

CITY OF LAKEWOOD
2023 STORMWATER MANAGEMENT
PROGRAM (SWMP) DRAFT

City of Lakewood, WA
February 8, 2023



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CITY OF LAKEWOOD STORMWATER MANAGEMENT PROGRAM

1. INTRODUCTION

1.1 Overview

This document presents the City of Lakewood's Stormwater Management Program (SWMP). Preparation and maintenance of this SWMP is required by the Washington State Department of Ecology (Ecology) as a condition of the Western Washington Phase II Municipal Stormwater Permit (the Phase II Permit). The Phase II permit covers discharges from regulated small municipal Separate Storm Sewer Systems (small MS4s). Based on criteria outlined in the Phase II Permit, Ecology considers the City of Lakewood an operator of a small MS4, and therefore required to obtain permit coverage.

Each municipality's permit for discharging stormwater is designed to reduce the discharge of pollutants, protect water quality, and meet the requirements of the Federal Clean Water Act.

1.2 The Stormwater Problem

Stormwater is the leading contributor to water quality pollution in our urban waterways. As urban areas grow, stormwater is also Washington's fastest growing water quality problem. Pollutants in or resulting from stormwater can cause a wide range of impacts. Untreated stormwater is not safe for people to drink and is not recommended for swimming because it contains toxic metals, organic compounds and bacteria. Some pollutants such as metals, oil and grease, and organic toxins are toxic to aquatic organisms if concentrations are high enough. Sediments cause tissue abrasion and gill clogging in fish, they reduce light and impair algal growth, they smother fish spawning habitat and are transporters of other pollutants. Nutrients accelerate eutrophication (a process where water bodies receive excess nutrients that stimulate excessive plant growth) of lakes and ponds resulting in nuisance algal blooms, reduced clarity, odors and reduced drinking water quality. Temperature sensitive fish and invertebrates (animals without backbones, for example: insects, crustaceans, worms, snails, and clams) cannot survive in overly warm water bodies (Ecology, 2006).

In addition, the large impervious surfaces in urban areas increase the quantity and peak flows of runoff, which in turn cause hydrologic impacts such as scoured streambed channels, in-stream sedimentation and loss of habitat. Furthermore, because of the enormous volume of runoff discharges, mass loads of pollutants in stormwater can be significant, causing water quality problems such as fish and other aquatic organism's disease and mortality, swimming beach and shellfish bed closures and contamination of wells (Ecology, 2006).

There are a number of pollution sources that contaminate stormwater, including land use activities, operation and maintenance activities, illicit discharges and spills, atmospheric deposition, and vehicular traffic conditions. Many of these sources are not under the direct control of the permittees that own or operate the storm sewers.

1.3 Regulatory Background

The National Pollutant Discharge Elimination System (NPDES) permit program is a requirement of the Clean Water Act, which is intended to protect and restore waters for "fishable, swimmable" uses. The federal Environmental Protection Agency (EPA) has delegated permit authority to state environmental agencies. In Washington, the NPDES-delegated permit authority is the Washington State Department of Ecology (Ecology).

Municipalities with a population of over 100,000 (as of the 1990 census) have been designated as Phase I communities and must comply with Ecology’s Phase I NPDES Municipal Stormwater Permit. With Lakewood’s 1990 census falling below the 100,000 threshold, and the US Census Bureau’s 2020 census reporting Lakewood’s population to be 63,612, the City must comply with the Phase II Municipal Stormwater Permit. About 100 other municipalities in Washington now comply with the Phase II Permit (Permit), along with Lakewood, as operators of small municipal separate storm sewer systems (MS4s).

The Permit allows municipalities to discharge stormwater runoff from municipal drainage systems into the State’s water bodies (e.g., streams, rivers, lakes, wetlands) as long as municipalities have implemented programs to protect water quality by reducing the discharge of “non-point source” pollutants to the “maximum extent practicable” (MEP) through application of Permit-specified “best management practices” (BMPs). The practices specified in the Permit are collectively referred to as the Stormwater Management Program (SWMP) and grouped under the following Stormwater Management Program components:

- Stormwater Planning
- Public Education and Outreach
- Public Involvement and Participation
- MS4 Mapping and Documentation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment and Construction Sites
- Operations and Maintenance
- Source Control Program for Existing Development
- Monitoring and Assessment

The initial Permit issued by Ecology became effective on February 16, 2007 and expired on July 31, 2013. A second Permit became effective August 1, 2013 and expired on July 31, 2019. A new Permit became effective August 1, 2019. The Permit requires the City to report annually (March 31st of each year) on progress in Program implementation for the prior year. The Permit also requires submittal of documentation that describes proposed Program activities for the coming year. Implementation of various Permit conditions is phased throughout the Permit term from August 1, 2019 through July 31, 2024. The Permit will be revised and reissued at the end of this period.

1.4 City of Lakewood Regulated Area

The Phase II Permit applies to operators of regulated small MS4s that discharge stormwater to waters of Washington State located west of the crest of the Cascade Range (west of the eastern boundaries of Whatcom, Skagit, Snohomish, King, Pierce, Lewis and Skamania counties). For cities, the Permit requirements extend to the entire incorporated city. However, discharges to ground waters of the state through facilities regulated under the Underground Injection Control (UIC) program, Chapter 173-218 Washington Administrative Code (WAC), are not covered under the Phase II permit.

1.5 SWMP Implementation Responsibilities

The Permit requirements affect departments across the City organization. The primary entity responsible for administering the stormwater management program is the Engineering Services Division of the Public Works Engineering Department. Other departments, including Operations and Maintenance, Parks, Finance, Human Resources, and Legal, will be responsible for certain tasks, and will fill a support role for other tasks.

In each of the following sections of this document, specific departmental responsibilities are presented for the 2023 SWMP implementation tasks.

1.6 Total Maximum Daily Load Compliance

Stormwater discharges covered under this permit are required to implement actions necessary to achieve the pollutant reductions called for in applicable Total Maximum Daily Load (TMDL). Applicable TMDLs are TMDLs which have been approved by the EPA before the issuance date of the permit or which have been approved by the EPA prior to the date the permittees application is received by Ecology. Information on Ecology's TMDL program is available on Ecology's website at <https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Total-Maximum-Daily-Load-process>.

All TMDLs approved by EPA before February 15, 2006, were reviewed by Ecology to determine whether stormwater including municipal stormwater sources were identified in the TMDL. When most of these TMDLs were developed, municipal stormwater was considered a subset of non-point discharges, rather than a permitted discharge. As a result, very few TMDLs statewide contain requirements for municipal stormwater sources. Few TMDLs completed to date have established load allocations (LAs) or waste load allocations (WLAs) for municipal stormwater discharges covered under this permit. Ecology is interpreting TMDL requirements as follows:

- For TMDLs where stormwater was not identified as a source of the pollutants of concern, or if all of the sources were defined in the TMDL, Ecology considers the MS4 not to be a significant contributor of pollutants.
- Where stormwater was identified as a source of pollutants and the TMDL or implementation plans developed to support the TMDL identified control measures were less than or equivalent to the requirements of this permit, Ecology sets a narrative effluent limit: "compliance with the permit constitutes compliance with the TMDL."
- If stormwater was identified as a source of pollutants and specific WLAs, LAs or control measures were established, Ecology must develop effluent limits in addition to the other requirements of the permit. These effluent limits may be narrative or numeric depending on the control measures set by the TMDL or implementation plans.

Where a TMDL or the detailed implementation plan developed for the TMDL identifies actions or activities beyond what is required by this permit, Ecology has identified the additional requirements in Appendix 2 of the Permit for all TMDLs approved by EPA prior to February 15, 2006. Appendix 2 of the Permit lists the cities and counties affected by the TMDL. The City of Lakewood has not been listed in Appendix 2.

1.7 Document Organization

The remainder of this document is organized as follows:

- **Section 2** addresses the Permit requirements for administration of the City's SWMP for 2023.
- **Section 3** addresses the Permit requirements for Stormwater Planning for 2023.
- **Section 4** addresses the Permit requirements for Public Education and Outreach for 2023.
- **Section 5** addresses the Permit requirements for Public Involvement and Participation for 2023.
- **Section 6** addresses the Permit requirements for MS4 Mapping and Documentation for 2023.

- **Section 7** addresses the Permit requirements for Illicit Discharge Detection and Elimination for 2023.
- **Section 8** addresses the Permit requirements for Controlling Runoff from New Development, Redevelopment and Construction Sites for 2023.
- **Section 9** addresses the Permit requirements for Operations and Maintenance for 2023.
- **Section 10** addresses the Permit requirements for Source Control Program for Existing Development for 2023.
- **Section 11** addresses the Permit requirements for Monitoring and Assessment for 2023.

Each section includes a summary of the relevant Permit requirements, and a description of current and planned compliance activities. This document also includes the following attachment for easy reference:

- **Appendix A** - Acronyms and Definitions

The Western Washington Phase II Municipal Stormwater Permit and additional information can be found on Ecology's website: <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Municipal-stormwater-general-permits/Western-Washington-Phase-II-Municipal-Stormwater>

CITY OF LAKEWOOD STORMWATER MANAGEMENT PROGRAM

2. STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

This Section describes Permit requirements related to overall Stormwater Management Program(SWMP) administration, and current and planned compliance activities.

2.1 Permit Requirements

The Permit (Section S5.A) requires the City to:

- Develop and implement a Stormwater Management Program (SWMP) and prepare written documentation for submittal to Ecology on March 31, 2008; and update the SWMP annually thereafter. The purpose of the Program is to reduce the discharge of pollutants from the municipal stormwater system to the maximum extent practicable (MEP) thereby protecting water quality. The Program is to include the actions and activities described in Sections 3 through 11 of this SWMP.
- Beginning in 2008, submit annual reports (for the previous calendar year) to Ecology by March 31st that summarize SWMP implementation status and present information from assessment and evaluation activities conducted during the reporting period.
- Coordinate amongst other permittees on stormwater-related policies, programs, and projects within adjoining or shared areas.

2.2 Current Activities

The City currently has in place activities and programs that meet the Permit requirements. Current activities associated with the above Permit requirements include:

- The City is on track to comply with Ecology's requirements for submittal of the SWMP documentation by March 31, 2023. The Engineering Services Division is currently leading the development of the future planned activities with input and support from other departments as needed.
- The City is on track to comply with Ecology's requirements for submittal of the 2022 Annual Report by March 31, 2023.
- The City created its NPDES departmental/divisional organization structure and identified and empowered NPDES leads.
- The City is coordinating with various other permittees on NPDES related activities including education and outreach planning and implementation and illicit discharges.
- The City is implementing cost accounting strategies to track NPDES permit related costs.
- The City has chartered a NPDES implementation team.

2.3 Planned Activities

There are no new additional planned activities.

3. STORMWATER PLANNING

This Section describes Permit requirements related to stormwater planning, and current and planned compliance activities.

3.1 Permit Requirements

The Permit (Section S5.C.1) 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.

A summary of the minimum performance measures are:

- By August 1, 2021, convene an inter-disciplinary team to inform and assist in the development, progress, and influence of this program.
- Coordination with long-range plan updates.
- Low impact development code-related requirements.
- Stormwater Management Action Planning.

Further details about each of the performance measures are described in the Permit.

3.2 Current Activities

In 2021, the City convened a staff team from Public Works Engineering and Community Development and Planning to inform and assist in the development, progress, and influence of this program. Community Development, Public Works, Long Range Planning Division and City Management meet weekly to review development citywide this includes topics related to long-range planning, low impact development and Stormwater Management. The City reorganized staff and responsibilities in fourth quarter 2022, PWE will update the staff team and activities across departmental organization structures.

3.3 Planned Activities

Action planned for 2023:

- Assess existing information related to Lakewood's receiving waters and contributing area conditions to identify which receiving waters are most likely to benefit from stormwater management planning.

Table 3-1 is the work plan for 2023 SWMP stormwater planning activities.

Table 3-1. 2023 Stormwater Planning Work Plan

Task ID	Tasks	Responsible	Schedule Notes
SP-1	Stormwater Planning minimum performance measures		
SP-1.2	Receiving water assessment (SMAP)	Engineering Services Division	Submit by March 31, 2022
SP-2	Summarize annual activities for "Stormwater Planning" component of annual report, identify updates to SWMP.	Engineering Services Division	Submit by March 31, 2023

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4. PUBLIC EDUCATION AND OUTREACH

This Section describes Permit requirements related to public education and outreach, and current and planned compliance activities.

4.1 Permit Requirements

The Permit (Section S5.C.2) requires the City to:

- Design a program to educate target audiences about the stormwater problem and provide specific action that they can follow to minimize the problem. To build general awareness, permittees shall select from the following target audiences, general public (including overburdened communities and school aged children), businesses (including home-based and mobile businesses), engineers, contractors, developers, and land use planners. To affect behavior change, Permittees shall select from the following target audiences, residents, landscapers and property managers/owners, developers, school age children, or businesses (including home-based and mobile businesses).
- The Permittee shall conduct a new evaluation of the effectiveness of an ongoing behavior change campaign (required under S5.C.1.a.ii and S5.C.1.c of the 2019 Permit). The Permittee shall document lessons learned and recommendations for which option to select from S5.C.2.a.ii.(c).
- Create stewardship opportunities and/or partner with existing organizations to encourage residents to participate in activities such as stream teams, storm drain marking, volunteer monitoring, riparian plantings and education activities.

4.2 Current Activities

The City Education and Outreach Plan currently consists of educational brochures that focus on many audiences and activities of concern (e.g., charity car washes, vehicle repair facilities, and restaurants). City staff also provides stormwater pollution prevention education during business inspections. City staff meet regularly with several other permittees to review and share information about public education and outreach activities.

The City participated in other outreach efforts in 2022 which included creating and publishing a stormwater pollution prevention themed calendar with the Agape Homeschool Co-Op. This year was the first year since COVID-19 prohibited “in-class” instruction, that we were able to meet in the classroom. We chose a home-school environment to keep it small, and to be all inclusive. We still utilized the YouTube video we created a few years ago, because we found the message to be informative, entertaining and engaging to the audience. We printed 1000 of these calendars and they were distributed throughout the city at different businesses to hand out to their customers for free.

The City of Lakewood also presented, in the South Sound Phase II Coordinators group Zoom conference, our updated “Quantifying Behavior Change Document.” This document was originally created in 2013 to demonstrate how business inspections and follow-up inspections, with an influence on stormwater BMP’s can influence change in business operations.

Other outreach events have still not resumed since COVID-19, i.e.: staffing a booth at a dog-a-thon at a City park (scoop the poop campaign), participating in the Puget Sound Starts Here campaign activities (regional outreach campaign with other municipalities), volunteering at the 2022 Tacoma-Pierce County Children’s Festival –Water 4 Life (educating thousands of elementary students from Pierce County on stormwater), and staffing the Stream Team booth at the Puyallup Fair. However, we had prepared hand-outs for several of the events, and were able to use them in virtual outreach events. A copy of the current Education and Outreach Plan is available upon request. The City did participate with the Dumpster Lid Program with several other jurisdictions. A copy of this report is available upon request and will be an attachment in the 2023 NPDES Annual Report, this is an on-going outreach program and is included in our inspection program.

In 2021 the City of Lakewood did partner with the Department of Ecology on their Pollution Prevention Assistance Partnership program. This program has been on-going through 2022 and runs through June of 2023.

The City has prepared a report on quantifying behavior change, and measured the understanding and adoption of the targeted behaviors. With the results of this report, the City has and is focusing on the auto repair industry and the waste stream they create. A copy of the current report is available upon request.

4.3 Planned Activities

Lakewood has a Public Education and Outreach Plan that meets the intent of the Permit requirements. Actions planned for 2023 include:

- Continue collaboration with other NPDES municipalities to identify appropriate Program evaluation techniques.
- Continue existing programs and activities noted above.
- Work with another elementary school located within the clover park School District on a stormwater themed calendar using children’s artwork in the calendar. We are planning to work with The Western State Hospital students to be all inclusive.
- Work with other public agencies to address the impacts to stormwater from mobile businesses (e.g., carpet cleaners, pressure washers, vehicle detailers, etc.).
- Continue working with other jurisdictions on the Dumpster Lid Social Marketing Campaign. Summarize annual activities for "Public Education and Outreach" component of the annual report; including any updates to the SWMP.

Continue Pollution Prevention Partnership with the Department of Ecology and the City plans to reapply in 2023.

Table 4-1 is the work plan for 2023 SWMP public education and outreach activities.

Table 4-1. 2023 Public Education and Outreach Work Plan			
Task ID	Tasks	Responsible	Schedule Notes
EDUC-2	Continue Education and Outreach Program and supplement existing activities as needed (coordinate with IDDE program).		

Table 4-1. 2023 Public Education and Outreach Work Plan

Task ID	Tasks	Responsible	Schedule Notes
EDUC-2.5	Continue Pollution Prevention Partnership with the Department of Ecology and Reapply	Engineering Services Division	2021 – 2023 (current contract)
EDUC-2.6	Create stormwater themed calendar with Western State Hospital elementary school students.	Engineering Services Division	2023
EDUC-2.8	Work with other public agencies to address stormwater impacts from mobile businesses.	Engineering Services Division	2023
EDUC-2.9	Currently working with other jurisdictions on the Dumpster Lid Social Marketing Campaign	Engineering Services Division	2023
EDUC-3	Summarize annual activities for "Public Education and Outreach" component of annual report, identify updates to SWMP.	Engineering Services Division	Submit by March 31, 2023

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5. PUBLIC INVOLVEMENT AND PARTICIPATION

This Section describes Permit requirements related to public involvement, and current and planned compliance activities.

5.1 Permit Requirements

The Permit (Section S5.C.3) requires the City to:

- Provide ongoing opportunities for public involvement and participation through advisory councils, public hearings, watershed committees, participation in developing rate structures or other similar activities. The public must be able to participate in the decision-making processes involving the development, implementation and update of the Program.
- Make the SWMP document and annual report available to the public, including posting on the City's website. Make any other documents required to be submitted to Ecology in response to permit conditions available to the public.

5.2 Current Activities

The City currently has activities and programs that meet many of the Permit requirements. The current compliance activities associated with the above Permit requirements include:

- The City will make the draft of the 2023 SWMP available to the public for comment before final completion and submission to Ecology.
- City staff attends monthly meetings of the local watershed group (Chambers-Clover Creek Watershed Council) and provide opportunity for feedback on City Permit activities.
- Citizens volunteered 126 hours.
- The City made the 2022 SWMP document and the 2021 Annual Report available to the public by posting on the City website and invited the public to comment.
- City PWE Staff attend the South Sound Phase II Coordinators group meetings.

5.3 Planned Activities

Lakewood has a history of including the public and citizen committees in decision making. Major actions recommended for continued compliance include:

- Continue with activities as noted above.
- Make 2023 SWMP document and 2022 Annual Report available to public by posting on the City website and invite the public to comment.
- Summarize annual activities for "Public Involvement and Participation" component of annual report; including any updates to the SWMP.

Table 5-1 is the work plan for 2023 SWMP public involvement activities.

Table 5-1. 2023 Public Involvement Work Plan			
Task ID	Tasks	Responsible	Schedule Notes
PUBL-2	Maintain website – Post 2023 SWMP and 2022 Annual Report.	Information Services, Engineering Services Division	Ongoing
PUBL-3	Summarize annual activities for "Public Involvement and Participation" component of annual report, identify updates to SWMP.	Engineering Services Division	Submit by March 31, 2023

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6. MS4 MAPPING AND DOCUMENTATION

This Section describes Permit requirements related to MS4 mapping and documentation, and current and planned compliance activities.

6.1 Permit Requirements

The Permit (Section S5.C.4) requires the City to:

- Continue mapping and documenting of the MS4 on an ongoing basis.
- Begin collecting size and material of all known MS4 outfalls during normal course of business and update records (no later than January 1, 2020).
- Complete mapping of all known connections from the MS4 to a privately owned stormwater system (no later than August 1, 2023).

6.2 Current Activities

The City currently implements activities and programs that meet the Permit requirements. The current compliance activities associated with the above Permit requirements include:

- All MS4 outfalls, bodies of water, and public catch basins are mapped. Data collected for outfalls includes pipe size and material type.
- Created a map which shows 24" or larger outfalls including associated conveyance systems, drainage areas and land uses.
- Created a map showing all private connections to the City-owned storm sewer system installed since the first permit effective date of February 2007.
- Created a map showing all geographic areas of the city that do not drain to the municipal storm sewer system.

6.3 Planned Activities

Lakewood has an MS4 mapping and documentation program that meets the Permit requirements. Major actions recommended for continued compliance include:

- Summarize annual activities for the "MS4 Mapping and Documentation" component of the annual report; including any updates to the SWMP document.
- Continue mapping new MS4 infrastructure as it's completed.
- Provide refresher training as needed for City field staff on mapping the City storm sewer system.

Table 6-1 is the work plan for 2023 MS4 mapping and documentation activities.

Table 6-1. 2023 MS4 Mapping and Documentation Work Plan

Task ID	Tasks	Responsible	Schedule Notes
MAP-1	Support the current MS4 mapping and documentation program.	Engineering Services Divisions	Ongoing
MAP-2	Provide mapping refresher training to City field staff.	Engineering Services Division	Ongoing
MAP-3	Summarize annual activities for "MS4 Mapping and Documentation" component of annual report, identify updates to SWMP.	Engineering Services Division	By March 31, 2023

7. ILLICIT DISCHARGE DETECTION AND ELIMINATION

This Section describes Permit requirements related to illicit discharge detection and elimination, and current and planned compliance activities.

7.1 Permit Requirements

The Permit (Section S5.C.5) requires the City to:

- Implement an ongoing program designed to prevent, detect, characterize, trace and eliminate illicit connections and illicit discharges into the MS4. An illicit discharge means “any discharge to a municipal storm system that is not composed entirely of stormwater...” and illicit connection means “any man-made conveyance that is connected to a municipal storm system without a permit (excluding roof drains and other similar type connections) such as sanitary sewer connections, floor drains, etc.”
- Continue mapping of the MS4 on an ongoing basis, have ordinances that prohibit illicit discharges, and continue to implement an ongoing program designed to detect and identify illicit connections.
- Publicly list and publicize a hotline or other local telephone number for public reporting of spills and other illicit discharges. Track illicit discharge reports and actions taken in response through close-out, including enforcement actions.
- Train Program staff on proper IDDE response procedures and processes and to recognize and report illicit discharges.
- Summarize all illicit discharges and connections reported to the City and response actions taken, including enforcement actions, in the annual report; including any updates to the SWMP document.

7.2 Current Activities

The City currently implements activities and programs that meet the Permit requirements. The current compliance activities associated with the above Permit requirements include:

- The City currently has an Illicit Discharge Detection and Elimination (IDDE) program.
- All municipal separate storm sewer outfalls, bodies of water, and public catch basins are mapped.
- The City currently maintains a database of businesses. City staff uses a permit software to review and prioritize the businesses for IDDE inspections. The City has inspected many of the businesses and the results of the inspections are documented.
- Citizens can report illicit discharges or illicit connections to the City via a phone call, email, or on our mobile app MyLakewood311.
- For emergency response to IDDE concerns, City staff maintains a list of emergency contacts. City staff also meets on occasion with Ecology staff to discuss potential violations that are not immediate threats.
- If an illicit discharge is detected, City of Lakewood Operations and Maintenance (O & M) Division acts as first responder. The City follows up with Ecology to pursue code enforcement and to assist with larger spills if necessary.

- City procedures for tracing sources of illicit discharges include visual inspections, dye tests and GIS mapping review. A private vendor under contract with the City also performs camera inspections of storm drain lines.
- The City funds the Pierce Conservation District (PCD) Stream Team who, along with citizen volunteers, monitors water quality in several creeks and lakes in Lakewood.
- The City continues to conduct field staff training on the identification and reporting of illicit discharges into the City storm sewer system.
- The City’s municipal code includes an illicit discharge section.
- The City completed an outfall reconnaissance inventory to verify stormwater outfall locations and to detect any illicit discharges.
- Created a map which shows 24” or larger outfalls including associated conveyance systems, drainage areas and land uses.
- Created a map showing all private connections to the City-owned storm sewer system installed since the first permit effective date of February 2007.
- Created a map showing all geographic areas of the city that do not drain to the municipal storm sewer system.
- Created a formal Illicit Discharge Detection and Elimination Plan in 2011. The plan was updated in 2015.

7.3 Planned Activities

Lakewood has an IDDE program that meets the Permit requirements. Major actions recommended for continued compliance include:

- Summarize annual activities for "Illicit Discharge Detection and Elimination" component of annual report; including any updates to the SWMP document.
- Support the current IDDE program to detect and address non-stormwater discharges, including spills, and illicit connections into Lakewood’s municipal separate storm sewer system.
- Provide refresher training for City field staff on the identification and reporting of illicit discharges into the City storm sewer system.

Table 7-1 is the work plan for 2023 SWMP IDDE activities.

Table 7-1. 2023 Illicit Discharge Detection and Elimination Work Plan			
Task ID	Tasks	Responsible	Schedule Notes
IDDE-4	Support the current IDDE program.	SWM & O&M Divisions	Ongoing
IDDE-5	Provide IDDE refresher training to City field staff.	Engineering Services Division	Ongoing
IDDE-6	Summarize annual activities for "Illicit Discharge Detection and Elimination" component of annual report, identify updates to SWMP.	Engineering Services Division	By March 31, 2023

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8. CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT AND CONSTRUCTION SITES

This Section describes Permit requirements related to controlling runoff from new development, redevelopment and construction sites, and current and planned compliance activities.

8.1 Permit Requirements

The Permit (Section S5.C.6) requires the City to:

- Implement and enforce a program to reduce pollutants in stormwater runoff to the municipal separate storm sewer system from new development, redevelopment and construction site activities. The program shall apply to both private and public developments, including roads, and address all construction/development-associated pollutant sources.
- Adopt regulations (codes and standards) and implement plan review, inspection, and escalating enforcement processes and procedures necessary to implement the program in accordance with Permit conditions, including the minimum technical requirements in Appendix 1 of the Permit (i.e., Ecology Stormwater Management Manual for Western Washington (Ecology stormwater manual), equivalent Phase I Manual or one of the Manual options with a Lakewood-specific basin-planning overlay).
- Provide provisions and (plan review, inspection and enforcement) processes and procedures to allow non-structural preventive actions and source reduction approaches such as Low Impact Development techniques (LID), measures to minimize the creation of impervious surfaces and measures to minimize the disturbance of native soils and vegetation.
- Adopt regulations (codes and standards) and provide provisions to verify adequate long-term operations and maintenance of new post-construction permanent stormwater facilities and best management practices (i.e., private drainage system inspections) in accordance with Permit conditions, including an annual inspection frequency and/or approved alternative inspection frequency and maintenance standards for private drainage systems as protective as those in Chapter IV of the Ecology stormwater manual.
- Provide training to staff on the new codes, standards, processes and procedures and create public outreach and education materials.
- Develop and define a process to record and maintain all inspections and enforcement actions by staff for inclusion in the annual report.
- Summarize annual activities for the “Controlling Runoff” component of the annual report; identify any update to Program document.

8.2 Current Activities

The City currently has activities and programs that meet many of the Permit requirements. The current compliance activities associated with the above Permit requirements include:

- The City of Lakewood Municipal Code (LMC) was updated in 2009 to bring it in line with NPDES permit requirements. The LMC was reviewed and updated in 2019, and meets the Permit requirements.
- Storm drainage provisions are covered in LMC Chapter 12A.11 – Stormwater Management. The City adopted the Ecology stormwater manual as the primary manual but also allows the use of the Pierce County

Stormwater Management and Site Development Manual and the WSDOT Highway Runoff Manual (current editions). LMC Chapter 12A.11 was revised in 2016 to incorporate Low Impact Development principles and standards.

- LMC Section 12A.11.040 - Minimum Requirement #9: Operation and Maintenance, requires that developers provide maintenance covenants for private stormwater facilities. The City has a plat agreement available for use to provide for maintenance of stormwater facilities and to implement a pollution source control plan.
- Notices of Intent for compliance with Ecology’s Construction Stormwater General Permit are provided by the Public Works Engineering Department and at pre-application meetings as needed.
- LMC Chapter 12A.02, Organization and Enforcement, describes the City’s authority, what constitutes violations, enforcement measures, inspection procedures, and the like.

8.3 Planned Activities

Lakewood has a program to help reduce stormwater runoff from new development and construction sites. Actions that will continue include:

- Continue to implement Low Impact Development (LID) provisions so LID is the preferred and commonly-used approach to site development.
- Summarize annual activities for "Controlling Runoff from New Development, Redevelopment, and Construction Sites" component of annual report (including the post-construction private drainage system inspection and maintenance requirements); including any updates to the SWMP document.

Table 8-1 is the work plan for 2023 SWMP activities related to control of runoff from new development, redevelopment and construction sites.

Table 8-1. 2023 New Development, Redevelopment, and Construction Sites Work Plan			
Task ID	Tasks	Responsible	Schedule Notes
CTRL-5	Implement LID so it is the preferred and commonly-used approach to site development.	Engineering Services Division; Community Development Department	Ongoing
CTRL-6	Summarize annual activities for "Controlling Runoff from New Development, Redevelopment and Construction Sites" component of annual report, identify SWMP updates.	Engineering Services Division	By March 31, 2023

CITY OF LAKEWOOD STORMWATER MANAGEMENT PROGRAM

9. OPERATIONS AND MAINTENANCE

This Section describes Permit requirements related to pollution prevention and operation and maintenance for municipal operations, and current and planned compliance activities.

9.1 Summary of Requirements

The Permit (Section S5.C.7) requires the City to:

- Implement an operations and maintenance (O&M) program with the ultimate goal of preventing or reducing pollutant runoff from the municipal separate stormwater system and municipal operations and maintenance activities.
- Implement maintenance standards for the municipal separate stormwater system that are at least as protective as those specified in the Ecology stormwater manual.
- Perform required inspection frequency of stormwater flow control and treatment facilities and catch basins, unless previous inspection data show that a reduced frequency is justified.
- Have processes and procedures in place to reduce stormwater impacts associated with runoff from municipal operation and maintenance activities including but not limited to streets, parking lots, roads or highways owned or maintained by the City, and to reduce pollutants in discharges from all lands owned or maintained by the City.
- Train staff to implement the modified processes and procedures and document that training.
- Prepare Stormwater Pollution Prevention Plans (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City.
- Summarize annual activities for the “Pollution Prevention and Operations and Maintenance for Municipal Operations” component of the annual report; including any updates to the SWMP document.

9.2 Current Activities

The City has activities and programs that meet the Permit requirements. The current compliance activities associated with the above Permit requirements include:

- All City-owned catch basins are inspected and cleaned as needed once every two years. The City has responsibility for numerous water quality vaults (e.g., StormFilter, Vortech, Downstream Defender, CDS, etc.); these are inspected annually and cleaned as needed.
- Stormwater infrastructure cleaning and street sweeping are done by private contractors. The stormwater infrastructure cleaning contractor also inspects storm lines and structures. The contractor records each structure cleaned, and provides spreadsheets and maps to the City to document activities. The sweeping contractor provides spreadsheets of the streets swept, and maps and GPS logs (records date, time, vehicle speed, etc.) upon request.
- The City performs spot checks of stormwater facilities after major storm events; systems are cleaned at that time, if needed.

- Work performed by City maintenance staff includes shoulder, ditch, and pond maintenance, vegetation management, infiltration system installation, sidewalk maintenance, asphalt patching, and snow and ice removal.
- The City contracts for fleet services. Minor vehicle and equipment maintenance and limited vehicle washing is done at the City’s maintenance facilities.
- The City Parks Department operates a maintenance shop at Ft. Steilacoom Park where landscaping and other chemicals are stored, and some vehicle and equipment maintenance is performed. However, the shop area is not connected to the City’s MS4. The City completed a SWPPP for the maintenance shop in 2010. The plan is reviewed and updated annually.
- The City also completed a SWPPP for the Police Station in 2010. The plan is reviewed and updated annually.
- An Operations and Maintenance Shop was constructed in 2015 at 9420 Front St. S. Some vehicle and equipment maintenance is performed there. The drainage system is not connected to the City’s MS4. A SWPPP was prepared for this new facility in 2015 and is reviewed and updated annually.
- The City continues to conduct periodic staff training which covers topics including the importance of protecting water quality, operation and maintenance standards, ways to prevent or minimize impacts to water quality, and the like.
- The City has updated inspection, operation and maintenance SOPs for Lakewood-owned or operated stormwater catch basins and flow control and treatment facilities.
- The City adopted Ecology maintenance standards for City-performed maintenance activities.

9.3 Planned Actions

Lakewood already performs many activities to limit stormwater pollution potential related to its municipal operations and maintenance program. Actions planned for continued compliance include:

- Continue existing programs and activities noted above.
- Summarize annual activities for "Operations and Maintenance" component of annual report; including any updates to the SWMP document.

Table 9-1 is the work plan for 2023 SWMP activities related to pollution prevention and operations and maintenance activities.

Table 9-1. 2023 Operations and Maintenance Work Plan			
Task ID	Tasks	Lead	Schedule Notes
MOM-4	Summarize annual activities for "Operations and Maintenance" component of annual report, identify SWMP updates.	Engineering Services Division	By March 31, 2023

CITY OF LAKEWOOD STORMWATER MANAGEMENT PROGRAM

10. SOURCE CONTROL PROGRAM FOR EXISTING DEVELOPMENT

This Section describes the Permit requirements related to source control for existing development, and current and planned compliance activities.

10.1 Permit Requirements

The Permit (Section S5.C.8) requires the City to implement a program to prevent and reduce pollutants in runoff from areas that discharge to the MS4. The program shall include:

- Application of operational and structural source control BMPs or treatment BMPs to pollution generating sources associated with existing land uses and activities.
- Inspections of pollutant generating sources at publicly and privately owned sites to enforce implementation of required BMPs to control pollution discharging into the MS4.
- Practices to reduce polluted runoff from the application of pesticides, herbicides, and fertilizers from the sites identified in the inventory.

Minimum performance measures:

- Adopt and make effective an ordinance or other enforceable documents, requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities (no later than August 1, 2022).
- Establish an inventory that identifies publicly and privately owned sites which have the potential to generate pollutants to the MS4 (no later than August 1, 2022).
- Implement an inspection program for sites identified above (no later than January 1, 2023).
- Implement a progressive enforcement policy that requires sites to comply with stormwater requirements outlined in the Permit within a reasonable time period.
- Have on-going training for staff who are responsible for implementing the source control program.

10.2 Current Monitoring and Assessment Activities

The City has activities and programs that meet the Permit requirements. The current compliance activities associated with the above Permit requirements include:

- The City has adopted multiple ordinances related surface water management since incorporation as a City in 1996. The most recent and relevant is the Lakewood Municipal Code Sections 1 through 18C are current through Ordinance 779, passed November 21, 2022.
- All proposed projects that will clear, grade, or otherwise disturb a site shall provide erosion and sediment controls to prevent, to the maximum extent possible, the transport of sediment from the project site to downstream drainage facilities, water resources, and adjacent properties. Both temporary and permanent

erosion and sediment controls shall be designed, implemented, and maintained as described in Chapters 12.05 and 12.11 LMC and the Engineering Standards Manual. [Ord. 648 § 2, 2016; Ord. 501 § 3, 2009.]

- The City of Lakewood’s Title 12A section 12.11.040: “Minimum Requirement No. 1: Preparation of Storm Water Site Plans. All projects meeting the thresholds in LMC 12.11.030, Figure 11.1 or 11.2, shall prepare a storm water site plan for City review. Storm water site plans shall be prepared in accordance with the DOE Stormwater Manual as amended by the Engineering Standards Manual.” This is currently the 2019 Stormwater Management Manual for Western Washington.
- The City has had an on-going inspection program in place for many years, staff are trained as necessary for their job duties.
- There was created in 1996 a storm drainage and surface water management program for the City of Lakewood. Said program became a utility on January 1, 2002. Said storm drainage and surface water management utility is administered by the City Manager or designee.
- The City elects to exercise all lawful powers necessary and appropriate for the construction, acquisition, and condemnation of property rights, maintenance, management, operations and regulation of storm drainage and surface water runoff systems including, without limitation, all lawful powers to fix, alter, regulate, and control the charges and conditions for the use thereof. [Ord. 687 § 1, 2018; Ord. 289 § 2, 2002; Ord. 47 § 2, 1996.]
- The City has mapped all publicly and privately owned stormwater systems within the City’s boundaries and keeps this up to date through the City’s GIS program.
- The City Engineer, or the designee thereof or enforcement inspector or official, is authorized to enforce the regulations of this section through the following process or procedure:
 - 1. *Notice to Correct Violation.* Whenever the code enforcement official or other authorized enforcement official, or his/her designee, determines that a violation of this section is occurring or has occurred, a written notice may be issued to correct the violation, with such notice being posted upon the property or delivered to the property owner(s) and/or tenant(s) and/or to any person(s) causing or allowing or participating in the violation.
 - 2. *Service of Notice.* Such notice shall be served by posting the property, personally serving a copy of the notice upon a party responsible for the property, or by certified mail to the property owner or taxpayer of record for the property.
 - 3. Notices pursuant to this section shall be in writing, shall state the specific violation to be remedied, the location of the violation, and the property owner and/or persons responsible for the property.
 - 4. The code enforcement officer or inspecting official shall require the violation to be corrected within one to 15 working days from the issuance of the notice to correct. The length of time to correct shall be determined, in the sole discretion of the code enforcement official or other authorized enforcement official, or his/her designee, by the scope of violation, the history of prior violations by the same persons and/or at the same location and method needed to correct violation. All violations, in any event, shall be corrected expeditiously.
 - 5. Failure to remedy a violation of this section after proper service of a notice to correct is a misdemeanor crime, punishable by up to 90 days in jail, a \$1,000 fine or any combination thereof.
 - 6. *Public Nuisance.* Violations of this section are public nuisances and may be abated by the City. See LMC [12.02.050](#), Public nuisance. [Ord. 648 § 6, 2016; Ord. 583 § 9, 2014; Ord. 501 § 3, 2009.]

10.3 Planned Activities

Table 10-1. 2023 Source Control Program for Existing Development			
Task ID	Tasks	Lead	Schedule Notes
SCP-1-4	Continue practices and procedures as outlined in the City of Lakewood’s Municipal Code and Engineering Standards Manual.	Engineering Services Division	On-going

11. MONITORING AND ASSESSMENT

This Section describes the Permit requirements related to water quality monitoring and assessment, and current and planned compliance activities.

11.1 Permit Requirements

The City is required to provide a description of any stormwater monitoring or studies conducted by the City during the reporting period. If stormwater monitoring was conducted on behalf of the City, or if studies or investigations conducted by other entities were reported to the City, a brief description of the type of information gathered or received shall be included in the annual report.

The City is not required to provide descriptions in the annual report of any monitoring, studies, or analyses conducted as part of the Regional Stormwater Monitoring Program, now referred to as Stormwater Action Monitoring (SAM). The City is a paying participant in the SAM and will not be conducting any independent monitoring. Monitoring will be conducted on a region-wide basis.

The City is also paying into a collective fund to implement SAM effectiveness studies, and source identification and diagnostic monitoring. These programs are managed by Ecology.

11.2 Current Monitoring and Assessment Activities

The City has mapped all municipal stormwater outfalls and has historically conducted monitoring related to lake water quality.

Volunteer-led lake monitoring and sampling, coordinated by the Pierce Conservation District's Stream Team, has been ongoing since 2000 on a number of Lakewood lakes. Data collected from lake sampling has shown very little change over the years. For this reason, and the costs associated with paying a lab to analyze water samples, we discontinued regular lake sampling beginning in 2019. However, we will pay for sample analysis if specific concerns about lake water quality are brought to our attention.

11.3 Planned Activities

The City will:

- Participate in or track activities of regional monitoring work groups.
- Summarize annual monitoring activities for the annual report; including any updates to the SWMP document.

Table 11-1 is the detailed work plan for 2023 SWMP monitoring and assessment activities.

Table 11-1. 2023 Monitoring and Assessment Work Plan

Task ID	Tasks	Lead	Schedule Notes
MNTR-1	Participate in or track activities of Stormwater Action Monitoring work groups.	Engineering Services Division	Ongoing
MNTR-5	Summarize annual monitoring activities for the annual report; identify SWMP updates.	Engineering Services Division	By March 31, 2023

Acronyms and Definitions

The following definitions and acronyms are taken directly from the Phase II Permit and are reproduced here for the reader's convenience.

40 CFR means Title 40 of the Code of Federal Regulations, which is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government.

AKART means All Known, Available, and Reasonable methods of prevention, control and Treatment. See also State Water Pollution Control Act, Chapter 90.48.010 RCW and Chapter 90.48.520 RCW.

All Known, Available and Reasonable Methods of Prevention, Control and Treatment (AKART) refers to the State Water Pollution Control Act, Chapter 90.48.010 RCW and Chapter 90.48.520 RCW.

Applicable TMDL means a TMDL which has been approved by EPA on or before the issuance date of this Permit, or prior to the date that Ecology issues coverage under this Permit, whichever is later.

Beneficial Uses means uses of waters of the State, which include but are not limited to use for domestic, stock watering, industrial, commercial, agricultural, irrigation, mining, fish and wildlife maintenance and enhancement, recreation, generation of electric power and preservation of environmental and aesthetic values, and all other uses compatible with the enjoyment of the public waters of the State.

Best Management Practices are the schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices approved by Ecology that, when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State.

BMP means Best Management Practice.

Bypass means the diversion of stormwater from any portion of a stormwater treatment facility.

Circuit means a portion of a MS4 discharging to a single point or serving a discrete area determined by traffic volumes, land use, topography or the configuration of the MS4.

Component or Program Component means an element of the Stormwater Management Program listed in S5 - Stormwater Management Program for Cities, Towns, and Counties, or S6 – Stormwater Management Program for Secondary Permittees, or S7 – Compliance with Total Maximum Daily Load Requirements, or S8 – Monitoring and Assessment, of this Permit.

Community-based social marketing is a social marketing methodology. It employs a systematic approach intended to change the behavior of communities to reduce their impact on the environment. Realizing that providing information is usually not sufficient to initiate behavior change, community based social marketing uses tools and findings from social psychology to discover the perceived barriers to behavior change and ways of overcoming these barriers.

Conveyance System means that portion of the municipal separate storm sewer system designed or used for conveying stormwater.

Co-Permittee means an owner or operator of an MS4 which is in a cooperative agreement with at least one other applicant for coverage under this Permit. A Co-Permittee is an owner or operator of a regulated MS4 located within or in proximity to another regulated MS4. A Co-Permittee is only responsible for permit conditions relating to discharges from the MS4 the Co-Permittee owns or operates. See also 40 CFR 122.26(b)(1).

CWA means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. (6-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq.).

Director means the Director of the Washington State Department of Ecology, or an authorized representative.

Discharge Point means the location where a discharge leaves the Permittee's MS4 through the Permittee's MS4 facilities/BMPs designed to infiltrate.

Entity means a governmental body, or a public or private organization.

EPA means the U.S. Environmental Protection Agency.

Fully Stabilized means the establishment of a permanent vegetative cover, or equivalent permanent stabilization measures (such as riprap, gabions or geotextiles) which prevents erosion.

General Permit means a permit which covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual permits being issued to each discharger.

Groundwater means water in a saturated zone or stratum beneath the surface of the land or below a surface water body. Refer to Chapter 173-200 WAC.

Hazardous Substance means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-090 or WAC 173-303-100.

Heavy Equipment Maintenance or Storage Yard means an uncovered area where any heavy equipment, such as mowing equipment, excavators, dump trucks, backhoes, or bulldozers are washed or maintained, or where at least five pieces of heavy equipment are stored on a long-term basis.

Highway means a main public road connecting towns and cities.

Hydraulically Near means runoff from the site discharges to the sensitive feature without significant natural attenuation of flows that allows for suspended solids removal. See Appendix 7 Determining Construction Site Sediment Damage Potential for a more detailed definition.

Hyperchlorinated means water that contains more than 10 mg/Liter chlorine.

Illicit Connection means any infrastructure connection to the MS4 that is not intended, permitted or used for collecting and conveying stormwater or non-stormwater discharges allowed as specified in this Permit (S5.C.5 and S6.D.3). Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the MS4.

Illicit Discharge means any discharge to a MS4 that is not composed entirely of stormwater or of nonstormwater discharges allowed as specified in this Permit (S5.C.5 and S6.D.3).

Impervious Surface means a non-vegetated surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A non-vegetated surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or stormwater areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater.

Land Disturbing Activity means any activity that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to clearing, grading, filling and excavation. Compaction that is associated with stabilization of structures and road construction shall also be considered land disturbing activity. Vegetation maintenance practices, including landscape maintenance and gardening, are not considered land disturbing activity. Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures.

LID means Low Impact Development.

LID BMP means Low Impact Development Best Management Practices.

LID Principles means land use management strategies that emphasize conservation, use of on-site natural features, and site planning to minimize impervious surfaces, native vegetation loss, and stormwater runoff.

Low Impact Development (LID) means a stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.

Low Impact Development Best Management Practices (LID BMP) means distributed stormwater management practices, integrated into a project design, that emphasize pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration. LID BMPs include, but are not limited to, bioretention, rain gardens, permeable pavements, roof downspout controls, dispersion, soil quality and depth, vegetated roofs, minimum excavation foundations, and water re-use.

Material Storage Facilities means an uncovered area where bulk materials (liquid, solid, granular, etc.) are stored in piles, barrels, tanks, bins, crates, or other means.

Maximum Extent Practicable refers to paragraph 402(p)(3)(B)(iii) of the federal Clean Water Act which reads as follows: Permits for discharges from municipal storm sewers shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques, and system, design, and engineering methods, and other such provisions as the Administrator or the State determines appropriate for the control of such pollutants.

MEP means Maximum Extent Practicable.

MS4 means Municipal Separate Storm Sewer System.

Municipal Separate Storm Sewer System means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

- (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of Washington State.
- (ii) Designed or used for collecting or conveying stormwater.
- (iii) Which is not a combined sewer;
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.; and

- (v) Which is defined as “large” or “medium” or “small” or otherwise designated by Ecology pursuant to 40 CFR 122.26.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the State from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology.

Native Vegetation means vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site. Examples include trees such as Douglas Fir, western hemlock, western red cedar, alder, big-leaf maple; shrubs such as willow, elderberry, salmonberry, and salal; and herbaceous plants such as sword fern, foam flower, and fireweed.

New Development means land disturbing activities, including Class IV General Forest Practices that are conversions from timber land to other uses; structural development, including construction or installation of a building or other structure; creation of hard surfaces; and subdivision, short subdivision and binding site plans, as defined and applied in Chapter 58.17 RCW. Projects meeting the definition of redevelopment shall not be considered new development. Refer to Appendix 1 for a definition of hard surfaces.

New Permittee means a city, town, or county that is subject to the Western Washington Municipal Stormwater General Permit and was not subject to the permit prior to July 1, 2019.

New Secondary Permittee means a Secondary Permittee that is covered under a municipal stormwater general permit and was not covered by the permit prior to July 1, 2019.

NOI means Notice of Intent.

Notice of Intent (NOI) means the application for, or a request for coverage under, a General Permit pursuant to WAC 173-226-200.

Notice of Intent for Construction Activity means the application form for coverage under the Construction Stormwater General Permit. Notice of Intent for Industrial Activity means the application form for coverage under the Industrial Stormwater General Permit.

NPDES means National Pollutant Discharge Elimination System.

Outfall means a point source as defined by 40 CFR 122.2 at the point where a discharge leaves the Permittee’s MS4 and enters a surface receiving waterbody or surface receiving waters. Outfall does not include pipes, tunnels, or other conveyances which connect segments of the same stream or other surface waters and are used to convey primarily surface waters (i.e., culverts).

Overburdened Community means minority, low-income, tribal, or indigenous populations or geographic locations in Washington State that potentially experience disproportionate environmental harms and risks. This disproportionality can be as a result of greater vulnerability to environmental hazards, lack of opportunity for public participation, or other factors. Increased vulnerability may be attributable to an accumulation of negative or lack of positive environmental, health, economic, or social conditions within these populations or places. The term describes situations where multiple factors, including both environmental and socio-economic stressors, may act cumulatively to affect health and the environment and contribute to persistent environmental health disparities.

Permittee unless otherwise noted, the term “Permittee” includes city, town, or county Permittee, Co-Permittee, New Permittee, Secondary Permittee, and New Secondary Permittee.

Physically Interconnected means that one MS4 is connected to another storm sewer system in such a way that it allows for direct discharges to the second system. For example, the roads with drainage systems and municipal streets of one entity are physically connected directly to a storm sewer system belonging to another entity.

Project site means that portion of a property, properties, or right-of-ways subject to land disturbing activities, new hard surfaces, or replaced hard surfaces. Refer to Appendix 1 for a definition of hard surfaces.

QAPP means Quality Assurance Project Plan.

Qualified Personnel means someone who has had professional training in the aspects of stormwater management for which they are responsible and are under the functional control of the Permittee. Qualified Personnel may be staff members, contractors, or volunteers.

Quality Assurance Project Plan means a document that describes the objectives of an environmental study and the procedures to be followed to achieve those objectives.

RCW means the Revised Code of Washington State.

Receiving Waterbody or **Receiving Waters** means naturally and/or reconstructed naturally occurring surface water bodies, such as creeks, streams, rivers, lakes, wetlands, estuaries, and marine waters, or groundwater, to which a MS4 discharges.

Redevelopment means, on a site that is already substantially developed (i.e., has 35% or more of existing hard surface coverage), the creation or addition of hard surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of hard surface that is not part of a routine maintenance activity; and land disturbing activities. Refer to Appendix 1 for a definition of hard surfaces.

Regulated Small Municipal Separate Storm Sewer System means a Municipal Separate Storm Sewer System which is automatically designated for inclusion in the Phase II stormwater permitting program by its location within an Urbanized Area, or by designation by Ecology and is not eligible for a waiver or exemption under S1.C.

Runoff is water that travels across the land surface and discharges to water bodies either directly or through a collection and conveyance system. See also **“Stormwater.”**

SAM means Stormwater Action Monitoring

Secondary Permittee is an operator of a regulated small MS4 which is not a city, town or county. Secondary Permittees include special purpose districts and other public entities that meet the criteria in S1.B.

Sediment/Erosion-Sensitive Feature means an area subject to significant degradation due to the effect of construction runoff, or areas requiring special protection to prevent erosion. See Appendix 7 Determining Construction Site Sediment Damage Potential for a more detailed definition.

Shared Water Bodies means water bodies, including downstream segments, lakes and estuaries that receive discharges from more than one Permittee.

Significant Contributor means a discharge that contributes a loading of pollutants considered to be sufficient to cause or exacerbate the deterioration of receiving water quality or instream habitat conditions.

Stormwater Management Action Planning (SMAP) SMAP. This includes document and assess existing information related to their local receiving waters and contributing area conditions to identify which receiving

waters are most likely to benefit from stormwater management planning. Include: watershed inventory and brief description of the relative conditions of the receiving waters and the contributing areas.

Small Municipal Separate Storm Sewer System means an MS4 that is not defined as “large” or “medium” pursuant to 40 CFR 122.26(b)(4) & (7) or designated under 40 CFR 122.26 (a)(1)(v).

Source Control BMP means a structure or operation that is intended to prevent pollutants from coming into contact with stormwater through physical separation of areas or careful management of activities that are sources of pollutants. The SWMMWW separates source control BMPs into two types. Structural Source Control BMPs are physical, structural, or mechanical devices, or facilities that are intended to prevent pollutants from entering stormwater. Operational BMPs are non-structural practices that prevent or reduce pollutants from entering stormwater.

Stormwater means runoff during and following precipitation and snowmelt events, including surface runoff, drainage or interflow.

Stormwater Action Monitoring (SAM) is the regional stormwater monitoring program for Western Washington. This means, for all of Western Washington, a stormwater-focused monitoring and assessment program consisting of these components: status and trends monitoring in small streams and marine nearshore areas, stormwater management program effectiveness studies, and source identification projects. The priorities and scope for SAM are set by a formal stakeholder group that selects the studies and oversees the program’s administration.

Stormwater Associated with Industrial and Construction Activity means the discharge from any conveyance which is used for collecting and conveying stormwater, which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant, or associated with clearing, grading and/or excavation, and is required to have an NPDES permit in accordance with 40 CFR 122.26.

Stormwater facility retrofits means both: projects that retrofit existing treatment and/or flow control facilities; and new flow control or treatment facilities or BMPs that will address impacts from existing development.

Stormwater Management Program (SWMP) means a set of actions and activities designed to reduce the discharge of pollutants from the MS4 to the MEP and to protect water quality, and comprising the components listed in S5 (for cities, towns, and counties) or S6 (for Secondary Permittees) of this Permit and any additional actions necessary to meet the requirements of applicable TMDLs pursuant to S7 – Compliance with TMDL Requirements, and S8– Monitoring and Assessment.

Stormwater Treatment and Flow Control BMPs/Facilities means detention facilities, permanent treatment BMPs/facilities; and bioretention, vegetated roofs, and permeable pavements that help meet Appendix 1 Minimum Requirements #6 (treatment), #7 (flow control), or both.

Surface Waters includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the State of Washington.

SWMMWW or Stormwater Management Manual for Western Washington means Stormwater Management Manual for Western Washington (2019).

SWMP means Stormwater Management Program.

TMDL means Total Maximum Daily Load.

Total Maximum Daily Load (TMDL) means a water cleanup plan. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of

that amount to the pollutant's sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure that the water body can be used for the purposes the state has designated. The calculation must also account for reasonable variation in water quality. Water quality standards are set by states, territories, and tribes. They identify the uses for each water body, for example, drinking water supply, contact recreation (swimming), and aquatic life support (fishing), and the scientific criteria to support that use. The Clean Water Act, Section 303, establishes the water quality standards and TMDL programs.

Tributary Conveyance means pipes, ditches, catch basins, and inlets owned or operated by the Permittee and designed or used for collecting and conveying stormwater.

UGA means Urban Growth Area.

Urban Growth Area (UGA) means those areas designated by a county pursuant to RCW 36.70A.110. Urbanized Area is a federally-designated land area comprising one or more places and the adjacent densely settled surrounding area that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile.

Urbanized Areas are designated by the U.S. Census Bureau based on the most recent decennial census.

Vehicle Maintenance or Storage Facility means an uncovered area where any vehicles are regularly washed or maintained, or where at least 10 vehicles are stored.

Water Quality Standards means Surface Water Quality Standards, Chapter 173-201A WAC, Groundwater Quality Standards, Chapter 173-200 WAC, and Sediment Management Standards, Chapter 173-204 WAC.

Waters of the State includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the State" as defined in Chapter 90.48 RCW which includes lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and water courses within the jurisdiction of the State of Washington.

Waters of the United States refers to the definition in 40 CFR 122.2.

APPENDIX B

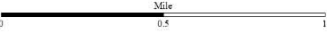
City of Lakewood's Storm Drainage System

City of Lakewood Storm Drainage System



Legend

- Catch Basin
- Catch Basin (Dry Well)
- Pipe Endpoint
- ★ Outfall
- Vault
- ✱ Vault with Outfall
- Storm Line
- - - Lakewood City Limit
- Tax Parcel
- Storm Pond



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 Map Date: February 26, 2020 projects\GIS\Drainage\AKW-System.mxd