Stormwater Management Program (SWMP) Plan

March 2021

CITY OF TACOMA
Environmental Services
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Introduction

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: https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Municipal-stormwater-general-permits/Municipal-Stormwater-Phase-I-Permit

The Permit regulates the discharge of stormwater to surface waters and groundwater’s of the state from Tacoma’s Municipal Separate Storm Sewer System (MS4). 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 Stated 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

The Annual Report to be submitted by March 31, 2021 has a reporting period of January 1, 2020 to December 31, 2020.

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

- Begin to collect size and material for all known MS4 outfalls during normal course of business and complete mapping of all known connections from the MS4 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.

Stormwater Management Program Components

The City’s SWMP contains the eleven components as 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:

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.

2. **Mapping:** The City’s stormwater system must be mapped. This work was started under the 1995 permit and is continuing. The City’s DART map will be updated with new mapping information as it becomes available.

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.

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.

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.

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

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.

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.

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.

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.

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.

12. **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.

**Stormwater Management Mission and Priorities**

The City considers itself a leader in responding to the issues of water quality related to urban runoff. As early as 1980, the City conducted experimental water quality testing to identify pollutants in stormwater runoff. Today, through the Center for Urban Waters and other cooperative efforts, the City continues its efforts to improve water quality. Tacoma’s City Council and surface water utility ratepayers have supported substantial rate increases in recognition of the importance of protecting and enhancing the water quality in Commencement
Bay and our fresh water lakes, wetlands and streams in the face of increasing stormwater runoff and pollutant loads from urban development, increased traffic and population increases.

The Environmental Services Department surface water, wastewater and solid waste utilities share a common vision:

“We believe everything we do supports healthy neighborhoods and a thriving Puget Sound, leaving a better Tacoma for all."

Three focus areas help ES to achieve this vision:

- Partner with our community on customer-valued services to meet the diverse needs of our neighborhoods;
- Foster a safe employee culture built on trust, conversation and equity; and
- Operate using best practices and innovation to meet changing environmental and community needs

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:

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

Tacoma’s Stormwater Management Utility

The City’s SWMP is administered by the Environmental Services Science and Engineering Division but 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. Our current 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 our activities regionally through watershed councils, Lead Entities, NPDES permit-holder committees and others;

• 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.

The updated SWMP Plan included as Appendix C will supplement and enhance the City’s existing programs.
SWMP by Permit Component

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

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. 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 attached as Appendix A. Over the past several years, the City has undertaken a code separation and clarification project. The past TMC 12.08 included regulations for stormwater, wastewater and industrial wastewater pretreatment in one section. The new code will be 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 draft new code sections TMC 12.08A and 12.08D are the regulatory authority for the City’s Stormwater Program and are included as Appendix A. The City is currently in progress of adopting the new code.

Permit Compliance Measures

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

Permit Deadlines and Responsible Parties

| Legal authority to control discharges to and from MS4 | Ongoing | • City Attorney’s Office
| • ES/Environmental Programs Group |

Authority to Control Industrial Discharges, Prohibit Illicit Discharges, and Control Spills or Disposal of Materials other than Stormwater into the MS4 (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.

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

TMC 12.08D.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.110.E and F Prohibits illicit discharges.

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

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Environmental Services

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**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 ENFORCEMENT REMEDIES** 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

Actions required for permit compliance are listed in the 2021 Work Plan (Appendix C).
S5.C.2. MS4 Mapping and Documentation

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 the information that is currently available in a variety of ways, including tracking sources of contamination, planning for future upgrades and modeling system capacity.

Permit Compliance Measures

**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.

Permit Deadlines and Responsible Parties

| Map known MS4 outfalls, discharge points and receiving waters, and stormwater treatment and flow control BMPs owned or operated by the City | Known data is mapped with ongoing updates | • ES/Environmental Programs Group  
| Map geographic areas served by the City’s MS4 that do not discharge stormwater to surface water | Known data is mapped with ongoing updates | • ES/Environmental Programs Group  
| Map connection points between the City’s MS4 and other municipalities and public entities | Known data is mapped with ongoing updates | • ES/Environmental Programs Group  

Mapping Public Assets

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 MS4 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 MS4 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 MS4 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.)

Permit Deadlines and Responsible Parties

| Map tributary conveyances (type, material, and size where known); and associated drainage areas and land uses for all outfalls and discharge points with a 24-inch or greater nominal diameter, or an equivalent cross-sectional area for non-pipe systems | Known data is mapped with ongoing updates | • ES/Environmental Programs Group  
• ES/Asset Management Group  
• PDS, Site Development Group  
• ES/Capital Delivery Group |
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.)**

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>Map all connections to the MS4 authorized or allowed after February 16, 2007</th>
<th>Ongoing</th>
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<tbody>
<tr>
<td></td>
<td>• ES/Environmental Programs Group</td>
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<td></td>
<td>• ES/Asset Management Group</td>
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<tr>
<td></td>
<td>• PDS, Site Development Group</td>
</tr>
</tbody>
</table>

The City has already mapped the majority of the known private storm systems connected to the MS4 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 MS4, 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 MS4 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.)

**Permit Deadlines and Responsible Parties**

| Map existing, known connections greater than 8-inch in nominal diameter to tributary conveyances | Ongoing | • ES/Environmental Programs Group  
• ES/Asset Management Group  
• PDS, Site Development Group |

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.)

**Permit Deadlines and Responsible Parties**

| Collect size and material for all known outfalls if not noted | Start January 1, 2020 | • ES/Environmental Programs Group  
• ES/Asset Management Group  
• ES/Transmission |

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 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.)

**Permit Deadlines and Responsible Parties**

| Complete mapping of all known connections from the MS4 to a privately owned stormwater system | August 1, 2023 | • ES/Environmental Programs Group  
• ES/Asset Management Group |

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.)

**Permit Deadlines and Responsible Parties**

| Provide Ecology with mapping data upon request | Upon request | • ES/Asset Management Group |

The City will provide fully described mapping standards similar to those described on Ecology’s website [https://ecology.wa.gov/Research-Data/Data-resources/Geographic-Information-Systems-GIS/Standards](https://ecology.wa.gov/Research-Data/Data-resources/Geographic-Information-Systems-GIS/Standards) 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.)

Permit Deadlines and Responsible Parties

| Provide mapping information to federally recognized Indian Tribes, municipalities and other permittees upon request | Upon Request | • ES/Asset Management Group  
• City Attorney’s Office |

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.

Actions required for Permit compliance are listed in the 2020 Work Plan (Appendix C).
S5.C.3. Coordination

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 MS4s of neighboring jurisdictions covered by a NPDES permit and sharing a watershed or receiving waterbody.

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

With respect to inter-governmental coordination, this section of the permit addresses coordination mechanisms between the City and jurisdictions connected to the City’s municipal stormwater system specifically to address a coordinated approach to stormwater policies, programs and projects for shared water bodies or within a given watershed. At its best, coordination between jurisdictions should facilitate information sharing, eliminate duplicate efforts and promote regional solutions in a manner to most efficiently use the City’s valuable and limited resources to improve stormwater quality.

Permit Compliance Measures

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

Permit Deadlines and Responsible Parties

| Intra-governmental executive directive to facilitate permit compliance | March 31, 2020 | ES/Environmental Programs Group |

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 completion 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.)

Permit Deadlines and Responsible Parties

<table>
<thead>
<tr>
<th>Inter-governmental coordination</th>
<th>Ongoing</th>
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<tbody>
<tr>
<td></td>
<td>• ES/Environmental Programs Group</td>
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<tr>
<td></td>
<td>• ES/Environmental Compliance Section</td>
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</table>

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 updated SWMM will go through the SEPA process to help to facilitate review by other jurisdictions. The City also has training opportunities for the new SWMM that is 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 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 South Central 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).

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.

Actions required for permit compliance are listed in the 2020 Work Plan (Appendix C).
S5.C.4. Public Involvement and Participation

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.)

Permit Deadlines and Responsible Parties

| Create opportunities for public participation in decision-making processes involving SWMP | Ongoing | • ES/Environmental Programs Group |

The City’s SWMP Plan is updated and posted online annually. Opportunities for public input on specific proposals and projects are also provided during implementation and updates of the SWMP Plan. To increase public involvement and review of the SWMP Plan, an online survey tool was posted on the City’s surface water web page and notifications were sent via social media platforms encouraging participation. The survey was used to gather specific input on education and outreach priorities (S5.C.11) and options for the structural stormwater program (S5.C.7). Input from the survey will help to focus program development and outreach efforts on areas that are of concern or interest to the general public.

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 is in process of being 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 doing additional updates for clarity and to reflect updates in City policies and procedures. The SWMM was available for public comment in 2020 and portions of the SWMM were revised based on public comments received.

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; surface water, wastewater and solid waste, including implementation of the SWMP. Commissioners represent a cross-section of Tacoma’s residential, business and regulatory communities and are selected by the City Manager to serve five-year terms.

The 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.)*

**Permit Deadlines and Responsible Parties**

| Make the SWMP Plan and NPDES Annual Report available on City website | May 31, 2021 and Annually | ES/Environmental Programs Group |

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

Actions required for permit compliance are listed in the 2020 Work Plan (Appendix C).
S5.C.5. Controlling Runoff from New Development, Redevelopment, and Construction Sites

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 sites. 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 will update its SWMM to be equivalent to Ecology’s 2019 Stormwater Management Manual for Western Washington (SWMMWW). The updated SWMM will go into effect by July 1, 2021 as required by the Permit.

Permit Compliance Measures

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

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 Minimum Requirements of the SWMM, where applicable. 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 (S5.C.5.a.i. to iii.)

Permit Deadlines and Responsible Parties

<table>
<thead>
<tr>
<th>Permit Deadlines and Responsible Parties</th>
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</thead>
<tbody>
<tr>
<td>Submit draft SWMM standards and ordinances to Ecology</td>
</tr>
<tr>
<td>Adopt and implement equivalent manual and requirements, limitations and criteria of Ecology’s 2019 SWMM</td>
</tr>
</tbody>
</table>

During this Permit cycle, the City’s SWMM will be updated to include equivalent technical requirements to Ecology’s 2019 SWMM for Western Washington by the ES/Environmental Programs Group. The updated SWMM will go into effect by July 1, 2021 as required by the Permit.
Legal Authority to Inspect and Enforce Maintenance Standards for Private Stormwater Facilities Approved by the City (S5.C.5.b.v.)

Permit Deadlines and Responsible Parties

| Authority to enforce maintenance requirements | Ongoing | • ES/Environmental Programs Group  
|                                               |         | • City Attorney’s Office |

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 (S5.C.5.b.vi.)

Permit Deadlines and Responsible Parties

| a) Review all stormwater site plans for proposed development that meet the permit thresholds | Ongoing | • PDS, Site Development Group  
|                                                                                     |         | • Public Works Department, Engineering  
|                                                                                     |         | • ES/Capital Delivery Group  
|                                                                                     |         | • ES/Environmental Programs Group  
|                                                                                     |         | • Tacoma Public Utilities, Engineering |

b) Pre-clearing inspection for all sites meeting the development thresholds to identify areas of high erosion and sediment transport potential | Ongoing | • PDS, Site Development Group  
|                                                                                     |         | • Public Works Department, Engineering  
|                                                                                     |         | • ES/Capital Delivery Group  
|                                                                                     |         | • Tacoma Public Utilities, Engineering |

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 | Ongoing | • PDS, Site Development Group  
|                                                                                     |         | • Public Works Department, Engineering  
|                                                                                     |         | • ES/Capital Delivery Group  
|                                                                                     |         | • ES/Environmental Compliance  
|                                                                                     |         | • Tacoma Public Utilities, Engineering |

d) Inspect all permanent stormwater treatment and flow | Ongoing | • PDS, Site Development Group |
control BMPs/facilities and catch basins every six months in new residential developments until 90% of the lots are constructed or the site is fully stabilized

<table>
<thead>
<tr>
<th>e) Post-construction inspection to ensure proper installation of permanent stormwater treatment and flow control BMPs. Verify that a maintenance plan is completed and responsibility for maintenance is assigned</th>
<th>Ongoing</th>
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<tbody>
<tr>
<td>• ES/Environmental Compliance</td>
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<tr>
<td>• ES/Environmental Programs Group</td>
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<thead>
<tr>
<th>f) Establish an inspection program to ensure all required inspections occur</th>
<th>Ongoing</th>
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<tr>
<td>• PDS, Site Development Group</td>
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<tr>
<td>• Public Works Department, Engineering</td>
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<td>• ES/Capital Delivery Group</td>
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<td>• Tacoma Public Utilities, Engineering</td>
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<td>• ES/Environmental Programs Group</td>
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<thead>
<tr>
<th>g) Record-keeping procedures in place for inspection and enforcement actions including maintenance inspections and maintenance activities</th>
<th>Ongoing</th>
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<tr>
<td>• PDS, Site Development Group</td>
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<td>• Public Works Department, Engineering</td>
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<td>• ES/Environmental Programs Group</td>
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<tr>
<th>h) Enforcement strategy for non-compliance response</th>
<th>Ongoing</th>
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<tr>
<td>• Planning and Development Services</td>
<td></td>
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<tr>
<td>• Neighborhood and Community Services</td>
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<tr>
<td>• ES/Environmental Compliance Section</td>
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</table>

**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 MS4 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 for compliance of S5.C.5 requirements through authorities in the TMC. Building 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.)**

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>NOI forms available to public</th>
<th>Ongoing</th>
<th>Planning and Development Services</th>
</tr>
</thead>
</table>
| Enforce local ordinances controlling runoff from sites that are covered by other stormwater permits issued by Ecology | Ongoing | ES/Environmental Compliance Section  
Planning and Development Services |

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, 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 MS4 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.)**

**Permit Deadlines and Responsible Parties**

| Training program and documentation | Ongoing | Planning and Development Services  
Public Works, Engineering  
Neighborhood and Community Services Code Compliance  
ES/Environmental Programs Group  
ES, Environmental Compliance |

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 this review.

Actions required for permit compliance are listed in the 2020 Work Plan (Appendix C).
S5.C.6 Stormwater Planning
This is a new Permit section added to the Permit in August 2019. The City is developing the policies and procedures needed for compliance with this section.

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. The City is developing a Watershed Management Plan to prioritize the most effective stormwater actions and projects, at the most important locations, to build a more healthy and resilient Tacoma and a thriving Puget Sound.

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.

The watershed assessment and prioritization will be used to inform a variety of stormwater management actions identified in the SWMP. The prioritized actions will reduce stormwater pollution in receiving waters and will also be selected to respond to the City’s equity goals, Growth Management Act policies and anticipated climate change impacts.

The City anticipated that it will begin using this new Watershed Plan and prioritization tool in 2023.

Inter-Disciplinary Team (S6.C.6.a)
Permit Deadlines and Responsible Parties

| Convene an inter-disciplinary team to inform and assist in the development, progress, and influence of the Stormwater Planning Program | August 1, 2020 Complete | ES/Environmental Programs Group |

The inter-disciplinary team will include staff from many City departments and divisions and will be led by Environmental Programs Group Staff. The inter-disciplinary team was convened via online meetings July 27, 2020. Additional meetings of small groups within the IDT have also been convened.

In addition to formal IDT meetings, staff from Environmental Programs Group attends meetings for specific planning projects, planning commission meetings and provide technical assistance and comments on long-range plans that are led by other work groups within the City.

Coordination with long-range plan updates (S6.C.6.b.i.(a), (b))
Permit Deadlines and Responsible Parties

| Respond to Stormwater Planning Annual Report questions | March 31, 2021 | ES/Environmental Programs Group |
Submit a report responding to the questions in S6.C.6.b.i.a, describing how water quality is being addressed

March 31, 2022
ES/Environmental Programs Group

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 meetings where these efforts are discussed.

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

| Assess and document newly identified administrative or regulatory barriers to implementation of LID Principles or LID BMPs | Annually | ES/Environmental Programs Group |

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 low impact development the Permit intent of making low impact development the preferred and commonly-used approach to site development within Tacoma.

Actions required for permit compliance are listed in the 2020 Work Plan (Appendix C).
S5.C.7. Structural Stormwater Controls

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 MS4. 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 Environmental Programs Group coordinates 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. Types of projects that Tacoma has completed in compliance with this requirement include forest restoration projects, street sweeping, line cleaning, and GSI permeable pavement projects.

Permit Deadlines and Responsible Parties

| Report list of planned projects scheduled for implementation during the permit term | March 31, 2020 and annually | ES/Environmental Programs Group |
| Achieve 300 SSC Program Points | December 31, 2022 | ES/Environmental Programs Group |

Actions required for permit compliance are listed in the 2020 Work Plan (Appendix C).
S5.C.8. Source Control Program for Existing Development

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. For new industries that involve construction of facilities, during the permitting approval process, the SDG reviews site activities and ensures that appropriate controls will be installed and utilized on the sites.

The SWMM, Volume 4 provides source control BMP guidance for all new and existing businesses and government agency activities 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 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 12.08 of the TMC outlines surface water 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 codified in 2012. 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, 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, through the City's 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.

Permit Compliance Measures

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

Permit Deadlines and Responsible Parties

| Update and adopt source control related ordinances and enforceable documents | August 1, 2021 | ES/Environmental Compliance Section City Attorney’s Office |

The City’s ordinances and enforcement documents are adequate to enforce the permit requirements and no changes are 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. Additionally, all City-owned facilities and properties that have been identified as potential pollutant generating sites are being comprehensively inspected and if necessary issued compliance letters to address deficiencies in surface water 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.)

Permit Deadline and Responsible Parties

| Maintain a list of potential pollutant generating sites including transient mobile or home-based businesses | Ongoing | ES/Environmental Compliance Section |

As of 2019, the inventory list of potential stormwater pollutant generating sites is 1,660 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.)**

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>Provide source control BMP information to all businesses in inventory list from S5.C.8.b.ii.</th>
<th>Ongoing</th>
<th>• ES/Environmental Compliance Section</th>
</tr>
</thead>
</table>

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.

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>Inspect 20 percent per year of businesses in inventory list from S5.C.8.b.iii.</th>
<th>Ongoing</th>
<th>• ES/Environmental Compliance Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspect 100 percent of all sites identified through credible complaints S5.C8.b.iii.(c)</td>
<td>Ongoing</td>
<td>• ES/Environmental Compliance Section</td>
</tr>
</tbody>
</table>

Investigation and enforcement occurs 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.)**

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>Implement inspection follow-up actions as needed</th>
<th>Ongoing</th>
<th>• ES/Environmental Compliance Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement enforcement response policy as established through authority in TMC</td>
<td>Ongoing</td>
<td>• ES/Environmental Compliance Section</td>
</tr>
<tr>
<td>Maintain tracking system for inspections and enforcement actions</td>
<td>Ongoing</td>
<td>• ES/Environmental Compliance Section</td>
</tr>
<tr>
<td>Refer non-emergency violations to Ecology after documented effort of progressive enforcement</td>
<td>Ongoing</td>
<td>• ES/Environmental Compliance Section</td>
</tr>
</tbody>
</table>
Chapter 12.08D of the TMC provides the legal mechanism for inspection of all properties served by the municipal stormwater system. The ES/Environmental Compliance Section uses incremental enforcement as defined in the ES Stormwater Compliance Policy and Chapter 12.08D of the TMC to achieve compliance with stormwater requirements. 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. ES/Environmental Compliance Section refers violations in the South Tacoma Groundwater Protection District to the TPCHD for follow up when there is a violation identified.

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 (S5.C.8.b.v.)**

**Permit Deadlines and Responsible Parties**

| Provide and document ongoing training | Ongoing | • ES/Environmental Compliance Section  
|                                     |         | • ES/Environmental Programs Group |

ES/Environmental Compliance Section has developed a training program for all of their inspectors that include 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.

Actions required for permit compliance are listed in the 2020 Work Plan (Appendix C).
S5.C.9. Illicit Connection and Discharge Detection and Elimination (IDDE)

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, spills 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.

Permit Compliance Measures

*Include procedures for reporting and correcting or removing illicit connections, spills, and other illicit discharges (S5.C.9.a.)*

Permit Deadlines and Responsible Parties

| Identification of Illicit Discharges through field screening, inspections, complaints/reports, construction, maintenance, and source control inspections, and/or monitoring | Ongoing | • ES/Environmental Compliance Section  
• ES/Environmental Programs Group  
• ES/Special Projects Group |
|---|---|---|

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.)*

Permit Deadlines and Responsible Parties

| Continued implementation of ordinances and regulatory mechanisms as necessary to prohibit non-stormwater discharges | Ongoing | • ES/Environmental Compliance Section  
• ES/Environmental Programs Group  
• City Attorney’s Office |
|---|---|---|

Chapter 12.08D of the TMC provides enforcement authority to prevent illicit connections and discharges to City storm and sanitary sewers. The TMC is available to view online at cityoftacoma.org/municode. 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.)*

Permit Deadlines and Responsible Parties

| IDDE field screening program  
Maintain water quality complaint hotline | Ongoing | • ES/Operation and Maintenance  
• ES/Environmental Programs Group  
• ES/Asset Management Group  
• ES/Environmental Programs Group  
• Customer Support Center |
|---|---|---|
Training program for City municipal field staff | Ongoing | • ES/Environmental Compliance Section  
  • ES/Environmental Programs Group  
  • Tacoma Public Utilities  
  • City Human Resources Training and Development Section

**IDDE Field Screening Program**

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 (i.e., property does not smoke), the stormwater system is then smoked 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 MS4.

The permit requires 12 percent on average of the MS4 to be screened each calendar year.


**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/surfacewater](http://www.cityoftacoma.org/surfacewater), [www.cityoftacoma.org/tacomafirst311](http://www.cityoftacoma.org/tacomafirst311), and is available as an application for mobile devices.

**Training Program for Citywide Field Staff to Identify and Report Illicit Discharges and Connections**

City field staff that may discover illicit discharges while performing their job responsibilities have been identified and are provided training on how to identify and report illicit discharges. The
appropriate response and referral options for reporting the discharges are the focus of an uPerform training software tool that is accessible online through the City’s internal website. This training is now part of the City’s onboarding process for new hires that may encounter illicit discharges while in the field. In 2020, the City updated its IDDE training with a new online video module. This new training will be distributed to all staff in 2021.

Additional reminders such as key chain tags and fleet vehicle windshield clings listing an internal-use only phone number for City staff to report illicit discharges have also been distributed. The uPerform training and new 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 MS4. The program shall include procedures for characterizing, tracing and eliminating illicit discharges.

**Permit Deadlines and Responsible Parties**

| Characterize, trace and eliminate illicit discharges | Ongoing | • ES/Environmental Compliance  
|                                                   |         | • ES/Collection System Support  
|                                                   |         | • ES/Special Projects  
| Immediate response and referral to Ecology if severe threat to environment or health exists due to an illicit discharge or spill | Immediately | • ES/Environmental Compliance  
|                                                     |         | • ES/Special Projects  
| Investigate complaints or monitoring information indicating a potential illicit discharge | Within 7 days | • ES/Environmental Compliance  
|                                                   |         | • ES/Special Projects  
| Initiate investigation following discovery of illicit connection | Within 21 days | • ES/Environmental Compliance  
|                                                   |         | • ES/Special Projects  
| Upon confirmation, use enforcement authority to attempt to terminate illicit connections | Within 6 months | • ES/Environmental Compliance  
|                                                   |         | • ES/Special Projects  

The ES Special Projects 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 Special Projects 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 TPCHD 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.)

Permit Deadlines and Responsible Parties

| Training program for IDDE staff | Ongoing | • ES/Science and Engineering Division |

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 Office has an active spill response program to respond to and clean up larger spills at facilities owned and operated by Tacoma Public Utilities. Ecology is notified of all major spills.

ES/Environmental Compliance Section 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 that may come into contact with an illicit discharge. Environmental Compliance Section 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 citizen water pollution reports from the water pollution hotline (TacomaFIRST 311).

ES/Environmental Compliance Section provides spill response training to the City’s contracted towing company and its affiliates. Tow truck operators are encouraged to report all spills to ES/Environmental Compliance Section. Ecology is also notified of all major spills.

Permit Deadlines and Responsible Parties

| Program to respond to spills and improper disposal into the MS4 | Ongoing | • ES/Environmental Compliance Section |
| • ES/Solid Waste Management Division | • PW/Street Operations Division | • ES/Operations and Maintenance Division |
| • Road Use Compliance Office | • Tacoma Public Utilities, Environmental Compliance Office |

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.

Major spill response is referred to Ecology. Smaller spills such as automotive fluids on roadways are investigated and responded to by one or more of the following groups:

• ES/Environmental Compliance Section
• ES/Solid Waste Management Division
• Street Operations Division
• ES/Operations and Maintenance Division
• Road Use Compliance Office
• Tacoma Public Utilities, Environmental Compliance Office

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

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Deadline</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track and maintain records of illicit discharge detection and elimination and spill complaint inspection, response and enforcement</td>
<td>Ongoing</td>
<td>• ES/Environmental Compliance Section</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ES/Special Projects</td>
</tr>
<tr>
<td>Submit data for all illicit connections found by, reported to, or investigated for the previous calendar year</td>
<td>Ongoing</td>
<td>• ES/Environmental Compliance Section</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ES/Special Projects</td>
</tr>
<tr>
<td>Utilize the WQWebIDDE form or develop the required IDDE report form and tracking system to record IDDE incident and investigation data</td>
<td>March 31, 2021</td>
<td>• ES/Environmental Compliance Section</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ES/Special Projects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ES/Asset Management Group</td>
</tr>
</tbody>
</table>

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 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.

Actions required for permit compliance are listed in the 2020 Work Plan (Appendix C).
S5.C.10. Maintenance and Operations Program

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 to be in compliance with the Permit. 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.

Permit Compliance Measures

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

Permit Deadlines and Responsible Parties

| Adopt Maintenance Standards Equivalent to Ecology’s 2019 SWMM for Western Washington and perform required maintenance on a regular basis | July 1, 2021 | • ES/Environmental Programs Group  
• ES/Operations and Maintenance Division |

The City currently has maintenance standards that are adopted by TMC 12.08.090 D.10 and are equivalent to the maintenance standards of the 2012 SWMMWW. 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 (equivalent to Ecology’s 2019 SWMM for Western Washington standards.). Chapter 12.08D of the TMC also provides City personnel authority to enter upon private property to inspect and regulate the operation and maintenance of private facilities. The City requires owners of private stormwater facilities to submit an operation and maintenance 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. Currently the City is required to and is equivalent to the 2012 SWMMWW but will be required to be equivalent to the 2019 SWMMWW by July 1, 2021.

_Maintenance of Private Stormwater Facilities Regulated by the City (S5.C.10.b.)_

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>Inspect private treatment and flow control BMPs/facilities</th>
<th>Ongoing</th>
<th>• ES/Environmental Compliance Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspection program shall achieve inspection of 80 percent of all sites requiring inspection</td>
<td>Ongoing</td>
<td>• ES/Environmental Compliance Section</td>
</tr>
<tr>
<td>Catch basin cleaning required where identified by inspection</td>
<td>Ongoing</td>
<td>• ES/Environmental Compliance Section</td>
</tr>
</tbody>
</table>

_Inspect Private Treatment and Flow Control 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 devices. 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 also has an established spills and complaints database for tracking purposes. 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.

_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 12.08.090 requires that all privately owned drainage facilities including catch basins must be regularly inspected and maintained by the owner and provides authority to the City to access private property to inspect catch basins connected to the municipal storm drainage system. City inspectors enforce 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.)**

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Deadline</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annually inspect public stormwater treatment and flow control facilities owned or operated by the City</td>
<td>Ongoing</td>
<td>ES/Environmental Compliance Section</td>
</tr>
<tr>
<td>Perform spot checks of City-owned treatment and flow control facilities after large storm events</td>
<td>Ongoing</td>
<td>ES/Operations and Maintenance Division, ES/Environmental Compliance Section, ES/Environmental Programs Group, ES/Collections Systems</td>
</tr>
</tbody>
</table>

**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 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. 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 be inspected. 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.

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

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Deadline</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspect City-owned catch basins on a circuit basis</td>
<td>Ongoing</td>
<td>ES/Operations and Maintenance Division, ES/Environmental Programs Group</td>
</tr>
</tbody>
</table>
The ES/Operations and Maintenance Division inspects and maintains catch basins owned and operated by the City on a circuit basis per Permit section S5.C.10.d.i.(b). A dedicated catch basin cleaning crew is assigned to inspect and clean a minimum of 25 percent of catch basins within each stormwater subbasin in each watershed per year as a sample. The data from the inspections is analyzed and additional inspection and cleaning within the subbasin is conducted as needed. Additional catch basin inspections will be conducted by Environmental Services staff in conjunction with other field activities. Catch basin 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.

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, however, ES/Operations and Maintenance Division typically cleans the catch basin directly after the inspection occurs.

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. 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.)**

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>Implement practices to reduce stormwater impacts from public lands and facilities and road maintenance activities</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• ES/Environmental Compliance Section</td>
</tr>
<tr>
<td></td>
<td>• ES/Special Projects</td>
</tr>
<tr>
<td></td>
<td>• Public Works Department/Street Operations</td>
</tr>
<tr>
<td></td>
<td>• ES/Operations and Maintenance Division</td>
</tr>
<tr>
<td></td>
<td>• ES/Solid Waste Management Division</td>
</tr>
<tr>
<td></td>
<td>• Public Works Department/Facilities Maintenance</td>
</tr>
<tr>
<td></td>
<td>• Public Works Department/Real Property Services</td>
</tr>
<tr>
<td></td>
<td>• Tacoma Water</td>
</tr>
<tr>
<td></td>
<td>• Tacoma Power</td>
</tr>
<tr>
<td></td>
<td>• Tacoma Rail</td>
</tr>
</tbody>
</table>
Document the practices, policies, and procedures implemented to reduce stormwater impacts associated with runoff

<table>
<thead>
<tr>
<th>December 31, 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ES/Environmental Programs Group</td>
</tr>
<tr>
<td>• ES/Environmental Compliance Section</td>
</tr>
<tr>
<td>• ES/Special Projects</td>
</tr>
<tr>
<td>• Public Works Department/Street Operations</td>
</tr>
<tr>
<td>• ES/Operations and Maintenance Division</td>
</tr>
<tr>
<td>• ES/Solid Waste Management Division</td>
</tr>
<tr>
<td>• Public Works Department/Facilities Maintenance</td>
</tr>
<tr>
<td>• Public Works Department/Real Property Services</td>
</tr>
<tr>
<td>• Tacoma Water</td>
</tr>
<tr>
<td>• Tacoma Power</td>
</tr>
<tr>
<td>• Tacoma Rail</td>
</tr>
</tbody>
</table>

**Practices, Policies and Procedures**

ES/Operations and Maintenance Division crews maintaining City-owned treatment and flow control facilities, pipes and catch basins may reference the SWMM, the specific Operations and Maintenance plan for the facilities, and the City of Tacoma Stormwater Facilities – Operation and Maintenance Manual for guidelines for operation and maintenance of all City-owned stormwater facilities. ES EPG also serves as a technical resource for this work.

Crews performing street, utility, and grounds maintenance activities follow the guidelines in the City of Tacoma Utility BMP Manual, City of Tacoma SWMM and RRMP ESA Guidelines. This includes maintenance of parking lots, streets and highways 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, ditch maintenance, street cleaning, road repair and resurfacing, snow and ice control, utility installation, vegetation management, dust control, pavement striping maintenance, application of fertilizers, pesticides and herbicides, sediment and erosion control, landscape maintenance, vegetation disposal, trash and pet waste management, and building exterior cleaning and maintenance.

Supervisors are verifying proper practices by using a City developed tablet app. Data from this app is maintained in a database and is analyzed regularly to help determine if additional training is required.

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 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 stormwater 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 MS4. 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://www.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 surface water 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.)**

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>Develop and implement a program to train Construction, Operation and Maintenance personnel</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Public Works Department/Street Operations</td>
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<tr>
<td>• ES/Operations and Maintenance Division</td>
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<tr>
<td>• ES/Special Projects</td>
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<td>• ES/Solid Waste Management Division</td>
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<tr>
<td>• Public Works Department/Facilities Maintenance</td>
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<td>• Public Works Department/Fleet Services</td>
<td></td>
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<tr>
<td>• Tacoma Public Utilities</td>
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</table>

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 BMPs, policies and procedures for the maintenance activities listed in the Permit Section S5.C.10 (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 SWPPPs for City Heavy Equipment Maintenance or Storage Yards and Material Storage Facilities (S5.C.10.g.)**

**Permit Deadlines and Responsible Parties**
Update SWPPPs for City maintenance and storage facilities  | December 31, 2022  | • ES/Environmental Compliance Section  
• ES/Environmental Programs Group  
• ES/Operations and Maintenance Division  
• Public Works Department/Street Operations  
• Public Works Department/Facilities Maintenance  
• Tacoma Water  
• Tacoma Power  
• Tacoma Rail

SWPPPs have been developed by the 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)
- TAGRO Business Operations (1423 Puyallup Avenue)
- 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)
- Tacoma Rail (2601 SR 509 North Frontage Road)
- 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)

SWPPPs for these facilities have been developed and implemented to cover operational BMPs and a visual inspection program to evaluate BMP effectiveness. Annual business inspections by Environmental Compliance Inspectors identify issues that are out of compliance with the SWPPP. SWPPP training will also be provided on an annual basis to employees staffing these facilities.

The SWPPPS will be updated by December 1, 2022, to ensure all components required in the Permit are included in the individual SWPPPs.

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

Permit Deadlines and Responsible Parties:
| Provide updated inspection and maintenance records | Ongoing | • ES/Operations and Maintenance Division  
• ES/Environmental Programs Group |

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.

Actions required for permit compliance are listed in the 2020 Work Plan (Appendix C).
S5.C.11. Education and Outreach Program

Summary of Program Components

Public education and outreach is a vital component of the SWMP. Stormwater pollution is the result of ongoing activities of residents and businesses. Therefore, focusing public education efforts on activities and practices that residents 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 an increased 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 is continually updating its education and outreach programs to better serve its diverse population.

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. Staff coordinates with departments and divisions throughout the City. Staff develop messages, create outreach materials, and train other staff regarding outreach messages, plan events, and conduct outreach opportunities.

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. Outreach audiences include commercial and industrial businesses, home-based and mobile businesses, landscapers, and property managers, among others.

ES/Solid Waste Management Division

Staff assists with education related to the storage and disposal of hazardous waste, education related to natural yard care, yard waste disposal and dumpster practices and maintenance, and hosts the EnviroHouse, located at the Tacoma Recovery and Transfer Center, which demonstrates sustainable building and natural landscape techniques.

City Media and Communications Office

Staff provides strategic marketing and communications support to all ES utilities (surface water, wastewater, and solid waste). Staff advises and supports the ES/Environmental Programs Group and ES/Environmental Compliance Section on public relations and media relations opportunities. Staff manage relevant social media outreach efforts and other duties as assigned.

Office of Environmental Policy and Sustainability (OEPS)

The EnviroChallenger environmental education program delivers free lessons to elementary and middle schools, home school groups and represents ES at community events. Lessons and
event activities include stormwater, wastewater, and solid waste topics. OEPS and Environmental Programs Group partner on activities and initiatives where messaging overlaps.

OEPS manages ES’s social media presence on Facebook and Instagram as well as creates content for the EnviroTalk newsletter, TV Tacoma, bi-monthly utility bill inserts, utility websites and the Recycle Coach App, which aid in reaching our City of Tacoma audience. OEPS staff also creates educational and promotional materials to support utility programs and messages.

**Permit Compliance Measures**

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

**Permit Deadlines and Responsible Parties**

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>Deadline</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build general awareness about methods to address and reduce stormwater impacts</td>
<td>Ongoing</td>
<td>ES/Environmental Programs Group, ES/Environmental Compliance Section, ES/Solid Waste Management Division, City Media and Communications Office, EnviroChallenger Program, ES/Communications</td>
</tr>
<tr>
<td>Determine if an additional evaluation of the behavior change program previously evaluated will have value to future efforts and if so, complete the evaluation</td>
<td>July 1, 2020 Complete</td>
<td>ES/Environmental Programs Group</td>
</tr>
<tr>
<td>Develop a strategy and schedule for a new target audience and BMP behavior change campaign</td>
<td>February 1, 2021 Complete</td>
<td>ES/Environmental Programs Group</td>
</tr>
<tr>
<td>Begin implementing the 2019 permit required behavior change strategy</td>
<td>April 1, 2021</td>
<td>ES/Environmental Programs Group</td>
</tr>
<tr>
<td>Evaluate and report on the 2019 permit required behavior change program</td>
<td>March 31, 2024</td>
<td>ES/Environmental Programs Group</td>
</tr>
<tr>
<td>Continue to improve and implement the 2019 permit required behavior change program</td>
<td>Ongoing</td>
<td>ES/Environmental Programs Group</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Permit mandated target audiences for General Awareness</th>
<th>Permit mandated messages for the target audience</th>
</tr>
</thead>
</table>
| General Public (including school age children and overburdened communities), and businesses (including home-based and mobile business) | • General impacts of stormwater on surface waters, including impacts from impervious surfaces and of the hazards associated with illicit discharges and improper disposal of waste.  
• LID principles and LID BMPs. |
| Engineers, contractors, developers, and land use planners | • Technical standards for stormwater site and erosion control plans.  
• LID principles and LID BMPs.  
• Stormwater treatment and flow control BMPs/facilities |

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.

The City’s public education and outreach efforts to meet the Permit requirements are summarized below:

**Build General Awareness:**

**EnviroChallenger**

The City’s EnviroChallenger environmental education program continues to serve public, private, and home school communities within Tacoma. Environmental educators visit Tacoma school classrooms to promote stormwater, wastewater, garbage and recycling messages to children each year. The EnviroChallengers (EC) also attend many community events throughout the year and help to communicate stormwater messages to adults as well.

Despite facing many challenges including school closures and the cancellation of all public events due to the worldwide pandemic, the EnviroChallengers successfully:

- Taught 33 days in the classroom (Jan and Feb)
- Taught approximately 132 lessons
- Taught at 10 special school events, after-school, library and winter programs (Jan and Feb)
  COVID-19 adjustments:
- Met with over 30 admin and teachers
- Taught 5 virtual classes (option starting December 2020)
• Created and streamed 56 community engagement videos (including EC at home, Ask the EC and EC shorts)

Community events in 2020
Although community events were cancelled due to COVID. The EnviroChallengers helped to run the Green Tacoma Day virtual event by supporting engagement efforts with the new EnviroChallenger Goose Chase app. (virtual scavenger hunt with missions for virtual teams to engage in activities to support ES and stormwater pollution prevention messaging)

Collaborations in 2020
The EnviroChallenger educators collaborate with local groups and nonprofit organizations for events and activities around Tacoma. Community communications and engagement were affected by the Stay At Home order from the State. The EnviroChallenger team worked with Pierce County and TPU to design virtual teacher clock hour workshops. The EnviroChallengers also worked with the school district to support their needs during this time. The EnviroChallengers continued virtual meetings with various community affiliates to brainstorm ideas for community/school engagement during COVID.

EnviroChallenger lessons and new additions in 2020
EnviroChallenger lessons currently being offered are modified virtual versions of Down the Storm Drain; Green-Go-Bingo; Our World is in Jeopardy; Talking Trash; After the Flush; Water, Water, Everywhere; Survivor Salmon, More Litter, More problems Art lessons: art lessons: Cardboard Creatures, Waste Watercolor, All Downhill from Here, all lessons teaching ES and stormwater pollution prevention messaging.

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). This campaign began in 2009, and has included a television advertising campaign, website and social media efforts. 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. Puget Sound Starts Here is a regionally relevant, broadly distributed high impact awareness program that supports local efforts to elevate the region’s understanding of stormwater pollution impacts. Where appropriate, the City co-brands its surface water BMP messages with the campaign to enhance its impact.

Beginning in 2012, May was regionally designated “Puget Sound Starts Here Month.” The City of Tacoma and other partners participate in PSSH promotions. Due to the onset of the worldwide pandemic in early 2020, the PSSH month was moved to September 2020.

In 2020, the City of Tacoma partnered with multiple jurisdictions and contributed financially to deliver a digital PSSH ad campaign. Working with the STORM workgroup, a social and digital media consultant agency, Rich Marketing, was hired to boost existing PSSH messaging. Commercials and ads created as part of the “Certain Things Don't Mix” messaging focused on natural yard care protective of water quality, pet waste management and vehicle maintenances. These ads were delivered to all zip codes in Tacoma across a vast array of social media and online platforms. Messaging was available in four languages including English, Korean, Spanish and Vietnamese. Based on the performance tracking provided by Rich Marketing, the City of Tacoma had over 500,000 impressions won with over 135,000 video starts and greater than 97,000 video completions. A large percentage of impressions won, video starts and clicks were for the ads focused on gardening and came from overburdened or low income (<30k/yr) Spanish speaking communities in the Tacoma area.
Community Events

Stormwater messages are promoted at a variety of community events. Both the EnviroChallengers and Environmental Programs Group staff are present at these events. Environmental Programs group staff typically participate in four to six local community outreach events each year. Many festivals and in person events were cancelled in 2020 due to COVID-19 which significantly reduced education and outreach engagement events.

Tacoma Ocean Fest

City ES staff was able to participate in and create content for an eco-booth as part of Tacoma Ocean Fest in September 2020. This event was free and self-directed online. Each eco-booth provided an informational video and an at-home educational activity promoting everyday Ocean Actions that can be done to protect the ocean. The City’s eco-booth focused on the prevention of stormwater pollution. A short video was produced to educate viewers about where their water goes in the City of Tacoma, how stormwater is polluted and its impacts on aquatic life. In addition to the video, booth visitors were prompted to take an online stormwater quiz that provided further education on various stormwater pollutants and the simple actions that can be done to prevent pollutants from entering the stormwater system. This online content is still available for viewing and was promoted periodically throughout the year (https://tacomaoceanfest.org/).

Car Wash Coupons

The City is now focusing on distributing free car wash coupons and encouraging charities to sell car wash coupons for fundraising rather than hosting charity car washes. The City provides technical assistance and recommendations on how to fundraise while avoiding discharges to the stormwater system.

Don’t Drip and Drive

The City partners with the regional campaign to help bring awareness throughout the Puget Sound region on the impacts of car leaks (oils, coolant and other toxins) to surface water.

A website (fixcarleaks.org) was developed which contains information on how to diagnose car leaks, tips on what to expect from your mechanic, schedule and registration details for upcoming auto leak workshops, and a list of participating inspection and repair shops throughout the region.

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.

EnviroTalk Publication

ES sends out the EnviroTalk magazine three times per year to approximately 54,000 single-family and duplex home residents throughout the City to educate them about stormwater, wastewater and solid waste messages, activities and upcoming events in the community.

Utility Bill Inserts
Stormwater messages are included throughout the year in the utility bill inserts sent to approximately 125,000 customers in the City.

TV Tacoma

TV Tacoma is an avenue to provide local viewing audiences with information including stormwater-related public service announcements, PSSH campaign advertisements, and more.

Urban Green is a TV Tacoma program to showcase the environmental and sustainable efforts around the City of Tacoma. The program is available on TV Tacoma and online at www.cityoftacoma.org/UrbanGreen. A new episode of Urban Green will air on TV Tacoma and the City’s website every two months and feature topics such as:

- Interviews with regional and national experts on issues pertinent to our region;
- EnviroChallenger tips for passing on environmental ethics to the next generation;
- Local efforts and regional opportunities for environmental stewardship;
- Upcoming chances to learn more and/or get involved;
- Make a Splash grant recipients and their stormwater focused projects; and.
- The effects of stormwater on surface water quality and the aquatic ecosystem.

Tacoma Report is a TV Tacoma news program that airs every day and features information about City services and programs occasionally including surface water management topics.

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 applications are accepted from the general public during the month of May to coincide with Puget Sound Starts Here month and are awarded in July of each year. Grants are designed for projects that have a strong stormwater pollution prevention message or provide a stormwater benefit. Submitted projects must meet at least one of the program goals of education, surface water protection, or habitat restoration and tree planting. Over 70 projects have been funded since 2013. Several K12 educators who apply have requested one time project funding and often rely on repeat funding to continue lessons or activities about the impacts of stormwater pollution on water quality and the health of the aquatic ecosystem. Due to COVID-19 and related budget impacts, the City did not have a grant application cycle in 2020. We finalized grants from the 2019 funding cycle and will have an application cycle in 2021.

ES Sponsorship of Tacoma Rainiers Baseball Games

ES is a corporate sponsor for the Tacoma Rainiers. ES Sponsorship includes an ad in each issue of “The Dirt” program and a radio spot on every broadcast for home and away games. Three title sponsorships for home games at Cheney Stadium each season include additional advertising in “The Dirt,” PA announcements, scoreboard public service announcements and a staffed information table on the concourse. Due to COVID-19 no games were played in 2020. When games are played, the City is expected to resume its sponsorship.

Watershed Signs

Watershed signs featuring a leaping salmon graphic and the message “Entering _____ Watershed, Yours to Protect,” and the Water Pollution hotline number were installed at the borders of all nine watersheds along major arterial streets in 2012. The graphics are similar to the curb markers seen around the City, and stakeholder input indicates that the watershed signs and curb markers are visible and effective reminders to keep pollution out of the storm
drains. In 2018, the watershed signs were updated to reflect the City’s new pollution call in number 311, which allows residents to call in water pollution sightings around the City.

Open Space Management Program

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.

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, “pin” foundations, and other surface water-related best management practices in action. Interpretive signage and educational materials are available regarding LID and natural yard care strategies. Due to the worldwide pandemic, the EnviroHouse was closed to the visiting public beginning in early March 2020. Free online workshops were 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.

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.

City of Tacoma Website

This website (cityoftacoma.org/surfacewater) includes information about Stormwater services and rates, the Permit, the City’s Annual Report, SWMM, permitting requirements, general BMPs to prevent stormwater pollution, Green Stormwater Infrastructure projects, standard plans for stormwater infrastructure including LID and GSI standards and other related topics.

Virtual NEBC: Managing Stormwater in the Northwest

The City was a sponsor of the virtual NEBC: Managing Stormwater in the Northwest conference. The City had a virtual booth which contained stormwater messaging and resources that attendees could download. There were videos in our booth highlighting City LID projects. The City led three breakout forums that were well attended. The breakout forums covered the topics of Tacoma’s Watershed Management Plan, Open Space Restoration in Tacoma and an open forum on Environmental Compliance.

The audiences at this conference were private industry and consultants, regulatory community and implementers of stormwater regulations. The key messages promoted at the conference were technical standards for stormwater site and erosion control plans, LID principles and LID BMPs and stormwater treatment and flow control BMPs/facilities.

Stormwater Manual listserv

This technical listserv informs interested parties about the City’s Stormwater Management Manual, updates to stormwater related policies and technical trainings. Subscription is open to anyone and includes the general public, engineers, developers, City development staff and others. The City’s stormwater page has a sign up for the listserv.
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. Informational handouts for businesses including mobile painters, pressure washers, and carpet cleaners on how to properly dispose of their wastewater have been developed and are delivered when needed. 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.

Behavior Change:

Target Audience: Businesses

BMP: Dumpster and trash compactor maintenance

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, 2021 as required by the Permit of the new behavior change strategy will begin by April 1, 2021.

The new behavior change strategy was developed using the Social Marketing 10 Step Strategic Planning Model. Through this process and the collection of local data on barriers, benefits and motivators, the decision was made by the regional group to focus on the specific effort of closing dumpster lids every time for commercial businesses. The ultimate goal of this collaboration through the regional group is to reduce stormwater pollution to surface waters through social marketing methods that motivate commercial businesses within the NPDES geographic coverage area to keep dumpster lids closed. The City of Tacoma will implement the basic toolkit package developed through multi-jurisdictional collaboration. The basic toolkit items will be tested for effectiveness through traditional social marketing methods during a pilot campaign implementation and evaluation. The City of Tacoma will continue participation in multi-jurisdictional meetings to ensure consistent pilot phase implementation and evaluation. Throughout the campaign, the City of Tacoma will track activities and provide input on the pilot campaign to inform the project evaluation and a long-term implementation plan.

Stewardship Opportunities:

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

Low Impact Development Rate Reduction

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.

Rain Garden Technical Assistance
ES has developed technical resources for the construction of rain gardens. PCD to provide residents with technical assistance. ES staff will do a site visit with interested homeowners upon request to evaluate the potential of raingarden installation on their property. If the property owners decides to continue with raingarden installation they are referred to PCD to provide residents with additional technical assistance.

Tacoma EnviroNews Listserv
“Tacoma EnviroNews” is an automated electronic listserv that anyone can subscribe to and post messages related to environmental issues, stewardship events, and job or volunteer opportunities. Tacoma’s Environmental Services sponsors this listserv that promotes educational and stewardship opportunities within the greater Tacoma area.

Pet Waste Program
In 2015, ES piloted a neighborhood pet waste station sponsorship program. Participants apply to sponsor a pet waste station, and ES provides the station and initial bag supplies. The sponsors monitor station use and replace bags as needed. The stations are available to residential neighborhoods as well as multi-family housing units. In response to feedback about the cost to purchase replacement bags and after the City of Tacoma initiated the shopping bag ban, EPG now offers free replacement bag rolls to sponsors.

Information on proper management and disposal of pet waste is available on the City’s website and is included in the City’s publications and programming including social media, utility bill inserts, the EnviroTalk newsletter and environmental lessons by the EnviroChallengers. The Dog mascot, “Scoopy Doo” and a “Poo Toss” game are also commonly seen at ES-sponsored community and family fun events.

Although there were no new station installations during 2020, ES staff maintained communication with current station sponsors and continued to provide bag refills as needed.

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 EarthCorps, Metro Parks Tacoma, PCD and others to educate the public while encouraging and recruiting stewards on volunteer appropriate open space properties. There are active volunteer stewardship groups at these City-owned properties: Julia’s Gulch, Wapato Hills, Fern Hill, and Mason Gulch. Priority restoration activities include invasive vegetation removal and replanting with native vegetation.

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. A report of the observations is published by PCD.

Depave
ES also works with PCD to coordinate depave events in public locations throughout Tacoma to promote reduction in impervious surfaces and increased green spaces.
Chip-in!
In upland open space areas within the City, Metro Parks Tacoma’s Chip-In! program helps run volunteer activities such as site stewards and volunteer work parties to remove invasive species, garbage, improve public access (trails, entrances, fencing, signage) and plant native vegetation.

Catch Basin Marking Program
The City continues to partner with Citizens for a Healthy Bay (CHB) to work with volunteers to label catch basins throughout the City. The catch basin labels have a friendly reminder that stormwater goes directly into the nearest creek, stream or Commencement Bay and no pollutants should be disposed of in the stormwater system. The City provides marking supplies and helps with program promotion. CHB coordinates the volunteers and leads the marking events. Locations of the curb markers are mapped and input into the City’s GIS system. The program goal is to have every catch basin in Tacoma marked.

A new catch basin marking app was rolled out in 2020 to help reduce paper and create greater access to community groups wanting to partner with the City of Tacoma and CHB. This stormwater catch basin marking app allows the public to identify catch basins that need to be marked anywhere in the City of Tacoma. Due to COVID 19, less in person group events were possible in 2020 and 2021. CHB developed several online video trainings for marking catch basins and using the new app and catch basin marking is continuing in smaller groups to follow COVID 19 guidelines for gatherings.

Actions required for permit compliance are listed in the 2020 Work Plan (Appendix C).
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 elected to pay into the Regional Status and Trends Monitoring fund and conduct a Stormwater Management Program Effectiveness and Source Identification Study. This is a continuation of the City’s elections from the 2013 permit cycle.

Regional Status and Trends Monitoring (S8.A)

Permit Compliance Measures

Regular payment to Ecology funds for status and trends stream monitoring (S8.A)

Permit Deadlines and Responsible Parties

| Provide annual payments | Ongoing Payments due August 15th | ES/Environmental Programs Group |

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 15th of each year.

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

Permit Deadlines and Responsible Parties

| Submit Quality Assurance Project Plan (QAPP) to Ecology for review | February 1, 2020 Complete | ES/Environmental Programs Group |
| Start water quality monitoring | October 1, 2020 Complete | ES/Environmental Programs Group |
| Submit Final report for 2013-2019 permit | June 30, 2020 Complete | ES/Environmental Programs Group |
| Submit annual monitoring results | Yearly by March 31st | ES/Environmental Programs Group |
| Submit EIM data to Ecology | Yearly by June 15 | ES/Environmental Programs Group |

The City has elected 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 31st of each year.

Actions required for permit compliance are listed in the 2020 Work Plan (Appendix C).
# LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMP</td>
<td>Best Management Practices</td>
</tr>
<tr>
<td>CIP</td>
<td>Capital Improvement Projects</td>
</tr>
<tr>
<td>City</td>
<td>The City of Tacoma</td>
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<tr>
<td>CHB</td>
<td>Citizens for a Healthy Bay</td>
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<tr>
<td>DART</td>
<td>Development Assistance and Review Team</td>
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<tr>
<td>ESA</td>
<td>Endangered Species Act</td>
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<td>Environmental Programs Group</td>
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<td>Environmental Services</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographical Information Systems</td>
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<tr>
<td>IDDE</td>
<td>Illicit Connection and Discharge Detection and Elimination</td>
</tr>
<tr>
<td>LID</td>
<td>Low Impact Development</td>
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<tr>
<td>MS4</td>
<td>Municipal Separate Storm Sewer System</td>
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<tr>
<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
</tr>
<tr>
<td>OEPS</td>
<td>Office of Environmental Policy and Sustainability</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Operation and maintenance</td>
</tr>
<tr>
<td>PCD</td>
<td>Pierce Conservation District</td>
</tr>
<tr>
<td>PDS</td>
<td>Planning and Development Services</td>
</tr>
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<td>PSSH</td>
<td>Puget Sound Starts Here</td>
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<td>RCW</td>
<td>Revised Code of Washington</td>
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<td>RRMP</td>
<td>Regional Road Maintenance Program</td>
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<tr>
<td>SAP</td>
<td>The City’s Information Management System database</td>
</tr>
<tr>
<td>SEPA</td>
<td>The Washington State Environmental Policy Act</td>
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<tr>
<td>SCP</td>
<td>Source Control Program</td>
</tr>
<tr>
<td>SIDIR</td>
<td>Source Identification Information Repository</td>
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<td>STGPD</td>
<td>South Tacoma Groundwater Protection District</td>
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<td>SAM</td>
<td>Stormwater Action Monitoring</td>
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<td>SWMM</td>
<td>Stormwater Management Manual</td>
</tr>
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<td>SWMP</td>
<td>Stormwater Management Program</td>
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<td>SWPPP</td>
<td>Stormwater Pollution Prevention Plans</td>
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<tr>
<td>STRAP</td>
<td>Stormwater Rapid Assessment Program</td>
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<tr>
<td>SSC</td>
<td>Structural Stormwater Controls</td>
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<tr>
<td>TMC</td>
<td>Tacoma Municipal Code</td>
</tr>
<tr>
<td>TPCHD</td>
<td>Tacoma-Pierce County Health Department</td>
</tr>
</tbody>
</table>
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:
http://www.cityoftacoma.org/municode

NOTE: AS OF TIME FOR PUBLIC REVIEW OF THIS SWMP PLAN, THE CODE SECTIONS ARE IN DRAFT FORM, IT IS EXPECTED THAT CODE WILL BE ADOPTED BY TACOMA CITY COUNCIL IN APRIL OF 2021
Appendix B

NPDES Internal Coordination Memorandum
TO: General Government Department Directors  
TPU Superintendents

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

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. 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!
Appendix C

2020 SWMP Work Plan
### 2021 SWMP WORK PLAN

The following for 2021 NPDES permit compliance will be implemented throughout 2021

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Compliance Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>S5.C.1.</td>
<td>Legal Authority to Control Discharges to and from the MS4</td>
<td>• Minor changes made to TMC for compliance required by July 1, 2021. • Continue compliance with Section S5.C.1.</td>
</tr>
<tr>
<td>S5.C.2.</td>
<td>MS4 Mapping and Documentation</td>
<td>• Continue compliance with Section S5.C.2.</td>
</tr>
<tr>
<td>S5.C.3.</td>
<td>Coordination</td>
<td>• Continue compliance with Section S5.C.3.</td>
</tr>
<tr>
<td>S5.C.5.</td>
<td>Controlling Runoff from New Development, Redevelopment, and Construction Sites</td>
<td>• Effective date for the updated SWMM, maintenance standards and ordinances July 1, 2021. • Continue compliance with Section S5.C.5.</td>
</tr>
<tr>
<td>S5.C.7.</td>
<td>Structural Stormwater Controls</td>
<td>• Continue compliance with Section S5.C.7.</td>
</tr>
<tr>
<td>S5.C.11.</td>
<td>Education and Outreach Program</td>
<td>• Continue planning for more equitable education and outreach programming to serve more diverse audiences. • April 1, 2021 begin implementation of behavior change program • Continue compliance with Section S5.C.11.</td>
</tr>
</tbody>
</table>
| S8. – Monitoring and Inspection | • Continue paying into a collective fund for Regional Status and Trends Monitoring in the Puget Sound. Payments into the collective fund are due to Ecology annually on August 15th.

• Submit monitoring data to Ecology EIM by June 15, 2021

• Submit Annual Monitoring Report by March 31, 2021

• Continue the SWMP effectiveness study using stormwater discharge monitoring at seven locations in accordance with the updated Quality Assurance Project Plan. Annual sampling will occur and a yearly report will be submitted.

• Continue compliance with Section S8. |