

Introduction

NPDES Municipal Stormwater Permit Background

On February 16, 2007, the Washington State Department of Ecology (Ecology) issued a new National Pollutant Discharge Elimination System (NPDES) Stormwater Permit for Phase I Municipalities including the City of Tacoma, City of Seattle, Pierce County, King County, Thurston County, Snohomish County and Clark County. The permit is available to view on-line at Ecology's website:

http://www.ecy.wa.gov/programs/wq/stormwater/municipal/issue_permits.html

This new permit replaces the existing NPDES Municipal Stormwater Permit issued in 1995. It regulates the discharge of stormwater to surface waters and ground waters of the state from Tacoma's municipal separate storm sewer system (MS4). This permit is designed to protect and improve the water quality of our receiving waters by implementing stormwater management activities. We have revised Tacoma's Stormwater Management Program (SWMP) to guide the operation of Tacoma's Surface Water Management Utility during the upcoming five-year permit term.

The development of the 2008 Stormwater Management Program has included a formal public participation process and internal review to provide valuable input and oversight to the program. The City will provide annual reports to Ecology during the five-year permit term to document the City's progress in meeting the permit requirements and deadlines. The NPDES Annual Report will be used as a tool to assess the City's progress and determine any changes to the SWMP procedures or priorities required to fulfill the permit obligations. The SWMP will be evaluated annually, and updated when necessary, based on the annual report and program assessment and will incorporate public input in the updating process (see Public Participation Plan, Appendix A.)

Stormwater Management Program Components

Tacoma's Stormwater Management Program is divided into ten components as outlined in the NPDES Municipal Stormwater Permit Section S5. The SWMP components are summarized here:

1. Legal

The City must have the legal authority to control discharges to and from the municipal storm sewers owned by the City. Under the last permit, Chapter 12.08 of the Tacoma Municipal Code was revised to give us this authority.

2. Mapping

The City's stormwater system must be mapped. This work was started under the last permit and is continuing. The City's GovMe website (www.cityoftacoma.org/govme) will be updated with new mapping information as it becomes available.

3. Coordination

Written internal coordination agreements are required by February 16, 2008 to facilitate internal cooperation between various City departments and divisions. Coordination mechanisms will be developed within 2 years with surrounding municipalities that have interconnected systems or which share surface water bodies.

4. Public Involvement and Participation

The City must develop a process to provide opportunities for the public to be involved in the development and implementation of the new Stormwater Management Program. NPDES Municipal Stormwater Permit submittal information will be posted on the City's web site.

5. New Development and Redevelopment

This includes the City's program to prevent and control the impacts of runoff from new development, redevelopment and construction activities. It covers private and public development, including right-of-way improvements. The permit requires compliance with Ecology's 2005 Stormwater Management Manual for Western Washington (2005 Ecology Manual) or an equivalent manual. Low impact development (LID) must be allowed. Inspections will be performed prior to clearing and construction, during construction, and after completion of construction with necessary enforcement measures to address non-compliance. Inspection and enforcement actions must be tracked. Permitting and inspection staff will be trained as necessary.

6. Structural Stormwater Controls

A program to prevent or reduce impacts to waters of the state caused by stormwater discharges must be developed and must consist of structural stormwater controls. Projects must be selected and an implementation schedule is required.

7. Source Control

Increased numbers of inspections of pollutant-generating sources are required for commercial, industrial and multi-family properties. Sites owned by the City will also be inspected with necessary enforcement to address non-compliance. The permit requires compliance with the source control sections of the 2005 Ecology Manual or an equivalent manual. All inspection staff will be trained as necessary.

8. Illicit Connections

Continue the ongoing program to detect, remove and prevent illicit connections and discharges, including spill response, for discharges into the City's separate storm sewer system. Prioritize outfalls and conveyances to complete field screening activities. All staff who might observe an illicit discharge will be trained.

9. Operation and Maintenance

Maintenance standards and inspection programs are required for public and private stormwater facilities. Best Management Practices (BMPs) are also required for the maintenance and operation of public streets and roads to reduce stormwater impacts. The City of Tacoma participates in the Regional Road Maintenance Endangered Species Act (ESA) Program using BMPs developed for maintenance activities within rights-of-way. Stormwater Pollution Prevention Plans (SWPPPs) will also be developed for heavy

equipment maintenance and storage yards and material storage facilities owned by the City.

10. Education and Outreach

Educational programs need to provide information to elected officials, policy-makers, residents, businesses including home-based and mobile businesses, landscapers and property managers, industries, engineers, contractors, land developers, municipal permitting and planning staff, and others. The educational program will be designed to achieve improvements in the understanding of each target audience.

Stormwater Management Goals and Challenges

The City of Tacoma considers itself a leader in responding to the issues of water quality related to urban runoff. Our activities have included experimental water quality testing to identify pollutants in stormwater runoff as early as 1980. Current efforts include investigating source control and treatment of stormwater pollutants like phthalates. The Tacoma City Council and Tacoma's Surface Water Utility ratepayers have supported substantial rate increases in recognition of the importance of protecting and enhancing the water quality in Commencement Bay and our fresh water lakes, wetlands and streams in the face of increasing stormwater runoff and pollutant loads from urban development, increased traffic and population increases.

The City's goals established for the original Stormwater Management Program in 1999 under the first NPDES Municipal Stormwater Permit further emphasize the City's commitment to meeting the water quality goals under this permit.

The goals of the City's Stormwater Management Program include the following list of priorities:

- Manage stormwater to minimize flooding and erosion
- Manage stormwater to minimize contact with contaminants
- Mitigate the impacts of increased runoff due to urbanization
- Manage runoff from developed properties and those being developed
- Protect the health, safety and welfare of the public
- Correct or mitigate existing water quality problems
- Restore and maintain the chemical, physical, and biological integrity of the receiving waters in the City for protection of beneficial uses

Tacoma's Surface Water Management Utility

Tacoma's Stormwater Management Program is administered by the Surface Water Section of Environmental Services, Science and Engineering Division of Public Works. Staffing and budget are designed to meet the program goals and challenges described above. Our current work includes:

- Inspecting business activities and permitting and inspecting new construction projects.
- The collection and analysis of stormwater quality monitoring data.

- Implementing a source control and monitoring program focused in the watershed of the Thea Foss Waterway Superfund Cleanup, and enhancing habitat areas to restore beneficial uses.
- Mapping, maintaining and cleaning a stormwater system that includes over 440 miles of storm pipe, 10,000 manholes, 18,300 catch basins, and 21 stormwater ponds.
- Rehabilitating and replacing aging infrastructure and improving the storm system with capital projects to address identified water quantity and quality issues.
- Providing public education about stormwater and surface water management and sharing information with staff from federal, state and neighboring municipal governments, environmental groups, businesses and interested citizens.
- Participating in regional watershed councils and committees.

The updated Stormwater Management Program will supplement and enhance Tacoma's existing program activities.

Stormwater Management Program by Permit Component

S5.C.1. Legal Authority to Control Discharges to and from the MS4

Summary of Program Component

The City of Tacoma’s legal authority to control discharges to and from our municipal stormwater sewer system is found in various state laws and in Tacoma’s Municipal Code. The state statutes provide the City legal authority to create, and then regulate and manage its municipal stormwater system, among other things.¹ Tacoma also has legal authority to regulate and enforce the stormwater management-related requirements found in Chapter 12.08 of the Tacoma Municipal Code (TMC).² Chapter 12.08 TMC applies to all direct and indirect users of Tacoma’s municipal stormwater system.³

Permit Compliance Measures

The following references to the Tacoma Municipal Code (TMC) and Revised Code of Washington (RCW) identify the specific citations providing the authority for the City to conduct the permit compliance activities listed below.

Permit Deadlines and Responsible Parties:

Legal authority to control discharges to and from MS4	February 2007	Legal Department; Environmental Services Surface Water Division
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Authority to Control Industrial Discharges, Prohibit Illicit Discharges, and Control Spills into the MS4 (S5.C.1.b.i., ii, iii.)

Control Industrial Discharges

- TMC 12.08.070** Prohibits the discharge of any substances directly to a manhole or other opening other than through an approved sewer connection.
- TMC 12.08.080 A.** Prohibits the discharge of substances enumerated in TMC 12.08.020 and TMC 12.08.040 to the municipal storm sewer system.⁴
- TMC 12.08.080 D.** Prohibits illicit discharges to the municipal storm sewer system.
- TMC 12.08.007 J.** Authorizes the City to regulate all direct and indirect discharges to the municipal sewer system.⁵

¹ See, RCW 35.67.020(1), RCW 35.21.210, and RCW 35.92.020(1).

² See TMC 12.08.090 A.

³ See TMC 12.08.007 A.

⁴ TMC 12.08.020 prohibits the discharge of wastewater containing specific enumerated pollutants, among other thing. TMC 12.08.040 places specific limits on wastewater strength.

Prohibit Illicit Discharges

TMC 12.08.080 D. Authorizes the City to regulate illicit discharges.⁶

Control Spills and Unlawful Discharges

TMC 12.08.200 Authorizes the City to pursue an enforcement response against any person who violates Chapter 12.08 TMC. Persons who “spill” regulated substances into the municipal stormwater system are subject to enforcement for violating TMC 12.08.080A, which prohibits the discharge of polluted matter into the municipal stormwater system.

TMC 12.08.200 Authorizes the City to pursue an enforcement response against any person “who shall at any time cause or contribute to the contamination or recontamination of any waterway and/or its remediated sediments”.

Ability to Control Inter-System Discharges Under Agreements with Other Permittees (S5.C.1.b.iv.)

RCW 35.67.300 Authorizes the City to enter into joint agreements with other cities, towns or water districts to connect to and be served by the municipal sewer system.⁷ These agreements require compliance with Chapter 12.08 TMC stormwater-related requirements.

RCW 35.67.310 Authorizes the City to allow persons outside the city limits to connect to and be served by the municipal sewer system. Authorizations for connections require compliance with Chapter 12.08 TMC stormwater-related requirements.

TMC 12.08.620 Authorizes the City to enter joint agreements with other cities, towns or water districts to connect to and be served by the municipal sewer system. These agreements require compliance with Chapter 12.08 TMC stormwater-related requirements.

Require Compliance with City Regulations and Conduct Enforcement Actions (S5.C.1.b.v. vi.)

TMC 12.08.007 C. Authorizes the City to conduct compliance inspections.

TMC 12.08.007 D. Provides right-of-entry authority.

TMC 12.08.007 E. Authorizes the City to issue “stop work” orders if construction work is being conducted contrary to Chapter 12.08 TMC, or contrary to the plans and specifications for such work, which will include a plan for managing stormwater.

⁵ TMC 12.08.010 defines “municipal sewer system” to include stormwater system as well as the sanitary sewer system.

⁶ TMC 12.08.010 provides a definition of “illicit discharges.”

⁷ The term “system of sewerage” is defined in RCW 35.67.010(3) to include “storm or surface waters.”

- TMC 12.08.007 F.** Authorizes the City to enforce violations of Chapter 12.08 TMC.
- TMC 12.08.200** Includes the procedures for enforcing Chapter 12.08 TMC.
- TMC 12.08.200 E.** Authorizes the City to issue corrective action orders
- TMC 12.08.610** Property Owner Liability for Supplemental Charges
- TMC 12.08.675** Authorizes Tacoma to issue Notice of Violations and Civil Penalties to persons who violate Chapter 12.08 TMC.
- TMC 12.08.670** Authorizes City Prosecutor to file “gross misdemeanor” criminal charges when the City Prosecutor determines that a specific incidence of noncompliance with Chapter 12.08 TMC constitutes a criminal act.

S5.C.2. Municipal Separate Storm Sewer System Mapping and Documentation

Summary of Program Component

The overall objective of this requirement is to establish an ongoing program to map and document the existing stormwater system and ensure that future connections are documented and mapped.

Mapping and documentation of the existing facilities are vital to managing the resources of the City. By identifying connections to the stormwater system and understanding its relationship to overlaying drainage basins, analyses can be performed on the entire system. This information will also assist in providing service to underserved areas and development of solutions to capacity problems. The City is using the information that is currently available in a variety of ways, including tracking sources of contamination. The usefulness of the information will increase as more of the system is added to the City’s mapping system.

Permit Compliance Measures

The SWMP Shall Include an Ongoing Program for Mapping and Documenting the MS4. (S5.C.2.a)

The Environmental Services Surface Water Division and Environmental Compliance Division have an existing mapping and documenting program to meet this requirement.

Mapping of Structural Stormwater BMPs, Outfalls, and Connection Points Between the City’s Separate Stormwater System and Other Systems (S5.C.2.b.i)

Permit Deadlines and Responsible Parties:

Map all known municipal separate storm sewer outfalls and receiving waters, and structural stormwater treatment and flow control BMPs owned, operated, or maintained by the Permittee	February 2009	Environmental Services Surface Water Division; Environmental Services Environmental Compliance Division
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Start a program to map connection points between City separate storm sewers and other municipalities and public entities.	February 2009	Environmental Services Surface Water Division; Environmental Services Environmental Compliance Division
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This work is in progress. Some of the required information is currently available on the City's GovME website (www.cityoftacoma.org/govme). Existing flow control and treatment facilities owned by the City are mapped. All storm sewer outfalls to marine waters with a 6-inch or greater nominal diameter have been mapped. The fresh water outfalls have not yet been mapped. Connection points still need to be added to the City's mapping. This is a large task and will be tracked to ensure completion by the permit deadline of February 2009.

A standard operating procedure needs to be developed to add new outfalls into our mapping system as they are constructed. Coordination between mapping staff and permitting and construction inspection staff needs to be part of the standard operating procedures and become institutionalized. Work on the standard operating procedures is in progress.

Map Attributes of all Storm Sewer Outfalls with a 24-Inch or Greater Nominal Diameter (S5.C.2.b.ii)

Permit Deadlines and Responsible Parties:

Map land use, tributary conveyances (type, material, and size where known); and associated drainage areas for all storm sewer outfalls with a 24-inch or greater nominal diameter, or an equivalent cross-sectional area for non-pipe systems.	February 2011	Environmental Services Surface Water Division; Environmental Services Environmental Compliance Division
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This work is in progress. The outfalls and connections are in the City's mapping system. Upstream tracing of each outfall and determination of each contributing basin is not yet complete. Land use is known and conveyance pipe type, material and size is in the City mapping system, when known. Work may be needed to integrate all the requested information together within the City mapping system. Prioritization of the mapping efforts will be based on several criteria including land use intensity, size of drainage basin, and presence of sensitive areas (streams, restoration sites, etc.)

Develop and Maintain a Map of all New Connections to the Municipal Separate Storm Sewer System (S5.C.2.b.iii)

Permit Deadlines and Responsible Parties:

Develop a program to develop and maintain a map of all connections after the effective date of the permit	Ongoing	Environmental Services Surface Water Division; Environmental Services Environmental
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		Compliance Division; Construction Division; Building and Land Use Services
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Coordination with other City divisions/departments is needed for this task. A standard operating procedure is needed to clarify the responsibilities of each of the divisions/departments. Building and Land Use Services has a storm connection permit for private connections and Construction Division has a private work order permit for storm main extensions. The information for these permits should be entered in SAP, the City's information management system database. The data identifying new connections should be able to be accessed through SAP, a report run and then the new connections can be added to the City's maps on an ongoing basis, either weekly or monthly.

Map Stormwater Connections with an 8-inch or Greater Nominal Diameter (S5.C.2.b.iv)

Permit Deadlines and Responsible Parties:

Map existing, known connections to municipal separate storm sewers with nominal diameters of 8-inches or greater to storm sewer outfalls of 24- inches or greater nominal diameter.	February 2009	Environmental Services Surface Water Division; Environmental Services Environmental Compliance Division
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The City has been doing this work on a quadrant by quadrant basis for connections to all sizes of outfalls instead of focusing first on connections to 24-inch and greater nominal diameter outfalls. In order to meet the permit timelines, the City will change its priority to focus on mapping connections to 24-inch and greater nominal diameter outfalls first. Once the connections to these outfalls have been mapped, City staff will then map each section of the City quadrant by quadrant to complete the mapping for connections to all outfalls.

A Standard Operating Procedure will be developed to ensure that all new connections are added to the maps. As a first step, a map and list of all the 24-inch and greater nominal diameter outfalls has been developed and is being verified. Based upon this information, the City may refine its priorities to map industrial and commercial connections first or areas based on criteria including land use intensity, size of drainage basin, or presence of sensitive areas. This requirement represents a large task and will be tracked to ensure completion by the permit deadline.

Map Geographic Areas Served by the Permittee's MS4 that do not Discharge Stormwater to Surface Water (S5.C.2.b.v)

Permit Deadlines and Responsible Parties:

Map geographic areas served by the Permittee's MS4 that do not discharge stormwater to surface water.	February 2011	Environmental Services Surface Water Division; Environmental
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		Services Environmental Compliance Division
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The scope of this requirement includes private infiltration systems but does not include single family residence infiltration systems. The infiltration systems will need to be identified and will only need to be mapped if they have a connection to the City’s storm system.

Provide Ecology with Mapping of all Requirements of S5.C.2.b.i. through v., above (S5.C.2.b.vi)

Permit Deadlines and Responsible Parties:

Provide Ecology with mapping of S5.C.2.b.i. through v.	Include an update with annual report	Environmental Services Surface Water Division
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The City will obtain Ecology’s format from their website and confirm with Ecology the product to be submitted (website, electronic files on disk etc.). The currently available information shall be provided to Ecology upon request.

Provide Mapping Information to Co-Permittees and Secondary Permittees (S5.C.2.b.vii)

Permit Deadlines and Responsible Parties:

Provide mapping information to Co-Permittees and Secondary Permittees	Ongoing	Environmental Services Surface Water Division; City Legal Department
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A policy for information distribution will need to be developed by the City. However, the majority of this information is available on the publicly accessible City of Tacoma GOVME site (www.cityoftacoma.org/govme), so Co-Permittees and Secondary Permittees already have access to most of the information.

S5.C.3. Interdepartmental and Permittee Coordination

Summary of Program Component

This section of the permit addresses coordination mechanisms among departments within the City of Tacoma as well as those mechanisms between the City of Tacoma and interconnected Municipal Separate Storm Sewers (MS3s) of neighboring jurisdictions covered by an NPDES permit and permittees sharing a watershed or waterbody.

With respect to intra-governmental coordination, this section is critical to remove barriers, promote understanding of the permit, and facilitate permit compliance within the departments of the City of Tacoma. Measures outlined below will include the purpose, methods and structure of Tacoma’s intra-governmental coordination efforts.

With respect to inter-governmental coordination, this section of the permit will develop coordination mechanisms between the City and jurisdictions connected to the City’s storm

sewers specifically to address pollution control. It will also facilitate a coordinated approach to stormwater policies, programs and projects for a given water body or within a given watershed. At its best, coordination between jurisdictions should facilitate information sharing, eliminate duplicate efforts and promote regional solutions in a manner to most efficiently use the jurisdictions' valuable and limited resources to improve stormwater quality.

Permit Compliance Measures

Establish and Implement Written Coordination Executive Order (S5.C.3.b.i.)

Permit Deadlines and Responsible Parties:

Intra-Governmental coordination order to facilitate permit compliance	February 2008	Environmental Services Surface Water Division
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On January 28, 2008, Tacoma's City Manager, Eric Anderson and Tacoma Public Utilities Director, Bill Gaines, signed a letter addressed to all City of Tacoma Department Directors informing them of the NPDES permit and the need for their cooperation and input. Department Directors were instructed to identify a contact person to work with the City's NPDES lead, Shauna Hansen. This letter was submitted to Ecology by February 16, 2008 via email and hard copy. A copy is also attached as Appendix B.

Once the department contacts are in place, periodic meetings will be held for the purpose of identifying program areas and participation, recordkeeping and training. Environmental Services, Surface Water Division will act as stormwater permit coordinator for this program. Specific tasks for intra-governmental coordination include the following:

- Identify which permit requirements apply to each department,
- Integrate compliance activities into each department's programs and operations, and
- Submit information to the permit coordinator as required for the annual report to Ecology on the NPDES permit progress.

Establish Mechanisms to Coordinate SWMP Implementation among Interconnected and other Local Permittees (S5.C.3.b.ii.)

Permit Deadlines and Responsible Parties:

Inter-governmental coordination and documentation	February 2009	Environmental Services Surface Water Division
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This element of the permit has two specific coordination elements:

1. Coordination between the City of Tacoma and the physically interconnected Municipal Separate Storm Sewers (MS3s) located within Tacoma city limits or other neighboring NPDES permittees for the control of pollutants, and
2. Coordination of activities for shared water bodies among Phase I and II permittees to avoid conflicting plans, polices and regulations.

The City of Tacoma will begin to address this first element by Summer 2008 with a kickoff meeting between identified MS3s and neighboring NPDES permittees. Specific topics will include, but not be limited to: pollutant tracing, source control, enforcement, mapping, and permitting. Initially the task will be to compile a contact list to increase communication and understand what is or is not occurring in systems connected to the City’s storm sewers. Topics may then move into pooling resources, staff cross-training and sharing information for maximum benefit.

Some of this work is currently happening in an informal manner. City staff coordinates with the Port of Tacoma, Pierce County, Lakewood, University Place, Fircrest, Fife and Metro Parks if there are concerns about the conveyance system; whether tracing pollutants or for general coordination and communication regarding watershed issues.

The City of Tacoma currently participates in several regional coordination efforts as required under the second part of this permit element. On a watershed basis, staff attends meetings of the Chambers/Clover Creek Watershed Council and the Puyallup River Watershed Council. These two councils cover the portions of the City that drain into freshwater receiving waters. The City is also participating in the regional councils for the South Central Puget Sound Action Area (including Puyallup/White WRIA 10 and portions of Chambers/Clover WRIA 12) and South Puget Sound Action Area (including portions of Chambers/Clover WRIA 12) supporting the Puget Sound Partnership efforts. In addition, the City is active in several Phase I NPDES Permit regional coordination groups.

All efforts to establish mechanisms for coordination under this permit element will be documented in the NPDES Annual Report.

S5.C.4. Public Involvement in SWMP Development

Summary of Program Component

The City has a Public Involvement and Participation Plan dated September 13, 2007, which demonstrates how the City will involve the public in the development and updates of the SWMP prior to submittal to Ecology. Although the current NPDES permit is mostly prescriptive, public involvement is useful for identifying areas where the City may tailor its SWMP to local needs and priorities, identify additional tools to meet permit requirements, or identify areas where it is desirable to go beyond permit requirements.

The City of Tacoma’s Environmental Services Commission also provides a source of continuing public input on implementation of the SWMP.

Permit Compliance Measures

Process for Public Comment on the SWMP Development and Implementation (S5.C.4.b.i.)

Permit Deadlines and Responsible Parties:

Develop and begin implementing process to involve public	August 2007	Environmental Services Surface Water Division
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Between November 2007 and January 2008, a series of focus group workshops were hosted by Environmental Services Surface Water Division to collect stakeholder input while drafting the new SWMP. The first workshop addressed Section S5.C.2 Municipal Separate Storm Sewer Mapping and Documentation, S5.C.3 Coordination, S5.C.4 Public Involvement and Participation and S5.C.10 Education and Outreach. The second workshop addressed Section S5.C.5 Controlling Runoff from New Development, Redevelopment and Construction Sites. The third workshop addressed Section S5.C.7 Source Control Program for Existing Development and S5.C.8 Illicit Connections and Illicit Discharges Detection and Elimination. The last focus group workshop addressed Section S5.C.6 Structural Stormwater Controls and Section S5.C.9 Operation and Maintenance. In February 2008, the draft SWMP was placed on the City website for public review and a final public meeting was held to collect public input on the draft SWMP prior to finalization and submittal to Ecology.

The City's SWMP will be reviewed annually and revised as necessary to accurately reflect any changes in stormwater management based on review and assessment of the NPDES Annual Report findings. Opportunities for public input during the implementation and update of the SWMP will be provided yearly. We will notify the focus group workshop attendees of any proposed updates to our SWMP at the beginning of each year. The proposed changes will also be posted on our website. We will hold a publically advertised workshop each year to gather more input from the public. These activities will provide the public with multiple opportunities to have input into the ongoing implementation and update of the City's SWMP. A copy of the Public Involvement and Participation Plan was provided to Ecology when it was completed, and a copy of it is also attached as Appendix A to this SWMP.

The City of Tacoma's Environmental Services Commission provides public input on implementation of the SWMP. The Commission members advise the City of Tacoma staff and the City Council on issues affecting the Environmental Services Division's three utilities, which include Surface Water, Wastewater and Solid Waste. Commissioners represent a cross section of Tacoma's residential, business and regulatory communities and are selected by the City Manager to serve five-year terms.

The Commission reviews, advises and makes recommendations to City staff and the City Council regarding:

- Residential and commercial programs and services
- Short-term and long-range planning
- Rates, rate structures and rate assistance programs
- Capital Investment Program financing structures
- Revisions to or new contracts for City-provided wholesale and retail services
- City of Tacoma policies directly related to utility functions

Public involvement to implement the SWMP is also included in the education and outreach actions as described under SWMP Section S5.C.10.

Other public involvement processes are in place to implement the SWMP, these include:

- Public involvement to update the Surface Water Management Manual in 2008.

- Public Involvement to update the Critical Areas Preservation Code TMC Chapter 13.11 and Shoreline Management Code TMC Chapter 13.10 in 2008 and 2009.

Make SWMP Materials Available on the City Web Page (S5.C.4.b.ii.)

Permit Deadlines and Responsible Parties:

Make all NPDES permit submittals available on City web page	March 2008	Environmental Services Surface Water Division; City Community Relations Office
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NPDES permit submittals to Ecology will be posted at the Surface Water Utility home page located on the City of Tacoma website:

<http://www.cityoftacoma.org/surfacewater>.

S5.C.5. Development Regulations to Control Runoff from New Development and Redevelopment

Summary of Program Component

The City has an established permitting program for new development and redevelopment projects ranging from construction of single-family homes to complex mixed-use developments and industrial sites. Proposed land use actions are conditioned with stormwater minimum development requirements. Construction projects are inspected for erosion and sediment control during construction and the installation of permanent stormwater management facilities. Existing stormwater facilities are inspected for ongoing maintenance.

The City’s Surface Water Management Manual is being updated and will be submitted in August 2008 for Ecology’s equivalency determination. City staff is also investigating code and standards revisions to promote Low Impact Development (LID) techniques for stormwater management.

Permit Compliance Measures

Ongoing Program to Control Stormwater Impacts from Development, Redevelopment, and Construction (S5.C.5.a.)

The City of Tacoma addresses stormwater management from development, redevelopment and construction, including erosion prevention and sediment control through regulations contained in the Tacoma Municipal Code (TMC). These include the Surface Water Management Regulation and Rates (TMC Chapter 12.08), the Clearing and Grading Code (TMC Chapter 2.02.370), and the Critical Areas Preservation Ordinance (TMC Chapter 13.11). The development requirements included in the City of Tacoma Surface Water Management Manual are included by reference in TMC Chapter 12.08.090 D.

The Critical Areas Preservation Ordinance (CAPO) contains protection language requiring compliance with the City’s current Surface Water Management Manual. In addition, the CAPO requires hydrologic studies and balancing pre-development and post-development

stormwater flows to all wetlands and streams found on or within 300 feet of a development site. Water quality treatment is also required for all pollution generating surfaces that discharge into wetlands or streams.

Public Works Building and Land Use Services Division, Construction Division and Environmental Services Science and Engineering Division are the primary divisions responsible for implementing the development regulations and providing permit submittal review and approval as well as inspection services for private development. Publicly funded Capital Improvement Projects must meet the same stormwater management and erosion control standards, included in the City of Tacoma Surface Water Management Manual. Construction inspections are performed by the Public Works Construction Division (for streets, roads, and the municipal sewer system) and the Tacoma Public Utilities Department (for drinking water services and transmission lines, power transmission, and Click! cable).

Adopt Stormwater and Erosion Control Standards Equivalent to the 2005 Stormwater Management Manual for Western Washington (S5.C.5.b.i., ii., iv.)

Permit Deadlines and Responsible Parties:

Submit draft Surface Water Management Manual standards and ordinances to Ecology	February 2008	Environmental Services Surface Water Division
Adopt and implement equivalent manual and procedures	August 2008	Environmental Services Surface Water Division

The current City of Tacoma Surface Water Management Manual (Manual) includes the BMP selection and design criteria from Ecology's 2005 Stormwater Management Manual for Western Washington (2005 Ecology Manual). The Manual assists in meeting this permit's requirements to protect water quality, reduce the discharge of pollutants to the maximum extent practicable, and satisfy the state AKART requirements.

The City's Manual is currently being updated by the Environmental Services Surface Water Division through a public review process including Ecology review, and a final draft will be submitted in August 2008 for Ecology's determination that Tacoma's Manual is equivalent to Appendix 1 of the NPDES permit. The revised Manual update will be designed to provide easy-to-find answers to common customer questions. The current Manual last updated in 2003 will remain in effect until the revised Manual is adopted in 2008.

Revise Development Standards to Allow Low Impact Development (LID) Projects (S5.C.4.b.iii.)

Permit Deadlines and Responsible Parties:

Submit draft LID standards to Ecology	February 2008	Environmental Services Surface Water Division
LID included in development standards	August 2008	Environmental Services Surface Water Division

Low Impact Development (LID) projects are currently allowed by the City's Manual and other development standards. In addition, the City is working with a consultant to establish incentives for LID and further reduce permitting impediments to LID from the Municipal Code and Public Works Construction Standards.

Legal Authority to Enforce Maintenance Standards for Private Stormwater Facilities Approved by the City of Tacoma (S5.C.5.b.v.)

Permit Deadlines and Responsible Parties:

Authority to enforce maintenance requirements	August 2008	Environmental Services Surface Water Division; City Legal Department
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Since the initial NPDES Phase I Municipal Stormwater Permit was issued in 1995, the City has had the necessary legal authority to establish standards, and inspect and enforce standards for private stormwater facility maintenance. The Tacoma Municipal Code (TMC) Chapter 12.08.007 C provides inspection authority; TMC 12.08.007 D provides right-of-entry authority, and TMC 12.08.090 D.10 requires an operation and maintenance plan for permitted private drainage facilities.

Permitting, Plan Review, Inspection, and Enforcement of Standards Equivalent to the 2005 Ecology Manual (S5.C.5.b.vi.)

Permit Deadlines and Responsible Parties:

System to review all plan submittals meeting thresholds	August 2008	Building and Land Use Services; Environmental Services Surface Water Division
Pre-clearing inspection for sites having high sediment damage potential	August 2008	Building and Land Use Services; Environmental Services Surface Water Division
Inspection and enforcement program for erosion and sediment control BMPs	August 2008	Building and Land Use Services; Construction Division; Building and Land Use Services Code Compliance; Environmental Services Environmental Compliance Division; Tacoma Public Utilities: Water Department/Power Department/Click! Cable Services
Post-construction inspection for erosion and sediment control (ESC) and drainage facilities with maintenance plans	August 2008	Building and Land Use Services; Construction Division; Environmental Services Environmental Compliance Division; Tacoma Public Utilities: Water Department/Power Department/Click! Cable Services

Record keeping procedures in place	August 2008	Building and Land Use Services; Building and Land Use Services Code Compliance; Environmental Services Environmental Compliance Division
Enforcement strategy for non-compliance response	August 2008	Building and Land Use Services; Building and Land Use Services Code Compliance; Environmental Services Environmental Compliance Division

System to Review all Plan Submittals Meeting Thresholds

The current program provides plan review for all projects involving land disturbing activities that meet the development thresholds specified in the 2005 Ecology Manual. These same development thresholds are listed in Tacoma's Surface Water Management Manual.

Pre-Clearing Inspection for Sites having High Sediment Damage Potential

Pre-clearing inspections are currently accomplished by plan review staff from Building and Land Use Services and Environmental Services in order to enforce the Grading Ordinance and meet the erosion and sediment control standards outlined in Tacoma's Surface Water Management Manual. A tracking system will be developed to verify all construction sites with high potential for sediment transport are inspected prior to clearing and construction. The sediment transport potential will be determined based on the criteria in the NPDES Permit Appendix 7.

Inspection and Enforcement Program for Erosion and Sediment Control BMPs

Inspections for installation and on-going maintenance of erosion and sediment control measures are currently completed by the Building Inspectors and Environmental Specialists (BLUS Division) for projects on private property and by the Construction Inspectors (Construction Division) for projects in the right-of-way.

Public Works Capital Improvement Projects (streets, storm sewer, sanitary sewer) are inspected by Construction Inspectors and Tacoma Public Utilities Projects (drinking water service and transmission lines, power transmission, and Click! cable) are inspected by Public Utilities Inspectors.

Post-Construction Inspection for Erosion and Sediment Control (ESC) and Drainage Facilities with Maintenance Plans

As discussed in the previous paragraphs, inspection of erosion and sediment control BMPs prior to final approval/occupancy is completed by the inspection staff listed above.

Private Drainage Facilities

Private residential drainage facilities for plats and short plats are inspected by Construction Inspectors under private work order permits. New drainage treatment and flow control facilities built under commercial building permits are required to be inspected by the design engineer to confirm proper installation per the approved permit plans with a stamped letter submitted to the City prior to final inspection and building occupancy sign-

off. Building and Land Use Services is revising the process for commercial drainage facilities construction inspection and sign-off. Under the new process, Environmental Services Environmental Compliance Division Inspectors will be inspecting and signing off on commercial drainage facilities. This final inspection will also provide an educational opportunity for Environmental Compliance Inspectors to review operation and maintenance requirements with the builder or owner.

Maintenance manuals are required to be reviewed and approved for compliance with the requirements of the City of Tacoma Surface Water Management Manual prior to permit approval. A copy of the drainage system maintenance manual is required to be kept on-site, and a copy is kept on file by Environmental Services Surface Water Division for use during stormwater source control inspections. Responsibility for private facility maintenance falls to the property owner. In cases where there are multiple owners, such as residential stormwater facilities maintained by a homeowner associations, enforcement can be more difficult.

Public drainage facilities

Public storm sewer projects that are dedicated to Public Works for ongoing maintenance are inspected for conformance to the City of Tacoma Surface Water Management Manual and Public Works design and maintenance standards. Public stormwater facilities are maintained using maintenance standards and inspection schedules prescribed in SWMP Section S5.C.9. Maintenance and Operations.

Record Keeping Procedures in Place

Building and Land Use Code Compliance Inspectors and Building Inspectors track construction phase inspections and violations in the City's information management system database (SAP). Environmental Compliance Inspectors keep an additional database of business inspection violations (including failing to maintain existing stormwater BMPs and spill complaints.)

The City does not currently have adequate staffing levels to perform annual inspections to ensure ongoing maintenance of every private storm drainage facility; however all commercial sites with drainage to the City's municipal separate storm sewer system (MS4) are on a cycle for inspection by the Environmental Compliance Inspectors during the next five-year permit period.

Residential sites (plats and short plats) with private drainage facilities are not on a regular City inspection cycle to verify that ongoing maintenance is performed. However, a Covenant and Easement agreement is required to be executed between the owner(s) of the lots and the City prior to final plat approval, affirming for the owner(s) commitment to perform regular inspections and maintenance of the shared private drainage system.

Enforcement Strategy for Non-Compliance Response

Environmental Services Environmental Compliance Inspectors currently implement a draft Enforcement Policy that includes enforcement strategies such as Notices of Violation and civil penalties. The inspectors focus on owner education and voluntary compliance through business inspections. Environmental Compliance Inspectors also refer cases to Ecology for follow-up and enforcement when cases directly impact waters of the state.

Building and Land Use Services Building Inspectors and Code Compliance Inspectors have enforcement procedures for non-compliance with permitting conditions per Tacoma's

Municipal Code Chapter 2.02.130. Enforcement measures include stop work orders, Notices of Violation, fines, and Certificates of Complaint attached to the title of the property. Construction Inspectors may issue a stop work order on a construction site in the right-of-way in cases of non-compliance with permitting conditions. Both Environmental Compliance Inspectors and Construction Inspectors may refer cases to the Building and Land Use Services Code Compliance office to pursue further enforcement actions.

Public works construction projects are required to comply with construction contracts which enforce state and local regulations. In the cases where City personnel construct improvements, they manage the projects to conform to Public Works design standards and the Regional Road Maintenance ESA Program Guidelines (refer to SWMP Section S5.C.9. Maintenance and Operations Program.)

Notice of Intent (NOI) Forms for Construction and Industrial Stormwater General Permits (S5.C.5.b.vii.)

Permit Deadlines and Responsible Parties:

Notice of Intent (NOI) forms available to public	February 2007	Building and Land Use Services
Enforce local ordinances controlling runoff from sites that are covered by other stormwater permits issued by Ecology.	February 2007	Environmental Services Environmental Compliance Division

The NPDES Municipal Stormwater Permit requires the City to provide project applicants seeking City building permits with information describing the Ecology Construction General Permit and Industrial Stormwater General Permit which also may apply to their project.

The City’s GovME Permit Information website provides links to Ecology’s website where project applicants can find information about obtaining coverage under the NPDES Construction General Permit and NPDES Industrial General Stormwater Permit. Information is also available, as part of the permit sign-off from Environmental Services Surface Water Division. Plan review staff add a redline comment on plans for commercial building projects that drain to a private outfall to inform the applicant they may need additional permit coverage from Ecology and should contact the Ecology Permit Assistance Center for more information.

The City of Tacoma enforces local ordinances controlling runoff from sites that discharge stormwater to the City’s municipal separate storm sewer system (MS4), even if covered by other stormwater permits issued by Ecology.

Training for Development Permitting and Construction Inspection Personnel (S5.C.5.b.viii.)

Permit Deadlines and Responsible Parties:

Training program and tracking in place	August 2008	Building and Land Use Services; Construction Division; Tacoma Public Utilities: Water
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		Department/Power Department/Click! Cable Services; Building and Land Use Services Code Compliance; Environmental Services Environmental Compliance Division; Environmental Services Surface Water Division
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The City has been providing training to plan review, inspection, and enforcement personnel in the City concerning erosion and sediment control measures and private drainage system operation and maintenance. However training has not been consistently tracked to determine when updated training becomes necessary for existing personnel and new hires. Training is typically conducted informally by senior staff. A training program will be developed and formalized through each individual division as necessary to maintain training records for applicable personnel by August 2008.

S5.C.6. Program to Plan and Build Structural Stormwater Control to Reduce Stormwater Impacts

Summary of Program Component

The requirement of this section of the SWMP is to develop a program to construct structural stormwater controls. These controls are intended to prevent or reduce negative impacts to waters of the state caused by discharges from municipal stormwater collection and conveyance systems. The controls can also address impacts caused by private collection and conveyance systems which connect directly to the City storm system.

The primary stormwater impacts which this program will be designed to address include disturbances to watershed hydrology, stormwater pollution discharges from existing development, and stormwater pollution discharges from new development.

Permit Compliance Measures

The NPDES Permit requires the City of Tacoma to develop a Structural Stormwater Control Program designed to control stormwater impacts. The compliance requirements are as follows:

Develop and Implement a Stormwater Structural Control Program (S5.C.6.b.i, ii, iii)

Permit Deadlines and Responsible Parties:

Develop a Structural Stormwater Control Program	February 2008	Environmental Services Surface Water Division
Implement the Structural Stormwater Control Program	August 2008	Environmental Services Surface Water Division; Public Works Engineering Division

To address this compliance measure the City of Tacoma has a Stormwater Capital Improvement Program. The Environmental Services Surface Water Division has defined three primary goals for the Structural Stormwater Control Program:

- Maintaining public safety
- Protecting receiving waters of the state
- Avoiding impacts to properties.

Stormwater Capital Improvement Program

The Stormwater Capital Improvement Program (CIP) is an established program that focuses primarily on the design and development of construction projects in areas of existing development. CIP projects typically include, but are not limited to, projects that address:

- Localized flooding
- Capacity problems and/or defects of collection and conveyance systems
- Maintenance of existing stormwater facilities
- Construction of new stormwater facilities

The planning process used to develop these projects is typically based on the following:

- Public Safety
- Pipe Criticality Modeling
- Future Service Expansion Modeling
- Budget Analysis

Current Flow Control and Treatment Practices

The majority of the City's surface water runoff drains directly to saltwater outfalls in the Tacoma Narrows and Commencement Bay and does not require detention except in cases of inadequate downstream storm system capacity or stability. In the Leach Creek and Flett Creek watersheds, the City currently controls the discharge rates of surface water flows by routing stormwater collection systems through regional detention facilities. Some level of treatment of the stormwater also occurs within these facilities; however, the amount of treatment has not been quantified.

The City requires localized stormwater treatment facilities to be constructed on all public street projects when the development thresholds established in the City's Surface Water Management Manual are exceeded.

Implementation and Record-keeping

As part of the requirement of the NPDES Permit, the City is developing a tracking database for public improvement projects, including Capital Improvement Projects, Local Improvement District projects, and Arterial Street Improvements. This tracking system will be designed to record the types and quantities of flow control and treatment facilities to be implemented on each project. The tracking system results will be included in the City's information system management database (SAP) and in the NPDES Annual Report. The NPDES Annual Report will also attempt to estimate the reduction in stormwater pollutants; the reduction in flows during heavy rain events; and a description of any habitat enhancements that will be implemented as a part of the public improvement projects. Input of database information for each City project will be the responsibility of the project

engineer. Development of the tracking system will be the responsibility of the Environmental Services Surface Water Division.

S5.C.7. Source Control Program for Existing Development

Summary of Program Component

The Source Control Program includes the following elements outlined in the NPDES Municipal Stormwater Permit Section S5.C.7.a.

Application of Operational and Structural Source Control BMPs on Existing Sites (S5.C.7.a.i.)

Environmental Compliance staff notifies industries and businesses of BMP requirements during standard business inspections of targeted industrial users and activities, when responding to spill complaints, and at sites discovered during the City's illicit discharge screening process. The Source Control Program references Tacoma's Surface Water Management Manual for BMP standards. The Source Control Program includes inspection, education and enforcement procedures.

The 2003 City of Tacoma Surface Water Management Manual Volume IV provides source control best management practice (BMP) guidance for all existing businesses and government agency activities within Tacoma. The City's current Manual Volume IV is functionally equivalent to Ecology's 2005 Stormwater Management Manual for Western Washington. The 2008 update of the City's Manual will maintain the equivalency of Volume IV with Ecology's 2005 Manual.

Inspection of Pollution-Generating Sources (S5.C.7.a.ii.)

The program shall include inspections of pollution-generating sources at commercial, industrial and multifamily properties to enforce implementation of required BMPs to control pollution discharging into municipal separate storm sewers owned or operated by the City.

The City began conducting stormwater business inspections prior to 1984 as part of its delegated responsibility to implement Ecology's NPDES sanitary sewer pretreatment program. Environmental Compliance staff is now inspecting multi-family units (including four or more residential units) in addition to businesses and industries. In order to identify unknown businesses as candidates for source control inspections, the Environmental Compliance inspectors are performing inspection sweeps in their assigned inspection areas, completing windshield surveys and reviewing telephone book listings. The City of Tacoma Tax and License continues to forward information from business license applications to Environmental Compliance staff for reference.

Application and Enforcement of Local Ordinances at Applicable Sites Including Sites that are Covered by Other Stormwater Permits Issued by Ecology (S5.C.7.a.iii.)

Tacoma Municipal Code (TMC) 12.08 defines storm water violations and provides a mechanism to take appropriate enforcement actions for stormwater quality violations. Environmental Compliance staff will assess businesses that qualify for NPDES General Stormwater Permit coverage during inspections and forward pertinent information to Ecology. Environmental Compliance inspectors respond to spill complaints at sites covered by Ecology's Stormwater Permits. The City has the authority to apply local

ordinances to sites covered by Ecology General Construction and Industrial Stormwater Permits through TMC 12.08.007 A., which says Chapter 12.08 applies to all direct and indirect users of the municipal sewer system.

In cases where other agencies have direct authority, such as Ecology NPDES-permitted industrial facilities; sites with direct discharges to receiving waters; underground injection control (infiltration) systems; or sites requiring a waste discharge permit, the City defers to the State for enforcement.

Reduction of Pollutants Associated with Pesticides, Herbicides and Fertilizers (S5.C.7.a.iv.)

The City of Tacoma does not currently regulate the application of pesticides, herbicides or fertilizers. Enforcement needs to be addressed at the regional or state level. Education about reduction of pesticide, herbicide and fertilizer use is provided by the City’s Community Relations Office, through the City’s EnviroChallenger school education program, by pamphlets included in the EnviroTalk newsletter, and through utility bill inserts (see Section S5.C.10 Education and Outreach Program).

Until the City formally adopts an Integrated Pest Management (IPM) Program, vegetation management activities will continue to be performed according to the Regional Road Maintenance Endangered Species Act (ESA) Program Guidelines. An Integrated Pest Management Program is currently under development.

Permit Compliance Measures

Adopt and Enforce an Ordinance Requiring Source Control BMPs (S5.C.7.b.i.)

Permit Deadlines and Responsible Parties:

Submit draft source control program to Ecology and related ordinances and enforceable documents	February 2008	Environmental Services Environmental Compliance Division
Adopt ordinance and revised Surface Water Management Manual	August 2008	Environmental Services Surface Water Division; City Legal Department

The City has an established Source Control Program to meet this requirement that originated from a consent decree with the USEPA for the Thea Foss Waterway Superfund Cleanup. This Source Control Program has been expanded citywide and fulfills the majority of NPDES permit requirements. Businesses are being informed and provided copies of operational source control BMPs during regular business inspections and responses to spill complaints.

Tacoma Municipal Code Chapter 12.08 provides enforcement authority for regulation of discharges to City storm and sanitary sewers. The City’s current Surface Water Management Manual Volume IV outlining the source control BMPs is being updated and will remain equivalent to Ecology’s 2005 manual.

Create and Maintain an Inventory of Potential Pollution Generating Sites (S5.C.7.b.ii.)

Permit Deadline and Responsible Parties:

Compile list of potential pollution generating sites including transient mobile or home-based businesses	August 2008	Environmental Services Environmental Compliance Division
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An inventory of potential stormwater pollution generating sites for source control inspections continues to evolve. This will incorporate regular updates to account for land use changes due to new development, redevelopment and business openings or closings. The Environmental Compliance Division is developing a list of businesses meeting the definition of land uses in Appendix 8 of the NPDES Municipal Stormwater Permit. Some land use information being used to develop the inventory is already entered in the City’s GovME mapping system. The City is employing a combination of methods for gathering this information including windshield surveys and inspection sweeps, telephone book searches, tax and license application review and licensing records, and stormwater fee data.

Potential pollutant generators will include:

- All tax lots that have mapped impervious area for the surface water charges
- Commercial, industrial and governmental sites with specific business practices
- All multifamily sites with four or more residences

In order to include transient pollution generating sources, such as mobile or home-based businesses, in the inspection inventory, Environmental Compliance Division will review its responses to all valid water pollution complaints which are documented in the Environmental Services inspection database. Environmental Compliance staff also reviews all new and renewed home occupational business licenses. Inspectors are trained to regularly perform drive-by observations while travelling through areas of concern.

Inspect Businesses for Compliance with Source Control Requirements (S5.C.7.b.iii.)

Permit Deadlines and Responsible Parties:

Provide source control BMP information to all businesses in inventory list from S5.C.7.b.ii	February 2009 through February 2012	Environmental Services Environmental Compliance Division; City Community Relations Office
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The Environmental Compliance Division provides information on BMPs and program literature directly to businesses during site visits. Inspectors educate the general public and businesses on BMPs and City of Tacoma environmental programs. The City Community Relations Office also provides relevant city-wide education programs. Direct mailings are planned to target specific business practices.

Permit Deadlines and Responsible Parties:

Begin inspecting 20% per year of businesses in inventory list from S5.C.7.b.ii.	February 2009	Environmental Services Environmental Compliance Division
Inspect 100% of all sites identified through complaints	February 2009	Environmental Services Environmental Compliance Division

Investigation and enforcement occurs in response to all legitimate water quality complaints to the Environmental Compliance Source Control Program. The current program inspected 483 sites in 2007. It is estimated that there are as many as 4,700 sites that could qualify for inspection from the business inventory being developed.

The Environmental Compliance Division has been using a custom database used for tracking spills, complaints, business inspections and flooding claims since 2003. Regular updates and refinements have been made to facilitate advanced data management for tracking inspections.

Implement Progressive Enforcement Policy and Documentation (S5.C.7.b.iv.)**Permit Deadlines and Responsible Parties:**

Finalize combined enforcement response policy including contacting Ecology immediately with severe violations	February 2009	Environmental Services Environmental Compliance Division; City Legal Department
Develop tracking system for inspections and enforcement actions	February 2009	Environmental Services Environmental Compliance Division

In order for the City to implement a progressive enforcement policy to compel sites to come into compliance with stormwater requirements within a reasonable time period, the Environmental Compliance Division uses incremental enforcement as defined in the City's Draft Stormwater Enforcement Response Plan and Tacoma Municipal Code 12.08. Enforcement procedures may include phone calls, reminder letters, follow-up inspections, warning letters, Notices of Violation, and civil penalties. Municipal Code 12.08 provides for inspection of all properties served by the sanitary or storm sewer system.

The Environmental Compliance inspectors contact Ecology as standard operating procedure for all serious source control violations that present a severe threat to human health or the environment. In addition, Environmental Compliance requests assistance from Ecology with non-responsive enforcement cases and will continue to do so to facilitate prompt compliance. Environmental Compliance refers violations in the South Tacoma Groundwater Protection District to the Tacoma-Pierce County Health Department for follow up.

The City documents all inspection and enforcement activities in the Environmental Services inspection database and business inspection files.

Training Program for Source Control Staff (5.C.7.b.v.)

Permit Deadlines and Responsible Parties:

Complete training and documentation	February 2009	Environmental Services Environmental Compliance Division
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Environmental Compliance will develop a training program for Source Control Program staff in the Environmental Services Division (including Source Control Representatives and Senior Environmental Specialists) which will include regularly scheduled follow-up training. The training will facilitate uniform enforcement of the applicable source control requirements listed in Tacoma Municipal Code 12.08 and the City’s Surface Water Management Manual and will include legal authority, proper use and application of source control BMPs, inspection procedures, and the enforcement process. The training program will be documented to maintain a list of trained staff.

S5.C.8. Illicit Connection and Discharge Detection and Elimination (IDDE)

Summary of Program Component

The City of Tacoma Environmental Services Division operates a robust Illicit Connection and Discharge Detection and Elimination (IDDE) program through source control enforcement and stormwater monitoring. This program will also include elements related to prohibited discharges and associated source control best management practices (BMPs) for non-stormwater discharges as outlined in the NPDES Municipal Stormwater Permit. These discharges include:

- Discharges from potable water sources,
- Lawn watering and irrigation runoff,
- Swimming pool discharges, and
- Street and sidewalk wash water, dust control, and external building washdown.

Permit Compliance Measures

Continue Existing Program and Address Other MS4s (S5.C.8.b.i.)

Permit Deadlines and Responsible Parties:

Continue current IDDE program	February 2007	Environmental Services Environmental Compliance Division
Program to address pollutants from other MS4s	February 2009	Environmental Services Environmental Compliance Division

The City’s existing IDDE program follows standard procedures based on the October 2004 Center for Watershed Protection guidance manual entitled “Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical

Assessments” as referenced in Section S5.C.8.b.vi of the NPDES Municipal Stormwater Permit. The IDDE field screening efforts have already been initiated in South Tacoma and will continue to expand to screen for illicit connections, spills or other discharges in other drainage sub-basins throughout the City including the following basins: Thea Foss, Flett Creek, Western Slopes, North Tacoma, Leach Creek, Tideflats, Lower Puyallup, and Joe’s Creek.

After neighboring MS4 connection points to the City storm system are mapped in 2008, IDDE screening of these locations will be added to the existing IDDE field screening program.

Address New Prohibited Discharges and BMPs (S5.C.8.b.ii.)

Permit Deadlines and Responsible Parties:

Add prohibited discharges to S5.C.10. Public Outreach and Education Program	August 2008	Environmental Services Environmental Compliance Division; City Community Relations Office; Tacoma Public Utilities Water Department
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Tacoma Municipal Code (TMC) 12.08.080 A & B allows persons to discharge only “unpolluted waters” into the City storm drains. This ordinance addresses the fifth category in the NPDES Municipal Stormwater Permit Special Condition S5.C.8.ii.2, titled “Other non-stormwater discharges.” The City intends to address the other remaining four categories listed under permit section S5.C.8.b.ii (2) through “other regulatory mechanisms.” This will include requiring best management practices for dechlorination as specified in the NPDES Municipal Stormwater Permit, or requiring that the discharges be minimized through public education. The City Surface Water Management Manual update will include the dechlorination specifications listed under permit Section S5.C.8.b.ii (2). The public education will be accomplished in accordance with the Public Outreach and Education Program described in SWMP Section S5.C.10, which will be modified to address the prohibited discharges itemized in Section S5.C.8.b.ii(2) including lawn watering, irrigation runoff, street and sidewalk wash water, dust control watering, and external building washdown.

Training Program for IDDE Staff (S5.C.8.b.iii.)

Permit Deadlines and Responsible Parties:

Complete training for IDDE staff	August 2008	Environmental Services Environmental Compliance Division; Human Resources Risk Management Division
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Environmental Services Environmental Compliance Division will identify a list of City field staff that identify, investigate, terminate, clean up, and report illicit discharges and spills in 2008.

The IDDE project lead in the Environmental Services Environmental Compliance Division and Human Resources Risk Management safety officers will provide the required training for the purpose of promoting identification and removal of the reduction of illicit

discharges. The training program will be documented and tracking will identify needs for follow-up training.

Training Program for Field Staff to ID Illicit Discharges/Connections (S5.C.8.b.iv.)

Permit Deadlines and Responsible Parties:

Complete training for other municipal field staff	February 2009	Environmental Services Environmental Compliance Division; Environmental Services Surface Water Division; Environmental Services Sewer Transmission Maintenance Division; Environmental Services Special Projects Division; Environmental Services Science and Engineering; Environmental Services Solid Waste Division; Building and Land Use Services; Building and Land Use Services Code Compliance; Construction Division; Tacoma Public Utilities: Water Department/Power Department/Click! Cable; Services; City Fire Department; Public Works Facilities Maintenance; Public Works Real Property Services; Streets and Grounds Maintenance Division
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City field staff that may discover illicit discharges while performing their job responsibilities will be identified for training and provided with information about how to identify illicit discharges and the appropriate response and referral options for reporting the discharges. The training program will be documented, and tracking will identify needs for follow-up training.

Establish Publicly Listed Water Quality Problem Reporting Line (S5.C.8.b.v.)

Permit Deadlines and Responsible Parties:

Establish water quality complaint line	August 2007	Environmental Services Environmental Compliance Division
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The City of Tacoma uses a local environmental organization, Citizens for a Healthy Bay (CHB) to operate its 24-hour customer service line as a water quality complaint line. The published phone number (253) 383-2429 is established in directories throughout the City of Tacoma and on the organization’s website at www.healthybay.org.

Illicit Connection Field Screening Program (S5.C.8.b.vi.)

Permit Deadlines and Responsible Parties:

Complete screening for 60% of conveyance system within City limits	February 2011	Environmental Services Environmental Compliance Division
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The City of Tacoma Storm Drain Illicit Connection Field Screening IDDE Program is jointly implemented with the Sanitary Infiltration and Intrusion Program and has a more aggressive timeline than this permit requirement. Field crews investigate sanitary and storm connections by initial smoke testing, then they verify results with a dye test, if necessary. By the end of 2008, field screening should be completed for over one-quarter of the City of Tacoma’s sewer system. All field screening data is collected and stored on the City’s GovME mapping website. A sub-watershed by sub-watershed investigation is ongoing and updated daily on this website.

Response to Illicit Connections (S5.C.8.b.vii.)

Permit Deadlines and Responsible Parties:

Initiate investigation following discovery or complaint	Within 21 days	Environmental Services Environmental Compliance Division
Upon confirmation, terminate illicit connections	Within 6 months	Environmental Services Environmental Compliance Division
Refer to Ecology if severe threat to environment or health exists	Immediately	Environmental Services Environmental Compliance Division

The City of Tacoma’s IDDE and Source Control Inspection Programs work together to promote investigation and termination of illicit connections per the timelines listed above. The IDDE Program uses a database to track the complete process of screening, investigation, referral to responsible agencies (if other than the City), and enforcement. Environmental Services Environmental Compliance Division Environmental Specialists and Inspection personnel coordinate responses to terminate illicit connections. Often, City departments such as Building and Land Use Services Code Compliance, Environmental Services Science and Engineering, Streets and Grounds Maintenance Division, Environmental Services Sewer Transmission Maintenance Division, Tacoma Public Utilities Water Department, and other agencies such as the Tacoma-Pierce County Health Department and Ecology are involved in both investigations and illicit connection termination.

In cases when an illicit connection may cause a severe threat to the environment or human health or when businesses are permitted under Ecology NPDES Permits, the City refers these cases to Ecology to follow-up. If a business does not respond after Environmental Compliance staff makes a good faith and documented effort of progressive enforcement to terminate a violation, cases will be referred to Ecology.

Program to Respond to Illicit Discharges and Spills (S5.C.8.b.viii.)

Permit Deadlines and Responsible Parties:

Program to respond to illicit discharges and spills	August 2007	Environmental Services Environmental Compliance Division, Environmental Services Solid Waste Division, Streets and Grounds Maintenance Division, Environmental Services Sewer Transmission
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		Maintenance Division, Road Use Compliance Office
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The City has an existing procedure for responding to illicit discharges and spills to the City storm system. Major spill response is referred to the Department of Ecology. Smaller spills such as automotive fluids on roadways, are investigated and responded to by one or more of the following Public Works Department Divisions:

- Environmental Compliance Division
- Solid Waste Division
- Streets and Grounds Maintenance Division
- Sewer Transmission Maintenance Division
- Road Use Compliance Office.

Potential illicit discharges are discovered and investigated by the same Environmental Compliance personnel who work on the IDDE Program and perform the Source Control Business Inspections. Environmental Compliance staff investigates potential illicit discharges based on complaints, business inspection reports and stormwater monitoring information and responds to potential and confirmed illicit discharges using the same procedures applied to potential illicit connections (see Section S5.C.8.b.vii. above).

IDDE Inspection, Response and Enforcement Record Keeping (S5.C.8.b.ix.)

Permit Deadlines and Responsible Parties:

Track and maintain records of illicit discharge detection and elimination and spill complaint inspection, response and enforcement	August 2007	Environmental Services Environmental Compliance Division
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The Environmental Compliance Division staff uses an SQL/Access database – the Environmental Services Spills and Complaints Database – to track IDDE, spill complaints, and Source Control inspection activities.

The City of Tacoma IDDE Program uses the City's GovME mapping website to manage field screening and any follow-up investigation. The referral information and final enforcement outcome for each potential illicit discharge or connection is tracked in the Environmental Services Spills and Complaints Database.

S5.C.9. Maintenance and Operations Program

Summary of Program Component

This section of the Stormwater Management Program contains requirements to regulate and conduct operation and maintenance activities to prevent and or reduce stormwater impacts from both public and private stormwater facilities.

Each City division is responsible for performing those tasks discussed under the compliance measures below that are applicable and necessary to be in compliance with the City's NPDES Municipal Stormwater Permit. These include:

- Implementing and enforcing maintenance standards and programs for proper and timely maintenance of public and private stormwater facilities
- Establishing Best Management Practices (BMPs) for reducing stormwater impacts associated with runoff from parking lots, streets, roads, and highways owned or operated by the City
- Developing policies and procedures to reduce water pollution associated with the application of pesticides, herbicides, and fertilizer by City staff
- Establishing BMPs for reducing stormwater impacts from heavy equipment maintenance or storage yards and material storage facilities owned or operated by the City.

Each of these activities will also include providing the appropriate staff training, keeping records of compliance activities, performing self-assessments, and preparing status reports for the NPDES Annual Report.

Permit Compliance Measures

Adopting Maintenance Standards Equivalent to the 2005 Ecology Manual (S5.C.9.b.i.)

Permit Deadlines and Responsible Parties:

Adopt Maintenance Standards Equivalent to 2005 Ecology Manual	August 2008	Environmental Services Surface Water Division
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The City currently has maintenance standards that are adopted by Tacoma Municipal Code (TMC) 12.08.090 D.10. This ordinance references Chapter 4 of Volume V of the City of Tacoma Surface Water Management Manual which establishes runoff treatment BMPs and maintenance standards. The requirements in Chapter 4 of Volume V of the City of Tacoma Surface Water Management Manual are equivalent to the 2005 Ecology Manual.

Regulated (Private) Stormwater Facility Inspection Program (S5.C.9.b.ii.)

Permit Deadlines and Responsible Parties:

Adopt Maintenance Standards Equivalent to 2005 Ecology Manual	August 2008	Environmental Services Surface Water Division
Establish City inspection schedule for private facilities to inspect at least once during permit term	August 2008	Environmental Services Environmental Compliance Division
Begin annual facility inspections	February 2011	Environmental Services Environmental Compliance Division
Inspect residential subdivision projects that are under	February 2009	Environmental Services Environmental Compliance

construction at least once every six months during the period of heaviest construction		Division; Building and Land Use Division; Construction Division
Compliance with inspection requirements	February 2011	Environmental Services Environmental Compliance Division
Catch basin cleaning required where identified by inspection	February 2007	Environmental Services Sewer Transmission Maintenance Division

Adopt Maintenance Standards Equivalent to 2005 Ecology Manual

The Tacoma Municipal Code (TMC) 12.08.090 addresses the requirements for an operation and maintenance manual for all proposed stormwater facilities and BMPs. TMC 12.08 also provides City personnel authority to enter upon private property to inspect and regulate the operation and maintenance of private facilities. The City requires owners of private stormwater facilities to submit an operation and maintenance plan to the City as part of the permit approval process to insure that all current and future owners of the private stormwater facilities have operation and maintenance guidelines for regular inspection and maintenance of their permanent stormwater treatment and flow control facilities.

City inspection schedule for private facilities to inspect at least once during permit term

The City of Tacoma has an established Environmental Compliance inspection program for private storm drainage facilities regulated by the City of Tacoma. Our current Surface Water Management Manual does not address inspection frequency of private facilities. In the current program, inspectors are assigned geographic areas within the City to inspect all known private stormwater facilities. Inspection and enforcement records are tracked in the Environmental Services inspection database. The City will develop an inspection schedule based on available staff levels and equipment to provide at least one inspection within this five-year permit cycle of each known private treatment and flow control facility of the type listed in the 2005 Ecology Manual.

Begin annual facility inspections

The City of Tacoma has an established inspection program for private stormwater treatment and flow control facilities. The Environmental Compliance Inspectors provide education and training to owners of private stormwater facilities on operations and maintenance needs for their treatment and flow control devices. The City will supplement its current inspection program to provide annual inspection of each identified private treatment and flow control device regulated by the City, unless a reduced frequency is determined to be allowable based on maintenance or inspection records.

Inspect residential subdivision projects that are under construction at least once every six months during the period of heaviest construction

The City of Tacoma has Environmental Compliance Inspectors, Building Inspectors, and Construction Inspectors that inspect storm drainage facilities on active residential construction sites. Inspection records will be established to verify that inspections of catch

basins, treatment devices and flow control devices are provided every six months during the period of heaviest construction.

Compliance with inspection requirements

The City of Tacoma has an established Environmental Compliance Inspection Program designed to inspect and require maintenance of private stormwater facilities regulated by the City. The City also has an established Environmental Services inspection database for tracking purposes.

Catch basin cleaning required where identified by inspection

The City of Tacoma has an established Environmental Compliance inspection program with the authority to inspect and require maintenance of private stormwater facilities, including catch basins, regulated by the City. Tacoma Municipal Code 12.08.090 requires that all privately owned drainage facilities including catch basins must be regularly inspected and maintained by the owner and provides authority to the City to access private property to inspect catch basins connected to the municipal storm drainage system. City inspectors enforce Source Control BMP S.9 "Cleaning Catch Basins" in Volume IV, Chapter 5 of the City of Tacoma Surface Water Management Manual. This BMP identifies conditions requiring catch basin maintenance including sediment, vegetation and debris accumulation, structural integrity and public safety concerns. City inspectors also require catch basin cleaning where structures have been contaminated by pollutants from accidental spills or illicit discharges.

Maintenance of Stormwater Facilities Owned or Operated by the City (S5.C.9.b.iii.)

Permit Deadlines and Responsible Parties:

Inspection schedule for public stormwater facilities owned and operated by the permittee once during the term of the permit	February 2009	Environmental Services Sewer Transmission Maintenance Division
Begin spot checks of treatment and flow control facilities after large storms events	February 2009	Environmental Services Environmental Compliance Division

Inspection schedule for public stormwater facilities owned and operated by the permittee once during the term of the permit

Environmental Services has a program to inspect treatment and flow control facilities and to provide maintenance of public treatment and flow control facilities owned or operated by the City. The list of City-owned facilities and maintenance procedures are documented in the City of Tacoma 2006 Storm Water Detention Facility Operation and Maintenance Manual which includes both treatment and flow control facilities. The BMPs listed in this O&M Manual are based on Volume V, Chapter 4 of the City Surface Water Management Manual which is equivalent to Volume V, Chapter 4 for of Ecology's 2005 Manual. The Storm Water Detention Facility Operation and Maintenance Manual will be updated annually with new public treatment or flow control facilities as new facilities are constructed. An inspection schedule will be established to provide either annual inspections or less frequent inspections based on maintenance records.

Begin spot checks of treatment and flow control facilities after large storms events

Environmental Services implements a Flood Emergency Response Plan to inspect public stormwater facilities during heavy rain events. This plan identifies potential flooding areas and assigns Environmental Services personnel to designated drainage basins within the City. These personnel are responsible for inspecting the public storm system and calling for Environmental Services Sewer Transmission Maintenance Division to perform emergency maintenance if necessary to alleviate flooding. Environmental Compliance will update the Flood Emergency Response Plan to add additional spot check inspections of potentially damaged treatment or flow control facilities after major rain events. This update will also document the process for communicating inspection results to the Environmental Services Sewer Transmission Maintenance Division or Environmental Services Science and Engineering Division for follow-up with recommended maintenance or repair activities.

Maintenance of Catch Basins Owned by the Permittee (S5.C.9.b.iv.)**Permit Deadlines and Responsible Parties:**

Begin annual inspection and maintenance of catch basins	February 2009	Environmental Services Sewer Transmission Maintenance Division
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The Sewer Transmission Maintenance Division inspects and maintains the catch basins owned and operated by the City. Sewer Transmission crews inspect and clean catch basins on a circuit basis. The City also cleans the catch basin leads as part of the inspection and cleaning process. The catch basin cleaning program shall be documented by the Sewer Transmission Maintenance staff and provided to Ecology by February 2009. The program shall either provide annual inspections, or if less than annual frequency, the inspection schedule will be based on previous maintenance and inspection records as appropriate to meet maintenance standards in Ecology's 2005 Manual. The City owns and operates approved and permitted decant facilities. Disposal of decant materials from catch basin maintenance activities is in accordance with the Street Waste Disposal procedures described in the NPDES Municipal Stormwater Permit Appendix 6.

Inspection and Maintenance Records (S5.C.9.b.v.)**Permit Deadlines and Responsible Parties:**

Provide updated inspection and maintenance records in NPDES Annual Stormwater Report	March 2008	Environmental Services Sewer Transmission Maintenance Division; Environmental Services Surface Water Division
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The City keeps records of all maintenance activities of City-owned and operated storm drainage facilities. Records of the maintenance or repair activities requiring capital construction of \$25,000 or more will be provided in the NPDES Annual Report.

Reduce Stormwater Impacts from Roads, Streets, and Parking Lots Owned and Operated by the Permittee (S5.C.9.b.vi.)

Permit Deadlines and Responsible Parties:

Establish practices to reduce stormwater impacts from public parking lots, streets, and road maintenance activities	February 2008	Streets and Grounds Maintenance Division; Environmental Services Sewer Transmission Maintenance Division
Begin implementing practices	August 2008	Streets and Grounds Maintenance Division; Environmental Services Sewer Transmission Maintenance Division

Sewer Transmission Maintenance references the City Surface Water Management Manual for guidelines for operation and maintenance of all City-owned stormwater facilities, pipes and catch basins to reduce surface water impact on receiving waters.

The City of Tacoma participates in the Regional Road Maintenance Endangered Species Act (ESA) Program (RRMP). The RRMP is applicable to all road maintenance work performed within the rights-of-way. The purpose of the Regional Road Maintenance ESA Program is to provide a consistent, Regional Program that can be used by any agency wishing to limit, reduce, or eliminate the prohibition on take of threatened species under the ESA 4(d) Rule. The Program Guidelines provide BMPs for maintenance work that reduces surface water impacts on receiving waters.

The City of Tacoma has an ESA Program Coordinator who provides training and technical assistance to staff on how to implement the RRMP Guidelines. The Program has been implemented across a broad spectrum of maintenance activities conducted by Public Works and Public Utilities staff. Maintenance work listed in the NPDES Municipal Stormwater Permit Section S5.C.9.b.vi. that is done by City staff within the rights-of-way is performed in accordance with the Regional Road Maintenance ESA Program Guidelines and the City’s Surface Water Management Manual. This maintenance work includes pipe cleaning, cleaning of culverts, ditch maintenance, street cleaning, road repair and resurfacing, snow and ice control, utility installation, vegetation management, dust control, and pavement striping maintenance.

The Regional Road Maintenance ESA Program Guidelines have been implemented.

The City’s Street Sweeping Program removes sediment and associated contaminants from the street surfaces before they enter the municipal separate storm sewer system (MS4). The Street Sweeping Program is one of the best management practices the City uses to reduce stormwater impacts from roads and streets. The program provides street sweeping services on a scheduled rotation for major arterials, 12 business districts, and residential areas which are divided into seven sweeping districts. Sewer Transmission Maintenance Division also provides sweeping services as needed in response to emergency calls, special events, and customer requests. More information is available on the City website at www.cityoftacoma.org/streetsweeping.

Pollutant Reduction from Property Owned and Maintained by the City (S5.C.9.b.vii.)

Permit Deadlines and Responsible Parties:

Establish and implement practices to reduce stormwater impacts from City-owned property	August 2008	Streets and Grounds Maintenance Division; Environmental Services Sewer Transmission Maintenance Division; Public Works Facilities Maintenance; Public Works Real Property Services; Tacoma Public Utilities: Water Department/Power Department/Click! Cable Services
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Public Works and Public Utilities maintenance crews use BMPs provided by the City’s Surface Water Management Manual and the Regional Road Maintenance ESA Program Guidelines to reduce the stormwater impacts to receiving waters from runoff on lands owned and maintained by the City. The City also sponsors an Ecology Washington Conservation Corps (WCC) crew. This crew maintains and restores the City’s mitigation and habitat restoration projects near shorelines, streams and wetlands.

Until the City formally adopts an Integrated Pest Management (IPM) Program, vegetation management activities will continue to be performed according to the Regional Road Maintenance Endangered Species Act (ESA) Program Guidelines. An Integrated Pest Management Program is currently under development.

Documentation of the list of maintenance activities identified in the NPDES Municipal Stormwater Permit Section S5.C.9.b.vii including landscape maintenance and vegetation disposal, sediment and erosion control, trash management, and building exterior cleaning will be provided to Ecology and implemented by City crews working on parks, open spaces, road rights-of-way, maintenance yards, and stormwater treatment and flow control facilities.

Ongoing Training Program (S5.C.9.viii.)

Permit Deadlines and Responsible Parties:

Develop and implement a program to train Operation and Maintenance personnel	February 2009	Streets and Grounds Maintenance Division; Environmental Services Sewer Transmission Maintenance Division; Public Works Facilities Maintenance; Public Works Real Property Services; Tacoma Public Utilities: Water Department/Power Department/Click! Cable Services
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Each individual department will be responsible for implementing a training program based on the Regional Road Maintenance ESA Program to train City staff with primary construction, operations, and maintenance job functions that may impact stormwater quality. The training will include best management practices and procedures for the maintenance activities listed in the NPDES Municipal Stormwater Permit Section S5.C.9. (outlined above.) The training program will include regularly scheduled follow-up training and will be documented to maintain a list of trained staff.

Implement SWPPPs for City Maintenance Facilities (S5.C.9.ix.)

Permit Deadlines and Responsible Parties:

Develop and implement SWPPPs for unpermitted City facilities	February 2009	Environmental Services Surface Water Division; Streets and Grounds Maintenance Division; Public Works Facilities Maintenance; Tacoma Public Utilities: Water Department/Power Department/Click! Cable Services
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During 2008, the Environmental Services Surface Water Division will identify all City facilities which are not covered by another NPDES permit and include heavy equipment maintenance and storage areas and/or material storage areas.

By February, 2009, the Environmental Services Surface Water Division, in cooperation with the City Divisions in charge of operations at these facilities, will develop a Stormwater Pollution Prevention Plan (SWPPP) to cover operational BMPs, recommended structural BMP retrofits, and a visual inspection program to evaluate BMP effectiveness at these facilities.

S5.C.10. Education and Outreach Program

Summary of Program Components

Public education and outreach is a vital component of the Stormwater Management Program. Much stormwater pollution results from ongoing activities of residents and businesses, and so public education efforts should focus on what they can do to help reduce stormwater runoff impacts to surface water quality. As people learn how their activities affect surface water quality, some will change their behavior. Others will require continuous reminders and/or incentives, depending on how inconvenient and/or expensive they perceive the new behavior to be.

The City of Tacoma has various active environmental education and outreach programs including the EnviroChallenger program with two full-time staff, the Make-a-Splash environmental grant program that offers \$50,000 a year in grants for surface water-related projects, the EnviroTalk newsletter that is distributed four times per year, TV Tacoma programming, Environmental Services utility bill inserts, and Environmental Services staff participation at community events. We also partner with Citizens for a Healthy Bay and the Pierce Conservation District on their educational programs. The City of Tacoma is participating with other Phase I and Phase II NPDES permittees in the region to develop region-wide educational efforts in support of the NPDES Municipal Stormwater Permit activities.

Most of the City’s surface water and stormwater education efforts are implemented by the following Divisions:

Environmental Services Surface Water Division

Provides primary education to the general public and businesses about the impacts of stormwater flows to receiving waters including operational source control BMPs and spill response procedures. Encourages environmental stewardship, actions and opportunities in the areas of pet waste, vehicle maintenance, landscaping and buffers. Also provides education about yard care techniques that are 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 (LID) techniques, including site design, pervious paving, retention of forests and mature trees, and stormwater treatment and flow control BMPs.

Environmental Services Environmental Compliance Division

Provides education about BMPs to businesses including home-based and mobile businesses, landscapers, and property managers.

Environmental Services Solid Waste Division

Assists with education related to the storage and disposal of hazardous waste. Assists with education related to natural yard care and yard waste disposal.

City Community Relations Office

Provides strategic communications support to all Environmental Services Utilities (Surface Water, Solid Waste and Wastewater). This includes advising the Surface Water Division and Environmental Compliance Division on strategic public and media relations opportunities, creating educational and promotional materials, helping to create website content, and assisting with outreach efforts including the EnviroTalk newsletter, utility bill inserts, the EnviroNews listserv, the EnviroChallenger environmental educators, the EnviroKids website and more.

Permit Compliance Measures

Implement a Public Education Program for General Public, Policy-makers, Businesses, Homeowners, Landscapers, Property Managers, the Development Community, and City Staff (S5.C.10.b.i.)

Permit Deadlines and Responsible Parties:

Begin education outreach program using a variety of tools for target audiences	February 2008	Environmental Services Surface Water Division; Environmental Services Environmental Compliance Division; Environmental Services Solid Waste Division; City Community Relations Office
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The City provides public education for citizens on a variety of topics including the use of fertilizers and pesticides, vehicle maintenance and pet waste. The City provides education for businesses focused on stormwater best management practices (BMPs) for both ongoing maintenance of water quality and flow control facilities and implementation of operational BMPs.

Existing Programs

The City's existing public education and outreach programs are summarized below:

Make a Splash Grant program

The City's stormwater grants are distributed to projects promoting community environmental education, protection and restoration projects. Grants have been awarded to a diverse number of community groups including Friends of the Swan Creek Watershed, First Presbyterian Church School, Puget Creek Restoration Society, The Tacoma Nature Center, Citizens for a Healthy Bay, and many others.

Clean Bay Car Wash Kits

Clean Bay Car Wash Kits are offered to the public at no charge. These car wash kits are loaned to nonprofit groups to ensure that dirty wash water from fundraising car washes is discharged to the sanitary sewer to be treated instead of entering our local lakes, streams and Puget Sound via the stormwater system.

EnviroChallenger

The City's EnviroChallenger environmental education program continues to serve public and private schools around Tacoma. Thousands of kids see these lessons each year. The EnviroChallengers also attend many community events throughout the year and help to communicate our many surface water messages to adults as well as children.

EnviroKids Website

A website for kids who care about the environment. This website helps teach kids about the five Rs (reduce, reuse, recycle, respect and responsible) through projects, quizzes and more. EnviroKids is supported by the EnviroChallenger program.

EnviroHouse

Environmental Services partners with other City groups on the EnviroHouse, a hands-on showcase of green building and natural landscape ideas, materials and techniques that create a healthy home planet. The EnviroHouse offers visitors a way to see and touch a wide variety of green building and sustainable products. The EnviroHouse shows rain barrels, native plants, rain gardens, pervious pavement and other surface water-related ideas in action.

Tacoma EnviroNews Listserv

In 2005, the City of Tacoma Community Relations Office started a "Tacoma EnviroNews" e-mail distribution list to share announcements of environmental interest among City employees, City Council members, local nonprofit organizations and other interested citizens. "Tacoma EnviroNews" is an automated electronic listserv that anyone can subscribe to and post messages related to environmental issues, events, and job or volunteer opportunities.

EnviroTalk

The City of Tacoma's Environmental Services sends out quarterly newsletters to 53,000 single-family and duplex home residents throughout the City to educate them about surface water, wastewater and solid waste messages.

Utility Bill Inserts

Surface water messages are included frequently in the utility bill inserts sent to about 125,000 customers six times a year in the City of Tacoma.

Regional Community Partnerships

The Surface Water Division participates in regional conservation groups such as the Pierce Conservation District, Chamber/Clover Creek Watershed Council, Puyallup River Watershed Council, City land use planning efforts, and habitat restoration projects within the City limits. The City of Tacoma is also participating in a regional stormwater educational coalition led by King County.

Local Community Partnerships

The City helps sponsor the Pierce Conservation District Stream Team and Citizens for a Healthy Bay, which help interested Tacoma community groups organize storm drain stenciling and curb marking efforts. The Stream Team also leads other programs such as wetland and stream bank cleanups and revegetation projects, educational workshops and tours for the public.

Promotion of Water Pollution Hotline

The City publicizes the water pollution hotline operated by Citizens for a Healthy Bay (with support from Environmental Services) on the City's website and in City publications. Environmental Services is also promoting the telephone number through signage at eight parks and other locations in Tacoma, as well as other areas around Commencement Bay.

Washington Conservation Corps

This group of volunteers sponsored by Environmental Services help to place information signs at regional stormwater facilities throughout Tacoma to educate and to help maintain our facilities; they help rehabilitate natural areas to enhance stormwater quality; and they do a variety of other stormwater outreach efforts in cooperation with the City, including helping with the research and outreach of our cigarette butt litter prevention pilot program.

Business Source Control Outreach

Information is presented to business owners and property managers during source control site visits required by S5.C.7. The intent is to make business owners and property managers more aware of the importance of their role to protect local waterways and reduce stormwater pollution.

Pet Waste Program

Information on proper management and disposal of pet waste is available on the City of Tacoma's website and is woven into the City's publications and programming such as utility bill inserts, the EnviroTalk newsletter and environmental lessons by the EnviroChallenger.

Curb Marking Program

The City continues to partner with Citizens for a Healthy Bay and the Pierce Conservation District's Stream Team to work with volunteers to label storm drains throughout the City with a friendly reminder that stormwater goes directly into the nearest creek, stream or Commencement Bay.

Northwest Natural Yard Days

The Surface Water, Wastewater and Solid Waste utilities each work with the Tacoma-Pierce County Health Department to educate about and encourage yard care practices that encourage the use of alternatives to pesticides and chemical fertilizers.

Hazardous Waste Disposal Program

The Solid Waste Management utility collects and properly disposes of large amounts of household hazardous waste from Tacoma residents to prevent it from entering the storm sewer, surface waters, or groundwater.

Pilot Program

The following is a pilot program under way in Tacoma:

CAN IT Cigarette Butt Litter Prevention Pilot Program

Now that indoor public places are officially smoke-free, the problem of cigarette litter making its way into the local waterways has become an increasing problem. The Surface Water Management utility has begun educating people about the problem, and teaching them about the importance of properly disposing of cigarette butts. The program is in pilot stage, and is being evaluated for potential expansion.

Future Enhancements

The City's future enhancements to the public education and outreach program are summarized below:

STORM Regional Campaign

Work with other Puget Sound area NPDES permittees to communicate surface water messages about pet waste, car maintenance, use of pesticides and fertilizers, etc. via a regional advertising campaign.

Citizen Stewardship Program

Work with community groups to create a watershed stewardship program that will teach how to identify pollution, how to report it and best management practices to prevent pollution. We'll "train the trainers" with multi-lingual materials and show them how to teach others in their own neighborhoods or community groups, initially targeting neighborhoods showing high interest.

Newsletter Outreach

Research and implement communication tools that will get Environmental Services messages to residents of condo and apartment communities in a more audience-specific way.

Enhance Website Information

Improve surface water education on the City of Tacoma website by making information more complete, easier to understand and easier to navigate about topics such as the Surface Water Management Manual, Low Impact Development techniques, and other stormwater best management practices.

Carrots: Celebrate Successes

In trying to “put a face” on recommended stormwater best management practices, we will work to better publicize successes of existing programs and Make a Splash grant projects.

Encourage Low Impact Development (LID) Practices

Encourage low-impact development practices and explore ways to encourage residents and businesses to implement LID practices, such as rain gardens, pervious pavement, and preserving open space. Methods may include public information workshops, demonstration projects and rate incentives.

Better Education Tools for Environmental Compliance Staff

Create materials that compliance support staff can use to better educate and inform businesses and homeowners during onsite inspections or when responding to spills and complaints.

Measure Understanding and Adoption of Targeted Behaviors by Target Audiences (S5.C.b.ii.)

Permit Deadlines and Responsible Parties:

Tools to measure understanding and adoption of behaviors	February 2008	City Community Relations Office
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Measuring understanding and adoption of target behaviors as a result of public education and outreach efforts is a challenge. The City of Tacoma Environmental Services Division conducts a regular, statistically valid city-wide survey that could provide a baseline for evaluation of these efforts. Additionally, the City Community Relations Office is working with the STORM Regional Stormwater Education Campaign (see description above) to evaluate results on a regional scale as the NPDES educational messages are similar from community to community.

Maintain Records of Public Education Activities (S5.C.b.iii.)

Permit Deadlines and Responsible Parties:

Provide records of public education in NPDES Annual Report	March 2008	City Community Relations Office; Environmental Services Surface Water Division
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Community Relations will maintain records of the public education activities related to surface water and stormwater and will provide this information to Ecology in the NPDES Annual Report.