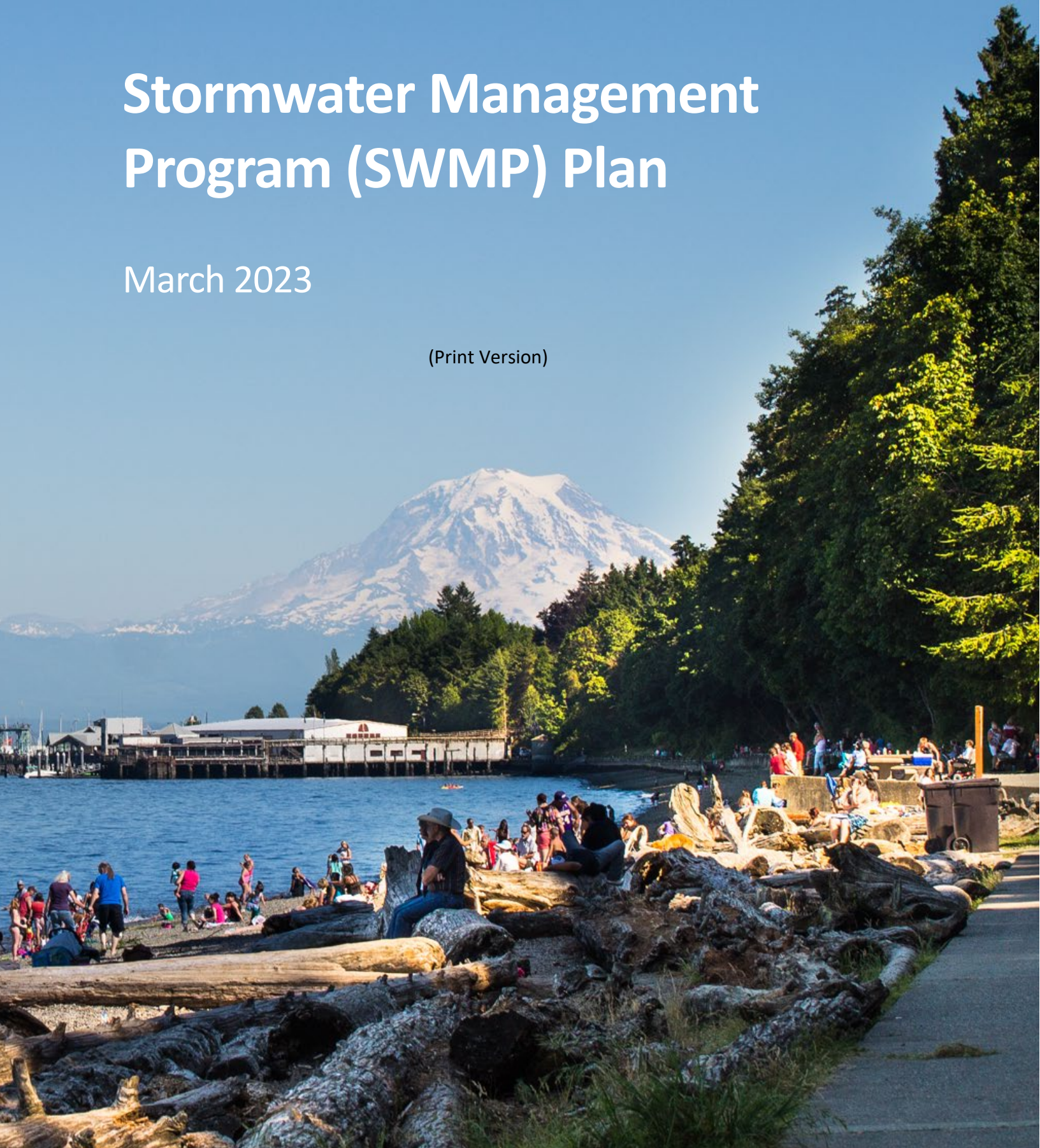


# Stormwater Management Program (SWMP) Plan

March 2023

(Print Version)





## NPDES Municipal Stormwater Permit Overview

On August 1, 2019, the Washington State Department of Ecology (Ecology) issued the 2019-2024 National Pollutant Discharge Elimination System (NPDES) Stormwater Permit for Phase I Municipalities (Permit) to all Phase I Municipalities including the City of Tacoma, City of Seattle, Pierce County, King County, Snohomish County and Clark County. The permit is available to view online at Ecology's website.

To comply with the Permit, the SWMP Plan includes a public participation process and internal review to provide valuable input and oversight to the program.

- What areas of public education should the City focus on?
- What problems do you see in Tacoma that could be addressed through public outreach? (for example, litter, proper pet waste disposal, over fertilization of lawns or landscaping, yard waste being swept or blown onto the street, dirty water running off of private property...)
- How can Tacoma communicate with the public in the most effective way?
- Would you like more information about current City efforts to ensure that stormwater is as clean as possible? How would you like that information delivered?

**To submit a comment, email [swnpdespermits@cityoftacoma.org](mailto:swnpdespermits@cityoftacoma.org)**

**The revised SWMP Plan documents and guides the City's activities during the permit term from August 1, 2019, through July 31, 2024.**

## Introduction

The City's stormwater management priorities were established in 1995 under the first NPDES Municipal Stormwater Permit and remain essential elements of the SWMP today. The City's priorities include the following:

- Protect the health, safety and welfare of the public;
- 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
- Correct or mitigate existing water quality problems; and
- Restore and maintain the chemical, physical and biological integrity of the receiving waters in the City to protect beneficial uses.

**The Permit regulates the discharge of stormwater to surface waters and groundwater's of the state from Tacoma's Municipal Separate Storm Sewer System. The Permit is designed to protect and improve the water quality of receiving waters by requiring the City of Tacoma (City) to implement a variety of stormwater management activities.**

**Permits are required by federal and state laws and regulations.**

### **Federal Laws and Regulations**

[The Clean Water Act](#) is a United States federal law that regulates the discharges of pollutants into waterbodies. The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.

The Code of Federal Regulations (CFR) is the codification of general and permanent rules and regulations developed by federal government of the United States. [Title 40](#) contains environmental regulations promulgated by the US Environmental Protection Agency (EPA). Subchapter D is dedicated to Water Programs and includes Part 122 – EPA Administered Permit Programs: The National Pollutant Discharge Elimination System. 40 CFR 122.26 applies to stormwater discharges.

### **State Laws and Regulations**

In Washington, the Washington State Department of Ecology maintains responsibility of implementation of enforcement of the NPDES Permits (and thus the Clean Water Act and 40 CFR 122). Revised Code of Washington (RCW) 90.48 – Water Pollution Control is the state law similar to the federal Clean Water Act. Similar to the CFR, Washington State maintains the Washington Administrative Code. The NPDES Permits are codified under WAC 173-226.

The Annual Report to be submitted by March 31, 2023 has a reporting period of January 1, 2022 to December 31, 2022.

The 2019-2024 Permit includes the following significant changes from the previous Permit:

- Begin to collect size and material for all known SEPERATED STORMWATER SYSTEM outfalls during normal course of business and complete mapping of all known connections from the SEPERATED STORMWATER SYSTEM to a privately- owned stormwater system (S5.C.2.b.i,ii.);
- Update the City Stormwater Management Manual (SWMM), requirements and technical standards to include requirements equivalent to the 2019 Ecology SWMM for Western Washington (S5.C.5.b.) and the 2019 Permit;
- Implement a Stormwater Planning program to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters (S5.C.6). The requirements of this new section will include convening an interdisciplinary team, coordination with long-range plan updates and continued requirements for low impact development codes (S6.C.6.a,b.);
- Achieve 300 Structural Stormwater Control (SSC) Program Points for completing actions and activities that address impacts that are not adequately controlled by the other required actions of the SWMP. SSC Program Points are calculated as prescribed in the Permit Appendix 12. (S5.C.7);
- Provide data for all illicit discharges, spills and illicit connections to include all the information specified in Appendix 14 of the Permit (S5.C.9.g.); and

- Update Stormwater Pollution Prevention Plans for City facilities to include more detailed and site-specific information. Updates are required to be completed by December 31, 2022. (S5.C.10.g)
- Follow social marketing practices and methods to develop a behavior change campaign that is tailored to the Permittee’s community (S5.C.11.a.ii).

To comply with the Permit and document updates to the City’s SWMP, the SWMP Plan has been revised. The SWMP Plan included a public participation process and internal review to provide valuable input and oversight to the program. The revised SWMP Plan guides the City’s activities during the permit term from August 1, 2019 through July 31, 2024.

The City will continue to provide annual reports to Ecology to document its Stormwater Management Program. Environmental Services (ES) Environmental Programs Group is responsible for preparing the annual report and ensuring overall NPDES permit compliance.

### **Secondary Permittees within the City of Tacoma**

Metro Parks Tacoma, Tacoma Community College and Port of Tacoma are Secondary Permittees under the Permit with independent coverage for discharges from small municipal separate storm sewers contained on their property. Secondary Permittees have different requirements under the Permits and are required to provide their own plans including public education and outreach, public involvement and participation, illicit discharge detection and elimination, construction site runoff controls, good housekeeping and source control requirements for operations and maintenance activities. The City will continue to coordinate SWMP activities with Secondary Permittees.

### **Tacoma’s Stormwater Management Utility**

The City’s SWMP is administered by the Environmental Services Science and Engineering Division, however, the Permit applies to all departments and divisions of the City. ES coordinates with all departments and divisions throughout the City to ensure that all permit requirements are implemented. Staffing and budget are designed to meet the SWMP goals and objectives. SWMP work includes:

- Inspecting business activities and educating businesses about BMPs to reduce stormwater impacts;
- Collecting and evaluating stormwater and sediment quality monitoring data;
- Implementing a source control and illicit discharge screening program throughout the City’s nine watersheds;
- Mapping, maintaining and cleaning the City’s stormwater system that includes approximately 500 miles of storm pipe, 10,000 manholes, over 18,000 catch basins, four pump stations, and over 200 stormwater treatment and flow control facilities;
- Managing the City’s tree canopy cover and open spaces to maximize stormwater benefits;

- Rehabilitating and replacing aging infrastructure and improving the storm system with capital projects to address identified flooding, flow control and water quality issues;
- Providing public education to target audiences ranging from school-age children and homeowners to property managers and builders about the impacts of polluted runoff and practices to reduce those impacts;
- Coordinating Tacoma's SWMP activities regionally through watershed councils, Lead Entities, NPDES permittee committees and other groups;
- Permitting and inspecting new and redevelopment construction projects to ensure compliance with stormwater requirements including erosion control, maximizing onsite management, use of LID, stormwater treatment, flow control, wetlands protection and ongoing maintenance; and
- Providing staff training to ensure the City activities and operations minimize impacts to stormwater and receiving waters.

### Program Components Overview

The City's SWMP contains the eleven components outlined in the Permit Section S5 and an additional section to document the stormwater monitoring and assessment requirements of Permit Section S8. The SWMP components are summarized here:

**S5.C.1. Legal:** The City must have the legal authority to control discharges to and from the municipal storm sewers owned by the City. Chapter 12.08 of the Tacoma Municipal Code (TMC) provides this authority.

**S5.C.2. Mapping:** The City's stormwater system must be mapped. This work was started under the 1995 permit and is continuing. The City's TacomaMap (tMAP) will be updated with new mapping information as it becomes available.

**S5.C.3. Coordination:** A written internal coordination agreement is required to facilitate internal cooperation between various City departments and divisions. Coordination with adjacent municipal stormwater permittees is also required. The City coordinates our permit activities with adjacent municipal stormwater permittees and other surrounding municipalities that have interconnected systems or which discharge into or are adjacent to the same surface water bodies that Tacoma discharges into.

**S5.C.4. Public Involvement and Participation:** The City must have a process to provide opportunities for the public to be involved in the development and implementation of the SWMP. Permit submittal information will be posted on the City's website and opportunities for public input will be provided as appropriate.

**S5.C.5. Controlling Runoff from New Development, Redevelopment and Construction Sites:** 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 the Minimum Requirements.

**S5.C.6. Stormwater Planning:** The City shall have a program to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters.

**S5.C.7. Structural Stormwater Controls:** The City shall have a program to prevent or reduce impacts to waters of the state caused by stormwater discharges. The program is intended to address impacts that are not adequately controlled by the other required actions of the SWMP. For this permit cycle, a required level of effort must be demonstrated.

**S5.C.8. Source Control:** Inspections of pollutant generating sources are required for all sites that are potential pollutant sources, including most commercial and industrial properties. Sites owned by the City will also be inspected. The Permit requires compliance with the source control sections of the SWMM.

**S5.C.9. Illicit Connections and Discharges:** The City will maintain a program to detect, remove and prevent illicit connections and discharges, including spills into the City's separate storm sewer system. All staff who might observe an illicit discharge will be trained.

**S5.C.10. Operation and Maintenance:** Maintenance standards and inspection programs are required for public and private stormwater facilities. Best Management Practices (BMPs) are also required to be implemented for the maintenance activities on public lands and roadways to reduce stormwater impacts. The City participates in the Regional Road Maintenance Endangered Species Act (ESA) Program. Stormwater Pollution Prevention Plans (SWPPPs) have been developed for heavy equipment maintenance and storage yards and material storage facilities owned by the City.

**S5.C.11. Education and Outreach:** The City will engage in Education and Outreach Programs to build general awareness; effect behavior change and promote stewardship opportunities. Target audiences include the general public, including school-age children, businesses, engineers, contractors, developers, and land use planners. During this permit cycle, the City will more robustly consider the needs of overburdened communities.

**S8. Stormwater Monitoring and Assessment:** The City pays into a collective fund for the Stormwater Action Monitoring (SAM) Small Streams Status and Trends Monitoring. The City conducts a SWMP Effectiveness Study based on continuing stormwater discharge monitoring at seven outfalls in the Thea Foss Waterway.

### **S5.C.1 Legal**

*"The City must have the legal authority to control discharges to and from the municipal storm sewers owned by the City. Chapter 12.08 of the Tacoma Municipal Code (TMC) provides this authority".*

### **Summary of Program Component**

The City’s legal authority to control discharges to and from our municipal stormwater system is found in state law and the Tacoma Municipal Code (TMC). The state statutes provide the City legal authority to create, and then regulate and manage its municipal stormwater system.[1] The City also has legal authority to regulate and enforce the stormwater management-related requirements found in Chapters 12.08A and 12.08D of the TMC. The City has completed a code separation and clarification project to help make our utility code more user friendly. The past TMC 12.08 included regulations for stormwater, wastewater and industrial wastewater pretreatment in one section. The new code has been separated into four sections:

TMC 12.08A: General Administration

TMC 12.08B: Wastewater

TMC 12.08C: Industrial Pretreatment Program

TMC 12.08D: Stormwater Management Program

The code sections TMC 12.08A and 12.08D are the regulatory authority for the City’s Stormwater Program.

**Authority to Control Industrial Discharges, Prohibit Illicit Discharges, and Control Spills or Disposal of Materials other than Stormwater into the MS4 (Separate Stormwater System) (S5.C.1.b.i, ii, iii.)**

TMC 12.08A.100 Authorizes the City’s stormwater management staff to review land use and development permits and impose BMPs to manage stormwater impacts.

TMC12.08D.100 Authorizes the City to regulate all direct and indirect discharges to the MS4.

TMC12.08D.110 and 12.08D.180.E Prohibits illicit discharges to the MS4.

TMC 12.08D.110. Outlines allowable, conditional and prohibited discharges into the City’s municipal stormwater system

TMC 12.08D.120 Requires responsible parties to notify the City when a spill, release, or illicit discharge occurs that contributes, or is likely to contribute pollutants to the City’s MS4.

TMC 12.08D.150 Outlines the City’s Stormwater Program Requirements

TMC .12.08D.150.C Requires all property owners and businesses engaged in pollution generating activities, including industrial facilities to implement and maintain operational BMPs.

TMC 12.08D.150.C.4 Authorizes the City to enforce spill prevention requirements

TMC 12.08D.400.A Authorizes the City to pursue an enforcement response against any person who violates Chapter 12.08D of the TMC.



TMC 12.08D.400.D. Includes illicit connections and discharging stormwater contaminated with any of the substances prohibited under TMC 12.08D.110 as violations of the Tacoma Municipal Code

TMC 12.08D.420 Makes connection or maintenance of connections to the municipal stormwater system or any stormwater BMP/facility that is connected directly or indirectly to the municipal stormwater system without written authorization of the City a misdemeanor

**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 MS4.

RCW 35.67.310 Authorizes the City to allow persons outside the city limits to connect to and be served by the MS4. Authorizations for connections require compliance with Chapters 12.08A and 12.08D of the TMC stormwater-related requirements.

TMC 12.08A.110.B Authorizes the City to enter joint agreements with other cities, towns or water districts to connect to and be served by the MS4.

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

TMC 12.08D.020.B Places responsibility for compliance with stormwater codes on the responsible persons as defined in TMC 1.82.010

TMC 12.08D.100 Authorizes the City to regulate direct and indirect discharges to receiving waters and the MS4.

TMC12.08D.150 Authorizes the City to implement a comprehensive SWMP to control and regulate discharges to its MS4 and receiving waters.

TMC12.08D.150.F.2 Authorizes the City to conduct compliance inspections.

TMC .12.08D.300 Provides right-of-entry authority to the City.

TMC 12.08D Establishes enforcement procedures for Chapter 12.08D of the TMC.

TMC 12.08D.400.A Authorizes the City to enforce violations of Chapters 12.08A and 12.08D of the TMC.

TMC 12.08D.400.B Outlines monetary penalties for violations of Chapters 12.08A and 12.08D of the TMC.

TMC 12.08D.400.C Makes compliance to Chapter 12.08D mandatory

TMC 12.08D.400.D Outlines certain examples of violations of TMC 12.08D.

- TMC 12.08D.400.E Makes falsely making, completing or altering a written instruction required to be submitted pursuant to TMC 12.08D a gross misdemeanor
- TMC 12.08D.400.F Requires responsible persons to pay supplemental charges incurred by the City in response to violations
- TMC 12.08D.400.G Authorizes the Environmental Services Stormwater Compliance Policy
- TMC 12.08D.400.H Makes violation of TMC 12.08D or any permit, order, control mechanism or other written authorization or directive issued by the City a gross misdemeanor
- TMC 12.08D.400.I Outlines that enforcement actions beyond those outlined in TMC 12.08D may also be pursued by the City
- TMC 12.08D.410 Authorizes the City to suspend service or discharge to the municipal stormwater system and provides the guidelines for suspension of service
- TMC 12.08D.420 Makes connection or maintenance of connections to the municipal stormwater system or any stormwater BMP/facility that is connected directly or indirectly to the municipal stormwater system without written authorization of the City a misdemeanor

### S5.C.2 Mapping

*"The City's stormwater system must be mapped".*

#### Summary of Program Component

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

Mapping and documentation of the stormwater system is vital to managing the resources of the City. By identifying connections to the stormwater system and understanding their 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 mapping information in a variety of ways, including tracking sources of contamination, planning for future upgrades and modeling system capacity.

#### **Ongoing Mapping of Known Outfalls and Discharge Points, Receiving Waters Other than Groundwater, City-owned Structural Stormwater Treatment and Flow Control BMPs, Geographic Areas Served by the Municipal Separate Storm Sewer System (MS4) that do not Discharge to Surface Water, and Connection Points between the City's MS4 and Other Municipal Systems (S5.C.2.a.i,ii,iii,iv,vi.)**

The Environmental Programs Group and Asset Management Group of ES have an existing mapping and documentation program to meet this requirement.

### Mapping Public Assets

Known public assets are mapped, however, this work is ongoing. As new stormwater assets are installed, they are mapped. Many features are available to view on TacomaMap (tMAP) – the City’s public GIS viewer. Other features are available upon request. Existing flow control and treatment facilities owned or operated by the City are mapped. All known separate stormwater outfalls to marine and fresh waters are mapped. All discharge points as defined in the permit, are mapped. As the City maps new public treatment and flow control facilities, the inlets and outlets, including emergency overflows will be mapped.

A process exists to add new stormwater system features into our mapping system after they are constructed.

### Process for adding newly constructed public stormwater assets and geographic areas not discharging to surface water into the City’s mapping system:

- ES, Engineering Technician receive approved plans from either PDS, Site Development Group (for private work order permits) or from the City Project Manager (for City Capital Improvement Projects).
- The new assets, including pipes, underground facilities, above ground facilities, and geographic areas not discharging to surface water (facilities designed to infiltrate all stormwater runoff) are input into the City GIS system as “proposed” by the ES Engineering Technician.
- Before final acceptance of pipe assets, an ES/Operations and Maintenance crew receives notification to video inspect the pipe for acceptance. At this point, the ES Engineering Technician will re-label those proposed assets as “active.”
- Upon physical completion of construction of the project, the Construction Inspector will inform the ES Engineering Technician that the stormwater facilities are completed. The ES Engineering Technician will then re-label those proposed assets as “active.”
- It is ultimately the responsibility of the City Project Manager to ensure that the assets related to their project are correctly mapped in the City GIS systems.

### Mapping Geographic Areas Served by the City’s stormwater system that do not Discharge Stormwater to Surface Water

The scope of this requirement includes mapping areas that drain to public stormwater facilities designed to infiltrate all stormwater.

### Mapping Storm Sewer Interconnections between Municipalities

City staff collected GIS storm system data from Fife, Pierce County, Lakewood, University Place, Ruston, Fircrest and Federal Way. All known connection points between the City separate stormwater system and other municipalities have been generated from this data, and as

mapping and data collection continues or as new connections are made, the new information will be added to the City's mapping systems.

**Map Tributary Conveyances of all known Outfalls and Discharge Points with a 24-Inch or Greater Nominal Diameter or an Equivalent Cross-Sectional Area for Non-pipe Systems (S5.C.2.a.v.)**

The known outfalls and discharge points and connections are in the City's mapping system. Upstream tracing of each outfall and discharge point and determination of each associated contributing basin is complete. Land use is known, and conveyance pipe type, material and size are included in the City mapping system, when known.

**Map all Connections authorized or allowed to the MS4 (S5.C.2.a.vii.)**

The City has already mapped the majority of the known private storm systems connected to the stormwater system throughout Tacoma. Newly permitted and constructed private drainage system connections will continue to be added to the mapping system. Additionally, video camera investigations occasionally discover additional smaller private pipes connected directly into the storm lines. The previous permit cycle required assessment of the City's entire system and very few non-stormwater connections were identified. The City continues to investigate our system for non-stormwater connections and when found, the discovered connections are investigated to identify their source. Non-stormwater connections are redirected as appropriate and stormwater connections are mapped.

This work is continually updated as connections are added. PDS Inspectors sign off on all new storm connections through construction permits. For all projects involving connections to the stormwater system, a storm connection permit is required in order to ensure the connection is properly made and inspected. The City also has permitting requirements for wastewater connections; this ensures that wastewater services are connected to the wastewater mains and not the stormwater mains.

The process for adding newly constructed private drainage system connections into the City's mapping system includes:

- Upon final inspection of construction permits, the PDS Engineering Technician will record the private drainage system point of connection to the stormwater system and note it on the storm connection permit drawing. The storm connection permit drawing is saved in the City permitting system.
- ES Engineering Technician reviews the City permitting system and will then input the new private connection points into the mapping system as "storm private connection" and include the permit number in the point description to allow for the electronic site plans associated with that permit to be researched, if necessary.
- If the ES Inspector notes are insufficient and there is a need to field-verify the location of the private connection point, the ES Engineering Technician will assign the mapping crew to locate the connection.

The City's database of privately owned treatment and flow control facilities is being updated to assist with annual inspections of private facilities.

**Map All Known Existing Stormwater Connections with Greater than or Equal to 8-Inch Nominal Diameter (S5.C.2.a.viii.)**

The City has mapped all known existing connections greater than or equal to 8-inch nominal diameter.

**Collect size and material for all known MS4 outfalls during normal course of business (S5.C.2.b.i.)**

The City has size and material information for all known outfalls. If new or unknown outfalls are discovered, this information will be added to the City database. An electronic application to add mapping information has been developed for field staff to use when visiting outfalls.

**Complete mapping of all known connections from the MS4 to a privately owned stormwater system (S5.C.2.b.ii.)**

The City has typically included this information in our map. The data points will be reviewed, and if needed additional notes or attributes will be added to clarify these locations.

**Provide Ecology with Mapping Data for all Requirements of S5.C.2.a, and b. above (S5.C.2.d.)**

The City will provide fully described mapping standards similar to those described on Ecology's website and the currently available mapping information shall be provided to Ecology upon request.

**Provide Mapping Information to Federally Recognized Indian Tribes, Municipalities and Other Permittees (S5.C.2.e.)**

Most required stormwater mapping information is available to view on tacomaMap (tMap) – the City's public GIS data viewer. All other information is available upon request. Tribes, municipalities and other permittees currently have access to system information. If individual requests for information are made from one of these parties, the City will work with them to provide the needed information in an agreed upon format.

**S5.C.3. Coordination**

*"A written internal coordination agreement is required to facilitate internal cooperation between various City departments and divisions. Coordination with adjacent municipal stormwater permittees is also required".*

**Summary of Program Component**

Permit section S5.C.3 addresses coordination mechanisms among departments within the City as well as those mechanisms between the City and interconnected stormwater systems of neighboring jurisdictions covered by a municipal NPDES SW permit within a watershed.

The activities outlined in this section are critical to remove barriers, promote understanding of the NPDES SW Permit, and facilitate permit compliance within the departments of the City.

This section of the permit requires coordination between the City and jurisdictions covered by a municipal NPDES SW permit and/or connected to the City's municipal stormwater system specifically to address a coordinated approach to stormwater policies, programs and projects within a given watershed. At its best, coordination between jurisdictions should facilitate information sharing, eliminate duplicate efforts, and promote regional solutions to most efficiently use the City's valuable and limited resources to improve stormwater quality.

#### **Implement Executive Directive to Facilitate Permit Compliance (S5.C.3.a.)**

The City Manager and Tacoma Public Utilities Director issued a joint memorandum in the first quarter of 2020 to all City Department Directors informing them of the Permit and the need for all affected staff's cooperation and input. The internal coordination memorandum is included as Appendix B.

ES/Environmental Programs Group staff has compiled a list of department contacts and coordinates with them to identify SWMP areas needing participation, recordkeeping and staff training.

User Groups are coordinated to bring staff from the City who are responsible for similar program elements together for training and check-ins.

ES/Environmental Programs Group acts as the City's Stormwater Permit Coordinator and Administrator. Specific tasks for intra-governmental coordination include the following:

- Identifying which permit requirements apply to each specific department and work group;
- Integrating compliance activities into each department's programs and operations;
- Providing training and technical assistance if required;
- Recordkeeping, or technical assistance for recordkeeping, as required in the Permit; and
- Facilitating submittal of information for the Permit required Annual Report.
- Conducting check-ins with staff responsible for various portions of the Permit to ensure compliance continues.

These coordination efforts ensure ongoing Permit compliance and submittal of the NPDES Annual Report by March 31st each year.

#### **Implement Coordination Mechanisms with Other Permittees for Control of Pollutants between Interconnected MS4s and Stormwater Management Activities for Shared Waterbodies (S5.C.3.b.)**

This element of the permit has two specific coordination elements:

1. Coordination between the City and the physically interconnected surrounding municipal stormwater permittees (Pierce County, Lakewood, University Place, Fircrest, Federal

Way, and Fife) and secondary permittees (Port of Tacoma, Tacoma Community College and Metro Parks Tacoma) for the control of pollutants; and

2. Coordination of activities for shared water bodies among Phase I and II Permittees to avoid conflicting plans, policies and regulations.

City staff coordinates with surrounding and Secondary Permittees as appropriate when investigating concerns about the conveyance system; upgrading the stormwater system when it affects others, source tracing stormwater pollutants; and coordinating and communicating watershed issues. The City similarly coordinates with the Puyallup Tribe for stormwater related issues in areas adjacent to properties held in Tribal trust. Coordination between all of these entities has provided an effective network of contacts, productive relationships and more efficient stormwater management.

The SEPA process can also aid in coordination for specific development projects that may impact neighboring jurisdictions. Through SEPA, neighboring jurisdictions have the opportunity to review proposals and provide comments and input.

The City's 2021 Stormwater Management Manual SWMM went through the SEPA process to help to facilitate review by other jurisdictions. The City also provided training opportunities for the new SWMM that was open to other jurisdictions.

The City's Stormwater Management Manual (SWMM) requires that projects that discharge to a neighboring jurisdiction's stormwater system comply with the more stringent of the two jurisdiction's stormwater requirements.

City development review staff also coordinate with the Tacoma-Pierce County Health Department (TPCHD) regarding development in the South Tacoma Groundwater Protection District (STGPD) as codified in Chapter 13.01.090 of the TMC. All requests for infiltration of runoff from pollution-generating impervious surfaces are discussed and coordinated with TPCHD. The South Tacoma Groundwater Protection District Infiltration Policy outlines specific requirements for infiltration of pollution generating surfaces within the STGPD and procedures for staff coordination.

On a watershed level, the City currently participates in several regional coordination efforts. The City participates in the Phase I Permittees Group and assists with facilitation of the South Sound Phase II Coordinator's Group and participates in this and other regional Phase II Stormwater Groups. These groups hold regular meetings to discuss issues related to NPDES SW Permit implementation and share information on BMPs, Permit compliance and policies and programs. City staff also attend the Puyallup River Watershed Council, the Chambers Clover Watershed Council and WRIA 10/12 Lead Entity meetings. The City is also participating in the local integrating organizations for the Puyallup White River Puget Sound Action Area (including Puyallup/White WRIA 10) and South Puget Sound Action Area (including portions of Chambers/Clover WRIA 12) supporting the Puget Sound Partnership efforts.

The City participates in the regional stormwater monitoring work group, and Stormwater Action Monitoring (SAM) group.

Environmental Services Environmental Compliance Inspectors have a list of contacts in various jurisdictions, regulatory programs, and organizations including the railroads, neighboring cities, Pierce County, state and federal government, TPCHD, Metro Parks Tacoma, Tacoma Public Schools, Tacoma Police Department, Port of Tacoma, Puget Sound Clean Air Agency, and others. These individuals are informed of spills and complaints when they cross jurisdictional boundaries.

#### **S5.C.4. Public Involvement and Participation**

*"The City must have a process to provide opportunities for the public to be involved in the development and implementation of the SWMP".*

##### **Summary of Program Component**

Public involvement is useful for identifying areas where the City may: tailor its SWMP and other programs 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's Environmental Services Commission provides an ongoing source of public input on components of the SWMP. Other opportunities for public input on SWMP updates will be scheduled as appropriate.

##### **Permit Compliance Measures**

##### **Public Participation Opportunities for SWMP Development and Implementation (S5.C.4.a.)**

The City's SWMP Plan is updated and posted online annually, comments are accepted year-round. To increase public involvement of the SWMP Plan in 2023, Environmental Services is mailing out 40,000 postcards throughout the City to encourage review and comment on the SWMP Plan. ES is working on a condensed version of the SWMP Plan that will be sent out via mail to all utility customers in 2024. The abbreviated SWMP will provide a general overview of the NPDES Phase I Permit and the actions underway by the City of Tacoma to prioritize stormwater management and maintain Permit compliance. Readers will be encouraged to review this document as the comprehensive SWMP Plan. Increased input from the general public will help the City to focus program development and outreach efforts on areas that are of concern or interest to the community. To comment on the SWMP Plan, email:

[swnpdespermits@cityoftacoma.org](mailto:swnpdespermits@cityoftacoma.org)

Public involvement to implement the SWMP is also included in the education and outreach actions described in SWMP Section S5.C.11.

The City's Stormwater Management Manual was updated to be equivalent to the Washington State Dept. of Ecology's Stormwater Management Manual for Western Washington. The City is implementing all Ecology mandated changes and completed additional updates for clarity and to reflect updates in City policies and procedures. The updated 2021 SWMM replaced the 2016



version on July 1, 2021. [The SWMM Webbook](#) is now available as an online searchable version to aid in implementation.

The City's Environmental Services Commission meets regularly throughout the year and provides public input on a variety of issues affecting the Environmental Services Department's three utilities: stormwater, wastewater and solid waste, including implementation of the SWMP. Commissioners represent a cross-section of Tacoma's residential, business and regulatory communities.

The Environmental Services 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; and
- City policies directly related to utility functions.

#### **Make SWMP Plan and Annual Report Available on the City Website (S5.C.4.b.)**

NPDES permit submittals are currently posted on and continue to be updated at the Stormwater Management Program home page located on the City website: [cityoftacoma.org/stormwater](http://cityoftacoma.org/stormwater)

#### **S5.C.5. Controlling Runoff from New Development, Redevelopment, and Construction Sites**

*"The City shall include a program to prevent and control the impacts of runoff from new development, redevelopment, and construction activities. The program covers private and public development, including right-of-way improvements".*

#### **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 mixed-use developments, commercial, and industrial projects. Proposed land use actions are reviewed and conditioned as appropriate to achieve compliance with stormwater requirements. Construction projects are issued permits after appropriate review for compliance with the City of Tacoma Stormwater Management Manual. Permitted project sites are inspected for erosion and sediment control during construction and the installation of permanent stormwater management facilities.

During this permit cycle, the City updated its SWMM to be equivalent to Ecology's 2019 Stormwater Management Manual for Western Washington (SWMMWW). The updated SWMM went into effect on July 1, 2021, as required by the Permit.

### **Permit Compliance Measures**

The City addresses stormwater management from development, redevelopment, and construction of private and public development including roads through regulations contained in the TMC and the SWMM.

Planning and Development Services (PDS) and ES are the primary work groups responsible for implementing the stormwater development and redevelopment regulations. These groups provide permit submittal review and approval as well as inspection services for private development. Publicly funded Capital Improvement Projects (CIPs) developed and managed by City staff must also meet the applicable Minimum Requirements of the SWMM. CIP construction inspections are performed by Public Works Department inspectors (for street improvements), ES inspectors (for wastewater and stormwater systems), and the Tacoma Public Utilities inspectors (for drinking water services and transmission lines, and power transmission). Private Development construction inspections are conducted by PDS.

### **Adopt Stormwater and Erosion Control Standards Equivalent to Ecology's 2019 SWMM for Western Washington (\$5.C.5.a.i. to iii.)**

- The City submitted draft SWMM standards and ordinances to Ecology on July 1, 2020.
- Equivalent manual requirements, limitations and criteria of Ecology's 2019 SWMM were adopted by the City on July 1, 2021.

### **Legal Authority to Inspect and Enforce Maintenance Standards for Private Stormwater Facilities Approved by the City (\$5.C.5.b.v.)**

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.

TMC 12.08D.150.D requires compliance with the SWMM Minimum Requirements. MR # 9 requires an O&M Manual for permitted projects meeting specific thresholds.

TMC 12.08D.150.F.1 requires owners to inspect and maintain their facilities and provide records to the City and retain the Operations & Maintenance Manual for the facility.

TMC 12.08D.150.F.2 provides inspection authority.

TMC 12.08D.170 requires Owners of property that have private stormwater facilities to enter into a Covenant and Easement that is recorded to title with the Pierce County Auditor's Office

TMC 12.08D.300 provides right-of-entry authority in case of possible violations of TMC 12.08D or other reasonable basis.

### **Permitting, Plan Review, Inspection, and Enforcement of Standards Equivalent to Ecology's 2019 SWMM for Western Washington (\$5.C.5.b.vi.)**

#### **A) System to Review all Plan Submittals Meeting Thresholds**

The City's current program provides plan review for all projects involving land disturbing activities that meet the development thresholds specified in the Permit, which are also in the SWMM, including both private and public project sites.

**B) Inspection prior to clearing and construction for Sites having High Sediment Transport Potential**

Pre-clearing inspections of private development sites are accomplished by the Planning and Development Services Site Development Inspectors and Plan Reviewers to meet the erosion and sediment control standards outlined in the SWMM. ES, TPU and Public Works Project Engineers or Inspectors complete the site inspections for the public project sites. The City complies with this section by inspecting all sites meeting the required thresholds prior to the start of construction.

**C) Inspect all permitted development sites that meet development thresholds during construction to verify proper installation and maintenance of temporary erosion and sediment control BMPs**

Inspections for installation and on-going maintenance of erosion and sediment control measures are currently completed by Planning and Development Services (PDS), Public Works Department, Engineering, ES Capital Delivery Group and Tacoma Public Utilities Inspectors. Appropriate enforcement actions are taken, when required, in accordance with the Environmental Services Stormwater Compliance Policy and appropriate sections of the TMC.

**D) Inspect all permanent stormwater treatment and flow control BMPs/facilities and catch basins every six months in new residential developments**

The City has a program to ensure that new residential developments receive inspections every 6 months until 90% of the lots are constructed or until the site is fully stabilized. Inspections are completed by the Site Development Group for projects that have open Permits.

**E) Post-Construction Inspection for Permanent Stormwater Facilities**

Operation and Maintenance (O&M) Manuals are required to be reviewed and approved for compliance with the requirements of the SWMM prior to permit approval for all sites that have facilities and meet the thresholds of the SWMM. For private facilities, a copy of the O&M Manual is required to be kept onsite, and a copy is kept on file by PDS Site Development Group for use during stormwater source control inspections. Responsibility for private facility maintenance falls to the property owner.

Facilities that will be part of the stormwater system are typically the responsibility of the City. Maintenance procedures for all public flow control and treatment facilities are contained in the Stormwater Detention and Treatment Facilities Operation and Maintenance Manual and are stored electronically.

**F) Compliance with Inspection Requirements**

The City has an established program to inspect all sites involving land disturbing activities. The Permit required program goal is to achieve a minimum of 80 percent of scheduled inspections annually.

**G) Recordkeeping Procedures in Place**

The City currently has several databases to track all S5.C.5 required inspections and enforcement actions.

**H) Enforcement Strategy for Non-Compliance Response**

City inspectors have the ability to enforce compliance of S5.C.5 requirements through authorities in the TMC. Building and Site Inspectors, Code Compliance Inspectors, and Environmental Compliance Inspectors have enforcement procedures for non-compliance with permitting conditions per TMC 2.02.130 and Chapter 12.08A and 12.08D of the TMC. Environmental Compliance Inspectors implement the Environmental Services Stormwater Compliance Policy. The inspectors focus on owner education, coaching and voluntary compliance. Enforcement measures include stop work orders, Notices of Violation, fines, and Certificates of Complaint attached to the title of the property. Environmental Compliance Inspectors and Public Works Department Inspectors may refer cases to Neighborhood and Community Services Code Compliance to pursue further enforcement actions.

City capital construction projects are required to comply with construction contracts that enforce local, state and federal regulations including all Permit requirements.

Inspectors can also refer specific cases to Ecology for follow-up and enforcement when cases directly impact waters of the state.

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

The Permit requires the City to provide permit applicants for new and redevelopment sites with information describing Ecology's NPDES Construction General Permit and NPDES Industrial Stormwater General Permit, if applicable to their projects. Information on these permits is provided, as applicable, to applicants at various times throughout the project review including pre-application meetings and permit submittal review. The City website, [tacomapermits.org](http://tacomapermits.org), provides links to Ecology's website where information about obtaining coverage under the NPDES Construction General Permit and NPDES Industrial General Stormwater Permit are posted. The City's electronic permitting system includes prompts referring applicants to Ecology's website when certain permit triggers are met.

The City enforces local requirements that control runoff from sites that discharge stormwater to the City's stormwater system including those sites covered by other stormwater permits issued by Ecology.

### **Training for Development Permitting, Plan Review, Construction Inspection and Enforcement Personnel (S5.C.5.b.viii.)**

ES, PW and PDS staff provide training to plan review, inspection, and enforcement personnel in the City concerning erosion and sediment control measures and private drainage system operation and maintenance. Relevant training opportunities have been developed for plan review, inspection and enforcement personnel. Records of certain trainings are recorded in SAP, the City's Information Management System database. Other trainings are tracked through training sign-in sheets that are kept on file. Staff training also occurs through review of daily work activities and feedback from those reviews.

### **S5.C.6 Stormwater Planning**

*"The City shall have a program to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters".*

### **Summary of Program Component and Permit Compliance Measures**

The permit requires the City to implement a Stormwater Planning Program to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters.

Tacoma's Environmental Services Department has recognized the need to partner with our community members to develop a watershed-based approach to meet the diverse needs of our neighborhoods and inform a variety of stormwater management actions identified in the SWMP. Now through the end of 2023, Tacoma's Environmental Services Department will be creating a Watershed Management Plan to help us identify and implement the most effective stormwater actions to protect our waterways, improve our neighborhoods, and provide healthy green spaces where they are needed most in Tacoma.

The City of Tacoma was awarded grant funding from the Department of Ecology to develop a watershed data mapping tool to assess watershed needs at the neighborhood level and identify and prioritize areas in the City that are most in need of targeted stormwater management actions. The mapping tool will adapt an existing pollutant heat map with the addition of modeling capabilities that assess BMP performance, track potential retrofit locations, identify cost-effective strategies and integrate water quality decisions with community-based needs.

During 2021, the watershed planning team completed the development roadmap for a Watershed Prioritization Tool to help identify and rank the best stormwater actions for a given watershed area based on Tacoma specific pollutant loading and receiving water conditions and neighborhood needs. In the fall of 2021, the City completed the first phase of community

engagement to learn from community members which stormwater actions are most important in their neighborhoods to inform the Prioritization Tool ranking and decision matrix. Additional community engagement opportunities coming up in 2022 and 2023 will inform the development of the watershed priority actions list.

#### **Coordination with long-range plan updates (S6.C.6.b.i.(a), (b))**

Comprehensive Plans and other locally initiated or state mandated long-range land use plans that are used to accommodate growth or transportation shall be reviewed as required by the Permit. For these type of planning documents that are initiated or in process after August 1, 2019, the Environmental Programs Group will review and be involved throughout the development of the plans to ensure that, if appropriate, stormwater considerations are included in the plans. Environmental Programs Group is coordinating with departments throughout the City to ensure input is provided as appropriate. This coordination occurs through the IDT, small groups within the IDT, individual project managers and attending project and program meetings where these efforts are discussed.

#### **Low impact development code-related requirements (S6.C.6.c)**

All development codes and related regulatory requirements will be reviewed and evaluated to comply with this section. New development codes and regulatory requirements that are initiated during the current Permit term will be reviewed during development to ensure that no new barriers to low impact development are created or that the barriers are addressed to ensure that the Permit intent of making low impact development the preferred and commonly used approach to site development within Tacoma.

#### **S5.C.7. Structural Stormwater Controls**

*"The City shall have a program to prevent or reduce impacts to waters of the state caused by stormwater discharges".*

#### **Summary of Program Component and Permit Compliance Measures**

The Permit requires the City to implement a Structure Stormwater Control (SSC) Program to prevent or reduce impacts to waters of the State caused by discharges from the stormwater system. The Program is intended to consider impacts caused by stormwater discharges from areas of existing development and areas of new development where impacts are anticipated to occur.

The program shall address impacts that are not adequately controlled by the other required actions of the SWMP. The required metric for permit compliance is to obtain 300 SSC Program Points by December 31, 2022. The City of Tacoma has completed and achieved the required 300 SSC Program Points by using a variety of allowed project types including street sweeping,

line cleaning, restoration of forest cover, and design phase work associated with new runoff treatment and flow control facilities.

The Environmental Programs Group will continue to coordinate with other City departments and groups including Public Works, Asset Management, Watershed Planning, Open Space and ES Capital Delivery to help prioritize projects that will be utilized for the SSC Program. The City will ensure projects types in S5.C.a.i are considered for use in the program and will also use project types in S5.C.a.ii to achieve the required SSC Program Points.

As required by the Permit, the City will provide a list of planned, individual projects scheduled for implementation during the Permit term with each Annual Report.

#### **S5.C.8. Source Control Program for Existing Development**

*"The source control program includes inspection of pollutant generating sources at commercial, industrial and any properties suspected of being potential pollutant generating sources based on field observations or complaints".*

#### **Summary of Program Component**

The Source Control Program (SCP) includes the following elements outlined in Permit Section S5.C.8.a.

#### **Implementation of Operational and Structural Source Control BMPs and Treatment BMPs on Existing Sites (S5.C.8.a.i.)**

ES/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 SCP references the SWMM for operational BMP standards. The SCP includes inspection, education and enforcement procedures. During the development permitting approval process, the SDG reviews site activities and ensures that appropriate controls will be installed and utilized on new development and redevelopment sites.

The SWMM, Volume 6 provides source control BMP guidance for all new and existing businesses, commercial sites, and government agencies within Tacoma.

#### **Inspection of Pollutant Generating Sources (S5.C.8.a.ii.)**

The source control program includes inspection of pollutant generating sources at commercial, industrial and any other properties suspected of being potential pollutant generating sources based on field observations or complaints. Environmental Compliance Inspectors enforce the implementation of required BMPs to control pollution from 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.

**Application and Enforcement of Local Ordinances at Sites Including Sites that are covered by Other NPDES Permits Issued by Ecology (S5.C.8.a.iii.)**

Chapter 12.08A and D of the TMC outlines stormwater management regulations and provides a mechanism to take enforcement actions for any code violations. Enforcement actions are based on a process outlined in the City's Stormwater Compliance Policy. Environmental Compliance Inspectors respond to all spills and complaints including sites covered by Ecology's stormwater permits. The City has the authority to apply local ordinances to sites covered by Ecology's NPDES Construction General Permit and NPDES Industrial Stormwater General Permit through TMC 12.08D.110, which states that Chapter 12.08D applies to all direct and indirect users of the municipal stormwater system and all discharges into receiving waters within the city.

In cases where Ecology has direct authority, such as at NPDES-permitted industrial facilities, certain underground injection control (infiltration) systems, or sites requiring a waste discharge permit, the City consults with Ecology to determine the most effective level of enforcement.

**Practices to Reduce Pollutants Associated with Pesticides, Herbicides and Fertilizers (S5.C.8.a.iv.)**

Education about reduction of pesticide, herbicide and fertilizer use is provided by City Environmental Compliance Inspectors, EnviroChallenger outreach, at the City's EnviroHouse green building demonstration site, and through communication tools such as the EnviroTalk newsletter and utility bill inserts (see Section S5.C.11 Education and Outreach Program). The City ensures that all City staff responsible for the use of pesticides, herbicides and fertilizers are adequately trained and licensed as appropriate.

**Enforce Ordinances Requiring Source Control BMPs for Existing Land Uses and Activities (S5.C.8.b.i.)**

The City's ordinances and enforcement documents are adequate to enforce the permit requirements. No changes were needed to meet the August 1, 2021, deadline.

The City has an established Source Control Program implemented by ES/Environmental Compliance Section to meet this requirement. Business owners and operators are informed of operational source control BMPs during regular business inspections and responses to spill complaints. The City provides informational source control materials as necessary and will follow with appropriate enforcement per the City's Stormwater Compliance Policy. Additionally, all City-owned facilities and properties that have been identified as potential pollutant generating sites are being comprehensively inspected and if necessary, appropriate enforcement per the City's Stormwater Compliance Policy is undertaken to address deficiencies



in stormwater and wastewater BMPs. This effort is ongoing and will require continued coordination among City departments.

#### **Maintain an Inventory of Potential Pollutant Generating Sites (S5.C.8.b.ii.)**

As of 2022, the inventory list of potential stormwater pollutant generating sites is 1,650 potential stormwater pollutant generating sites. City Inspectors regularly review new businesses to verify if they should be added to the list. Additionally, Tacoma's annual business license renewal forms and tax and license applications are reviewed to identify potential pollutant generating sites.

Potential pollutant generating sites include:

- Commercial, industrial and governmental sites with specific business practices that may impact stormwater quality;
- Mobile or home-based businesses with specific business practices that may impact stormwater quality; and
- Any site or facility identified through field observations or complaints as a potential pollutant generating source.

In addition to the planned source control inspections, all pollution complaint responses (inspections, spill response, complaints, sanitary sewer overflows) are investigated promptly, coordinating with other agencies as appropriate. These complaints are documented in the Environmental Compliance Section database. The database information is reviewed prior to conducting an inspection. ES/Environmental Compliance Section staff also review all new and renewed home occupational business licenses. ES/Environmental Compliance Section Inspectors survey their entire assigned areas on a regular basis to identify new potential pollutant generating sources or unusual activity that might require a source control response.

#### **Inspect Businesses for Compliance with Source Control Requirements (S5.C.8.b.iii.)**

The ES/Environmental Compliance Section provides information on BMPs and program literature directly to businesses during site visits. Environmental Compliance Inspectors educate the general public and businesses on BMPs and City environmental programs. Direct mailings may be used to target specific business practices.

Investigation and enforcement occur in response to all credible water quality complaints. ES/Environmental Compliance Section has adopted an inspection strategy that prioritizes sites with higher potential for sources of stormwater pollution. The inspectors inspect a minimum of 20 percent of the required sites annually (including follow-up compliance inspections) to ensure BMP effectiveness and compliance with source control requirements.

The ES/Environmental Compliance Section uses a custom database for tracking spills, complaints, business inspections and flooding claims. Regular updates and refinements have been made to facilitate data management for tracking inspections.

#### **Implement Progressive Enforcement Policy and Documentation (S5.C.8.b.iv.)**

Chapter 12.08D of the Tacoma Municipal Code (TMC) outlines stormwater management regulations and provides a mechanism to take enforcement actions for any code violations. Enforcement actions are based on a process outlined in the City's Stormwater Compliance Policy that was updated in 2022. Enforcement procedures may include field inspection reports, phone calls, letters, follow-up inspections, warning letters, Notices of Violation, and civil penalties.

The Environmental Compliance Inspectors contact Ecology as standard operating procedure for all source control violations that present a threat to human health or the environment. In addition, ES/Environmental Compliance Section requests assistance from Ecology with non-responsive enforcement cases to facilitate prompt compliance. The Environmental Compliance Section may also refer violations in the South Tacoma Groundwater Protection District to the Tacoma Pierce County Health Department (TPCHD) for follow up or work cooperatively with TPCHD for resolutions as appropriate.

The City documents all inspection and enforcement activities in the ES/Environmental Compliance Section inspection database and business inspection files.

#### **Training Program for Source Control Staff (\$5.C.8.b.v.)**

ES/Environmental Compliance Section has developed a training program for all of their inspectors that includes regularly scheduled follow-up training. The training will facilitate uniform enforcement of the applicable source control requirements listed in Chapter 12.08D of the TMC and the SWMM. Training topics include legal authority, proper use and application of source control BMPs, lessons learned and typical cases, inspection procedures and the enforcement process. The training program will be documented through training sign in sheets.

#### **55.C.9. Illicit Connection and Illicit Discharge Detection and Elimination (IDDE)**

*"The City will maintain a program to detect, remove and prevent illicit connections and illicit discharges, including spills into the City's separate storm sewer system. All staff who might observe an illicit discharge will be trained."*

#### **Summary of Program Component**

ES operates a robust Illicit Connection and Discharge Detection and Elimination (IDDE) program through field screening, stormwater monitoring, source control inspections, spill and complaint response, and construction inspections. This program also addresses prohibited discharges and associated source control BMPs for non-stormwater discharges as outlined in the Permit.

#### **Include procedures for reporting and correcting or removing illicit connections, spills, and other illicit discharges (\$5.C.9.a.)**

The City has a database to report and track illicit connections, spills and other illicit discharges. The database ensures that reports are adequately investigated, and illicit connections are

removed as appropriate. The database has been updated to comply with the 2019 Permit and include all information required in Appendix 14 of the Permit.

### **Continue to implement enforcement ordinances and regulations to prohibit IDDE (S5.C.9.b.)**

Chapter 12.08D of the TMC provides enforcement authority to prevent illicit connections and illicit discharges to City stormwater system and sanitary sewers. See Section S5.C.1 of this document for specific code citations.

### **Program for detecting and identifying illicit connections and non-stormwater discharges to the MS4 (S5.C.9.c.i, ii, iii.)**

The City IDDE Field Screening Program consists of several components:

- Video inspection, of the storm sewer pipes;
- Smoke-testing and/or dye testing of the sanitary and stormwater systems; and
- Base flow sampling.

The city uses video inspection of the stormwater conveyance system. This program is used to assess pipe condition and to identify illegal connections to the stormwater system. Suspect connections identified as a part of this program are further investigated by smoke and/or dye testing and removed as appropriate.

The City also has an ongoing Sanitary Inflow and Infiltration Program. Under this program, field crews investigate sanitary connections by smoke testing the sanitary sewer. If properties appear not to be connected to the sanitary system, the stormwater system is then smoke tested to determine if there is an illicit connection from the sanitary side sewer to the stormwater system. If smoke testing cannot confirm a connection to the sanitary or storm systems, field crews then conduct dye testing to verify connections. All misdirected connections are required to be remedied.

Both the video inspection and the smoke-testing field screening data are collected and stored on the City's GIS system.

The City also conducts base flow sampling at selected outfalls to aid in identifying illicit connections and discharges in the stormwater system.

The permit requires 12 percent on average of the stormwater system to be screened each calendar year.

The City's existing IDDE program follows standard procedures based on the guidance document: Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual prepared by Herrera Environmental Consultants, (IC-ID Manual). The City began following the guidelines and procedures of the updated IC-ID manual upon its release on May 7, 2020 ([wastormwatercenter.org/illicit-connection-illicit-discharge/](http://wastormwatercenter.org/illicit-connection-illicit-discharge/)).

### **Maintain Publicly Listed Water Quality Complaint Hotline**

In 2018, the City began using its own TacomaFIRST 311 as our water quality complaint line for spills and illicit discharges. TacomaFIRST 311 is used as a platform for anyone within the City to call. Residents can call 311 within the City or (253) 591-5000 from anywhere else.

TacomaFIRST 311 is included in directories throughout the City, on watershed signs along major arterials, and on 311 and stormwater promotional materials. TacomaFirst 311 can be accessed via telephone call, electronically on the City's website at [www.cityoftacoma.org/stormwater](http://www.cityoftacoma.org/stormwater), [www.cityoftacoma.org/tacomafirst311](http://www.cityoftacoma.org/tacomafirst311), and is available as an application for mobile devices. The City began the transition from TacomaFirst 311 to SECLICKFIX in 2022. While this transition is underway, TacomaFirst 311 will be the primary platform available to residents.

### **Training Program for City wide Staff to Identify and Report Illicit Discharges and Connections**

All City staff are provided Illicit Discharge Awareness (IDA) training on how to identify and report illicit discharges. This training is now part of the City's onboarding process for all new hires. In 2021, the City updated its IDA training with a new online LinkedIn Learning video module. This new training was distributed to all staff in August 2021. All City staff are required to take the IDA training module on a biannual cycle.

Additional reminders such as key chain tags listing an internal-use only phone number for City staff to report illicit discharges have also been distributed. The new LinkedIn Learning training is documented in SAP, the City's Information Management System database, and the City will identify needs for follow-up training.

### **Response to Illicit Connections and Illicit Discharges including Spills (S5.C.9.d.)**

The Permit requires the City to implement an ongoing program designed to address illicit discharges, including spills and illicit connections, into the Permittees stormwater system. The program shall include procedures for characterizing, tracing and eliminating illicit discharges.

The ES Field Support Services Group and Environmental Compliance Inspection Programs work together to promote investigation and termination of illicit connections per the timelines listed above. The ES/Environmental Compliance Section spills and complaints database is used to track the complete process of screening, investigation, referral to responsible agencies (if other than the City), and enforcement. ES Field Support Services coordinates responses to terminate illicit connections. Several City departments such as Neighborhood and Community Services Code Compliance Office; ES/Science and Engineering Division; Street Operations; ES/Operations and Maintenance Division; Tacoma Water; and other agencies such as TPCD and Ecology may be involved in both the investigation and termination of illicit connections.

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 may refer the case to Ecology to follow-up. If a business does not respond after ES/Environmental Compliance Section staff makes a good faith and documented effort of progressive enforcement to terminate a violation, the City may partner with Ecology for enforcement.

### **Training Program for IDDE Staff (S5.C.9.e.)**

Annual training is provided to field staff responsible for identification, investigation, termination, cleanup and reporting of illicit discharges including: documentation and reporting process once illicit discharges are found; environmental sampling for enforcement; and BMP training. Records of training are kept via sign in sheets.

#### **Develop and Implement Procedures to Investigate and Respond to Spills or Improper Disposal into the MS4 (S5.C.9.f.)**

Potential illicit discharges are discovered and investigated by ES Environmental Compliance. ES staff investigate, document, and take corrective actions to resolve illicit discharges found through reported complaints, firsthand field observations, business inspections and stormwater monitoring information. Tacoma Public Utilities, Environmental Compliance has an active spill response program to respond to and clean up larger spills at facilities owned and operated by Tacoma Public Utilities. TPU reports all spills to ES Environmental Compliance who then log the report into the database for tracking. When appropriate ES Environmental Compliance will provide onsite assistance for all spills. ES Environmental Compliance notifies Ecology and other required agencies of all spills as required by the Permit.

ES/Environmental Compliance staffs a 24-hour on-call Source Control Representative to respond to emergency spills and complaints. The direct call line for City staff has been included in City training for staff if they come into contact with an illicit discharge. Environmental Compliance responds to spill complaints to ensure appropriate actions are taken to mitigate damage, document events, and complete any necessary reporting. The Source Control Representative also responds to water pollution reports from the public water pollution hotline (TacomaFIRST 311).

The City has existing procedures for responding to spills and improper disposal to the storm system. Some departments also participate in regional emergency response programs.

In the course of regular duties, various City staff may encounter illicit discharges or spills that are from unknown sources. City staff may also accidentally cause spills. All Permit required spills reporting is managed by ES Environmental Compliance. City staff have been trained to contact ES Environmental compliance using various communication tools. ES Environmental Compliance will investigate, responded to and report spills and illicit discharges to Ecology and other required agencies as required by the Permit.

When a major spill occurs, Ecology or other agencies may assist or manage the spill response. Tacoma will provide assistance to these agencies as requested.

#### **IDDE Inspection, Response and Enforcement Record Keeping (S5.C.9.g.)**

The ES/Environmental Compliance Section staff uses a database (ES/Environmental Compliance Section spills and complaints database) to track IDDE, spill complaints, and source control inspection activities. The database has been updated to meet the requirements stated in Appendix 14.

The City IDDE program uses the City's asset management mapping system 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 ES/Environmental Compliance Section spills and complaints database.

#### **IDDE Inspection, Response and Enforcement Record Keeping (S5.C.9.g.)**

The ES/Environmental Compliance staff uses a database (ES/Environmental Compliance spills and complaints database) to track IDDE, spill complaints, and source control inspection activities. The database has been updated to meet the requirements stated in Appendix 14.

The referral information and final enforcement outcome for each potential illicit discharge or connection is tracked in the ES/Environmental Compliance Section spills and complaints database.

#### **S5.C.10. Maintenance and Operations Program**

*"Maintenance standards and inspection programs are required for public and private stormwater facilities. Best Management Practices (BMPs) are required to be implemented for the maintenance activities on public lands and roadways to reduce stormwater impacts".*

##### **Summary of Program Component**

This section of the SWMP contains requirements to regulate and conduct public and private operation and maintenance activities to prevent and reduce stormwater impacts.

Each City division is responsible for performing those tasks discussed under the compliance measures below that are applicable and necessary for Permit compliance. These include:

- Implementing and enforcing maintenance standards for stormwater facilities;
- Ensuring proper and timely maintenance of public and private stormwater facilities, including catch basins;
- Establishing Best Management Practices (BMPs) for reducing stormwater impacts associated with runoff from City property, parking lots, streets and highways owned or operated by the City;
- Implementing a training program for employees who have primary construction, operations, or maintenance job functions that may impact stormwater quality;
- Establishing BMPs for reducing stormwater impacts from heavy equipment maintenance or storage yards and material storage facilities owned or operated by the City; and
- Maintaining records of these activities.

##### **Adopting Maintenance Standards Equivalent to the 2019 Ecology Manual (S5.C.10.a.)**

The City maintenance standards are contained in the 2021 City of Tacoma SWMM. The City Stormwater Detention and Treatment Facilities Operation and Maintenance Manual describes maintenance activities for public facilities and references the City standards.

When maintenance is required according to the standards, the City will schedule typical maintenance to be performed within one year for all treatment and flow control facilities; within six months for all catch basins; and within two years for maintenance requiring capital construction of less than \$25,000.

### **Adopt Maintenance Standards Equivalent to Ecology's 2019 SWMM for Western Washington**

TMC 12.08D.150.D references the SWMM Minimum Requirements and MR #9 contains the requirement for an operation and maintenance manual including maintenance standards for proposed stormwater facilities as described in the SWMM which are equivalent to Ecology's 2019 SWMM for Western Washington standards. Chapter 12.08D of the TMC also provides City personnel authority to enter 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 manual to the City as part of the permit approval process to ensure 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.

### **Maintenance of Private Stormwater Facilities Regulated by the City (S5.C.10.b.)**

#### Inspect Private Treatment and Flow Control Best Management Practices (BMPs)/Facilities

The City requires applicants installing private stormwater facilities to enter into a Covenant and Easement agreement. The Covenant and Easement agreement between the property owner and the City is recorded to the title of the associated property prior to final permit approval. The agreement affirms a commitment on the part of the property owner to perform inspection and maintenance of the private drainage system and allow City staff access to the facilities for confirmatory inspections.

The City has an established inspection program for private storm drainage facilities. The ES/Environmental Compliance Section Inspectors provide education and training to owners of private stormwater facilities on operations and maintenance needs for their treatment and flow control facilities. Inspection and enforcement records are tracked in the ES/Environmental Compliance Section spills and complaints database. The City will provide inspection of each identified private treatment and flow control device regulated by the City. The City has analyzed the data from annual facility inspections over 6 years. Based on that analysis, a two-year inspection frequency is appropriate for the majority of private facilities. This analysis and frequency determination is allowed per Permit section S5.C.10.b.ii.

#### Inspection Program Shall Achieve Inspection of 80 Percent of all Sites Requiring Inspection

The City has an established inspection program designed to inspect and require maintenance of private stormwater facilities regulated by the City. The City tracks inspections in a database. The City will meet the inspection requirements described above in Section S5.C.10.b.ii., by achieving inspection of 80 percent of all known facilities requiring inspection on a yearly basis.

### Catch Basin Cleaning Required where Identified by Inspection

The City has an established inspection program with the authority to inspect and require maintenance of private stormwater facilities, including catch basins, regulated by the City. TMC 12.08A.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 required maintenance standards for cleaning private catch basins. The Maintenance Standards identify conditions requiring catch basin maintenance including sediment depth, vegetation and debris accumulation, structural integrity, and 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.10.c.)**

#### Inspection Schedule Established for Public Stormwater Facilities Owned or Operated by the City

ES has a program to annually inspect all City owned or operated stormwater treatment and flow control facilities and to provide necessary maintenance of these facilities. The inspection program's goal is to achieve at least 95 percent of required inspections. The list of City-owned facilities and associated maintenance procedures are documented in the SWMM, the City Stormwater Detention and Treatment Facilities Operation and Maintenance Manual and in the Environmental Compliance database. The Stormwater Detention and Treatment Facilities Operation and Maintenance Manual is updated periodically.

#### Perform Spot Checks of Treatment and Flow Control Facilities after Major Storm Events

ES implements a flooding emergency response plan to inspect certain public stormwater facilities and potential flooding locations during major storm events, also called a "code red" event. The plan identifies potential flooding areas and assigns ES personnel to designated drainage basins within the City. These personnel are responsible for inspecting the public storm system and calling the ES/Operations and Maintenance Division to perform emergency maintenance if necessary to alleviate flooding. The flooding emergency response plan includes additional spot check inspections of potentially damaged treatment or flow control facilities during a "code red" flood response, which is triggered by a major storm event for Tacoma's storm system. The flooding emergency response plan also documents the process for communicating inspection results to the ES/Operations and Maintenance Division or ES/Science and Engineering Division for follow-up with recommended maintenance or repair activities. The plan is updated as necessary.

For the purpose of this section, a major storm event is defined as the 24-hour storm with a 10-year or greater recurrence interval. After the event occurs, additional spot checks of potentially damaged facilities will be conducted. If spot checks show widespread damage or maintenance needs, additional stormwater treatment and flow control facilities that may have been affected will also be inspected.

### **Maintenance of Catch Basins Owned or Operated by the City (S5.C.10.d.)**



The ES/Operations and Maintenance Division inspects and maintains catch basins and inlets that are part of the public stormwater system annually per Permit section S5.C.10.d.i.. A dedicated catch basin cleaning crew is assigned to inspect all catch basins and inlets owned or operated by the City each year. Catch basin and inlet inspections can be easily entered by City staff using the City's asset management system. The asset management system then schedules any follow up cleaning or other maintenance if needed per the inspection.

Other City owned or operated catch basins, typically those on parcels, not within road right of way, will be inspected by the City department responsible for the site. Inspection results will be transmitted to Environmental Services for entry into the catch basin inspection and cleaning tracking program.

If the inspected basins are at least 60 percent full of sediment or when debris is within six inches of the bottom of the outlet pipe, cleaning will be scheduled within six months.

Individual maintenance plans for more frequent inspection and cleaning have been developed for some catchments with especially heavy loads of sediment, prone to plugging by leaves or other debris or individual problem catch basins and inlets. These maintenance plans are contained within the City's SAP system and include specific guidelines for the type of maintenance and frequency needed and are developed as a result of observations during regular maintenance visits by staff.

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 Permit, Appendix 6.

### **Reduce Stormwater Impacts from Lands Owned and Maintained by the City and Road Maintenance Activities (S5.C.10.e.)**

#### Practices, Policies and Procedures

City crews performing street, utility, and grounds maintenance activities follow procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the City and road maintenance activities under the functional control of the City. These include implementing operational and structural best management practices (BMPs). BMPs are documented in Tacoma's Stormwater Management Manual Volume 3 Construction Site Stormwater Best Management Practices and Volume 6 Source Control Best Management Practices, Regional Road Maintenance Program ESA Guidelines for BMPs, and the City of Tacoma Utility Employee Stormwater Quality Best Management Practices Manual. The activities covered under this Permit section includes maintenance of parking lots, streets, roads, highways, buildings, parks, open space, road right-of-way, maintenance yards, and stormwater treatment and flow control BMPs/facilities. that are owned or operated by the City, as well as for the maintenance activities listed in the Permit Section S5.C.10.e including pipe cleaning; cleaning of culverts that convey stormwater in ditch systems; ditch maintenance; street cleaning; road repair and resurfacing; snow and ice control; utility installation; maintaining roadside areas, including vegetation management; dust control; pavement striping maintenance; application of fertilizers, pesticides and herbicides, including reducing nutrients

and pesticides using alternatives that minimize environmental impacts; sediment and erosion control; landscape maintenance and vegetation disposal; trash and pet waste management, and building exterior cleaning and maintenance.

Supervisors are verifying that staff utilize proper practices.

The Public Works Department, Street Operations and Tacoma Public Utilities - Grounds Maintenance Section collaborated with the Tacoma Public Schools and Metro Parks Tacoma to write the 2011 Management Guidelines for Public Landscapes Including Integrated Pest Management. This document outlines strategies and methods for pest control used by the guideline partners.

The City typically sponsors two to three Ecology Washington Conservation Corps (WCC) crews. These crews maintain and restore the City's open space areas, mitigation and habitat restoration projects near shorelines, streams and wetlands. All WCC crews are trained in proper operations to ensure their work does not create impacts to the stormwater system or receiving water bodies.

#### Additional Practices

The City's street sweeping program removes sediment and associated contaminants from the street surfaces before they enter the stormwater system. The street sweeping program is one of the BMPs the City uses to reduce stormwater impacts from roadways. The program provides street sweeping services on a scheduled rotation for major arterials, 12 business districts, and residential areas. Street sweeping services are also provided as needed in response to emergency calls, special events, and customer requests. More information is available on the City website at [cityoftacoma.org/street\\_sweeping](http://cityoftacoma.org/street_sweeping).

The ES/Operations and Maintenance Division provides storm pipe cleaning services throughout the City prioritized based on pipe inspections, receiving water, spill response or other source control observations in the stormwater collection system. The allocation of maintenance resources within the stormwater utility is prioritized by the asset management program, which includes impacts to receiving waters as key criteria. Special pipe cleaning projects are prioritized in specific subbasins each year.

#### **Ongoing Training Program for Employees with Primary Construction, Operations or Maintenance Job Functions (S5.C.10.f.)**

ES/Environmental Programs Group coordinates a training program for City staff with primary construction, operations, and maintenance job functions that may impact stormwater quality. The training includes discussions of BMPs, policies and procedures for the maintenance activities listed in the Permit Section S5.C.10.e (outlined above). The City developed a module-based training program that specifies appropriate BMPs based upon the activities being conducted. These modules are presented at staff meetings or other training opportunities. As part of the module-based training a City of Tacoma Utility BMP Manual was created that provides a more detailed overview of the BMPs mentioned in the training.

The training program will include regularly scheduled follow-up training and a list of trained staff will be documented in SAP, the City's Information Management System database.

### **Implement Stormwater Pollution Prevention Plans (SWPPPs) for City Heavy Equipment Maintenance or Storage Yards and Material Storage Facilities (S5.C.10.g.)**

SWPPPs have been developed by Tacoma Public Utilities, ES/Environmental Compliance Section and ES/Environmental Programs Group staff for the list of City-owned heavy equipment maintenance or storage yard and material storage facilities that meet the following criteria:

1. Not required to have coverage under the General NPDES Permit for Stormwater Discharges Associated with Industrial Activities or another NPDES permit that covers stormwater discharges associated with the activity; and
2. Include heavy equipment maintenance and storage areas and/or material storage areas.

The list of facilities includes the following locations:

- Sewer Transmission and Maintenance Dock Street Yard (201 Puyallup Avenue)
- Sewer Transmission Cleveland Way Decant Facility (2101 Cleveland Way)
- Tacoma Fire Vehicle Maintenance Shop (3401 B South Orchard Street)
- Tacoma Power Southwest Substation Training Facility and Pole Yard (4102 South 74th Street)
- Tacoma Power Utility Center (3628 South 35th Street)
- Tacoma Water Distribution Operations Center (3506 South 35th Street)
- Traffic Signal and Street Lighting Shop (3401 A South Orchard Street)
- Street Operations Upper Yard (2335 Jefferson Avenue)
- Northeast Tacoma Storage Yard (100 Block Norpoint Way NE)
- Fleet Operations Maintenance Facility (3639 South Pine Street)
- Tacoma Power LaGrande Hydro-Project (Nisqually project headquarters), (46506 Mountain Highway East (SR 7 East – Eatonville)
- Tacoma Power South Service Center (Iveland), (3022 224<sup>th</sup> Street East)
- Wilco in Gig Harbor (Potlach Trail Line), (3408 Hunt Street NW)
- Tacoma Rail (2601 Sr 509 North Frontage Road)
- McMillin Reservoir (13004 Reservoir Road East)
- Tacoma Water Headworks – King County (37007 SE Green River)

SWPPPs for these facilities have been developed and implemented to cover operational BMPs and a visual inspection program to evaluate BMP effectiveness. SWPPP training will also be provided on an annual basis to employees staffing these facilities.

As required by the Permit, all City SWPPPS were updated by December 1, 2022, to include all Permit required components.

### **Inspection and Maintenance Records (S5.C.10.h.)**

The City keeps records of all maintenance activities of City-owned and operated storm drainage facilities. Record-keeping processes and maintenance checklists are regularly evaluated and updated.

Environmental Compliance Inspectors keep a database of all business inspections, which includes private stormwater facility inspections, maintenance, enforcement, and spill complaint information.

Maintenance activities for public facilities are kept in SAP, the City's Information Management System database.

### **S5.C.11. Education and Outreach Program**

*"The City will engage in Education and Outreach Programs to build general awareness; effect behavior change and promote stewardship opportunities. Target audiences include the general public, including school -age children, businesses, engineers, contractors, developers, and land use planners. During this permit cycle, the City will more robustly consider the needs of overburdened communities".*

### **Summary of Program Components**

Public education and outreach is a vital component of the SWMP. Stormwater pollution is the result of ongoing activities of people and businesses. Therefore, focusing public education efforts on activities and practices that people and businesses can do to help reduce stormwater impacts to surface water quality are important. As people learn how their activities affect surface water quality, some will quickly change their behavior. Others will benefit from continuous educational opportunities and incentives.

The City has recently started to increase focus on more equitable education and outreach programming to serve a more diverse audience and overburdened communities as defined in the Permit. The City translated educational materials into Tacoma's five primarily used languages other than English – which are Spanish, Russian, Vietnamese, Korean and Khmer. The City has developed its own equity index map to identify overburdened neighborhoods to better inform public outreach and program development.

The City has various active environmental education and outreach programs and activities described in the following sections. Most of the City's surface water and stormwater education efforts are implemented by the following groups:

**[ES/Environmental Programs Group](#)** - Environmental Programs Group staff is responsible to coordinate all permit-mandated education and outreach.

[ES/Environmental Compliance Section](#) - Environmental Compliance Inspectors provide education about BMPs to businesses during regular business inspections, stormwater facility maintenance inspections, and spills and complaints responses.

[ES/Solid Waste Management Division](#) - Staff assists with education related to the storage and disposal of hazardous waste.

**City Media and Communications Office** - Staff provides strategic marketing and communications support to all ES utilities (stormwater, wastewater, and solid waste) on the following media channels.

- **City of Tacoma Website** ([cityoftacoma.org/stormwater](http://cityoftacoma.org/stormwater))
- [EnviroTalk](#)
- [Utility Bill Inserts](#)
- **TV Tacoma**
- [Stormwater Manual listserv](#)
- [Tacoma EnviroNews Listserv](#)

**Office of Environmental Policy and Sustainability (OEPS)** – The OEPS group includes the EnviroChallenger environmental education program which delivers free lessons to elementary and middle schools, home school groups and represents ES at community events.

#### **Implement a Public Education and Outreach Program (S5.C.11.a.i-vii.)**

The City's public education and outreach methods are designed for a variety of target audiences and messages as required by the Permit. Per the 2019 Permit, the City's education and outreach program shall be informed by local water quality information and target high priority audiences, subject areas, and/or BMPs. The City will consider delivering its selected messages in language(s) other than English, as appropriate for the target audience.

The City also has several other campaigns that are helpful for our specific system such as the separated stormwater and wastewater systems campaign. The City provides education for businesses and the development community focused on stormwater BMPs for both ongoing maintenance of water quality and flow control facilities and implementation of operational BMPs.

#### **General Awareness**

The SWMP shall include an education and outreach program designed to:

*"Build general awareness about methods to address and reduce stormwater impacts".*

#### **Summary of Program Component**

This page contains links and information on the educational programming and events the City offers to the general public (including school age children and overburdened communities), and businesses (including home-based and mobile businesses).

**"If it Hits the Ground, it Hits the Sound."**

As part of the Environmental Services 2018-2025 Strategic Plan, the Marketing Initiative focused on the importance of the community understanding how stormwater in Tacoma flows directly into local waterways, mostly untreated. The team, recognizing the value of art in the Tacoma community, worked together to identify ways to communicate about the stormwater system through public artwork.

**Puget Sound Starts Here Media Campaign**

The City is participating with neighboring cities and counties, Ecology and Puget Sound Partnership, in a regional stormwater education campaign called Puget Sound Starts Here (PSSH). The campaign's purpose is to educate residents about how their daily actions affect surface water quality and empower them to make good choices throughout their day in order to keep pollution out of our local surface waters. For the 2022 campaign emphasis was put on car care in response to the growing concerns around 6PPD-quinone which enters the environment through tire-wear particles. A short video was produced in multiple languages, urging the public to practice simple car care techniques that help to reduce tire-wear.

**EnviroHouse**

ES partners with other City departments to run the EnviroHouse, a hands-on showcase of sustainable building and natural landscape ideas, materials and techniques for a healthy home and planet. The EnviroHouse demonstrates rain barrels, native plants, rain gardens, pervious pavement, natural yard care techniques, and other stormwater-related best management practices in action. Free online workshops are offered throughout the year on a variety of sustainable practices and projects involving natural yard care techniques. In addition to the online workshops, the EnviroHouse has a library of "How To" videos available on YouTube covering the topics mentioned above.

**City of Tacoma Household Hazardous Waste Disposal Program**

The ES/Solid Waste Management collects and properly disposes of large amounts of **household hazardous waste** from Tacoma residents at the Tacoma Recovery and Transfer Center. This service is free of charge for residents in order to prevent hazardous materials from entering the stormwater system, surface waters, groundwater, or general garbage stream. Solid Waste Management works to educate the public about the need for proper disposal and where hazardous wastes can be disposed of through ES publications and other communication tools including the **Recycle Coach app**. Special assistance is also offered to businesses through the business technical assistance program.

**City of Tacoma Open Space Management and Urban Forestry Programs**

The Open Space Management Program promotes activities to protect existing green spaces and increase Tacoma's tree cover. The City sponsors a **Tree Coupon Program** in partnership with

local nurseries, helps sponsor an annual Green Tacoma Day/Arbor Day celebration, and supports various other related educational opportunities to successfully plant and care for trees in their yards.

### **City of Tacoma Business Source Control Outreach**

Information is presented to business owners and property managers during source control site visits required by [Permit Section S5.C.8](#). The intent is to make business owners and property managers more aware of the importance of regularly maintaining their onsite stormwater facilities and BMPs to help protect local waterways and reduce stormwater pollution. Businesses can also request to have their private catch basins marked and the City of Tacoma will supply resources. Specific business-related messaging and outreach has been translated into five languages to increase accessibility by business owners and operators.

### **City of Tacoma Event Participation and Sponsorship**

Stormwater messages are promoted at a variety of community events. Both the EnviroChallengers and Environmental Services staff are present at these events. Environmental Programs group staff typically participate in four to six local community outreach events each year. Below is a list of events ES participated in during 2022

**South Sound Sustainability Expo** - The Expo connects residents and businesses with services, products, companies, and agencies that address sustainability needs in our community.

**Ikkatsu Project - Buckley Gulch Clean Up** - ES EPG staff participated in a local trail clean up event at Buckley Gulch, providing information on the impacts of trash and other sources of ground pollution on stormwater quality.

**Green Tacoma Day** - Green Tacoma Day is an annual celebration of the Green Tacoma Partnership's work to restore 1,881 acres of urban green space, while Arbor Day celebrates the planting, growing, and caring of Tacoma's trees.

**Tacoma Ocean Fest** - Tacoma Ocean Fest is a free, one-day festival in Tacoma, Washington that gathers the community to celebrate the ocean, learn about its threats and protect it. We're a unique mixture of arts, sciences, and water fun.

**Tacoma's Downtown on the Go - Park(ing) Day** - Park(ing) day is an international event in which artists, citizens, and businesses transform a metered parking spot into temporary public space.

**Welcome Back Salmon Days - Swan Creek** - The Swan Creek Salmon Challenge is a 2-week-long celebration of the return of salmon to Swan Creek and surrounding rivers.

**Northwest Environmental Business Council (NEBC) - Managing Stormwater in Washington Conference** - The City annually, hosts a table NEBC Conference. The audiences at this conference are private industry and consultants, regulatory community, and implementers of stormwater regulations. The key messages promoted at the conference will include technical standards for stormwater site and erosion control plans, LID principles and LID BMPs and stormwater treatment and flow control BMPs/facilities.

## Stewardship

The SW shall include, an education and outreach program designed to:

*"Create stewardship opportunities that encourages community engagement in addressing the impacts from stormwater runoff".*

The City currently administers, participates in or promotes programs to encourage stewardship activities including the Make a Splash small grants and, the following stewardship opportunities available to volunteers throughout the City of Tacoma:

**Adopt-A-Drain - [Adopt-A-Storm Drain \(AAD\)](#)** provides a stewardship opportunity for residents by encouraging regular and sustained actions to prevent flooding and reduce runoff pollution by adopting storm drains/catch basins in their neighborhood and committing to keep them clear of leaves, trash, and other debris.

**[Pet Waste Bag Station Sponsorship Program](#)** - Participants apply to sponsor a pet waste station in their neighborhood, and ES provides the station and bag supplies. The sponsors monitor station use and replace bags as needed.

**[Make A Splash Grant Program](#)** - ES dedicates \$50,000 each year to small stormwater-related grants for projects promoting surface water education, protection, and restoration. Grant recipients can receive up to \$4,000 to go towards their project. Grants are designed for projects that have a strong stormwater pollution prevention message or provide a stormwater benefit.

**[Sustainability Small Grant Program](#)** - Reimburse a maximum of \$5,000 for eligible projects within Tacoma city limits that help protect and restore our environment. Strong grant applicants will demonstrate a benefit to one or more of the three Environmental Services utilities: Stormwater, Solid Waste, and Wastewater.

**[Open Space Stewardship](#)** - The City owns and stewards approximately 500 acres of open space properties for goals of healthy tree canopy, ecosystem function, and biodiversity. The City holds a lead role in the Green Tacoma Partnership that collaborates with [Washington Conservation Corp Crews](#), [Metro Parks Tacoma](#), [Pierce Conservation District](#).

**[Stream Team](#)** - The PCD coordinates urban stream monitoring at streams throughout the City with the Stream Team. Stream Team monitoring volunteers collect a variety of water quality parameters on a monthly or quarterly basis including pH, dissolved oxygen, nitrate, temperature, and turbidity as well as qualitative observations regarding the surrounding area and wildlife.

**[Catch Basin Marking Program](#)** - The City partners with Communities for a Healthy Bay (CHB) to work with volunteers to label catch basins or storm drains, throughout the City. The catch basin labels have a friendly reminder that no pollutants should be allowed into the stormwater system.

**Outreach to Business, Engineers, Contractors and Developers** - The City provides education for businesses and the development community focused on stormwater BMPs for both ongoing



maintenance of water quality and flow control facilities and implementation of operational BMPs.

**Low Impact Development Rate Reduction Program** - The City has implemented a [Low Impact Development](#) Surface Water Rate Reduction program. Property owners may qualify for a surface water rate reduction if they choose to utilize permanent LID BMPs beyond what is required per the SWMM for development, redevelopment or as a retrofit for stormwater management. Tacoma Municipal Code (TMC) 12.08D.250 outlines the program requirements. In order to qualify for the LID surface water rate reduction, all BMPs must be permanent LID BMPs per the SWMM, as approved by the ES Department.

**Private Stormwater Facility Maintenance** - This program assures property owners have access to their drawings and operation and maintenance instructions for privately owned stormwater facilities and provides technical assistance to homeowners and business owners, as requested.

### Behavior Change

The SWMP shall include, an education and outreach program designed to:

*"Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts".*

**Dumpster Outreach Group** - For the behavior change portion of the Permit, the City has selected to be a part of the [Regional Dumpster Lid Campaign](#) addressing the BMP of Dumpster and Trash Compactor Maintenance and the target audience of Commercial Businesses. The strategy and schedule for the new Dumpster Lid behavior change campaign was completed on February 1<sup>st</sup> 2021 as required by the Permit of the new behavior change strategy began April 1<sup>st</sup>, 2021. The City's ES EC group is helping to continue the dumpster lid campaign with outreach to local businesses during routing business inspections.

## S8. Monitoring and Assessment

### Summary of Program Components

The stormwater monitoring program consists of Regional Status and Trends Monitoring and Stormwater Management Program Effectiveness and Source Identification Studies. The Permit allows Permittees to either pay into these collective funds or to conduct studies relevant to these topics. The City has chosen to pay into the Regional Status and Trends Monitoring fund and conduct a Stormwater Management Program Effectiveness and Source Identification Study. These choices are the same as were chosen in the 2013 permit cycle.

Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also referred to as Superfund, contaminated bottom sediments were remediated in the Thea Foss and Wheeler-Osgood Waterways in Tacoma, Washington under the oversight of the Environmental Protection Agency (EPA) at a cost of \$105M. The waterway is currently in the process of being deleted from the National Priorities List as part of the Commencement Bay Superfund site.

**Regional Status and Trends Monitoring (S8.A)**

The City notified Ecology of the choice to pay into the collective fund for the regional stream status and trends monitoring prior to the December 1, 2019, deadline. Payments into this collective fund are due on August 15<sup>th</sup> of each year. This program is implemented by Ecology through the [Stormwater Action Monitoring Group \(SAM\)](#). The City of Tacoma has been implementing a comprehensive monitoring and source control strategy in the Foss Waterway Watershed since 2001. Stormwater monitoring is required to be conducted under a Stormwater Work Plan Addendum to the Thea Foss Waterway Consent Decree (CD) with EPA and currently by Section S8.C of the National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Discharges from Large and Medium Municipal Separate Storm Sewer Systems (Permit), which supersedes previous NPDES requirements.

**Provide SWMP Effectiveness and Source Identification Studies (S8.B and C)**

The City has chosen to meet this requirement by continuing to monitor stormwater discharges at seven outfalls to the Thea Foss Waterway. The City notified Ecology of the choice to monitor the Thea Foss Waterway outfalls prior to the December 1, 2019 deadline. The Quality Assurance Program Plan for the outfall monitoring was provided for Ecology review prior to the February 1, 2020 deadline, and stormwater sampling began on October 1, 2020 for the 2019 to 2024 permit cycle. Monitoring results will be reported annually with the NPDES Annual Report due on March 31<sup>st</sup> of each year.

As part of the 2022 evaluation, the monitoring report reviews results from over 20 years of outfall monitoring conducted under the Foss Monitoring Program and source control actions completed in the Thea Foss drainage basins. The City completed additional sediment monitoring in the portion of the waterway north of the SR509 Bridge in 2018, and an analysis of this data relative to stormwater concentrations was included in the 2018 report to evaluate the impact of known ongoing urban and marine sources to the waterway. At this time the waterway appears to have equilibrated with known sources generally at concentrations below levels of concern. The City and others will be monitoring waterway sediments next in 2023 and the 2023 report will include a qualitative analysis of this data. Based on results of the 2018 monitoring and subsequent reporting, EPA determined that requirements have been met, and the remedial action in the waterway is complete. Based on this determination, they are currently in the process of deletion of the Thea Foss Waterway from the National Priorities List as part of the Commencement Bay/Nearshore Tidelands Superfund site.

Click the link to view the entire 2021 monitoring report [Thea Foss and Wheeler-Osgood Waterways 2021 Source Control and Water Year 2021 Stormwater Monitoring Report](#). A link to the 2022 Thea Foss and Wheeler-Osgood Monitoring Report will be posted in the final SWMP Plan available on March 31, 2023.

## Department Compliance Plans

The City of Tacoma maintains a National Pollutant Discharge Elimination System Phase I Municipal Stormwater Permit (Permit). This Permit allows the City of Tacoma to discharge stormwater to receiving waterbodies. The City is required by the Washington State Department of Ecology to maintain this Permit. Nearly every department within the City of Tacoma plays a role in Permit implementation.

Starting in 2020, Tacoma determined it would be helpful to create specific Coordination Plans for each department that owns or operates sites with stormwater facilities. These plans are intended to clarify Permit requirements for departments that may not be as familiar with the Permit. The majority of Coordination Plans were completed in 2022. Additional Coordination Plans are to be completed in 2023.

Each coordination plan describes the Permit sections that are most relevant to that department, how the department play a role in those Permit sections and describes when enhancements may be necessary to ensure Permit compliance. This information is meant to evolve over time and to be a tool to aid in internal coordination. Department specific plans are available for the groups in Table 1 and Table 2, below.

**If you do not see a Compliance and Coordination Plan for a specific department in Table 1 or Table 2 below, or have questions about a group's role in Permit implementation, please contact [swnpdespermits@cityoftacoma.org](mailto:swnpdespermits@cityoftacoma.org)**

**Table 1 – City of Tacoma General Government Completed Department Coordination Plans**

<b>Department</b>	<b>Group</b>
Environmental Services	Open Space
Environmental Services	Solid Waste
Environmental Services	Transmission
Fire	Tacoma Fire
Library	
NCS	NCS
Police	
Public Works	Facilities Maintenance
Public Works	Parking Enforcement
Public Works	Streets and Grounds
Venues and Events	

**Table 2 – City of Tacoma Public Utilities Completed Department Coordination Plans**

<b>Department</b>	<b>Group</b>
Power	Power Nisqually Project
Power	Power Substations
Power	TPU Grounds
Power	TPU Headquarters Site
Power	TPU-Power EC
Power	Southwest Service Center
Power	Power Shared Services Craft Shops
Power	North Service Center
Rail	
Water	Water Headquarters Site
Water	Water Supply and Transmission (Water Pumps and Storage)
Water	McMillin Reservoir
Water	Green River Headworks



SWPPP	Stormwater Pollution Prevention Plans
STRAP	Stormwater Rapid Assessment Program
SSC	Structural Stormwater Controls
TMC	Tacoma Municipal Code
TPCHD	Tacoma-Pierce County Health Department
TESC	Temporary Erosion and Sediment Control
Ecology	Washington State Department of Ecology
QAPP	Quality Assurance Project Plan
WCC	Washington Conservation Corps
WRIA	Water Resource Inventory Area

# Appendix A

## Chapter 12.08A and 12.08D of the Tacoma Municipal Code

For the most current version of Chapter 12.08A and 12.08D of the Tacoma Municipal Code go to: [Tacoma Municipal Code Title 12.08](#)



# Appendix B

## NPDES Internal Coordination Memorandum



City of Tacoma



**TO:** General Government Department Directors  
TPU Superintendents

**FROM:** Elizabeth A. Pauli, City Manager *edp*  
Jackie Flowers, Tacoma Public Utilities Director *JF*

**SUBJECT:** City of Tacoma Compliance with Ecology Phase I Municipal Stormwater Permit

**DATE:** February 12, 2020

On August 1, 2019, the new Washington State Department of Ecology Phase I Municipal Stormwater Permit (Permit) under the National Pollutant Discharge Elimination System (NPDES) became effective. This permit covers stormwater discharges from large municipal storm sewers, including the City of Tacoma, covering all City departments for stormwater discharged into Waters of the State such as creeks, rivers, and Puget Sound.

Environmental Services, Science and Engineering Division - Environmental Programs Group (EPG) administers and interprets the Permit. The Permit provisions apply to all properties, easements and right-of-ways that are owned or operated by the City of Tacoma and that are located within permit coverage areas.

Permit requirements and general responsibilities are outlined in the Stormwater Management Program Plan available at [www.cityoftacoma.org/stormwater](http://www.cityoftacoma.org/stormwater). EPG can assist other departments with training and technical assistance as needed or requested.

This memorandum documents the coordination efforts expected from all General Government and Tacoma Public Utilities staff to meet the provisions of Section S5.C.3.A of the Permit.

Virtually every City department has an important contribution to improve and maintain the quality and reduce the quantity of stormwater runoff discharge to our surrounding waterways. All of our efforts together play an important role in protecting Tacoma’s wetlands, streams, rivers, lakes, and Puget Sound.

Environmental Programs Group requests your support in meeting our Permit requirements. Thank you in advance for your support and assistance with this important program!