" newsletter regularly provides a section/article that focuses on various stormwater topics and stormwater programs within the City, such as the Fish Friendly Car Wash Program.

### ***Shred & Clean Event***

In recognition of Earth Day the annual Shred and Clean event is organized (sponsored by City of Sumner and Daffodil Valley Kiwanis) every spring to accept items such as paper, appliances, batteries, light bulbs, medication take-back and cell phone donations. The event is typically held in April at the old Red Apple parking lot (across the street from City Hall). Flyers and promotional messages are sent out to residents in Sumner with coupons for extra yard waste disposal, old appliance disposal and extra garbage disposal, thanks to the City's partners at DM Disposal.

### ***Fertilizer and Yard Care***

The City of Sumner developed a fertilizer poster to assist local gardeners in reducing the chances of over fertilizing and creating toxic runoff. The poster is made available online, at City Hall and some local nurseries. In an effort to reduce fertilizer runoff, the City developed a fertilizer poster providing guidelines for applications and obtaining suitable fertilizers based on plant type and season. A copy of this poster can be found at:

<http://sumnerwa.gov/wp-content/uploads/2013/06/Fertilizer-poster.pdf>

Sumner's Waste Water Treatment Facility develops a soil amendment from treated biosolids called "Bonney Good Sumner Grow". It is a humus, or organic material (60% organic, 4% slow release nitrogen) fertilizer for plants and landscape vegetation. There are several benefits to using the biosolids soil amendment: seed free fertilizer, helps hold moisture in the soil, loosens hard soils, yields stronger healthier plants and is safe around pets and children. Bonney Good Sumner Grow can be picked up at the City's Waste Water Treatment Facility in the upper parking lot. Look for the soil amendment shed. <http://sumnerwa.gov/living/environment/sumner-grow/>

### ***Parks and Pet Waste***

The City of Sumner runs a “Call of Dooty” campaign to educate pet owners about the need to pick up after pets. The campaign includes a logo/branding that is used on signage and social media to promote the campaign. Additionally, Pet waste bag dispenser stations and trash receptacles are located at City parks and trail sections for pet owners to use and properly dispose of pet wastes. Signs direct people to use the waste bags and dispose of pet waste properly, thereby reducing the amount of contaminated runoff from numerous pets using the parks and trail systems. City parks staff has identified a noticeable decline in dog waste in areas where signage and waste bag dispenser stations have been installed.

### ***Don't Drip & Drive***

The City of Sumner promoted the Don't Drip & Drive campaign throughout the City via website information, utility billing information as well as meeting with mechanic & auto businesses throughout the City to increase participation.

The Don't Drip & Drive campaign promotes proper and timely vehicle maintenance through free vehicle inspections and coupons for vehicle maintenance discounts. The city will continue to support the Don't Drip and Drive campaign as it continues.

### ***Regional Awareness (Teamwork)***

Another environmental organization the City supports is Puget Sound Starts Here (PSSH). This association 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 City of Sumner continues collaboration with Pierce County to acquire and distribute coffee sleeves and coasters for distribution at local coffee stands and restaurants during the month of May for Puget Sound Starts Here (PSSH) Month. Each coffee sleeve and coaster was designed with specific stormwater messages for the common home owner.

The City continues collaboration and partnerships with various stormwater groups: South Sound NPDES Coordinators Group, Pierce County Public Education, Puget Sound Starts Here (PSSH), Puyallup River Watershed Council, STORM, Stream Team and the American Public Works Association. These groups gather throughout the year to discuss stormwater topics and develop programs for stormwater management and protection.

***Rain Garden Handbooks***

Rain Garden Handbooks are made available at the front counter of the Permit Center on the second floor of Sumner City Hall. Citizens and all are welcome to take a rain garden handbook (Free of charge) to learn about the design, installation and function of a rain garden.

**Stormwater Public Education and Activities Plan for 2018**

Stormwater Public Education Plan 2018	
March	Quarterly Newsletter Articles  Posters
Fertilizer Poster Distribution - nurseries/gardening centers Spring Newsletter Children’s Water Festival Tree Planting	
April	Stormwater Webpage(s)  Local Source Control Business Inspections
Spring Clean-up: DM Disposal Appliance Pick up Shred & Clean Event Adopt a Drain Promotion Light Recycle Promotion	
May	Pre- Construction: Temporary Erosion & Sediment Control Consultations
Puget Sound Starts Here (PSSH) Month Coffee Sleeve/Coaster Distribution	
June/July	Rain Garden Model  Medication Drop Box
Fish Friendly Car Wash Kit Promotion Storm Drain Marking Cruise in to Sumner Stormwater Booth	
September	Walk Your Watershed  Stormwater Survey
Stream Team: Stormwater Booth - Puyallup Fair Salmon Creek Awareness Walk your Watershed	
October/November	Stormwater Tip of the Month
Fall Clean Event White River Awareness	

Environmental Mural

The City is still planning on working with local businesses along the Sumner Link Trail system to discuss the potential of an environmental mural project. A community mural project could consist of an agreed upon picture that is subdivided into many small quadrants. Each small quadrant could be hand painted by a local citizen/community member. Once each quadrant is completed, the pieces would be assembled to form the overall picture. Potential locations could be along the new section of trail near the White River Restoration.

### Adopt a Drain

The City of Sumner is interested in initiating an Adopt a Drain Program, where local citizens and community members can complete a pledge form with a statement aimed towards monitoring catch basins within their neighborhood for illicit discharges and pledging to be good stewards of the environment and stormwater managers.

This is a proposed schedule of activities and ideas to be coordinated and organized in aiding to satisfying the next annual Public Education and Outreach Permit requirements. Additional materials such as posters, brochures and newsletters will also be structured within the Communication Department as an annual segment of this program. As other opportunities present themselves additional events or activities may be added and scheduled. Other educational materials such as brochures and posters on car washing, natural yard care, recycling and pet waste have been posted on the City's website or at sites around town.

#### **2.1.3 Education and Outreach Materials and Tools**

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 to continue the education of the community of Sumner on the topic of water quality.

- "Community Connection" newsletter (quarterly)
- Internet postings
- City Webpages: Stormwater, Carwash, Fertilizer, Construction TESC, etc.
- Surveys
- Utility billing facts
- Brochures
- Coloring placemats for local restaurants
- Garden/Nursery seminars
- Fish Friendly Car Wash Program
- Posters
- Events – River Clean-up, Recycling, Habitat Restoration
- List of local recycling businesses
- Spring Clean-up: medical take-back, appliance and electronic recycling
- Washington State Fair Booth – Stormwater (Stream Team)
- Continuation of Local Source Control program

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

activities planned for community participation, those of which include a spring cleaning, shred and clean event, coffee sleeve/coaster program, and sharing the music video developed by PSSH.

## **2.2 PUBLIC INVOLVEMENT AND PARTICIPATION**

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.

### **2.2.1 Permit Requirements**

Permit requirements per Section S5.C.2. include the following:

- Provide opportunities for public involvement and participation through advisory councils, public hearings, watershed committees, participation in developing rate structures, or other similar activities.
- Provide opportunities for the public to participate in the decision-making processes involving the development, implementation and update of the Stormwater Management Plan (SWMP).
- Post the City's SWMP and Annual report on the City of Sumner website per section S9.A and make available to the public.

### **2.2.2 Public Involvement and Participation Activities (Ongoing)**

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.

#### ***Development and Updates of SWMP***

The City's staff provides updates related to the City's Stormwater Programs and NPDES Phase II Permit to City council members at council meetings and committee meetings, allowing for comment and questions regarding programs and requirements.

The public is also encouraged to comment or inquire about our programs via our city website, where users can view and email comments or concerns. The public has the continuous opportunity to aid in the development of the City's SWMP through an online commentary. Citizens are encouraged via the online Stormwater webpage to read the

SWMP and submit comments to the NPDES Permit manager. The SWMP, annual report(s) and other submittals are made available to the public on our City website. The public has the opportunity to comment online, in person and over the phone should questions or concerns arise related to the City's Stormwater Management Programs. Comments are being addressed accordingly.

#### ***Puyallup River Watershed Council***

The City has been a member of the Puyallup River Watershed Council (PRWC) for several years. This group works to coordinate water quality programs, activities, and organizes discussions concerning environmental and habitat issues in the Puyallup River basin. Often these topics relate to stormwater management or water quality.

#### ***Sumner University***

The Community Development Department has formed its own annual event/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. A portion of this presentation includes information on the City's stormwater program.

#### ***Pierce Conservation District – Stream Team***

During the Washington State Fair (Puyallup Fair), City staff run a booth for Pierce Conservation District's (PCD) Stream Team Program. Staff members provide answers to a broad range of questions from Fair guests, discuss upcoming PCD projects, and provide general information about the efforts of the PCD. Children's activities have included feeding Sammy the Salmon, searching for earthworms that are assisting in the composting process, and playing Plinko in an effort to educate the youth on salmon habitat, water quality and how everyone impacts the quality of our environment.

The City also partners with PCD's Stream Team on various Capital Improvement and trail projects. These projects often provide habitat restoration near the rivers and creeks of Sumner. The City utilizes Stream Teams expertise to efficiently organize volunteer events to complete habitat restoration and other environmental projects.

#### ***South Sound Phase II Coordinator's Group***

The City is also an active member of the South Puget Sound Phase II Coordinator's Group. This organization meets semi-yearly to discuss stormwater related issues and



address methods of compliance regarding NPDES Permit deadlines. A continuous focus for this group is public education.

#### ***Jurisdictional Caucus Group***

The City is affiliated with is the Stormwater Work Group (SWG). This group meets quarterly to discuss specific topics of the overall plan to provide Ecology with proposals for a regional monitoring system that would satisfy the monitoring requirements of the Permit. In October of 2010 the SWG provided recommendations and comments pertaining to new Permit requirements regarding a regional monitoring program. Most of the recommendations were implemented into the draft version of the next NPDES Phase II Permit. The group continues to work with Ecology on the development of the effectiveness monitoring program, updating the 2018-2019 work plans, overseeing the processes for status and trends and pooling resources, and development of the repository for source identification information.

#### ***Storm Drain Marking***

In addition to involvement in the PRWC, the South Puget Sound Phase II Coordinator's Group, and the local caucus group, the City focuses extend stormwater education to industrial and commercial development through stormwater regulations requiring all industrial and commercial sites to paint or emboss "DUMP NO WASTE – DRAINS TO STREAM" adjacent to all storm drain inlets.

#### ***Fish Friendly Car Wash Kit***

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 waste water from car washes so that it can be pumped into the sanitary sewer system.

### **2.2.3 Future Public Involvement and Participation Activities**

The listed items below illustrate some of the events the City plans to coordinate and participate in to solicit public involvement and stewardship within the community.

#### ***Walk Your Watershed***

The City teamed up with Earth Right Insight to seek grant funding to support a "Walk your Watershed" event. This event would use volunteers to educate the general public regarding stormwater runoff, management, water quality and groundwater recharge. The event would organize listening stations along a selected route or path. The listening

stations offer an opportunity for participants to stop, listen and learn about a specific topic. Some topics could include: Habitat restoration, stewardship opportunities, stormwater detention ponds, Salmon habitat and migration, Total Maximum Daily Loads (TMDL's), Low Impact Development (LID) features and invasive species, to name a few.

The City did not receive grant funding for the project, but still hopes to implement something similar. The City desires to combine White River Restoration projects along with a Walk your Watershed event.

#### ***Puyallup River Pollution Patrol (Citizens for a Healthy Bay)***

The City of Sumner joined up with Citizens for a Healthy Bay (CHB) to organize a project called Puyallup River Pollution Patrol. Citizens for a Healthy Bay, has brought together representatives from Sumner, Orting, Puyallup and Tacoma as well as the Puyallup River Watershed Council, Friends of Clarks Creek, the Fennel Creek Preservation Group and University of Washington's Tacoma branch. CHB recognizes that middle school students in smaller watershed communities and even Tacoma receive very limited education about how watersheds work, what causes polluted runoff and how pollution can be avoided. This project gets students involved with water quality issues, teaching them about pH, turbidity, BOD and the effects on aquatic habitat and resources. Each City hosts an event along the Puyallup River, where a group of students take a field trip to pull water samples from the local river and test the water for the components listed above. The intent is for the students to share what they learned as a result of the classroom teachings and the field trip, thereby creating a more regional message relating to the local environment.

The City would also like to organize a residential stenciling project, likely with the assistance of CHB or Stream Team.

#### ***Puget Sound Starts Here***

In May each year, the City distributes promotional materials to use in support of stormwater messages provided by PSSH. The purpose of the project is to generate a regional awareness of PSSH and the information they provide concerning stormwater impacts and management. There are several events regionally that occur during this month, the coffee sleeves and coasters encourage participants to check out the PSSH website for local projects and events.

#### ***Habitat Restoration Projects***

The City of Sumner often creates volunteer and stewardship opportunities when a habitat restoration project is available. The City often partners with Pierce Conservation

Districts – Stream Team to gather volunteers and organize the event. These events offer a wonderful opportunity to invite the local community to participate in reconstructing habitat.

Active involvement with the various groups and organizations as well as coordination between municipal departments will continue in support of protecting water quality and increasing stewardship opportunities.

The City will continue to post the updated versions of the SWMP and annual report on its website (<http://sumnerwa.gov/>) by March 31<sup>st</sup>. 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 contact information provided. The City also hosts several council meetings for which the public can attend and voice their opinions on various stormwater projects.

## **2.3      ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)**

Designed to identify and eliminate pollutant sources of contamination, the City's IDDE program investigates local stormwater pollution with the intent of reducing or eliminating the cause at the source.

A portion of this program is dedicated to "Spill Response". Often a car accident or work-type incident involves the release of a foreign substance to the environment. The City's "Spill Response" Program was developed to take action during these types of situations to contain and control the release of the pollutant substance. The City's crew is equipped with absorbent materials and a Spill Response Handbook, with guidance related to materials and actions for response. In certain cases where there is a highly hazardous or flammable material, the incident is handled by East Pierce Fire and Rescue and/or the Washington State Department of Ecology Spill Response Team, who are trained to a very high level in handling hazardous materials.

Other incidents occur through various stormwater management violations. Prohibited connections to the storm system and illegal dumping of foreign substances are the most common. These cases require tracking and investigation to locate a cause, where the source is not easily seen in the vicinity of the identified area.

This program promotes a positive change in water quality and management behaviors to protect water quality in local and regional waters of the State.

### **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. Permit requirements per Section S5.C.3. include the following:

- Implement an ongoing program with procedures for detecting and eliminating non-stormwater discharges, spills, illicit connections and illegal dumping into the City's municipal separate storm sewer system (MS4).
- Develop a municipal storm sewer system (MS4) map that includes information on the City's MS4 (e.g. outfalls, receiving waters, stormwater treatment and flow control BMPs/facilities, tributary conveyances (as described in S5.C.3.a.iii), etc.
- Effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater, illegal discharges, and dumping into the City's MS4.
- Publicize a "report a problem" hotline/telephone number for the public to report a spill or other illicit discharges. 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.
- Field screen at least 40% of the MS4 no later than December 31, 2017.
- Provide appropriate training to City employees on IDDE into the City's MS4.

### **2.3.2 Illicit Discharge Detection and Elimination Activities (Ongoing)**

The City's Illicit Discharge Detection and Elimination Program works to minimize impacts of pollution entering the local water ways, by identifying pollutant substances, tracking down the source and eliminating the cause for water contamination. This program includes responding to spill situations and field screening.

#### ***IDDE Program (Spill Response)***

City crews respond to spill and/or accident situations to provide immediate containment and clean-up to prevent pollutants from entering local waterways. Crews are trained to report to the scene, assess the situation and respond accordingly. If assistance is needed, the City may contact East Pierce Fire and Rescue, or the WA State Department of Ecology Spill Response crew.

Crews track and report incidents by filling out a Spill Response form. This form requests general information such as: date of occurrence, location of spill, personnel responding, source and circumstances of the pollutant release, weather conditions, corrective actions taken, identity of substance and reporting information. Some of this information is logged into a tracking system and mapped for future reference. The reports are filed accordingly.

The Spill Response team is equipped with materials and supporting resources such as the City's Spill Response Handbook and Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual (Ecology). These documents provide guidance on methods for tracking sources as well as indicators for identifying pollutants and potential sources.

Additional permit conditions require outfall reconnaissance, field inspections and catch basin maintenance. These activities are conducted during the "dry" weather season when concentrations will be at their highest due to lack of dilution by wet weather conditions. Illicit discharges to the Sumner storm system are sometimes detected during routine catch basin and stormwater conveyance system maintenance activities. If there are indicators of a pollutant discharge, the City's IDDE program responds with an investigation to identify and eliminate the potential cause.

### ***Local Source Control Program***

The City will continue business inspections of small quantity generators (0-220 lbs. of hazardous materials per month) in an effort to reduce illicit discharges and connections from local businesses. Technical assistance and IDDE will be provided where necessary.

### ***Mapping the MS4***

The City of Sumner's Municipal Separate Storm Sewer System (MS4) base map is continually updated by the City to include development and redevelopment projects upon receipt of as-built information. Additional information is occasionally provided by Pierce County as well.

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

### ***Training (IDDE)***

The City provides training through the use of webinars and in-person training sessions to educate staff and field personnel regarding identification and elimination of various discharges, and procedures to remedy specific situations.

### ***Public Hotline (Report a Problem, Let us know!)***

A telephone hotline number (253-299-5740) and email link ([shopsreportprob@sumnerwa.gov](mailto:shopsreportprob@sumnerwa.gov)) are in place and 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 during business hours or the Police Department after business hours for City response. This information is also shared on various stormwater webpages.

### ***Field Screening MS4***

The City of Sumner has already begun field screening the MS4 system for illicit connections and maintenance. The Public Works department has screened all of the MS4 and continues to do an average of 12% each year.

**Ordinance (IDDE)**

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.

**Other Regulatory Mechanisms (IDDE)**

- 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 Exhibit 2 of the cities Stormwater Maintenance Agreement. 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 Wastewater Treatment Facility (WWTF), and the Sumner Meadows Golf Links. The golf course and WWTF plans state that dry weather surveys will be conducted annually for IDDE.
- 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 continues its ongoing program to detect Illicit Discharges and Illicit Connections of the MS4, train staff to document illicit connections and spills as well as continue investigations for sources of fecal coliform in Salmon Creek. Staff will continue training in performing field assessments and visual inspections of high priority outfalls and water bodies in preparation for regulated monitoring of receiving waters and source identification. Outfall screening activities will continue on at least one priority water body.

### ***Public Education***

The planned activities stated earlier for public education and outreach will continue to provide information on IDDE in an effort to decrease the number of illicit discharges and connections found throughout the City. The City will continue to respond to incidents reported through the City's "Report a Problem" or "Let us Know!" hotline and email address.

### ***TMDL Activities***

In response to the TMDL report developed by Ecology in June 2011, the City of Sumner has initiated an investigation on Fecal Coliform sources discharging to Salmon Creek. Water samples from various locations on the Creek have been tested to determine the location(s) of significant contributors (source identification). The process of sampling and identifying potential sources of pollution will continue until Ecology determines the waters of Salmon Creek meet water quality standards. See section 2.7 for additional information on this program.

Current research and investigations indicate potential causes for Fecal Coliform water quality exceedance may be attributed to failing septic systems or livestock access to Salmon Creek. The City has created projects to address these issues with the anticipation of Fecal Coliform reduction.

### ***Local Source Control***

The City will continue business inspections of small quantity generators (0-220 lbs. of hazardous materials per month) in an effort to reduce illicit discharges and connections from local businesses. Technical assistance and IDDE will be provided where necessary.

### ***Mapping the MS4***

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, implement and improve procedures for source identification and proper response when contamination is known.



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

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 or construction site activity that results in a land disturbance, development or sale.

### **2.4.1 Permit Requirements**

Permit requirements per Section S5.C.4. include the following:

- Develop and implement an enforcement program to reduce pollutants from stormwater runoff to a regulated small MS4 from new development, redevelopment and construction site activities.
- Implement 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 escalating enforcement necessary to comply with Permit requirements, including specified conditions in Appendix 1.
- Implement provisions and processes (plan review, inspection, enforcement) including adequate long-term operation and maintenance of the stormwater facilities and BMP's.
- Implement a process to review, revise and make effective local development-related codes, rules, standards or other enforceable documents to incorporate and require LID principles and LID BMP's. Revisions shall make LID the preferred approach to site development and minimize impervious surfaces and stormwater runoff. Permittees shall submit a summary of the review results and revision process by March 31, 2017.
- 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.
- Report program activities in the NPDES Stormwater Annual Report.

## 2.4.2 Runoff and Development Activities (Ongoing)

The City of Sumner has developed a program to reduce pollutant runoff from development and construction projects, as well as developed enforceable mechanisms that meet requirements for controlling runoff from new development, redevelopment and construction sites.

### ***Ordinance (Construction, New & Redevelopment)***

Per the requirements of the Permit, the City of Sumner has developed enforceable mechanisms, standards, specifications and codes to protect and maintain water quality standards during the development of a parcel. These enforceable mechanisms are as follows:

- Chapter 13.48 and 13.36 of Sumner Municipal Code describe Stormwater Management and Regulations within the City of Sumner. These sections identify the proper procedures for Permit Application, Controlling Erosion and Sediment, Inspection, Maintenance and System Protection.
- 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 *2012 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*; *2016 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 B of the Development Specifications.
- 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.

### ***Plan Review, Inspection and Enforcement***

The City employs staff trained and capable of reviewing and inspecting development projects. Stormwater site plans and reports are required to address Temporary

Sediment and Erosion Control as well as final site plans for permanent stormwater structures.

To enforce these regulations, the City employs inspectors to document and address compliance issues and corrective actions to be implemented. Formal inspections are completed at various stages of construction (Pre-Construction, TESC, during Construction, Final) to provide documentation of incidents and response from the contractors, managing the site. City Code is utilized when enforcement is necessary.

#### ***Notice of Intent***

The City requires developers, as a part of the pre-application process, to obtain a Notice Of Intent for industrial and construction activities.

#### ***Training (Construction, New & Redevelopment)***

Training opportunities and Certification trainings are provided to inspectors and involved staff as required by the Permit. Webinars, Presentations and lectures are often useful tools to educate staff on the common issues surrounding the development and construction departments.

#### ***Tracking and Reports (Construction, New & Redevelopment)***

The City of Sumner's Permit Center uses EDEN software to track and maintain records of permits, inspections and enforcement actions. Reviewers and Inspectors can log comments and activities accordingly for each permit issued.

As is, a report was submitted to Ecology identifying barriers, goals, non-structural actions, and practices of Low Impact Development within the City of Sumner. This document was included as a part of 2010 NPDES Annual Report.

### **2.4.3 Future Runoff and Development Activities**

#### ***New Low Impact Development Code***

The City of Sumner has conducted a review of City code, standards and rules, to incorporate LID requirements, principles and BMP's as necessary per Permit conditions. Revisions were necessary to incorporate LID standards and enforcement regulations.

Staff will continue to attend training seminars and become proficient at reviewing, inspecting, installation and enforcing permit and code requirements related to LID implementation.

Permit and development review staff will utilize new guidelines and provide site development/permit review for new development, redevelopment and construction sites. New standards and details for LID requirements will be used to implement LID where feasible. Review, inspection and enforcement will continue to be tracked through the EDEN Permit Center system.

***Stormwater Maintenance Inspections***

Annual inspections of treatment and flow control facilities will be conducted (excluding catch basins) for private stormwater facilities. The City also incorporates LID facility maintenance for annual inspections.

Stormwater Maintenance Agreement inspections will continue with property managers or owners. Technical assistance and/or enforcement activities will occur when issues of non-compliance transpire.

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 that are phoned in on the "Report a Problem" hotline.

The City will continue to enforce Sumner Municipal Code and Development Specifications and Standard Details to reflect the requirements of the NPDES Permit. In addition, the inspectors will continue to perform their duties and record enforcement actions. Training will be provided to staff impacted by the NPDES Permit and for those responsible for regulating the requirements of this program component.

## **2.5      POLLUTION PREVENTION AND OPERATION AND MAINTENANCE FOR MUNICIPAL OPERATIONS**

The minimum control measures for Pollution Prevention and Operation and Maintenance for Municipal Operations, 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.

### **2.5.1      Permit Requirements**

Permit requirements per Section S5.C.5. include the following:

- The City will develop and implement O&M standards for municipal facilities, to include training, that protect water quality by preventing or reducing pollutant runoff from municipal operations and activities.
- Establish and implement maintenance standards designed to be as protective, or more protective of facility function than those specified in Chapter 4 of Volume B of the 2005 Stormwater Management Manual.
- Conduct inspection of catch basins, inlets, flow control and treatment facilities of the MS4, at required frequencies. Spot checks during major storm events should occur to ensure proper facility operation.
- The inspections will be documented and work done or needed on the stormwater facilities will be noted according to the Permit requirements for reporting.
- 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.
- Develop and implement a training program for City employees whose construction, operation and maintenance job functions may impact stormwater quality.
- 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      Maintenance and Operations Activities (Ongoing)**

The City of Sumner's Maintenance and Operations Crew provides various services to inspect, maintain, repair and install stormwater structures and facilities. Agreements, Stormwater

Pollution Prevention Plans and Maintenance Standards, were developed to aid with the maintenance and operation of these systems.

### ***Stormwater Inspections***

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 inlets, ponds, oil water separators and grease interceptors stormwater treatment and flow control facilities owned and operated by the City. Maintenance and Operations crews annually inspect all City owned stormwater facilities, verify proper function and complete 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 typically cleaned bi-annually, as needed, 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.

The City's maintenance standards for stormwater facilities are addressed in the *Agreement to Maintain Stormwater Facilities and to Implement a Pollution Source Control Plan* as shown in Exhibit 2 or in a SWPPP specific to the site. The agreement standards are composed of those specified in Chapter 4 of Volume V of Ecology's 2012 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 and as a part of field screening.

### ***Street Sweeping***

The City of Sumner owns and operates a Street Sweeper to reduce the amount of sediment and pollutants entering the stormwater system. Throughout the year, the City sweeps twice a week. In the fall, when the leaves are falling and have the potential to clog the storm drains, the sweeper operates daily or as needed. This program reduces the frequency for which maintenance is required by proactively collecting sediments and debris before they have a chance to enter the storm system.

### ***Decant Facility***

The City operates and maintains a decant facility (which is undergoing upgrades) for stormwater waste disposal. The City uses a concrete pad, storm drain, vault chambers and connection to the City's Wastewater Treatment Facility to treat and properly dispose of waste materials generated from stormwater maintenance activities. Solids are disposed of properly at a certified solid waste facility. The City is in the process of constructing upgrades to the system to improve capacity and function. The new facility

will include separate bays for wet and dry storage, a roof to promote decanting and drying, lighting, and storage. The facility is currently inactive due to the construction, but the facility will be back in use by Spring 2018.

#### ***Stormwater Pollution Prevention Plans (SWPPP's)***

Stormwater Pollution Prevention Plans (SWPPP's) were developed for City facilities likely to discharge to the City stormwater infrastructure. These facilities include: the Sumner Wastewater Treatment Facility (WWTF), Sumner Parks and Open Spaces, and Sumner Public Works Shops Facility. 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 Open Spaces Stormwater Pollution Prevention Plan*, and *City of Sumner Public Works Shops Facility Pollution Prevention Plan*.

#### ***Training (O & M)***

Training and guidance is provided to maintenance and operations personnel regarding BMP's and maintenance procedures for stormwater facilities.

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.

### **2.5.3 Future Maintenance and Operations Activities**

#### ***Stormwater Inspections***

Spot checks and annual inspections of the City's MS4 facilities 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.

Inspections will be tracked and reported during the annual report. Processes for maintaining records and inspection documents will be refined when efficiencies can be made. Maintenance reports or inspection reports will be filed accordingly.

***Training (O & M)***

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. As new LID facilities are implemented, City staff will be trained to inspect, maintain and report findings.

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 AND ASSESSMENT**

Prior to the 2013-2018 NPDES permit, the City was not required to do any monitoring activities. When Ecology issued the 2013-2018 Phase II Permits the City had a choice to either pay into a regional monitoring program or conduct our own monitoring for 3 sections.

### **2.6.1      Permit Requirements**

Permit requirements per Section S8. include the following:

- Submit in each annual report a description of any stormwater monitoring or stormwater-related monitoring conducted during the reporting period per S8.A.
- Conduct Status and Trends Monitoring, either as a part of the RSMP per S8.B.1 or individually per S8.B.2
- Conduct Effectiveness Studies, either as a part of the RSMP per S8.C.1 or individually per S8.C.2.
- Participate in the Source Identification and Diagnostic Monitoring Program per S8.D.

### **2.6.2      Regional Stormwater Monitoring Program**

The City opted to pay into the three regional monitoring programs which consist of Status and Trends monitoring, Regional Effectiveness Studies, and a Source Identification Program.

These programs will be funded through an allocation process for which participating agencies will be charged an annual cost or fee for the implementation of each program. The estimated annual cost for the City of Sumner to participate in all three programs is approximately \$6,254.00. After evaluating the monitoring program options, City staff determined the preferred plan is participation in the Regional Stormwater Monitoring Program. This program requires an annual financial contribution of \$6,254 from the City of Sumner, though in return provides compliance with all Permit water quality monitoring requirements. The Regional Stormwater Monitoring Program was ascertained as economical and will satisfy all of the City's NPDES Permit obligations for water quality monitoring with essentially no increase in staff time or labor.

### **2.6.3 Groundwater Monitoring**

Although the City is not currently required to implement a monitoring program, the City established a Groundwater and Stream Low Flow Monitoring program to provide useful data regarding groundwater gradients, calibrate a hydrologic and hydrogeological model, and evaluate the feasibility of utilizing infiltration techniques such as Low Impact Development (LID) technologies.

The Groundwater and Stream Flow 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.

### **2.6.4 Partial LID Monitoring**

The City has also implemented a second monitoring program. This monitoring program has been established to track stormwater runoff from a small Low Impact Development 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.

### **2.6.5 Fecal Coliform TMDL Monitoring**

Another monitoring project the City recently initiated is the water quality testing of Salmon Creek. The Department of Ecology in June of 2011 issued a Total Maximum Daily Load (TMDL) for Fecal Coliform in the Puyallup River Watershed. This report identified Salmon Creek as a tributary in need of fecal coliform reduction in order to meet state water quality standards.

In response to this report, the City of Sumner began to study and sample various locations on the Creek to identify potential causes and sources of Fecal contamination in the stream. The City and Tacoma Pierce County Health Department are currently in the process of investigating possible sources of fecal contamination in relation to Salmon Creek. 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.

Current research and investigation has indicated the potential causes of Fecal Coliform contamination of Salmon Creek to be connected to septic failures and livestock access to creek waters. The City of Sumner will pursue potential sources and work with the community to alleviate potential sources of contamination to the creek.

## **2.7      TOTAL MAXIMUM DAILY LOAD (TMDL) – FECAL COLIFORM**

The Federal Clean Water Act requires each state to develop water quality standards with the intention of protecting and preserving water quality and water resources. Bi-annually, states are required to conduct water quality assessments and develop a list of water bodies that fail to meet water quality standards. This list is called the 303(d) list. The Clean Water Act requires a Total Maximum Daily Load be formed for all waterbodies on the 303(d) list. The ultimate goal of the TMDL is identify causes of pollution and eliminate or reduce these sources and re-establish water quality standards.

The Department of Ecology identified several waterbodies within the Puyallup River Watershed that do not currently meet water quality standards for Fecal Coliform and thus have developed a TMDL for the watershed. The City of Sumner is working with Ecology, the Tacoma Pierce County Health Department (TPCHD) and other local jurisdictions to reduce the impacts of local waterways and the overall quantities of Fecal Coliform in the Watershed. The City conducts water quality assessments and utilizes the IDDE program to identify potential contributing sources of Fecal Coliform and works with TPCHD to eliminate these sources.

With the issuance of the (2013-2018) Permit, the Fecal Coliform TMDL becomes an active part of Permit compliance.

### **2.7.1      Permit Requirements:**

Permit requirements per Section S7 and appendix 2, include the following activities:

- Designate areas discharging via the MS4 to Salmon Creek as the highest priority areas for Illicit discharge detection and elimination routine field screening and implement the schedules and activities identified in S5. C.3 of the Western Washington Phase II Permit.
- Document, track and report (summary) investigations and TMDL activities.

### **2.7.2      TMDL Activities (Ongoing)**

The City continues investigations of “hot spots” identified during the initial field screening of Salmon Creek outfalls. The City of Sumner has partnered with the Tacoma Pierce County Health Department in cases where the pollutant source is likely stemming from failing septic systems.

The City has been proactive in attempting to reduce Fecal Coliform in the Salmon Creek basin, by installing sewer extensions (main pipeline) in a community where Fecal Coliform was present at the stormwater outfall.

The City will continue to field screening, investigation Fecal Coliform contamination and elimination of sources, until TMDL requirements are met.

### 3. CONCLUSION

The City of Sumner has met all the minimum requirements of the Western Washington Phase II Municipal Stormwater Permit for the year ending December 31, 2017. 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 and activities to develop and implement to remain in compliance with the issuance of new Phase II NPDES Permits.

The Public Education and Outreach component for the SWMP continues to provide materials and opportunities for the public to learn and participate in stormwater related activities. During the next reporting period the City will need to develop and distribute more educational materials to specific target audiences listed in the new Permit. The City also needs to continue documenting the progress of the behaviors of the targeted audiences and compare the results with those from past administered surveys.

The City is actively participating in several watershed groups as part of their Public Involvement and Participation component. These relationships 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 restoration projects 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-built are gathered. The SMC's clearly state the 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 *City of Sumner Development Specifications and Standard Details* and SMC's reflect the requirements for Controlling Runoff from New Development, Redevelopment and Construction Sites. Modifications of the City standards will be necessary to align with LID Permit requirements. 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; Open Spaces 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*.

The City's monitoring programs are gathering information about groundwater levels in the area near Sumner. The LID weather station will be analyzed to verify if possible, the effectiveness of

the implemented Low Impact Development system, infiltration rates and ground water retention. The Fecal Coliform investigation and sampling program will continue to identify and eliminate sources of contamination until water quality standards are met for the fresh water stream, Salmon Creek. 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 of Sumner.