



**Stormwater Management  
Program  
(SWMP)**  
Issued March 2008

**Pursuant to the  
Western Washington Phase II  
Municipal Stormwater Permit  
# WAR 04 – 5516**

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## **BACKGROUND**

The National Pollutant Discharge Elimination System (NPDES) is a federal permit authorized under the Federal Clean Water Act of 1972 (as amended in 1977) that regulates stormwater and wastewater discharges to waters of the State. While NPDES is a federal permit, it is primarily administered by state governments. The NPDES Phase II Municipal Stormwater Permit for Western Washington was issued by the Washington State Department of Ecology on January 17, 2007 and went into effect on February 16, 2007.

While there are several types of NPDES permits, the municipal permit is intended to reduce the impacts from both point source (i.e. construction site run-off) and non-point source pollution carried by stormwater. Construction site run-off and non-point source pollution, such as oils and metals from cars, fertilizers and pesticides from lawns, soaps from car washes and pet waste are major contributors to water quality degradation in our lakes, streams, wetlands and the Puget Sound.

One of the major requirements under the Municipal NPDES Permit is that all affected municipalities create and implement a Stormwater Management Program (SWMP) which addresses five required program elements: 1) Public Education and Outreach, 2) Public Involvement and Participation, 3) Illicit Discharge Detection and Elimination, 4) Construction Site Run-Off, 5) Operations and Maintenance of Post Construction Stormwater Facilities. While the permit went into effect in February of 2007, the permit phases program implementation requirements over the next four years.

## INTRODUCTION

This document has been prepared to meet the City of Federal Way's Western Washington Phase II Municipal Stormwater Permit (Permit) requirement for development of a Stormwater Management Program (SWMP) identified in Section S5.A.2 of the Permit.

The City's SWMP is designed to reduce the discharge of pollutants from the City's Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable (MEP), meet Washington State's All Known and Reasonable Technology (AKART) requirements, and protect water quality once it is fully implemented.

As will be demonstrated in the following sections, many of the required SWMP elements are already being implemented by the City. The City will gather, track, maintain and use information on an on-going basis to evaluate the SWMP development, implementation, Permit compliance, and to set priorities as part of the implementation of the City's SWMP.

Pursuant to the requirements of the Permit, the SWMP will be updated annually until the permit expires on February 16, 2012. The SWMP shall be considered a draft document and used as a planning tool until such time as the SWMP and any supporting ordinances have been formally adopted by the City of Federal Way City Council.

### Relationship to 1995 Surface Water Management Comprehensive Plan

The following SWMP should be considered a draft update to Chapter III (Surface Water Utility Programs) of the City of Federal Way 1995 Surface Water Management Comprehensive Plan. The other chapters of the 1995 Comprehensive Plan are still in effect.

## **SECTION 1 - Public Education and Outreach**

*“The SWMP shall include an education program aimed at residents, businesses, industries, elected officials, policy makers, planning staff and other employees of the City. The goal of the education program will be to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. The City’s education program may be developed locally or regionally.” (Permit Requirement S5.C.1)*

*Pursuant to Permit requirement S5.C.1.a., a Public Education and Outreach Program must be in place by February 16, 2009.*

The City of Federal Way maintains an active Public Education and Outreach Program. The City uses a variety of approaches to inform residents and businesses about stormwater pollution prevention, stewardship opportunities, capital improvement projects, watershed planning and maintenance activities, engaging both citizens and stakeholders alike.

Public education is important to protecting our water resources. It is a utility goal to increase water quality compliance by helping people realize their individual and collective responsibilities for protecting our waterways. Public education and participation has also proven to be a useful tool in water quality compliance and enforcement. An informed community can be very effective at keeping a watchful eye on our waterways.

The Surface Water Management Division (SWM) is actively producing and distributing public educational materials (i.e. posters, press releases, brochures, booklets and flyers) on a variety of subjects related to improving water quality. All SWM publications are available on the web at <http://www.cityoffederalway.com/SWM>.

### ***Targeted Audiences and Subject Areas***

*(Permit Requirement S5.C.1.a)*

SWM’s existing programs listed below target a wide variety of audiences and subject areas. The programs are organized by targeted audiences and subject areas as identified in Section S5.C.1.a of the Permit.

#### **i) The General Public**

##### **(1) Impacts of Stormwater Flows into Surface Waters and Impacts from Impervious Surfaces**

The broad topics of impacts from impervious surfaces and stormwater flows are addressed several ways within SWM’s existing public education, outreach and involvement programs. Examples of these include our quarterly newsletter (The Water Log), web pages, catch basin curb markers, charity car wash kits, natural yard care and pet waste brochures.

Further, SWM staff is actively involved in the Regional NPDES Outreach Forum with the goal of developing a regional stormwater educational campaign for the greater Puget Sound area. The NPDES Regional Outreach Forum is a

group of public education and outreach professionals from Phase I & II jurisdictions from the greater Puget Sound area working together to share and develop education and outreach programs and research.

**(2) Source Control BMPs, Environmental Stewardship Actions, Pet Waste, Vehicle Maintenance, Landscaping and Buffers**

**(a) Source Control BMPs**

**(i) Construction Site Erosion Control Brochure**

SWM has developed an erosion/sedimentation control educational brochure targeted at single family contractors. The brochure outlines the erosion control inspection process and provides details on the standard best management practices (BMPs). The brochure is currently attached to all new single family construction permits. Brochures are also distributed by SWM inspectors to contractors at the preconstruction conference.

**(ii) Restaurant Industry Poster**

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 intended to reduce the number of illicit discharges from restaurant businesses. The posters were delivered to all restaurants within the City of Federal Way in 2004 and continue to be handed out through the Illicit Discharge Detection and Elimination (IDDE) program.

**(iii) Auto Industry Poster**

The Good Cleaning Practices for the Automotive Industry Poster describes industry specific waste disposal and cleaning best management. The poster is intended to reduce the number of illicit discharges from restaurant businesses. The posters are distributed every few years through door to door distribution, as well as through code enforcement. The posters were hand delivered to all auto industry businesses within the City of Federal Way starting in 2004 and continue to be handed out through the IDDE program.

**(iv) Catch Basin Curb Marker Program**

Through this program, local youth organizations, like Boy Scouts and Girl Scouts and other special interest groups, volunteer to glue these colorful four inch plastic markers to curbs, sidewalks or roads adjacent to catch basins in residential neighborhoods. The program is designed to raise awareness that all City storm drains flow to natural waterways, as well as to reduce pollutants entering the storm system.

(v) Charity Car Wash Program

As a proactive measure to educate and assist the public interested in holding charity car wash events, the City maintains the [Fish Friendly Car Wash Program](#). The program offers two “fish friendly” car wash alternatives: 1) Sell charity car wash tickets through the Puget Sound Car Wash Association; and 2) Check out car wash kits free of charge. Kits may be borrowed from the City for charity events held within the City. The kits are designed to divert wash water to the sanitary sewer system. The program also includes disseminating public education materials in the form of letters, flyers and press releases targeted at local charities and special interest groups, as well as local businesses.

(b) Environmental Stewardship

(i) Pet Waste Brochure

The pet waste brochure identifies the numerous adverse impacts pet waste can have on water quality and describes environmentally friendly disposal techniques. Pet waste brochures are displayed at local parks, pet stores and veterinary clinics.

(ii) Don't Feed the Ducks or Geese Poster

This poster was created by King County and displays four reasons not to feed the ducks or geese. Posters are on display at local lakes and ponds and are distributed to North and Steel Lake residents annually as a part of their aquatic weed management programs. They are designed to reduce nutrient loading and other harmful impacts resulting from feeding waterfowl.

(iii) Be a Lake Steward Flyer

The lake steward flyer encourages lake residents to adopt or modify residential practices and behaviors to help improve water quality in local lakes. The flyer was distributed in July/August of 2007.

(iv) Stream Team

Through this volunteer program residents and interested parties regularly check out water quality monitoring kits and conduct basic water quality tests in local streams. The program is designed to raise awareness on the health of streams and encourage stewardship. The group also reports any adverse conditions or illicit discharges they may observe.

(v) Lakota Creek Clean Up

During this annual spring event volunteers and SWM staff walk the Lakota Creek stream corridor removing litter and debris which can damage water quality and cause flooding or channel erosion. Participants are educated on the adverse impacts of litter and other pollutants on stream health and stability.

(vi) Invasive Plant Removal

SWM coordinates seasonal volunteer events to hand remove invasive plants from our stream and wetland restoration areas. Participants are taught the importance of allowing native plants to thrive in these areas such as improving wildlife habitat, creating natural buffers and providing shade to keep streams and wetlands cool.

(c) Vehicle Maintenance

SWM does not currently have any specific educational programs targeting vehicle maintenance and vehicular impacts to water quality. It is anticipated that this issue will be addressed through the Regional NPDES Public Education and Outreach Forum.

(d) Landscaping & Buffers

(i) Natural Yard Care

The City of Federal Way actively participates in the Natural Yard Care Program created by King County. The program offers a series of three workshops every spring to teach residents environmentally friendly lawn and garden care techniques.

(ii) Lake Friendly Landscape Brochure

SWM staff in cooperation with the Washington State Lake Protection Association have updated the “Blueprint for a Lake Friendly Landscape” brochure. The brochure describes native planting alternatives, encourages the creation of native landscape buffers along the shoreline and discourages shoreline armoring. The brochure is designed to reduce the use for fertilizers and pesticides, improve wildlife values and water quality. The brochure was last distributed by mail to all lake residents in 2004.

(iii) Taking Care of Streams Brochure

This regional streams brochure originally created by Oregon State University, promotes stewardship practices in an effort to improve natural processes and water quality. The brochure was distributed by mail to all stream front property owners.

**ii) The General Public & Businesses (including mobile & home based)**

**(1) BMPs for Use and Storage of Automotive Chemicals, Hazardous Cleaning Supplies, Car Wash Soaps and Hazardous Materials**

Several of SWM’s existing programs address the BMPs for the use and storage of automotive chemicals, cleaning supplies, hazardous materials and car wash soaps including: the Auto Industry Poster, The Restaurant Industry Poster, the Fish Friendly Car Wash Program and articles in “The Water Log”.

**(2) Impacts of Illicit Discharges and How to Report Them**

The impacts from illicit discharges and how to report them are addressed in both the Stormwater Pollution Prevention Brochure and in periodic articles within SWM's quarterly newsletter "The Water Log". Both subjects are also covered in depth on the City's web site. SWM plans to examine additional venues to make IDDE reporting numbers more easily accessible to the public.

**iii) Homeowners, Landscapers and Property Managers**

**(1) Yard Care Techniques Protective of Water Quality & BMPs for Use and Storage of Pesticides and Fertilizers**

The existing Natural Yard Care Program targets homeowners and residential use of pesticides and fertilizers and encourages environmentally friendly techniques. The City hopes to target landscaping firms and property managers through an expansion of the existing Natural Yard Care Program or through the efforts of the Regional Public Education and Outreach Forum.

**(2) BMPs for Carpet Cleaning and Auto Repair and Maintenance**

These topics are primarily addressed through the Auto Industry Poster, the Catch Basin Curb Marker Program, The Fish Friendly Car Wash Program and periodic articles in "The Water Log". SWM currently does not specifically target carpet cleaning activities.

**(3) Low Impact Development (LID) Techniques**

The City of Federal is one of 13 jurisdictions chosen by the Puget Sound Partnership to receive technical assistance in integrating LID techniques into the City's development regulations in 2008. The City plans to create educational materials to promote the use of these LID techniques once they have been integrated and adopted into the development regulations.

Also, SWM staff are currently examining different existing educational materials on LID techniques and design standards, including WSU Extension's "Rain Garden Handbook".

**(4) Stormwater Pond Maintenance**

Through SWM's annual private storm system inspection program, SWM inspectors conduct inspections and determine maintenance requirements of over 600 multi-family and commercial properties with known stormwater detention or flow control facilities. Education of the property owners on maintenance benefits and needs is done by our inspectors through verbal communication, postcards, letters and correction notices. In addition a Maintenance Manual for Private Stormwater Systems is available on SWM's main web page and this is shared with the facility owner.

**iv) Engineers, Contractors, Developers, Review Staff and Land Use Planners**

**(1) Technical Standards for Stormwater & Erosion Control Plans**

Technical standards and BMPs for stormwater and erosion control are available on the City's web page ([www.cityoffederalway.com/swm](http://www.cityoffederalway.com/swm)). In addition a Single Family Erosion Control Brochure is attached to all single family construction permits and distributed by inspection staff.

**(2) Low Impact Development Techniques**

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***Measure Understanding***

*(Permit Requirement S5.C.1.b)*

Surface Water Management's existing Education and Outreach Program is designed to achieve measurable improvements in the target audience's understanding of stormwater and water quality impacts and what they can do to help reduce or prevent these impacts. Specifically, the Education and Outreach Program is designed to raise awareness by identifying problems (potential pollutant sources) and to change behaviors by identifying and encouraging the adoption of practices and behaviors to improve and/or protect water quality. SWM staff are currently evaluating how to measure the effectiveness of the different educational campaigns within our program.

***Track and Maintain Records***

*(Permit Requirement S5.C.1.c)*

Currently SWM does not track or maintain detailed records of the Public Education and Outreach Program. SWM staff are currently evaluating different tracking systems including Red Ridge's Volunteer Works program.

## SECTION 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.”*  
(Permit Requirement S5.C.2)

*Pursuant to Permit requirements S5.C.2.a., an on-going Public Participation Program must be initiated by February 16, 2008.*

The City of Federal Way encourages residents and interested parties to participate in the decision making processes involving the update and implementation of the City’s Stormwater Management Program (SWMP), as well as other public involvement and participation opportunities offered by the City. The City of Federal Way believes public involvement and participation are important to promoting stewardship of both the City and its natural environments. Through public involvement citizens help make a difference in their quality of life and the quality of our natural habitats and waterways.

### **Public Participation in Development of SWMP**

*(Permit Requirement S5.C.2.a & b)*

The City of Federal Way Surface Water Management Utility is well established with an existing rate structure and all of the Permit programs (i.e. Illicit Discharge Detection and Elimination, Public Education & Outreach, Construction Site Run-off Inspection, Post Construction Stormwater Inspection, etc.) already in place. As a result, large scale changes to SWM’s existing programs and ordinances are not expected. However, the SWM programs will be updated to meet the conditions of the permit. Public participation on the SWMP will be focused on how to improve the City’s existing stormwater programs and what changes are necessary to meet the Permit requirements.

Opportunities for public participation in the development of the SWMP will be made available through the following venues:

- i) **Public Notices** – Public Notices will be posted in the local newspaper, the Federal Way Mirror. Notices will identify opportunities for public participation in the development of the SWMP in the form of a web site address, e-mail & phone contact information and the date and time of public meetings.
- ii) **SWM Newsletter** – The quarterly SWM newsletter, “The Water Log”, will be used to raise awareness of the Permit requirements and update the public on the development of the SWMP. NPDES update articles appeared in the both the August and December issues of the Water Log.

iii) **SWM Web Page** – A link to the City of Federal Way’s NPDES Phase II web page has been added to SWM’s web page ([www.cityoffederalway.com/swm](http://www.cityoffederalway.com/swm)). The NPDES Phase II web page provides a general description of the Permit and links to the Department of Ecology’s web site for the Permit and other pertinent information. The site also describes the progress on the development of the SWMP and will display the SWMP and the Annual Reports as they become available. The web page also provides links to SWM’s existing programs and provides opportunities for public comment and participation, via e-mail.

iv) **Public Meetings**

(1) Open House – An NPDES Open House was held on October 11, 2007 to educate the public on SWM’s existing programs and the NPDES Phase II Permit requirements, as well as to solicit input.

(2) Land Use and Transportation Committee (LUTC) – An opportunity for participation in the development of SWMP is also available to city residents through the LUTC meetings. The LUTC will review many of the programmatic and policy changes proposed under the SWMP. The LUTC opens the floor to public comment on all of their agenda items. The LUTC meets the first and third Monday of each month. Meeting times and agendas can be accessed through the City Calendar web page (<http://www.cityoffederalway.com/page.aspx?view=192>).

(3) City Council – Many of the programmatic and policy changes related to the SWMP must be reviewed and approved by City Council. Public comments will be accepted during all City Council meetings. [**Note:** City Council or the LUTC can schedule additional public meetings if they deem it necessary to allow for public comment/participation.] The City Council meets on the first and third Tuesday of each month. Meeting times and agendas can be accessed through the City Calendar web page (<http://www.cityoffederalway.com/page.aspx?view=192>).

(4) Parties of Record –In addition to the State public noticing requirements, SWM will maintain a Party of Record List. Parties of Record will be notified of all new information and public meetings relating to the SWMP.

### ***Evaluation of Public Comments***

*(Permit Requirement S5.C.2.a)*

No public comments have been received to date. Once public comments are received they will be categorized by topic and evaluated based on quantity and pertinence to the subject matter. Public comments will be addressed in the annual SWMP updates.

## **Stewardship Programs & Environment Activities**

*(Permit Requirement S5.C.2)*

SWM currently maintains the following stewardship and environmental activity programs: the Stream Team, the Lakota Creek Clean Up, Invasive Plant Removal, the Catch Basin Curb Marker Program, and the Fish Friendly Car Wash Program. Descriptions of these programs can be found in the Stewardship portions of Section 1 - Public Education and Outreach. SWM web pages are also used to promote volunteer programs.

## **Web Page - SWMP and Annual Report**

*(Permit Requirement S5.C.2.b)*

As previously described, SWM's NPDES Permit web page ([www.cityoffederalway.com/npdes](http://www.cityoffederalway.com/npdes)) will display both the City's SWMP and Annual Report as they become available. Pursuant to the Permit, these documents will be updated and posted annually.

## **SECTION 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. Permittees shall fully implement an ongoing illicit discharge detection and elimination (IDDE) program no later than 180 days prior to the expiration date of this Permit.”(Permit Requirement S5.C.3)*

*Pursuant to Permit requirement S5.C.3., a series of phased deadlines are created for the implementation of the Illicit Discharge Detection and Elimination Program beginning with the creation of the Illicit Discharge Hotline required as of February 16, 2009.*

The City of Federal Way has maintained an active Illicit Discharge Detection and Elimination (IDDE) program since it was implemented in 1999. The City actively investigates prohibited discharges and illicit connections to the City’s stormwater system in an effort to improve water quality in the City’s surface water resources. Through this program, areas throughout the City are targeted for water quality inspections due to their potential impacts to the City's infrastructure and downstream surface waters.

### ***Municipal Storm Sewer Map***

*(Permit Requirement S5.C.3.a)*

The City of Federal Way is currently implementing an ongoing program to prepare and maintain a comprehensive map of the City’s municipal separate storm sewer system (MS4) pursuant to the requirements of sections S5.C.3.a. of the Permit prior to the required deadline of February 16, 2011. The City has mapped approximately 75% of all known MS4 structures, and has mapped 100% of all known receiving waters. The city is currently working toward implementing the practices and procedures designed to complete this effort, including physically surveying all MS4 structures using mobile GIS/GPS and incorporating these data into ESRI ArcView.

Prior to February 16, 2011, the ongoing mapping program will map:

- i) All known MS4 outfalls, receiving waters and structural storm sewer BMPs owned or operated by the City consistent with the requirements of section S5.C.3.a.i. of the Permit.
- ii) All connections to the MS4 authorized or allowed by the City.
- iii) All geographic areas served by the City that do not discharge stormwater to surface waters.
- iv) Make an electronic version of the map available to Ecology upon request.
- v) To the extent appropriate, make mapping information available to any secondary or co-permittees upon request. [**Note:** The City does not currently have any secondary or co-permittees.]

## ***Illicit Discharge Detection and Elimination (IDDE) Ordinance***

*(Permit Requirement S5.C.3.b)*

The City of Federal Way has several regulatory mechanisms already in place that require the implementation of the best known, available, and reasonable management practices to prevent the contamination of stormwater, surface water, and groundwater:

- i) The City implemented an ordinance in 1999 enacting the Surface and Stormwater section (Chapter 21) of Federal Way City Code (FWCC). Chapter 21 includes Article IV, Water Quality that was designed to provide minimum requirements for reducing and controlling the discharge of contaminants from commercial, industrial, governmental, agricultural, residential and other land use activities in Federal Way through a regulatory mechanism that effectively prohibits non-stormwater illegal discharges, and/or dumping into the City's MS4 to the maximum extent allowable under state and federal law.
- ii) If a violation has been committed, Chapter 21, Article IV is enforced using Chapter 1 FWCC, Article III, Enforcement of Code. Chapter 1 establishes an efficient, civil administrative system to enforce the development of regulations of the City. It provides: an opportunity for an appeal of determination of violations; prompt hearings and decisions on any such appeals; monetary penalties for violations; and procedures for the collection of said penalties. Enforcement actions may include Order to Cease Activity, Notice of Violation, Infractions and Voluntary Correction Agreement.
- iii) The Zoning section (Chapter 22) of FWCC includes Article XIII, Division 12, Water Quality that establishes water quality standards based on how the water leaves the subject property. Pursuant to this code section, all water entering the public stormwater system (22-1198) from the subject property must meet prescribed water quality standards.

In order to meet the stringent requirements set forth in the Permit, the City plans to review the existing FWCC and begin drafting new ordinance language that complies with S5.C.3.b.i through S5.C.3.b.vi of the Permit. The entire process of creating new language, staff review and City Council adoption will be completed no later than August 16, 2009, pursuant to the requirements of the Permit.

## ***Implementation of IDDE***

*(Permit Requirement S5.C.3.c)*

The City maintains an active and effective Illicit Discharge Detection and Elimination program which detects and addresses non-stormwater discharges to the City's storm system.

- i) **Identify Priority Areas**  
The City's current program detects and addresses illicit discharges to the MS4. This program includes a system to record illicit discharges and citizen complaints,

and includes a regulatory mechanism that effectively prohibits non-stormwater illegal discharges, and/or dumping into the City's MS4 to the maximum extent allowable under state and federal law through FWCC. This program is used to determine an appropriate management response and possible enforcement action.

Systematic business source control inspections have been focused in the West Hylebos Creek watershed due to its larger concentration of commercial development and greater likelihood of prohibited stormwater discharges. In addition, this basin has also been targeted due to the presence of endangered Chinook salmon in downstream stream reaches.

The City has begun reviewing existing IDDE procedures to determine compliance with the Permit. Any amendments or changes to existing procedures needed to meet the requirements of the Permit will be completed by August 19, 2011.

**ii) Assessment/Inspection of Priority Outfalls**

The City plans to develop procedures to assess and inspect priority outfalls as described within section S5.C.3.c.ii of the Permit. This element of the IDDE program will be implemented by August 19, 2011.

**iii) Procedures Characterizing Nature & Environmental Threat Posed by Illicit Discharges**

The City currently implements a program to detect and address illicit discharges to the MS4. This program includes an active source control, operations and maintenance inspection program, and the implementation of a system to record illicit discharges and citizen complaints. The program also includes a regulatory mechanism that effectively prohibits non-stormwater illegal discharges, and/or dumping into the City's MS4 to the maximum extent allowable under state and federal law through FWCC. This program is used to evaluate whether the discharge should be immediately contained, and includes steps to be taken for containment of the discharge.

The City has begun reviewing existing IDDE procedures regarding the characterization of the nature and environmental threat posed by illicit discharges to determine compliance with section S5.C.3.c.iii of the Permit. Any amendments or changes to existing procedures needed to meet the requirements of the Permit will be completed by August 19, 2011.

**iv) Procedures for Tracing the Source of Illicit Discharges**

The City's existing IDDE program traces illicit discharges using visual inspections throughout the MS4. This program includes the use of techniques including, but not limited to the use of mobile cameras, smoke testing, dye testing, and water sampling.

To date, the City has not entirely formalized the procedures for this program pursuant to section S5.C.3.c.iv. of the Permit. The City plans to evaluate existing IDDE procedures regarding tracing the source of illicit discharges to determine

compliance with this section of the Permit. Any amendments or changes to existing procedures needed to meet the requirements of the Permit will be completed by August 19, 2011.

v) **Procedures for Removing Source of Illicit Discharges**

While no formalized procedures have been adopted, the existing IDDE program includes notification of appropriate authorities, notification of property owners, technical assistance for eliminating the discharge, follow-up inspections, and escalating enforcement and legal actions if the discharge is not eliminated.

City staff plan to review and amend its existing procedures as necessary to meet the requirements and timelines required under section S5.C.3.c.v of the Permit by August 19, 2011.

***IDDE Education (Hazards Associated with Illicit Discharges)***

*(Permit Requirement S5.C.3.d)*

The City's existing public education and outreach program includes educational materials designed to prevent illicit discharges, by educating business owners and employees on best management practices and waste disposal techniques (e.g. see Restaurant Industry Poster and Auto Industry Poster descriptions in Section 1 of this SWMP).

i) **Distribution of Materials**

City staff will evaluate its existing IDDE educational materials to review whether they clearly identify the hazards associated with illicit discharges. Any necessary changes to the IDDE educational program will be made and new materials distributed by August 19, 2011.

ii) **Publicly List Phone Number for Reporting Spills**

The City's Public Works Department main number (253-835-2700) has been publicly listed for reporting spills or illicit discharges. If this number is called after normal business, it identifies an after hours number (253-946-6416) which should be called for reporting spills. While this number has been publicized on the web and in other mediums, the City plans to evaluate its existing approach and review options for improving the publishing of the number, as well as call tracking procedures.

***IDDE Assessment, Evaluation and Tracking***

*(Permit Requirement S5.C.3.e)*

The City's existing IDDE program tracks and documents information regarding spill types, number of spills, illicit discharge types, number of illicit discharges, and inspections. Distribution of all public education materials for this program, however, is not currently tracked.

City staff plan to develop and implement procedures to fully track, assess and evaluate the IDDE program by August 19, 2011.

### ***Municipal Field Staff Training***

*(Permit Requirement S5.C.3.f)*

**i) IDDE Level A Training - Investigation, Reporting and Clean Up**

Through the City's existing IDDE program some training has been provided to all field staff responsible for identification, investigation, termination, cleanup and reporting of illicit discharges. Prior to August 19, 2009 the City will evaluate its existing training efforts to determine compliance with section S5.C.3.f.i of the Permit and implement any necessary changes.

Additionally, the City also plans to provide the necessary follow-up training as needed to address changes in procedures, techniques or requirements. All training records (including training information and the staff trained) will be documented and maintained.

**ii) IDDE Level B Training - All Municipal Field Staff**

Prior to February 16, 2010, the City will create and implement an ongoing training program to train all municipal field staff, which as a part of their normal duties may observe an illicit discharge. This level of training will focus on the identification of illicit discharges/connections and how to report or respond to these illicit discharges/connections. This level of training will likely be required for staff from most of the City Departments including: Public Works, Community Development, Parks and Public Safety.

The City also plans to provide the necessary follow-up training as needed to address changes in procedures, techniques or requirements. All training records (including course information and the staff trained) will be documented and maintained.

## **SECTION 4 - Controlling Runoff from Construction Sites**

*“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.” (Permit Requirement S5.C.4)*

*Pursuant to Permit requirement S5.C.4.a., a construction site runoff program must be in place by August 16, 2009.*

The City of Federal Way recognizes that construction site run-off is a major contributor to water quality degradation in the greater Puget Sound region. To address this issue and to better protect our natural waterways, the City’s current construction site run-off program already exceeds the minimum requirements of the Permit in many respects. Construction site run-off is reviewed and inspected for all construction projects, ranging from single family structures to large commercial developments. The responsibility for plan review and inspection are shared between the Surface Water Management and Development Services Divisions of the Public Works Department.

### **Program Ordinance and Enforcement Mechanisms**

*(Permit Requirement S5.C.4.a)*

i) **Minimum Requirements, Technical Thresholds and Definitions**

The 1998 King County Stormwater Design Manual as amended by Federal Way City Code 21-9 is the current standard used by development review and inspection staff when establishing stormwater and erosion control requirements (minimum requirements, technical thresholds, definitions etc.) for all construction projects in the City. Thresholds for permit review are determined by the City’s Land Modification Code (FWCC 22-1091 through 22-1095).

In 2008 City staff plan to review the City’s existing technical requirements as well as King County’s 2005 Stormwater Design Manual and/or Department of Ecology’s 2005 Stormwater Management Manual for Western Washington for potential adoption as the new minimum requirements and technical thresholds.

ii) **Site Planning Process & BMP Selection**

The City also uses the 1998 King County Manual for BMP selection and design criteria. The current site planning process is established in Chapter 22 of Federal Way City Code.

City staff plans to review these processes, BMP selection and design criteria in 2008.

iii) Legal Authority to Conduct Inspections

The legal authority to conduct inspections on new developments is granted during construction pursuant to an access agreement allowed under Federal Way City Code (FWCC) 22-153. Authority to conduct post construction inspection of private drainage facilities discharging to the City's storm system from new development is established through drainage covenants and conditions attached to the final permit, as well as FWCC 21.16.

iv) Provisions to Allow Low Impact Development (LID) or Other Non-Structural Improvements

Non-structural preventive actions and source control improvements measures, such as LID, are currently allowed through the variance process. In December of 2007, the City of Federal Way was one of 13 jurisdictions chosen by the Puget Sound Partnership (PSP) to receive technical assistance in integrating LID techniques into the City's development regulations. City staff will be working with PSP to develop recommendations for integrating LID into the City's existing regulations in 2008. The City plans to evaluate these recommendations for potential inclusion in 2009.

v) Erosivity Waiver

The City of Federal Way will evaluate the creation of an Erosivity Waiver as described within Appendix 1 of the Permit in 2008 & 2009. The Erosivity Waiver is designed primarily for arid areas, such as Eastern Washington and has a very limited applicability to Federal Way given our existing soil types and rainfall patterns.

### ***Permitting Process with Review, Inspection and Enforcement***

*(Permit Requirement S5.C.4.b)*

The City's existing permitting process includes plan review, inspection and enforcement capabilities which meet the majority of the requirements of the permit as described below. City staff plans to evaluate this process in 2008 and determine how best to modify our existing program to meet the needs of the City and the requirements of the Permit.

i) Review of Stormwater Site Plans

The Development Services Division of Public Works ensures that development within the City of Federal Way meets current city codes and development standards. Development Services works to accomplish this goal by being involved in all types and phases of development within the City, providing technical project review, project permitting and construction inspection. Code authority to conduct site plan review is granted through the Subdivision and Zoning Codes (FWCC 20 & 22). The Development Services Division site plan review process includes review criteria for both stormwater design and construction site erosion sedimentation control (King County, Washington Surface Water Design Manual 1998).

ii) Site Inspection Prior to Clearing and Grading

The responsibility for construction site inspection is divided between two divisions of the Public Works Department. The Development Services inspectors are responsible for inspection of plats, multi-family and commercial development. A “Pre-Construction Meeting” is required for all construction sites prior to any clearing and grading on the site. Development Services currently conducts this meeting with the contractor at City Hall, rather than at the construction site. City staff plans to revise this procedure to meet the site inspection requirements of the Permit.

The Surface Water Management inspectors are responsible for conducting erosion control inspection for all single family construction. Prior any clearing and grading activity on the construction site, a Pre-Construction inspection is conducted on site with the contractor to review initial erosion control requirements and the inspection process.

iii) Erosion Sedimentation Control Inspection During Construction

A minimum of two erosion control inspections are conducted by City inspection staff between the Pre-Construction Meeting and Final Inspection to ensure erosion control measures are being maintained throughout the construction stage of the project.

iv) Final Inspection of Development Sites Upon Completion of Construction

A final or permanent erosion control inspection is conducted prior to final building permit approval of single-family, multi-family and commercial construction.

v) Inspection History/Record Keeping

Records of inspections are currently being kept through a data base permit tracking system. However, the manner in which records are kept between the two divisions (Development Services and Surface Water Management) differs. In 2008 City staff plans to review and amend the inspection tracking system to provide consistency between the two divisions and to simplify the reporting process.

vi) Enforcement Strategy

The ability to conduct enforcement of erosion control and stormwater requirements is provided within the City’s existing development review and inspection process (FWCC 1-14 through 1-23, 21-15, International Building Code R113 & R114). While no formal tiered strategy has been adopted, inspectors have the ability and discretion to issue verbal or written corrections depending on the scale of the problem and to issue Stop Work Orders if corrections are not completed or if significant violations are discovered.

In 2008 City staff plan to review enforcement codes and the enforcement strategies between the two inspection teams and make modifications to these inspection programs to develop a common enforcement strategy, as well as provide training to ensure these strategies are consistently applied.

vii) Erosivity Waiver

As discussed previously, the City will evaluate the creation of an Erosivity Waiver within its development review or inspection process in 2008/2009.

***Inspection Program to Verify Long-Term Operation & Maintenance of Stormwater Facilities***

*(Permit Requirement S5.C.4.c)*

i) Adoption of Ordinance or Enforceable Mechanism

An enforceable mechanism requiring long-term operation and maintenance of storm systems on new developments is already in place. Covenants are attached to all new developments with stormwater detention and flow control facilities at the time of final approval. The covenant both allows access for inspection and requires long term operation and maintenance of stormwater facilities. (FWCC 21-27 & 21-28)

ii) Establish Maintenance Standards

Maintenance standards for private stormwater systems are established and available on the SWM's main web page ([www.cityoffederalway.com/swm](http://www.cityoffederalway.com/swm)). City staff plans to initiate review of the existing maintenance standards to ensure they meet or exceed the standards specified in Chapter 4 of Volume V of the 2005 Stormwater Management Manual for Western Washington. City staff are also actively participating in the NPDES Regional Operations and Maintenance Forum and its Maintenance Standards Committee in an effort to stay informed of the review of existing regional maintenance standards.

iii) Conduct Annual Inspections of Treatment & Flow Control Facilities

The City's existing inspection program also includes annual post construction inspection of all known private commercial stormwater treatment and flow control facilities. Over 600 private stormwater systems are inspected each year.

iv) Inspection of Large Common Plan Development's Stormwater Facilities During Residential Constructions

Under the existing system all subdivisions and planned unit developments containing storm systems are strongly encouraged to dedicate these stormwater facilities to the City at the time of final approval. The developer/owner is required to create and maintain a two-year performance bond to ensure the owner continues to maintain these facilities during the first two years (most often the heaviest construction period) following final approval. SWM maintenance and inspection staff conducts periodic inspection of these facilities during the period of the performance bond to identify the maintenance needs and enforce compliance with maintenance standards. The City takes over operation and maintenance of these facilities after dedication to the city when the performance bond is released.

In 2008 SWM plans to evaluate and modify (if necessary) this existing program to ensure the inspection frequency during the two year performance meets the minimum requirements specified within the Permit.

## ***Tracking Inspections, Enforcements, Warnings and Violations***

*(Permit Requirement S5.C.4.d)*

Records of inspections and enforcements regarding long term maintenance of private stormwater systems are maintained under our existing inspection programs. However, in 2008 SWM staff plans to review and evaluate our record keeping procedures in an effort to simplify reporting on the different aspects of this program.

## ***NPDES Forms Available to the Public***

*(Permit Requirement S5.C.4.e)*

NPDES Construction Stormwater General Permit Focus Sheets have been made available at the City's Permit Center since June of 2007. Pursuant to a communication from the Department of Ecology dated May 30, 2007, these focus sheets may be made available to the public in lieu of the application (Notice of Intent). In addition, during the development review process, the City's Development Services staff notifies developers if the project meets the one acre threshold for the NPDES Construction Stormwater General Permit.

## ***Verification Staff Responsible for Program Implementation are Trained***

*(Permit Requirement S5.C.4.f)*

Currently all permanent construction site run-off inspection staff have attained the Certified Erosion Sedimentation Control Lead (CESCL) certification or higher. Development review staff and post construction inspection staff are trained under our existing development review criteria and maintenance standards.

As these existing programs may be modified to meet the requirements of this Permit, the City will ensure that prior to August 16<sup>th</sup> 2009; all staff responsible for the implementation of these programs are trained on the pertinent changes to these programs.

## **SECTION 5 - Pollution Prevention and Operations and Maintenance**

*“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 run-off from municipal operations.” (Permit Requirement S5.C.5.)*

*Pursuant to Permit requirement S5.C.5., all elements of the operations and maintenance program must be in place by February 16, 2010.*

The City of Federal Way maintains a proactive and effective maintenance program of the City’s drainage infrastructure, which includes catch basins, pipes, open channels, as well as residential and regional retention/detention facilities. SWM conducts regular inspection and maintenance of these facilities to ensure they are functioning properly – reducing the incidence of flooding and providing water quality treatment.

### ***Maintenance Standards***

*(Permit Requirement S5.C.5.a)*

The Surface Water Management Division has maintenance standards in place prior to the effective date of this Permit (Stormwater System Operations & Maintenance Manual, KCM. June 1997). Regular maintenance of SWM’s facilities is conducted by SWM Maintenance staff consistent with the adopted standards to ensure stormwater facilities are functioning properly.

SWM staff have already begun to review our existing maintenance standards in comparison to regional standards (the Regional Road Maintenance ESA Program Guidelines & Chapter 4 of the 2005 Stormwater Management Manual for Western Washington) to determine what changes are necessary to meet the minimum requirements of this Permit. In addition, SWM staff are actively participating in the Regional NPDES O & M Forum, known as NPDES Road Map, which is also evaluating regional maintenance standards for compliance with NPDES permit requirements.

### ***Annual Inspections***

*(Permit Requirement S5.C.5.b)*

Under SWM’s existing program, inspection of all municipally owned or operated permanent stormwater treatment and flow control facilities are inspected and maintained at a minimum, annually. All City owned or operated stormwater retention/detention ponds are currently inspected and maintained a minimum of three times a year and after every major storm event.

SWM staff plan to review the maintenance program's record keeping system during the Permit cycle to determine what changes are necessary to meet the tracking and reporting requirements of the Permit.

### ***Spot Check Inspections***

*(Permit Requirement S5.C.5.c)*

SWM maintains a "Hot Spot" list of stormwater facilities which can potentially be damaged from major storm events. SWM staff conducts "Spot Check" inspections of these locations on the Hot Spot list during and after major storm events to ensure the systems are functioning properly and to determine any maintenance or repair needs. SWM then conducts appropriate maintenance and repairs within a timely manner.

SWM staff also plan to evaluate the tracking and record keeping process in place for these types of inspections during this Permit cycle.

### ***CB and Inlet Inspections***

*(Permit Requirement S5.C.5.d)*

SWM's existing catch basin monitoring program monitors sediment levels in catch basins and inlet structures. Sediment levels in catch basins (CBs) have been monitored over a period of five years. Based on the information gathered, the City has been divided into seven sub-areas or circuits. Sampling locations have been established within each circuit. When sediment levels equals or exceeds 50% of the capacity of the CB sump on average in the sampling circuit, all CBs and inlet structures in that circuit are cleaned. In addition, high use areas (such as arterials) in each sub-area are cleaned annually.

Prior to the end of the Permit period, SWM will review the existing sampling locations for all circuits to ensure the minimum sampling requirements identified in the Permit are met. SWM staff also plan to review and evaluate existing record keeping methods for this program in an effort to simplify tracking and reporting.

### ***Compliance with Inspection Requirements***

*(Permit Requirement S5.C.5.e)*

While the City is currently meeting the majority of the inspection requirements identified in the above sections, prior to February of 2010, SWM staff will evaluate and modify our existing programs as necessary to ensure that the minimum 95% goal for inspection of all sites is achieved.

### ***Practices to Reduce Stormwater Impacts***

*(Permit Requirement S5.C.5.f)*

As a part of the review of maintenance standards SWM staff plans to refine and where necessary establish and implement practices and procedures to reduce stormwater impacts associated with runoff from streets, parking lots, roads and highways owned or

maintained by the City, as well as road maintenance activities conducted by the City. Activities that will be addressed include: pipe & culvert cleaning, ditch maintenance, street cleaning, road repair and resurfacing, snow and ice control, utility installation, pavement striping, maintaining roadside areas and vegetation, and dust control.

These practices are also being reviewed by the NPDES Road Map group. The NPDES Road Map group is currently reviewing existing manuals such as the ESA Regional Road Maintenance Manual to determine their applicability and compliance with NPDES requirements in regards to Operations & Maintenance practices and activities.

### ***BMPs to Reduced Pollutants Discharged from City Lands***

*(Permit Requirement S5.C.5.g)*

Prior to February 2010, City staff plans to review and if necessary, modify policies and procedures regarding the maintenance and operation of all lands owned or maintained by the City in an effort to reduce the discharge of stormwater pollutants. These lands will include, but are not limited to: parks, open space, road right-of-way, maintenance yards, and stormwater treatment and flow control facilities. Policies and procedures to be addressed include: application of fertilizers, pesticides and herbicides, sediment and erosion control, landscape maintenance, vegetation disposal, and cleaning and maintenance of building exteriors.

### ***Develop & Implement On-Going Training***

*(Permit Requirement S5.C.5.h)*

The City plans to develop and implement an on-going training program for employees whose construction, operations or maintenance job functions may impact water quality. The training program will address the importance of protecting water quality, the requirements of this Permit, operations and maintenance standards, inspection procedures, BMP selection, 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. The City will provide follow-up training as needed to address changes in procedures, techniques or requirements. The City will also track and maintain records of training provided.

The broad scope of training will affect staff from most of the City Departments including, Public Works, Community Development, Public Safety, and Parks, Recreation and Cultural Services.

### ***Develop and Implement SWPPPs (Heavy Equipment and Storage Yards)***

*(Permit Requirement S5.C.5.i)*

The City will development and implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City in areas subject to the City's Permit that are not

required to have coverage under the Industrial Stormwater General Permit. Implementation of non-structural BMPs will begin after the pollution prevention plans are developed. A schedule for implementation of structural BMPs will be included in the SWPPP. Generic SWPPPs that can be applied at multiple sites may be used to comply with this requirement. The SWPPP will include periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMPs.

### ***Record Keeping and Tracking***

*(Permit Requirement S5.C.5.j)*

The City will maintain records of inspections and maintenance or repair activities in accordance with the S9 Reporting Requirements of the Permit. While an existing tracking program is in place for many of the required elements of the O & M Section of the Permit, methods of record keeping and tracking varies between the program elements. Prior to February 16, 2010, City staff will evaluate existing record keeping and tracking methods in an effort to simplify annual reporting on these programs.