Phase II NPDES Stormwater Management Program (SWMP)

City of Bonney Lake, WA
March, 2013

This SWMP shall include the components listed herein. To the extent allowable under state or federal law, all components are mandatory for the City of Bonney Lake under its Phase II NPDES Permit. In accordance with 40 CFR 122.35(a) and Special Condition S3, a city, town or county may rely on another entity to implement one or more of the components in this section. For this document, said components will serve as a checklist for eventual compliance under the City's Permit. Each component's status, that is whether implemented, not initiated, or incomplete and whether reliant on another public entity is shown in ***italics*.**

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

SECTION 1 – PUBLIC EDUCATION AND OUTREACH 7

a. Education & Outreach Target Audience 7
   i. General Public 7
   ii. Home-based & Mobile Businesses 8
   iii. Homeowners, Landscapers, & Property Managers 8
   iv. Engineers, Contractors, & Review Staff 8
b. Understanding & Adoption of Targeted Behaviors 9
c. Records of Public Education & Outreach Activities 9

SECTION 2 – PUBLIC INVOLVEMENT AND PARTICIPATION.....9

a. Consideration of Public Comments 10
b. SWMP & Annual Report Availability 10

SECTION 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) 10

a. Municipal Storm Sewer System Map 11
   i. Mapping Requirements 11
   ii. Map Maintenance Requirement 11
   iii. Map Geographic Areas.....11
   iv. Mapping Format.....11
   v. Map Availability 11
b. Regulatory Mechanism To Prohibit Stormwater Pollution.....11
   i. Permitted Stormwater Discharges.....12
   ii. Prohibited Stormwater Discharges.....12
   iii. SWMP Required Prohibited Discharges 13
   iv. Significant Sources of Pollutants 13
   v. Escalating Enforcement Procedures.....13
   vi. Enforcement Strategy.....13
c. IDDE Program 13
   i. IDDE Location Procedures 13
   ii. Field Assessment Activities 13
   iii. IDDE Identification.....14
   iv. Discharge Tracing Procedures 14
   v. Discharge Removal Procedures 14
d. IDDE Education Program 15
   i. IDDE Education Material.....15
   ii. Spill Hotline 17
e. IDDE Reporting and Record Keeping 17
f. IDDE Training 17
   i. IDDE Follow Up Training 18
   ii. Ongoing Training Program 18

SECTION 4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL 18

a. Construction Site Stormwater Regulatory Mechanism.....19
   i. Minimum Requirements.....19
   ii. Site Planning & BMP Selection.....19
   iii. Inspection Authority.....20
   iv. Low Impact Development.....20
   v. Erosivity Waiver 20
b. Permitting Process 21
   i. Stormwater Site Plan Review.....21
   ii. Pre-Construction Inspection.....21
   iii. Continuous Construction Inspection 21
   iv. Post-Construction Inspection 21
   v. Compliance Verification 21
   vi. Enforcement Strategy.....22
   vii. Erosivity Waiver 22
c. Long Term O&M Stormwater Provisions 23
   i. Enforceable Mechanism.....23
   ii. Maintenance Standards 23
   iii. Annual Inspections.....24
   iv. Inspection Frequency 24
d. Inspection Records.....24
e. Notice of Intent for Construction Activity.....25
f. Staff Training 25

SECTION 5 – POST –CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT & RE-DEVELOPMENT.....25

SECTION 6 – POLLUTION PREVENTION & OPERATION & MAINTENANCE FOR MUNICIPAL OPERATIONS 25

a. Maintenance Standards 26
   i. Maintenance Standard Purpose 27
   ii. Maintenance Frequency 27
b. Annual Inspection 27
c. Spot Checks After Major Storm Events.....27
d. Catch Basin Inspection 28
e. Inspection Program Compliance.....28
f. O&M Stormwater Impact Reduction.....28
g. Policy & Procedure Establishment 28
h. O&M Training Program 29
i. SWPPP Development 29
j. Inspection & Maintenance Records 30

APPENDIX..... 31

A. Best Management Practices.....I-A

City of Bonney Lake
Storm Water Master Plan

Executive Summary

Introduction:

The storm water permit requirements are governed by EPA rules described for Part 2 of the National Pollutant Discharge Elimination System (NPDES) applications. Permits are required for all municipal separate storm sewer systems (MS4s). NPDES applies to generators of Non Point Source (NPS) surface runoff waters.

The United States Environmental Protection Agency (EPA) published Final Rules (Note1), to implement this program on 8 December 1999. Permit applications for MS4 communities were required to be submitted by March 2003! However, in Washington State, permitting was delayed due to legal challenges. Each community has five years in which to fully implement their BMPs after their permit is issued by the state.

Municipal Costs:

EPA recognizes the continuing imperative to assure that environmental regulations accomplish statutory objectives in the least burdensome and most cost-effective fashion.

EPA has determined that the Final Rule contains a Federal mandate that may result in expenditures of $100 million or more in any one year for both State, local, and tribal governments. (Note2) EPA has demonstrated that the costs of implementing this program are out weighed by the benefits. Thus, EPA has satisfied the requirements of the Unfunded Mandates Reform Act (UMRA) of 1995, Public Law 104-4.

Municipal Role (10,000-100,000 population):

MS4 municipalities are required to:

1. Establish a storm water discharge control program that meets the requirements of the six minimum control measures in the Final Rule.
2. Develop, implement and enforce a storm water management program designed to reduce the discharge of pollutants from their system to the Maximum Extent Practical (MEP), to protect water quality, and satisfy the appropriate water quality requirements of the Clean Water Act (CWA).

---

[1] Federal Register, 8 December 1999, p. 68722, 40 CFR Parts 9,122,123,124
[2] Federal Register, 8 December 1999, p. 68797

3. Include an ordinance or other regulatory mechanism to implement this program.
4. Have a growing stormwater quantity program. The MS4 must now bring quality, together with quantity, into a comprehensive and integrated approach to Storm Water management.

An MS4 should take advantage of its GIS database and capability or develop this capability.

Best Management Practices (BMPs)

Each Municipality will develop a variety of BMPs that are organized into the Six Minimum Control Measure Objectives:

1. Public Education and Outreach on Storm Water Impacts
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Storm Water Runoff Control
5. Post-Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations

Each objective will guide a community to improve storm water quality and quantity to the Maximum Extent Possible (MEP). Each BMP used by an MS4 will set objectives and time frames. These target dates will be set to accomplish the BMPs as early in the five-year permit period as reasonably possible. Following are generic BMPs for each of the six Minimum Control Measure Objectives and implementing ordinances used by the City of Bonney Lake.

Additional Goals:

1. Create a progressive remediation program to enforce City Codes for recurring polluters or illegal dumpers impacting storm water systems. (Education, Notice, Citation, Cleanup Cost Lien, Water Shutoff, etc…)
2. Assignment of Enforcement Responsibility and staffing for Code Enforcement.

Ordinances To Implement This Program:

While master planning identifies how development should occur, this planning effort needs to be reinforced with implementing ordinances and municipal code. The City of Bonney Lake has created two sections in the Bonney Lake Municipal Code (BLMC) that address the Storm Water Management Plan. They are:

> **BLMC 15.13 Stormwater Management**
> The provisions of this chapter are intended to guide and advise all who conduct new development or redevelopment within the city. The provisions of this chapter establish the minimum level of compliance which must be met to permit a property to be developed or redeveloped within the city.

BLMC 15.14 Stormwater Utility
Establishes a stormwater utility and generates revenue necessary to implement BLMC 15.13 and to comply with the terms of the NPDES permit issued to the City. The method of calculating and setting the utility monthly operations and maintenance (O&M) and System Development Charge (SDC) rates are defined. These rates are based on the amount of impermeable surface area on each property. On each property, the number of Equivalent Service Units (ESUs) is calculated based on one ESU for each 2,600 square feet of impermeable surface area.

Conclusion:
Following this Executive Summary and using the format provided by Washington State, the remainder of this document provides the City of Bonney Lake Storm Water Master Plan details.

1 – Typical BMPs for Public Education and Outreach on Storm Water Impacts

- Classroom Education on Storm Water (CESW)
  * School District - Make Elementary School Presentations
  Storm Water Pollution - Water Usage – Recycling (Could combine into one presentation.)

- Using News Media (UM)
  *Partner with Pierce County and to place information on Radio, Television, and in Newspapers.

- Public Education / Participation (PEP)
  *Provide brochures to residential and business customers that are pertinent to their individual situations.

- Employee Training (ET)
  *Promote identification and understanding of potential problems.

- Housekeeping Practices for Municipal Employees and the General Public (HP)
  *Promote non-polluting product purchase, storage, use, cleanup and disposal procedures.

2 – Typical BMPs for Public Involvement/Participation

- Storm Drain System Signs (SDSS)
  *Install storm drain catch basin markers on curbs - Boy Scout Eagle Projects

- Stream Cleanup and Monitoring (SCM)
  *Volunteer River cleanup crews report volume and location of debris.
  *Areas of frequent dumping are monitored and cleaned up quickly.
  *Create an "Adopt a Stream" program.

- Community Storm Water Hotline (CH)
  *Public should know how to report storm water problems to the City using a telephone and/or an E-mail system.

- Public Education and Participation (PEP)
  *Provide brochures to residential and business customers that are pertinent to their individual situations.
  *Provide alternative procedures on how to accomplish their projects:
  Lawn Care/Fertilization - Car Washing - Pet Cleanup - Gutter Cleaning - etc.

3 – Typical BMPs for Illicit Discharge Detection and Elimination

- Leaking Sanitary Sewer Control (LSSC)
  *Support of implementing the Sanitary Sewer and Storm Water elements of the Master Plan. Many of the capacity-related problems in the sanitary sewer are infiltration-related.

  *Identify repair techniques using current technology, and evaluate the costs and benefits of implementation.
  Example: Pipe bursting and slip-lining versus replacement of pipes.

- NON-Stormwater Discharge to Storm Drains (NSWD)
  *Identify and remove. Examples: Fresh Concrete, Sanitary Sewer, etc.

- Identifying Illicit Connections to Storm Drain (IIC)
  *Identify and remove Illegal or inappropriate connections from industrial and business waste water sources to the storm drain system.

- Illegal Dumping Controls (IDC)
  *Specifically prohibit dumping of all paints, used oil-radiator fluid, chemicals, leaves, grass clippings, pet wastes, etc.

4 – Typical BMPs for Construction Site Storm Water Runoff Control

- General Construction Site Guidelines
  * Establish/Compile Design Standards (ECDS)
  * Stabilized Construction Entrance/Exit (SCE)
  * Plus several others

- Construction Site Good Housekeeping
  * Building and Equipment Cleaning (VEC)
  * Equipment and Vehicle Wash Down Area (EVWA)
  * Plus several others

- Slope Protection
  * Mulching (ML)
  * Temporary and Permanent Seeding (TPS)
  * Preservation of existing Vegetation (PEV)
  * Plus several others

- Channel and Storm Drain Protection
  * Riprap (RR) * Inlet Protection (IP) * Outlet Protection (OP)

- Sediment Collection and Runoff Diversion
  * Silt Fence (SF) * Straw Bale Barrier (STB) * Earth Berm Barrier (EB) etc.

5 – Typical BMPs for
Post-Construction Storm Water Management
in New Development and Redevelopment

- Planning and Design
  * Map Storm Water Drains (MSWS) * Use of partial Grass Parking Lots
  * Land Use Planning/Management (LUPM)

- Activities
  * BMP Inspection and Maintenance (BMPIM)
  * Catch Basin Cleaning (CBC) and Storm Drain Flushing (SDF)
  (Plan: Increase number of Hydro-Flusher trucks and crew per Rate Analysis)
  * Street Cleaning (SC) (Plan: Increase number of Street Sweepers and crew per Rate Analysis)
  * Curb and Gutter Maintenance by Adjacent Residents and Businesses

- Slope Protection and Stabilization
  * Grassed Swales (GS) * Seeding and Planting (SP)

- Retention and Infiltration
  * Extended Detention Basins (EDB) * Infiltration (IN)
  * Wet Ponds (WP) * Constructed Wetlands (CW)

- Stormwater Filters
  * Trench Sand Filter System (TSFS)

6 – Typical BMPs for Pollution Prevention/Good Housekeeping for Municipal Operations

- Pollutant Spill Cleanup
  * Absorbent Materials (SO)
  * Sumps with grease traps (S)
  * Vehicle and Equipment Maintenance and Repair (VEMR)

- Storage
  * Outdoor Storage of Raw Materials (OSRM)
  * De-Icing Chemical Use and Storage (DCUS)

- Waste Management
  * Illegal Dumping Control (IDC)
  * Hazardous Waste Management (HWM)
  * Roadway-Bridge Maintenance (RBM)
  * Septic System Controls (SSC)
  * Use Oil Recycling (UOR)
  * Buildings and Grounds Maintenance (BGM)
  * Pest Control (PC)

1. Public Education and Outreach

As of January 17, 2007, Ecology issued requirements for the public education and outreach program requirement of the State NPDES Phase II permit program. The following program is based on these requirements. An informed and knowledgeable community is crucial to the success of a stormwater management program since it helps to ensure greater support for the program and greater compliance.

The SWMP shall include an education program aimed at residents, businesses, industries, elected officials, policy makers, planning staff and other employees of the Permittee. The goal of the education program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. An education program may be developed locally or regionally.

The minimum measures are:

a. No later than two years after the effective date of this Permit, the Permittee shall provide an education and outreach program for the area served by the MS4. The outreach program shall be designed to achieve measurable improvements in the target audience's understanding of the problem and what they can do to solve it.

Education and outreach efforts shall be prioritized to target the following audiences and subject areas:

i. General public

- General impacts of stormwater flows into surface waters.
- Impacts from impervious surfaces.
- Source control BMPs and environmental stewardship actions and opportunities in the areas of pet waste, vehicle maintenance, landscaping and buffers.

The City has developed a stormwater information site for the City webpage and distributed stormwater pollution prevention informational flyers to over 7,000 City households regarding the general impacts of stormwater flows into surface waters and impacts from impervious surfaces including impacts from pet waste, vehicle fluids, household and lawn chemicals, car and impervious surface washing, and automotive and hazardous waste spills.

The City also provided information to residents, local schools, and City businesses regarding proper hazardous pollutant disposal including used oil recycling and hazardous waste disposal procedures and disposal locations.

Other education and outreach efforts included distributing our "Good Practices For The Restaurant Industry" and "Good Practices For The Auto Industry" posters to City restaurants and automotive and hazardous waste generating businesses.

Additional flyer and website information includes the Mobile Business Pollution Prevention Flyer, the Don't Feed Ducks Flyer, the City spill hotline and instructions on how to report a spill and "green" landscaping techniques including rain garden installation and natural yard care techniques (BMP's identified in Appendix section 1).

ii. General public, businesses, including home-based and mobile businesses

- BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials.
- Impacts of illicit discharges and how to report them.

see information provided for 1. a. i. above

iii. Homeowners, landscapers and property managers

- Yard care techniques protective of water quality.
  - BMPs for use and storage of pesticides and fertilizers.
  - BMPs for carpet cleaning and auto repair and maintenance.
  - Low Impact Development techniques, including site design, pervious paving, retention of forests and mature trees.
  - Stormwater pond maintenance.

see information provided for 1. a. i. above

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

The City of Bonney Lake adopted by City Ordinance the most current Pierce County Stormwater Management and Site Development Manual. The use of said manual is applied where applicable to all development in the City. The stormwater pollution prevention requirements of this manual including erosion and sediment control and minimum technical requirements are brought to the attention of developers through the platting and/or permitting process. Engineering, planning, and building review staff are trained and educated on current standards and BMP's with respect to stormwater pollution prevention and enforce the stormwater pollution requirements contained in the manual.

- Technical standards for stormwater site and erosion control plans.

Contained in the Pierce County Stormwater Management and Site Development Manual. Said technical standards apply to all new developments.

- Low Impact Development techniques, including site design, pervious paving, retention of forests and mature trees.

Pierce County Stormwater Management and Site Development Manual. The city encourages LID design within the City but has yet developed an ordinance that will allow certain types of LID implementation. The City currently has an ordinance that controls the cutting of mature trees.

- Stormwater treatment and flow control BMPs.

Pierce County Stormwater Management and Site Development Manual. Said technical standards apply to all new developments.

b. Each Permittee shall measure the understanding and adoption of the targeted behaviors among the targeted audiences. The resulting measurements shall be used to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors.

A baseline survey and re-survey has been performed to measure the understanding and adoption of the targeted behaviors among the targeted audiences as required. A report has been developed and includes the survey results and a plan of action to direct education and outreach resources more effectively.

c. Each Permittee shall track and maintain records of public education and outreach activities.

City public education and outreach materials are presented on the City and Ecology websites. All records of public education and outreach activities are maintained.

2. Public Involvement and Participation

The SWMP shall include ongoing opportunities for public involvement through advisory councils, watershed committees, participation in developing rate-structures, stewardship programs, environmental activities or other similar activities. Each Permittee shall comply with applicable State and local public notice requirements when developing their SWMP.

Public involvement and participation activities have included presenting three natural yard care workshops with the Tacoma/Pierce County Health Department and presenting our stormwater pollution prevention resource booth at our annual Bonney Lake Days event. Other public education and outreach activities have included a rain garden installation event, public involved "No Dumping, Drains To Habitat" curb marker installation events, and the annual school aged children targeted Stormwater Pollution Prevention and Water Conservation art contest (BMP's identified in Appendix section 2).

The minimum performance measures are:

a. No later than one year from the effective date of this Permit, all permittees shall create opportunities for the public to participate in the decision-making processes involving the development, implementation and update of the Permittee's entire SWMP. Each Permittee shall develop and implement a process for consideration of public comments on their SWMP.

A process for public involvement and consideration of public comments on the SWMP is implemented with the posting of the SWMP on the City website. Public feedback is encouraged and a City of Bonney Lake SWMP staff member and email address is posted to receive public comments for consideration and documentation.

b. Each Permittee shall make their SWMP, the annual report required under S9.A and all other submittals required by this Permit, available to the public. The annual report, and SWMP that was submitted with the latest annual report, shall be posted on the permittee's website. To comply with the posting requirement, a permittee that does not maintain a website may submit the updated SWMP in electronic format to the Department for posting on the Department's website.

Bonney Lake's annual report and SWMP are posted on the City of Bonney Lake's website and available upon request at our offices.

3. Illicit Discharge Detection and Elimination

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

City staff members including operations and maintenance staff, engineering staff, and building division staff have been trained to detect and report illicit connections and discharges utilizing internal field training and Excal Visual's, "Storm Watch: Municipal Stormwater Pollution Prevention" training DVD. Operations and maintenance staff have also been trained on the proper handling, transporting, and disposal of hazardous waste material. The City Spill Hotline is displayed on the City website and in all pollution prevention education materials to encourage residents and the public to report spills and illegal dumping to the City to help implement the Illicit Discharge Detection and Elimination Program (BMP's identified in Appendix section 3).

The minimum performance measures are:

a. A municipal storm sewer system map shall be developed no later than four years from the effective date of this permit. Municipal storm sewer system maps shall be periodically updated and shall include the following information:

A program has been implemented to develop a map of all connections to the City MS4. City GIS staff have collected MS4 field data and built a stormwater mapping layer. Mapping of the entire City MS4 has been completed.

i. The location of all known municipal separate storm sewer outfalls and receiving waters and structural stormwater BMPs owned, operated, or maintained by the Permittee. Each Permittee shall map the attributes listed below for all storm sewer outfalls with a 24 inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems:

- Tributary conveyances (indicate type, material, and size where known).
- Associated drainage areas.
- Land use.

Currently implemented. Required mapping information is included and available to view in the IDDE Program appendix (Appendices I & J).

ii. Each Permittee shall initiate a program to develop and maintain a map of all connections to the municipal separate storm sewer authorized or allowed by the Permittee after the effective date of this Permit.

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

iv. Each Permittee shall make available to Ecology, upon request, municipal storm sewer system map(s) depicting the information required in S5.C.3.a.i. through iv above. The preferred format of submission will be an electronic format with fully described mapping standards. An example description is provided on Ecology WebPages under Core Services, GIS Data.

v. Upon request, and to the extent appropriate, permittee's shall provide mapping information to co-permittee's and secondary permittee's.

Currently implemented. The City of Bonney Lake municipal storm sewer system maps are available upon request.

b. Each Permittee shall develop and implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illegal discharges, and/or

dumping into the Permittee's municipal separate storm sewer system to the maximum extent allowable under State and Federal law. The ordinance or other regulatory mechanism shall be adopted no later than 30 months from the effective date of this Permit.

i. The regulatory mechanism does not need to prohibit the following categories of non-stormwater discharges:

- Diverted stream flows.
- Rising ground waters.
- Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)).
- Uncontaminated pumped ground water.
- Foundation drains.
- Air conditioning condensation.
- Irrigation water from agricultural sources that is commingled with urban stormwater.
- Springs.
- Water from crawl space pumps.
- Footing drains.
- Flows from riparian habitats and wetlands.
- Non-stormwater discharges covered by another NPDES permit.
- Discharges from emergency fire fighting activities in accordance with S2 *Authorized Discharges*.

ii. The regulatory mechanism shall prohibit the following categories of non-stormwater discharges unless the stated conditions are met:

- Discharges from potable water sources, including water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges shall be de-chlorinated to a concentration of 0.1 ppm or less, pH-adjusted, if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4.

- Discharges from lawn watering and other irrigation runoff. These shall be minimized through, at a minimum, public education activities (see section S5.C.1) and water conservation efforts.

- Dechlorinated swimming pool discharges. The discharges shall be dechlorinated to a concentration of 0.1 ppm or less, pH-adjusted and reoxygenized if necessary, volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4. Swimming pool cleaning wastewater and filter backwash shall not be discharged to the MS4.

• Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents. The Permittee shall reduce these discharges through, at a minimum, public education activities (see section S5.C.1.) and/or water conservation efforts. To avoid washing pollutants into the MS4, Permittees must minimize the amount of street wash and dust control water used. At active construction sites, street sweeping must be performed prior to washing the street.

• Other non-stormwater discharges. The discharges shall be in compliance with the requirements of the stormwater pollution prevention plan reviewed by the Permittee, which addresses control of construction site de-watering discharges.

iii. The Permittee's SWMP shall, at a minimum, address each category in ii above in accordance with the conditions stated therein.

iv. The SWMP shall further address any category of discharges in i or ii above if the discharges are identified as significant sources of pollutants to waters of the State.

v. The ordinance or other regulatory mechanism shall include escalating enforcement procedures and actions.

vi. The Permittee shall develop an enforcement strategy and implement the enforcement provisions of the ordinance or other regulatory mechanism.

Adopted ordinance 1330 (AMENDING BONNEY LAKE MUNICIPAL CODE CHAPTER 15.13 RELATING TO STORMWATER MANAGEMENT) August 25, 2009 to effectively prohibit non-stormwater, illegal discharges, and/or dumping into the City MS4 to the maximum extent allowable. Adopted ordinance 1330 does not prohibit the categories of non-stormwater discharges in 3.b.i. and does prohibit the categories of non-stormwater discharges in 3.b.ii. Adopted ordinance 1330 also includes escalating enforcement procedures and actions. An enforcement strategy of template warning letters and inspection procedures has been developed.

c. Each Permittee shall develop and implement an ongoing program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping into the Permittee's municipal separate storm sewer system. The program shall be fully implemented no later than 180 days prior to the expiration date of this Permit and shall include:

IDDE Program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping into the municipal separate storm sewer system has been developed and implemented.

i. Procedures for locating priority areas likely to have illicit discharges, including at a minimum: evaluating land uses and associated business/industrial activities present; areas where

complaints have been registered in the past; and areas with storage of large quantities of materials that could result in spills.

Currently implemented.

ii. Field assessment activities, including visual inspection of priority outfalls identified in i, above, during dry weather and for the purposes of verifying outfall locations, identifying previously unknown outfalls, and detecting illicit discharges.

• Receiving waters shall be prioritized for visual inspection no later than three years from the effective date of this Permit, with field assessments of three high priority water bodies made no later than four years from the effective date of this Permit. Field assessments on at least one high priority water body shall be made each year thereafter.

Receiving waters have been prioritized

1. ***Fennel Creek***
2. ***Lake Bonney***
3. ***Lake Debra Jane***
4. ***Lake Tapps***

Two possible locations have been identified for long term monitoring;

1. ***Commercial – SR 410 / 192nd Outlet***
2. ***Residential – Lake Bonney Outlet***

• Screening for illicit connections shall be conducted using: Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, October 2004, or another methodology of comparable effectiveness.

Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments shall be utilized for screening illicit connections.

iii. Procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges found by or reported to the Permittee. Procedures shall include detailed instructions for evaluating whether the discharge must be immediately contained and steps to be taken for containment of the discharge.

Compliance with this provision shall be achieved by investigating (or referring to the appropriate agency) within 7 days, on average, any complaints, reports or monitoring information that indicates a potential illicit discharge, spill, or illegal dumping; and immediately investigating (or referring) problems and violations determined to be emergencies or otherwise judged to be urgent or severe.

Currently implemented.

iv. Procedures for tracing the source of an illicit discharge; including visual inspections, and when necessary, opening manholes, using mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures.

Currently implemented.

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

Currently implemented.

Compliance with this provision shall be achieved by initiating an investigation within 21 days of a report or discovery of a suspected illicit connection to determine the source of the connection, the nature and volume of discharge through the connection, and the party responsible for the connection. Upon confirmation of the illicit nature of a storm drain connection, termination of the connection shall be verified within 180 days, using enforcement authority as needed.

d. Permittees shall inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

i. No later than 180 days prior to the expiration date of this Permit, distribute appropriate information to target audiences identified pursuant to S5.C.1.

The City has distributed the following information to target audiences identified pursuant to S5.C.1:

- ***Good Cleaning Practices for the Restaurant Industry***
  The Good Cleaning Practices for the Restaurant Industry Poster describes industry specific waste disposal and cleaning best management practices in three languages; English, Spanish and Korean. The poster is designed to reduce the number of illicit discharges from restaurant businesses. The posters are distributed to restaurants during the O&M fats, oil, and grease inspections of restaurant sewer interceptors (a continuous effort).

- ***Good Cleaning Practices for the Auto Industry***
  The good Cleaning Practices for the Automotive Industry Poster describes industry specific waste disposal and cleaning best management practices. The poster is intended to reduce the number of illicit discharges from automotive businesses. The posters are distributed to all auto industry businesses within the City of Bonney Lake and are re-distributed to all new automotive businesses.

- ***Good Practices for the Residence***
  The good practices for the residence poster describes residential specific waste disposal and cleaning best management practices. The poster is intended to educate residents on proper hazardous waste disposal and the encouragement and information to implement used oil recycling, proper pet waste disposal, and environmentally friendly vehicle washing methods. The poster also informs residents on ways to conserve water and provides information on how and when to report an illicit discharge, pollution, and illegal dumping.

- ***Household Stormwater Pollution Prevention***
  This brochure describes a series of household practices designed to reduce stormwater pollution impacts. These practices include procedures for properly disposing of household chemicals, BMP's associated with spill cleanup, environmentally friendly vehicle washing and maintenance, and environmentally friendly yard care practices.

- ***Proper Pet Waste Disposal***
  The pet waste brochure identifies the numerous adverse impacts pet waste can have on water quality, fish and wildlife, and people, and describes environmentally friendly disposal techniques.

- ***Used Oil Recycling***
  The Used Oil Recycling flyer encourages oil recycling practices and provides a list of local used oil recycling locations and outlines general oil handling best management practices including procedures for collecting and disposing of used oil and used oil filters. The flyer also lists the locations of local land fill stations and where to properly dispose of other vehicle and household hazardous wastes.

- ***Natural Yard Care Techniques***
  The City of Bonney Lake distributes the Five Steps to Natural Yard Care brochure, which was originally developed by the Tacoma/Pierce County Health Department. The brochure describes best management natural yard care practices including building healthy soil with compost and mulch, plant selection, smart watering, alternatives to pesticides, and natural lawn care to help reduce stormwater pollution.

- ***Rain Garden Installation***
  The Rain Garden brochure provides information on the importance of removing stormwater carried pollutants and describes the anatomy of a rain garden and how a rain garden can be utilized to perform stormwater quality and reduce stormwater pollution.

- ***Erosion and Sediment Control***
  The Erosion and Sediment Control brochure targets single family residential contractors and outlines erosion and sediment control inspection processes and provides details on standard erosion and sediment control best management practices to help reduce stormwater pollution from residential and other small construction projects.

- ***Mobile Business Pollution Prevention***
  The Mobile Business Pollution Prevention flyer targets mobile businesses and outlines BMP's to help reduce stormwater pollution associated with disposing wash water, cleaning spills, and washing vehicles. The flyer also encourages the utilization of native drought tolerant plants, organic / time release fertilizers, and LID practices.

- ***Four Reasons Not To Feed Ducks And Geese***
  The Four Reasons Not To Feed Ducks And Geese flyer educates the public on the harmful effects associated with feeding waterfowl including the health issues, illness, and disease associated with overfed and undernourished waterfowl and the potential population increase which contributes to swimmers itch and murky green algae blooms.

ii. No later than two years from the effective date of this Permit, publicly list and publicize a hotline or other local telephone number for public reporting of spills and other illicit discharges. Keep a record of calls received and follow-up actions taken in accordance with S5.C.3.c.ii. through v. above; include a summary in the annual report (see section S9 Reporting and Record Keeping Requirements).

A City Spill Hotline is publicized in numerous locations on the City website and in all City stormwater pollution prevention public education and outreach materials for public reporting of spills and other illicit discharges. A GBA reporting and tracking system has been implemented to maintain a record of calls received from the spill hotline and to also develop work orders for dispatching cleanup crews

to spill and illicit discharge locations. The GBA system also tracks the type of spill or illicit discharge identified onsite and the clean-up measures and inspections performed by Public Works Operations & Maintenance required to remove and verify the removal of the hazardous material to the maximum extent practical.

e. Permittees shall adopt and implement procedures for program evaluation and assessment, including tracking the number and type of spills or illicit discharges identified; inspections made; and any feedback received from public education efforts. A summary of this information shall be included in the Permittee's annual report (see section S9 Reporting and Recordkeeping Requirements).

See information provided for 3. d. ii. above. A summary of the number of phone calls received from the spill hotline, the number and type of spills and illicit discharges identified, and the corresponding spill and illicit discharge cleanup measures and inspections performed are included in the annual report.

f. Each Permittee will provide appropriate training for municipal field staff on the identification and reporting of illicit discharges into MS4s.

The City has provided training to municipal staff including operations & maintenance field staff, engineering staff, building and development inspection staff, and municipal support staff regarding the identification and reporting of illicit discharges including spills and illicit connections utilizing Excal Visual's "Storm Watch: Municipal Stormwater Pollution Prevention" training DVD.

In addition, the City has provided further training to operations & maintenance field staff regarding the investigation, termination, and cleanup of illicit discharges including spills and discharges from illicit connections.

Operations and maintenance personnel have also developed standard operating procedures regarding spill cleanup including vac-truck operation and absorbent material placement and disposal.

i. No later than thirty months after the effective date of this Permit, each Permittee shall ensure that all municipal field staff who are responsible for identification, investigation, termination, cleanup, and reporting illicit discharges, including spills, improper disposal and illicit connections are trained to conduct these activities. Follow-up training shall be provided as needed to address changes in procedures, techniques or requirements. Permittees shall document and maintain records of the training provided and the staff trained.

Currently Implemented.

ii. No later than three years after the effective date of this Permit, an ongoing training program shall be developed and implemented for all municipal field staff, which, as part of their normal job responsibilities, might come into contact with or otherwise observe an illicit discharge or illicit connection to the storm sewer system shall be trained on the identification of an illicit discharge/connection, and on the proper procedures for reporting and responding to the illicit discharge/connection. Follow-up training shall be provided as needed to address changes in procedures, techniques or requirements. Permittees shall document and maintain records of the training provided and the staff trained.

Currently Implemented.

4. Construction Site Stormwater Runoff Control

Each Permittee shall develop, implement, and enforce a program to reduce pollutants in stormwater runoff to a regulated small MS4 from new development, redevelopment and construction site activities. This program shall be applied to all sites that disturb a land area 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale. The program shall apply to private and public development, including roads. The "Technical Thresholds" in Appendix 1 shall be applied to all sites 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale.

The City adopted Pierce County Stormwater Management & Site Development Manual contains our standards to reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities including applying the equivalent minimum Technical Thresholds in Appendix 1 to all sites 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development. Our enforcement action to meet this requirement is contained in section 15.13.090 of the Bonney Lake Municipal Code (amended with ordinance 1330 passed August 25, 2009). BMP's identified in Appendix section 4.

The minimum performance measures are:

a. The program shall include an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects. Pursuant to S5.A.2., in adopting this ordinance or other regulatory mechanism, existing local requirements to apply stormwater controls at smaller sites, or at lower thresholds than required pursuant to S5.C.4., shall be retained. The ordinance or other enforceable mechanism shall be in place no later than thirty months from the effective date of this Permit. The ordinance or other enforceable mechanism shall include, at a minimum:

i. The Minimum Requirements, technical thresholds, and definitions in Appendix 1 or an equivalent approved by Ecology under the NPDES Phase I Municipal Stormwater Permit, for new development, redevelopment, and construction sites. Adjustment and variance criteria equivalent to those in Appendix 1 shall be included. More stringent requirements may be used, and/or certain requirements may be tailored to local circumstances through the use of basin plans or other similar water quality and quantity planning efforts. Such local requirements shall provide equal protection of receiving waters and equal levels of pollutant control to those provided in Appendix 1.

ii. A site planning process and BMP selection and design criteria that, when used to implement the minimum requirements in Appendix 1 (or equivalent approved by Ecology under the Phase I Permit) will protect water quality, reduce the discharge of pollutants to the maximum extent practicable and satisfy the State requirement under Chapter 90.48 RCW to apply all known, available and reasonable methods of prevention, control and treatment (AKART) prior to discharge. Permittees shall document how the criteria and requirements will protect water quality, reduce the discharge of pollutants to the maximum extent practicable, and satisfy State AKART requirements.

Permittees who choose to use the site planning process and BMP selection and design criteria in the 2005 *Stormwater Management Manual for Western Washington,* or an equivalent manual approved by the Department under the Phase I Permit, may cite this choice as their sole documentation to meet this requirement.

The DOE approved Pierce County Stormwater Management Manual is the sole documentation to meet the site planning process, BMP selection, and design criteria for the City of Bonney Lake.

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

Codified in BLMC 15.13.060.

iv. Provisions to allow non-structural preventive actions and source reduction approaches such as Low Impact Development Techniques (LID), measures to minimize the creation of impervious surfaces and measures to minimize the disturbance of native soils and vegetation. Provisions for LID should take into account site conditions, access and long term maintenance.

Volume VI of the City adopted Pierce County Stormwater Management and Site Development Manual provides a mechanism to utilize an alternative method of stormwater management referred to as low impacts development (LID). LID

strategies meet multiple objectives such as open space, critical area, and habitat protection while still meeting the standards and requirements set forth under the National Pollutant Discharge Elimination System (NPDES) permit. Said volume also presents design requirements for several LID BMPs that can potentially be used for any stormwater design – LID or traditional. Volume VI outlines both the performance goal and objectives, and prescriptive standards necessary to evaluate the application of LID methods as effective stormwater management tools, both as a comprehensive design approach as well as through a la carte BMP selection.

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

The City of Bonney Lake does not allow construction sites to apply the "Erosivity Waiver" in Appendix 1, Minimum Requirement #2, however, it does allow permittees to apply for an exemption to an element if an element of the 12 Part Construction SWPPP is determined not to be applicable to the project and the exemption is justified in the narrative. Per Bonney Lake Municipal Code 15.13.090, escalating enforcement shall apply when non-stormwater discharge violations occur.

b. The program shall include a permitting process with plan review, inspection and enforcement capability to meet the standards listed in (i) through (iv) below, for both private and public projects, using qualified personnel (as defined in Definitions *and Acronyms*). At a minimum, this program shall be applied to all sites that disturb a land area 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale. The process shall be in place no later than thirty months from the effective date of this Permit.

i. Except as provided in S5.C.4.b.vii. below, review of all stormwater site plans for proposed development activities.

Currently Implemented.

ii. Except as provided in S5.C.4.b.vii. below, inspect, prior to clearing and construction, all known development sites that have a high potential for sediment transport as determined through plan review based on

definitions and requirements in Appendix 7 Identifying Construction Site Sediment Transport Potential.

Currently Implemented.

iii. Except as provided in S5.C.4.b.vii. below, inspect all known permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. Enforce as necessary based on the inspection.

Currently Implemented.

iv. Inspect all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater controls such as stormwater facilities and structural BMPs. Also, verify a maintenance plan is completed and responsibility for maintenance is assigned. Enforce as necessary based on the inspection.

Currently Implemented.

v. Compliance with the inspection requirements in (ii), (iii) and (iv) above shall be determined by the presence and records of an established inspection program designed to inspect all sites and achieving at least 95% of scheduled inspections.

Currently Implemented.

vi. An enforcement strategy shall be developed and implemented to respond to issues of non-compliance.

The City's enforcement action shall be in accordance with BLMC 15.13.090 whenever a person has violated any provision of BLMC Chapter 15.13 (Stormwater Management). The choice of enforcement action and the severity of any penalty shall be based on the nature of the violation, the damage or risk to the public or to public resources, the degree of bad faith of the person subject to the enforcement action, and whether the violation is a first or repeat violation.

If an action is being undertaken or a condition exists in violation of Chapter 15.13; the first step of the City's enforcement strategy shall be to serve a stop work order to the party in violation.

In the event the terms of an issued stop work order are not abided by; the compliance failure shall constitute a misdemeanor, punishable by a maximum of 90 days in jail and a $1,000 fine. To further our

enforcement strategy, the City considers each day of continued violation of the terms of an issued stop work order a separate violation.

The enforcement strategy also includes codified language for the Public Works Director to seek revocation of any business license held by the violator for the following reasons:

- ***Noncompliance with Chapter 15.13***
- ***Preventing onsite inspection***
- ***Nonpayment of any fines or inspection fees***

The City may also take legal action to abate any violation of Chapter 15.13 and bill the costs of abatement to the violator.

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

The City of Bonney Lake does not allow construction sites to apply the Erosivity Waiver in Appendix 1, Minimum Requirement #2.

c. The program shall include provisions to verify adequate long-term operation and maintenance (O&M) of post-construction stormwater facilities and BMPs that are permitted and constructed pursuant to (b) above. These provisions shall be in place no later than thirty months from the effective date of this Permit and shall include:

i. Adoption of an ordinance or other enforceable mechanism that clearly identifies the party responsible for maintenance, requires inspection of facilities in accordance with the requirements in (ii) through (iv) below, and establishes enforcement procedures.

The combination of the City of Bonney Lake Municipal Code Chapter 15.13 (Stormwater Management) and the City adopted Pierce County Stormwater Management & Site Development Manual provide our enforceable mechanisms related to the identification of the party responsible for maintenance, the facility inspection requirements in accordance with the requirements in (ii) through (iv) below, and the enforcement procedures.

ii. Each Permittee shall establish maintenance standards that are as protective or more protective of facility function than those specified in Chapter 4 of Volume V of the 2005 Stormwater Management Manual for Western

Washington. For facilities which do not have maintenance standards, the Permittee shall develop a maintenance standard.

The City adopted Pierce County Stormwater Management & Site Development Manual contain our maintenance standards in Volume I Appendix I-B (which are as protective of facility function as those specified in Chapter 4 of Volume V of the 2005 Stormwater Management Manual for Western Washington).

(1) The purpose of the maintenance standard is to determine if maintenance is required. The maintenance standard is not a measure of the facilities required condition at all times between inspections. Exceeding the maintenance standard between the period of inspections is not a permit violation.

(2) Unless there are circumstances beyond the Permittees control, when an inspection identifies an exceedence of the maintenance standard, maintenance shall be performed:

- Within 1 year for wet pool facilities and retention/detention ponds.
- Within 6 months for typical maintenance.
- Within 9 months for maintenance requiring re-vegetation, and
- Within 2 years for maintenance that requires capital construction of less than $25,000.

Circumstances beyond the permittees control include denial or delay of access by property owners, denial or delay of necessary permit approvals, and unexpected reallocations of maintenance staff to perform emergency work. For each exceedence of the required timeframe, the Permittee must document the circumstances and how they were beyond their control.

iii. Annual inspections of all stormwater treatment and flow control facilities (other than catch basins) permitted by the Permittee according to S5.C.4.b. unless there are maintenance records to justify a different frequency.

The City of Bonney Lake Operations & Maintenance staff perform scheduled annual inspections and required maintenance of all stormwater treatment and flow control facilities (other than catch basins) in the entire City MS4. The City Operations & Maintenance staff also maintain records of inspections and maintenance actions performed.

Reducing the inspection frequency shall be based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the Permittee may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be certified in accordance with G19 *Certification and Signature*.

iv. Inspections of all new flow control and water quality treatment facilities, including catch basins, for new residential developments that are a part of a larger common plan of development or sale, every 6 months during the period of heaviest house construction (i.e., 1 to 2 years following subdivision approval) to identify maintenance needs and enforce compliance with maintenance standards as needed.

The City of Bonney Lake Community Development inspectors perform inspections of all new flow control and water quality treatment facilities, including catch basins, for new residential developments throughout the duration of each project. Operations & Maintenance staff perform inspections of all new flow control and water quality treatment facilities, including catch basins, for new residential developments at and after all final plats.

d. The program shall include a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities shall be maintained. Permittees shall keep records of all projects disturbing more than one acre, and all projects of any size that are part of a common plan of development or sale that is greater than one acre that are approved after the effective date of this Permit.

City staff maintain records of inspections and enforcement actions including warning letters, notices of violations, and other enforcement records for each construction project including projects disturbing more than one acre, and all projects of any size that are part of a common plan of development. The City Transportation Supervisor maintains records of maintenance inspections and maintenance activities for the entire City MS4 continuously.

e. The program shall make available copies of the "Notice of Intent for Construction Activity" and copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment. Permittees will continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.

Currently implemented.

f. No later than thirty months from the effective date of this Permit, each Permittee shall verify that all staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Follow-up training shall be provided as needed to address changes in procedures,

techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.

The City Project Managers, Building Inspectors, Community Development Staff, and the Assistant Engineer (the staff who performs the plan review, construction site inspections, and enforcement of stormwater runoff) maintain Certified Erosion & Sediment Control Lead certifications.

The City also provides internal training to the above mentioned staff members, as well as operations & maintenance personnel, engineering staff, and support staff regarding stormwater pollution prevention from construction sites via Excal Visual's "Ground Control: Stormwater Pollution Prevention for Construction Sites" training DVD.

5. Post-Construction Stormwater Management in New Development & Re-development

Section 5 BMP's included in Appendix.

6. Pollution Prevention / Good Housekeeping for Municipal Operations

Within three years of the effective date of this Permit, each Permittee shall develop and implement an operations and maintenance (O&M) program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

The City has developed and implemented a pollution prevention program to reduce pollutant runoff from municipal operations including developing pollution prevention standard operating procedures for various municipal operation and maintenance activities including;

- ***Utilizing eco-friendly solvents and cleaners for maintenance shop operations and municipal operations in the field.***
- ***Implementing the use of spill containment pallets under all bulk oil products in the mechanics shop.***
- ***Providing spill kits for the mechanics shop and spill response and fuel service vehicles including vac-trucks, sweepers, and utility vehicles.***
- ***Implementing the use of an oil filter crusher to dispose of used oil filters and to ensure proper hazardous waste management.***
- ***Utilizing synthetic motor oil in City vehicles to provide longer oil life and to generate less hazardous waste.***
- ***Providing the operations and maintenance shop with a commercial used oil collection tank to implement the City used oil recycling***

program and to ensure proper used oil hazardous waste management.

- ***Performing annual maintenance and cleaning of the operations shop stormwater collection infrastructure including the oil/water separators and all connecting structures.***
- ***Utilizing the use of a de-chlorinating hydrant and water main flushing diffuser in all flushing operations.***
- ***Implementing a program to inventory hazardous materials and to properly dispose of all hazardous wastes utilizing a contracted hazardous waste management service.***

The City has also provided the operations and maintenance staff with municipal pollution prevention operations training utilizing Excal Visual's "Storm Watch: Municipal Stormwater Pollution Prevention" training DVD. BMP's identified in Appendix section 5

<u>The minimum performance measures are</u>:

a. Each Permittee shall establish maintenance standards that are as protective, or more protective, of facility function than those specified in Chapter 4 of Volume V of the 2005 Stormwater Management Manual for Western Washington. For facilities which do not have maintenance standards, the Permittee shall develop a maintenance standard.

The City adopted Pierce County Stormwater Management & Site Development Manual contain our maintenance standards in Volume I Appendix I-B (which are as protective of facility function as those specified in Chapter 4 of Volume V of the 2005 Stormwater Management Manual for Western Washington).

i. The purpose of the maintenance standard is to determine if maintenance is required. The maintenance standard is not a measure of the facilities required condition at all times between inspections. Exceeding the maintenance standard between inspections and/or maintenance is not a permit violation.

ii. Unless there are circumstances beyond the Permittees control, when an inspection identifies an exceedence of the maintenance standard, maintenance shall be performed:

- Within 1 year for wet pool facilities and retention/detention ponds.
- Within 6 months for typical maintenance.
- Within 9 months for maintenance requiring re-vegetation.
- Within 2 years for maintenance that requires capital construction of less than $25,000.

Circumstances beyond the permittees control include denial or delay of access by property owners, denial or delay of necessary permit approvals, and unexpected reallocations of maintenance staff to perform emergency work. For each exceedence of the required timeframe, the Permittee shall document the circumstances and how they were beyond their control.

b. Annual inspection of all municipally owned or operated permanent stormwater treatment and flow control facilities, other than catch basins, and taking appropriate maintenance actions in accordance with the adopted maintenance standards. The annual inspection requirement may be reduced based on inspection records.

Currently implemented.

Reducing the inspection frequency shall be based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the Permittee may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be certified in accordance with G19 *Certification and Signature*.

c. Spot checks of potentially damaged permanent treatment and flow control facilities (other than catch basins) after major (greater than 24-hour-10-year recurrence interval rainfall) storm events. If spot checks indicate widespread damage/maintenance needs, inspect all stormwater treatment and flow control facilities that may be affected. Conduct repairs or take appropriate maintenance action in accordance with maintenance standards established above, based on the results of the inspections.

Currently implemented.

d. Inspection of all catch basins and inlets owned or operated by the Permittee at least once before the end of the Permit term. Clean catch basins if the inspection indicates cleaning is needed to comply with maintenance standards established in the 2005 *Stormwater Management Manual for Western Washington*. Decant water shall be disposed of in accordance with Appendix 6 *Street Waste Disposal*.

Catch basins and inlets were inspected at least once prior to the end of the permit term and those requiring maintenance were cleaned per the city adopted maintenance standards. Future decant water shall be disposed of per Appendix 6 via a new connection to the City sanitary sewer system.

Inspections may be conducted on a "circuit basis" whereby a sampling of catch basins and inlets within each circuit is inspected to identify maintenance needs. Include in the sampling an inspection of the catch basin immediately upstream of any system outfall. Clean all catch basins within a given circuit

at one time if the inspection sampling indicates cleaning is needed to comply with maintenance standards established under S5.C.4.c., above.

As an alternative to inspecting catch basins on a "circuit basis," the Permittee may inspect all catch basins, and clean only catch basins where cleaning is needed to comply with maintenance standards.

e. Compliance with the inspection requirements in a, b, c and d above shall be determined by the presence of an established inspection program designed to inspect all sites and achieving inspection of 95% of all sites.

Currently implemented.

f. Establishment and implementation of practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways owned or maintained by the Permittee, and road maintenance activities conducted by the Permittee. The following activities shall be addressed:

- Pipe cleaning
- Cleaning of culverts that convey stormwater in ditch systems
- Ditch maintenance
- Street cleaning
- Road repair and resurfacing, including pavement grinding
- Snow and ice control
- Utility installation
- Pavement striping maintenance
- Maintaining roadside areas, including vegetation management
- Dust control

Currently implemented.

g. Establishment and implementation of policies and procedures to reduce pollutants in discharges from all lands owned or maintained by the Permittee and subject to this Permit, including but not limited to: parks, open space, road right-of-way, maintenance yards, and stormwater treatment and flow control facilities. These policies and procedures shall address, but are not limited to:

- Application of fertilizer, pesticides, and herbicides including the development of nutrient management and integrated pest management plans.
- Sediment and erosion control.
- Landscape maintenance and vegetation disposal.
- Trash management.
- Building exterior cleaning and maintenance.

Currently implemented.

h. Develop and implement an on-going training program for employees of the Permittee whose construction, operations or maintenance job functions may impact stormwater quality. The training program shall address the importance of protecting water quality, the requirements of this Permit, operation and maintenance standards, inspection procedures, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns, including potential illicit discharges. Follow-up training shall be provided as needed to address changes in procedures, techniques or requirements. Permittees shall document and maintain records of training provided.

Currently implemented.

i. Development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee in areas subject to this Permit that are not required to have coverage under the Industrial Stormwater General Permit. Implementation of non-structural BMPs shall begin immediately after the pollution prevention plan is developed. A schedule for implementation of structural BMPs shall be included in the SWPPP. Generic SWPPPs that can be applied at multiple sites may be used to comply with this requirement. The SWPPP shall include periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMP.

City of Bonney Lake Stormwater Pollution Prevention Plan: Operations & Maintenance and Material Storage Facilities has been developed and implemented.

j. Records of inspections and maintenance or repair activities conducted by the Permittee shall be maintained in accordance with S9 *Reporting Requirements*.

Currently implemented.

Appendix

Appendix I-A
Best Management Practice (BMP) List

Section 1 – Public Education & Outreach

SWPP BMP 01-1: Properly dispose of household chemicals. Never wash or pour chemicals, cleaners, or solvents into the storm drain. Take hazardous substances to an approved location.

SWPP BMP 01-2: Properly recycle used oil at an approved location. Puncture used oil filters and let the oil drain out for at least 24 hours. Then place filter in the garbage.

SWPP BMP 01-3: Use dry methods for drip and spill cleanup. Don't hose down driveways. Use kitty litter, sawdust, or commercial absorbent pads to dry up any spilled oils or hazardous liquids, then sweep it up and place it in the garbage.

SWPP BMP 01-4: Clean up after your pet. Take plastic bags on walks and use the bags to pick up pet waste. Tie bag closed and place in the trash.

SWPP BMP 01-5: Conserve water at home. Water lawns only when needed. Apply as little fertilizer to lawns as possible and utilize natural or organic yard care. Always sweep up excess fertilizer from the street, sidewalk, and driveway.

SWPP BMP 01-6: Wash vehicles on a lawn or at a licensed car wash facility. Use a broom to sweep up debris instead of hosing or pressure washing.

SWPP BMP 01-7: If you notice a spill or illegal dumping, call the City of Bonney Lake Spill Hotline at (253) 447-4320 or Bonney Lake 311 during business hours or call (253) 841-5538 to report a spill after hours.

Section 2 – Public Involvement and Participation

SWPP BMP 02-1: Implement the City storm drain curb marker program utilizing Eagle Scout candidates and the public to install dump no waste curb markers adjacent to City storm drains.

SWPP BMP 02-2: Provide opportunities for the public to actively participate in stormwater pollution prevention workshops and raingarden / bioswale projects.

SWPP BMP 02-3: Provide opportunities for the public participate in the development of the stormwater management program utilizing the City website and providing the necessary contact information for feedback.

SWPP BMP 02-4: Install a City stormwater pollution prevention booth at Bonney Lake Days events.

SWPP BMP 02-5: Invite the local K-12 students in Bonney Lake to participate in the annual stormwater pollution prevention art contest / calendar development program.

Section 3 – Illicit Discharge Detection and Elimination

SWPP BMP 03-1: Maintain a City spill hotline 24 hours per day, 7 days per week.

SWPP BMP 03-2: Staff members shall report spills and potential pollution discharges including suspicious pipes and work activity.

SWPP BMP 03-3: Create a map of the entire City MS4 per permit requirements.

SWPP BMP 03-4: Pass an IDDE ordinance or other regulatory mechanism.

SWPP BMP 03-5: Create and distribute informational flyers to homeowners and businesses regarding IDDE.

Section 4 – Construction Site Stormwater Runoff Control

SWPP BMP 04-1: Preservation of natural vegetation shall be maintained where practical.

SWPP BMP 04-2: Stabilization of exposed soils shall be implemented and maintained.

SWPP BMP 04-3: Erosion control devices shall be implemented and maintained.

SWPP BMP 04-4: Temporary diversion dikes, earth dikes, and interceptor dikes shall be utilized and maintained where applicable.

SWPP BMP 04-5: Inlet protection including street sweeping shall be a continuous effort until permanent sediment and erosion control measures have been established.

SWPP BMP 04-6: Sediment trapping devices including sediment basins and rock dams shall be implemented and utilized as required.

SWPP BMP 04-7: Prevention and removal of sediment on public/private streets.

SWPP BMP 04-8: Stormwater Permit Application and Compliance.

Section 5 – Post-Construction Stormwater Management in New Development & Re-development

SWPP BMP 05-1: Annual Pond Maintenance – Inspect and remove debris annually and after major storm events. Harvest vegetation, at a minimum, when a 50% reduction in the original open water surface area occurs. Repair embankment and side slopes and clean control structures as needed.

SWPP BMP 05-2: Pond Maintenance (5 Year Cycle) – Remove accumulated sediment from sediment storage areas and main pond cells. Clean control structures.

SWPP BMP 05-3: Annual Infiltration Trench Maintenance – Clean and remove debris after major storm events. Mow and maintain upland vegetated areas. Clean sediment control structures. Maintain inlets / outlets as needed.

SWPP BMP 05-4: Annual Swale, Ditch, & Channel Maintenance – Mow and remove litter and debris. Stabilize eroded side slopes. Manage nutrient and pesticide use.

SWPP BMP 05-5: Swale, Ditch, & Channel Maintenance (5 Year Cycle) – Scrape swale bottom and remove sediment to restore original cross section. Seed or sod swale to restore ground cover. Clean adjacent culvert pipe and catch basins.

SWPP BMP 05-6: Stormwater Structure Maintenance – Inspect and clean / repair as needed 25% (goal) of the stormwater structures in the city each year. Vac all structures with a 2" or greater build up of debris. Repair top slab holes 2" and greater and cracks 0.25" or greater.

SWPP BMP 05-7: Street Sweeper Schedule – Sweep all city streets once a month in the following street classification priority; 1. collectors, 2. local access with curb and gutter, and 3. local access without curb and gutter. Sweep SR 410 once a quarter.

Section 6 – Pollution Prevention / Good Housekeeping for Municipal Operations

SWPP BMP 06-1: Utilize eco-friendly solvents and cleaners for maintenance shop operations and municipal operations in the field.

SWPP BMP 06-2: Implement the use of spill containment pallets under all bulk oil products in the mechanics shop.

SWPP BMP 06-3: Provide spill kits for the mechanics shop and spill response and fuel service vehicles including vac-trucks, sweepers, and utility vehicles.

SWPP BMP 06-4: Implement the use of an oil filter crusher to dispose of used oil filters and to ensure proper hazardous waste management.

SWPP BMP 06-5: Utilize synthetic motor oil in City vehicles to provide longer oil life and to generate less hazardous waste.

SWPP BMP 06-6: Provide the operations and maintenance shop with a commercial used oil collection tank to implement the City used oil recycling program and to ensure proper used oil hazardous waste management.

SWPP BMP 06-7: Perform annual maintenance and cleaning of the operations shop stormwater collection infrastructure including the oil/water separators and all connecting structures.

SWPP BMP 06-8: Utilize the use of a de-chlorinating hydrant and water main flushing diffuser in all flushing operations.

SWPP BMP 06-9: Implement a program to inventory hazardous materials and to properly dispose of all hazardous wastes utilizing a contracted hazardous waste management service.

SWPP BMP 06-10: Wash vehicles at a licensed commercial facility or at a covered site designed to collect and treat wash water.

SWPP BMP 06-11: Perform vehicle maintenance inside O&M shop whenever possible.

SWPP BMP 06-12: Place a drop cloth under work areas when working with fluids.