



# **Stormwater Management Program (SWMP) Plan**

## **2021 Annual Report**

**Pursuant to the  
Western Washington  
NPDES Phase II  
Municipal Stormwater General Permit  
# WAR04-5011**

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## **SECTION 1 – Introduction and Background**

Stormwater is rain and snow melt that flows off surfaces such as rooftops, paved streets, highways, and parking lots. As water runs off these surfaces, it can pick up pollutants that contaminate local water bodies.

Many pollution sources from common land use activities contaminate urban stormwater. Streams and storm outfall monitoring studies have shown elevated concentrations of metals, nutrients, pesticides and organic compounds in relation to urban development. Contaminants from various sources, such as building materials, vehicular traffic, illicit discharges and spills, atmospheric deposition, and other sources, are picked up by stormwater runoff and make their way to receiving waters if left untreated.

During the last half-century, regulatory organizations have come to recognize the extreme importance and value of our water resources. The United States began seriously addressing water resource issues when industrial waste, untreated sewage and refuse were accumulating in our nation's waters at pollutant levels that posed dangers to public health.

In order to combat the high levels of pollutants entering our nation's waters, the Environmental Protection Agency (EPA) created the National Pollutant Discharge Elimination System (NPDES) under the 1972 federal Clean Water Act. This system of permitting requires that waste producers having direct discharges to surface waters go through an extensive permitting process to demonstrate that the impacts of respective industrial operations be minimized. The NPDES program has been expanded over the years to include "nonpoint" stormwater runoff discharges.

In the State of Washington, the Department of Ecology (Ecology) has the delegated responsibility to administer and enforce NPDES requirements. Washington jurisdictions with populations of 100,000 or greater have been required to go through the NPDES permitting process since the mid-1990s. These larger cities and counties were included within what is called the NPDES Phase I program. Smaller jurisdictions such as the City of Lacey with populations between 10,000 and 100,000 residents have been required since 2007 to have a Municipal Stormwater Permit as part of the NPDES Phase II program. These are general permits, with the same general requirements applicable to all permittee jurisdictions.

The Western Washington Phase II Municipal Stormwater Permit authorizes Lacey and other permittee jurisdictions to discharge stormwater from their municipal separate storm sewer system (MS4) to surface waters and groundwaters of the state, subject to limitations and compliance with permit requirements. Essentially, the permit requires local governments to manage and control stormwater runoff to minimize impacts to downstream waters. These permits implement sections of the Federal Clean Water Act (CWA), the U.S. Environmental Protection Agency rules, and the Washington State Water Pollution Control Act (RCW 90.48).

## **SECTION 2 – Lacey’s Stormwater Management Program (SWMP)**

The Western Washington Phase II Municipal Stormwater Permit (Phase II Permit), which applies to more than 80 cities and counties in western Washington, requires permittee jurisdictions to comply with a multitude of terms and requirements. One of the central requirements of the Phase II Permit is that each permittee jurisdiction must develop and implement a comprehensive overall Stormwater Management Program (SWMP).

The Phase II permit went into effect in 2007, but the City of Lacey actually had a robust stormwater program for many years prior. The advent of the permit caused the City to formalize the stormwater control and surface water protection programs we were already implementing, to conform to the permit requirements. But Lacey has a long history of efforts to meet goals and program objectives similar to those dictated by the permit.

The City of Lacey’s Stormwater Management Program (SWMP) includes activities and goals designed to protect and improve the quality of our surface water and groundwater resources by reducing negative impacts from our urban lifestyle. These goals include:

- Protect the health, safety and welfare of the public.
- Manage runoff from developed and newly developing properties.
- Mitigate the impacts of increased runoff and pollution due to urbanization.
- Manage stormwater at the source to minimize contact with pollutants.
- Control stormwater flows to minimize flooding and erosion.
- Prevent or mitigate water quality problems.

This SWMP has been designed to reduce the discharge of pollutants from our regulated small Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable (MEP), and meet the State’s all known, available and reasonable methods of prevention, control and treatment (AKART) requirements, for the primary purpose of protecting water quality.

Ecology has created general compliance standards for SWMPs, which were implemented with the initial Phase II Permit which was in effect from 2007-2013, and continued with expanded requirements for the 2013-2019 permit term. In the 2019-2024 Western Washington Phase II Municipal Stormwater Permit, which became effective on August 1, 2019, the SWMP was expanded to include three new sections, as listed on the following page. Thus, 2019 was a year of transition from the 2013-2019 Phase II Permit to the 2019-2024 Phase II Permit, and 2020 was the first full year under the updated permit. Various requirements are phased-in during the permit term.

## SECTION 3 – SWMP Annual Report

The Stormwater Management Program (SWMP) activities described in this annual report demonstrate compliance with the 2019-2024 Phase II permit that is now in effect. The 2019-2024 Phase II permit includes three new sections, rearranged program ordering, and new and/or revised requirements. For this annual report, the 2021 “requirements” and “current activities” sections refer to, and are in general accordance with, the 2019-2024 permit timeline, while most of the “future activities” reflect requirements that are due later in the 2019-2024 permit term. The SWMP sections listed for Section 5 (below) such as “S5.C.1 – Stormwater Planning” are listed in order as per the 2019-2024 Phase II permit.

The 2019-2024 permit became effective on August 1, 2019, and expires on July 31, 2024. Many permit requirements are carried-over from the previous (2013-2019) permit cycle, plus new requirements are being phased-in during the permit term. There are three new sections added to the SWMP for the 2019-2024 term, and the requirements of those new permit sections are described in the corresponding sections of this report.

The revised and expanded SWMP sections of the 2019-2024 permit are as follows:

- Section S5.C.1 – Stormwater Planning (*new section for 2019-2024*)
- Section S5.C.2 – Public Education and Outreach
- Section S5.C.3 – Public Involvement and Participation
- Section S5.C.4 – MS4 Mapping and Documentation (*new section for 2019-2024*)
- Section S5.C.5 – Illicit Discharge Detection and Elimination (IDDE)
- Section S5.C.6 – Controlling Runoff from New Development, Redevelopment and Construction Sites
- Section S5.C.7 – Operations and Maintenance
- Section S5.C.8 – Source Control Program for Existing Development (*new section for 2019-2024*)

This document is intended to comply with the requirements of the City of Lacey’s Western Washington NPDES Phase II Municipal Stormwater General Permit Number WAR04-5011.

This document is updated annually to include changes in the Stormwater Management Program. The public is encouraged to be involved in the development and updating of this program.

Comments or questions can be directed to the City of Lacey Department of Public Works, Water Resources Division, at 360-491-5600 or e-mail to [WaterResources@ci.lacey.wa.us](mailto:WaterResources@ci.lacey.wa.us) .

## SECTION 4 – Reporting and Notifications

This section presents a brief summary of Phase II Permit-required reporting to Ecology.

### A. Annual Reporting:

**Permit Section S9** requires each permittee to submit an annual report each year by March 31, regarding compliance activities during the previous calendar year. This SWMP Plan is part of Lacey’s annual reporting, along with an annual report compliance form and other documents.

### B. Special Notifications

The Permit specifies three different notification requirements, for different situations:

#### 1. **Permit Section S4.F** – Compliance with Standards

A Permittee remains in compliance with S4 despite any discharges prohibited by S4.A or S4.B (e.g. water quality or toxicant standards), when the Permittee undertakes the following response toward long-term water quality improvement:

Notify Ecology in writing within 30 days of becoming aware, based on credible site-specific information that a discharge from the permittee’s MS4 is **causing or contributing to a known or likely violation of Water Quality Standards** in the receiving water.

#### 2. **Permit Section G3** – Notification of Discharge, including Spills.

If a Permittee has knowledge of a discharge, including spill(s), into or from a municipal storm sewer, which could constitute **a threat to human health, welfare, or the environment**, the Permittee, shall:

- (a) Take appropriate action to correct or minimize the threat to human health, welfare and/or the environment, and
- (b) Notify the Ecology regional office and other appropriate spill response authorities immediately but in no case later than within 24 hours of obtaining that knowledge.
- (c) Immediately report spills or other discharges which might cause bacterial contamination of marine waters, such as discharges resulting from broken sewer lines and failing onsite septic systems, to the Ecology regional office and to the Department of Health, Shellfish Program.
- (d) Immediately report spills or discharges of oils or hazardous materials to the Ecology regional office and to the WA Emergency Management Division, 1-800-258-5990.

#### 3. **Permit Section G20** – Notice of Non-Compliance

In the event a Permittee is **unable to comply** with any of the terms and conditions of this permit, the Permittee must:

- (a) Notify Ecology of the failure to comply with the permit terms and conditions in writing within 30 days of becoming aware that the non-compliance has occurred.
- (b) Take appropriate action to stop or correct the condition of non-compliance.

## **SECTION 5 – Stormwater Management Program (SWMP) (Permit Section S5)**

### **S5.C.1 – Stormwater Planning (new permit section for 2019-2024)**

Stormwater Planning is a new permit section with new requirements for the 2019-2024 permit term. Although stormwater planning has not been a formal permit requirement in previous years, Lacey Water Resources has been conducting planning activities related to stormwater management for many years. The City of Lacey’s 2013 Stormwater Comprehensive Plan (SCP) was completely updated and adopted by Ordinance 1572 on November 19, 2020. The 2020 SCP describes both the past and proposed activities of Lacey’s Storm and Surface Water Utility, including a Capital Improvements Program project plan for the 2020-2025 planning horizon.

#### **1.1 Stormwater Planning - Requirements**

This new permit section adds several mandated activities and performance measures, as follows (this is an abbreviated summary; see the 2019-2024 Phase II permit for additional details):

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. By August 1, 2020, convene an interdisciplinary team to inform and assist in the development, progress, and influence of the stormwater planning program.
- b. Coordination of stormwater/receiving water considerations with long-range plan updates.
  - i. Describe how stormwater management needs and protection/improvement of receiving water health are (or are not) informing the planning update process and influencing policies and implementation strategies in our jurisdiction. The report shall describe the water quality and watershed protection policies, strategies, codes, and other measures intended to protect and improve local receiving water health through planning, or taking into account stormwater management needs or limitations.
    - (a) By March 31, 2021, respond to Annual Report questions to describe how anticipated stormwater impacts on water quality were addressed (if at all) during the 2013-2019 permit term in updates to the Comprehensive Plan and other local long-range land-use plans that are used to accommodate growth or transportation.
    - (b) By January 1, 2023, submit a report describing how water quality is being addressed during the current (2019-2024) permit term in updates to land-use plans as in part (a) above.

c. Low Impact Development (LID) code-related requirements.

i. Continue to require LID principles and LID BMPs in local development-related codes, rules, standards, and other enforceable documents, as needed. The intent is to make LID the preferred and commonly-used approach to site development. The local development-related codes, rules, standards, and other enforceable documents shall be designed to minimize impervious surfaces, native vegetation loss, and stormwater runoff in all types of development situations, where feasible.

(a) Annually assess and document any newly-identified administrative or regulatory barriers to implementation of LID principles or practices, and the measures developed to address the barriers. If applicable, the report shall describe mechanisms adopted to encourage or require implementation of LID principles or practices.

d. Stormwater Management Action Planning (SMAP). Conduct a similar process and consider the range of issues outlined in the *Stormwater Management Action Planning Guidance* (Ecology, 2019). Permittees may rely on another jurisdiction to meet all or part of SMAP requirements at a watershed scale, provided a SMAP is completed for at least one priority catchment located within the Permittee's jurisdiction.

i. *Receiving Water Assessment*. Document and assess existing information related to local receiving waters and contributing area conditions to identify which receiving waters are most likely to benefit from stormwater management planning.

By March 31, 2022, submit a watershed inventory and a brief description of the relative conditions of the receiving waters and the contributing areas. The watershed inventory shall be submitted as a table, with each receiving water name, its total watershed area, the percent of the total watershed area that is in the Permittee's jurisdiction, and the findings of the stormwater management influence assessment for each basin. Indicate which receiving waters will be included in the S5.C.1.d.ii prioritization process. Include a map of the delineated basins with references to the watershed inventory table.

(a) Identify which basins are expected to have a relatively low Stormwater Management Influence for SMAP. See the guidance document for definition and description of this assessment. Basins having relatively low expected Stormwater Management Influence for SMAP do not need to be included in S5.C.1.d.ii-iii.

ii. *Receiving Water Prioritization*. Informed by the assessment of receiving water conditions, Permittees shall develop and implement a prioritization method and process to determine which receiving waters will receive the most benefit from implementation of stormwater facility retrofits, tailored implementation of SWMP

actions, and other land/development management actions (aside from existing req'ts). The retrofits and actions shall be designed to: 1) conserve, protect, or restore receiving waters through stormwater and land management strategies that act as water quality management tools, 2) reduce pollutant loading, and 3) address hydrologic impacts from existing development as well as planned for and expected future buildout conditions.

By June 30, 2022, document the prioritized and ranked list of receiving waters.

- (a) Document the priority ranking process used to identify high priority receiving waters. The Permittee may reference existing local watershed management plans as sources of information or rationale for the prioritization.
- (b) The ranking process shall include the identification of high priority catchment area(s) for focus of the Stormwater Management Action Plan (below).

iii. *Stormwater Management Action Plan (SMAP).*

By March 31, 2023, develop a SMAP for at least one high-priority catchment area from (ii) above, that identifies all of the following:

- (a) A description of stormwater facility retrofits needed for the area, including the BMP types and preferred locations.
- (b) Land management/development strategies and/or actions identified for water quality management.
- (c) Targeted, enhanced, or customized implementation of stormwater management actions related to permit sections within S5, including:
  - IDDE field screening
  - Prioritization of Source Control inspections,
  - O&M inspections or enhanced maintenance, or
  - Public Education and Outreach behavior change programs.
- (d) If applicable, identification of changes needed to local long-range plans, to address SMAP priorities.
- (e) A proposed implementation schedule and budget sources for:
  - short-term actions (to be accomplished within six years), and
  - long-term actions (to be accomplished within seven to twenty years).
- (f) A process and schedule to provide future assessment and feedback to improve the planning process and implementation of procedures or projects.

## **1.2 Stormwater Planning - Current Activities**

During the current reporting period, the city's ongoing planning activities include an update to the City's Stormwater Comprehensive Plan (SCP). The city's original 2013 was updated during the 2018-2020 period, and adopted by the city council in late 2020. The 2020 SCP serves as a guidance document for the programs, activities, and projects of the City's Storm and Surface Water Utility, as well as providing information and transparency to stormwater utility ratepayers. The 2020 SCP, which includes the 2020-2025 Stormwater Capital Improvement Program (CIP) plan and an updated stormwater utility rate study, can be accessed on the City of Lacey website.

## **1.3 Stormwater Planning - Future Activities**

All activities listed under Stormwater Planning Requirements above are proposed to be addressed per the mandated compliance schedule.

## **S5.C.2 – Public Education and Outreach**

Public education is a significant component of Lacey's comprehensive SWMP. Lacey Water Resources has been conducting education and outreach activities related to stormwater management for many years. Efforts focus on educating the public to prevent pollutants from entering surface and groundwater and providing information to residents and developers concerning management of stormwater quantity and quality. These efforts have been coordinated with other local jurisdictions to make the best use of limited resources and to disseminate consistent messages.

### **2.1 Public Education and Outreach Requirements**

Per Section S5.C.2 of the 2019-2024 Permit, the SWMP shall include an education and outreach program designed to:

- Build general awareness about methods to address and reduce impacts from stormwater runoff.
- Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.
- Create stewardship opportunities that encourage community engagement in addressing the impacts from stormwater runoff.

Permittees may choose to meet these requirements individually or as a member of a regional group.

The minimum performance measures are (this is an abbreviated summary; see the 2019-2024 Phase II permit for additional details):

- a. Each Permittee shall implement an education and outreach program for the area served by the MS4. The program design shall be based on local water quality information and target audience characteristics to identify high priority target audiences, subject areas, and/or BMPs. Based on the target audience's demographic, the Permittee shall consider delivering its selected messages in language(s) other than English, as appropriate to the target audience.
  - i. **General Awareness.** To build general awareness, Permittees shall annually select at a minimum one target audience and one subject area from either (a) or (b):
    - (a) *Target Audiences:* General public (including overburdened communities, or school-age children) or businesses (including home-based, or mobile businesses).

Subject areas:

      - General impacts of stormwater on surface waters, including impacts from impervious surfaces.
      - Low impact development (LID) principles and LID BMPs.
    - (b) *Target Audiences:* Engineers, contractors, developers, or land use planners.

Subject areas:

      - Technical standards for stormwater site and erosion control plans.
      - LID principles and LID BMPs.
      - Stormwater treatment and flow control BMPs/facilities.
    - (c) Permittees shall provide subject area information to the target audience on an ongoing or strategic schedule.
  - ii. **Behavior Change.** To affect behavior change, Permittees shall select, at a minimum, one target audience and one BMP.
    - (a) *Target Audiences:* Residents, landscapers, property managers/owners, developers, school-age children, or businesses (including home-based, or mobile businesses).

*BMPs* (partial list – see Permit for more):

      - Use and storage of pesticides, fertilizers, and/or other household chemicals.
      - Prevention of illicit discharges.
      - Yard care techniques protective of water quality.

- Carpet cleaning.
  - Pet waste management and disposal.
  - Stormwater facility maintenance, including LID facilities.
  - Dumpster and trash compactor maintenance
- (b) No later than July 1, 2020, each Permittee shall conduct a new evaluation of the effectiveness of an ongoing behavior-change campaign (required under the 2013-2019 Permit). Permittees shall document lessons learned and recommendations for which option to select from S5.C.2.a.ii.(c).
- Permittees that select option S5.C.2.a.ii.(c)3 below may forgo this evaluation if it will not add value to the overall behavior change program.
- (c) Based on the recommendation from S5.C.2.a.ii.(b), by February 1, 2021, each Permittee shall follow social marketing practices and methods, similar to community-based social marketing, and develop a campaign that is tailored to the community, including development of a program evaluation plan. Each Permittee shall:
1. Develop a strategy and schedule to more effectively implement the existing campaign; or
  2. Develop a strategy and schedule to expand the existing campaign to a new target audience or BMPs; or
  3. Develop a strategy and schedule for a new target audience and BMP behavior change campaign.
- (d) No later than April 1, 2021, begin to implement the strategy developed in S5.C.2.a.ii.(c).
- (e) No later than March 31, 2024, evaluate and report on:
1. The changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy; and
  2. Any planned or recommended changes to the campaign in order to be more effective; describe the strategies and process to achieve the results.
- (f) Permittees shall use results of the evaluation to continue to direct effective methods and implementation of the ongoing behavior change program.
- iii. **Stewardship.** Each Permittee shall provide and advertise stewardship opportunities and/or partner with existing organizations (including non-permittees) to encourage residents to participate in activities or events planned and organized within the community, such as: stream teams, storm drain marking, volunteer monitoring, riparian plantings, and education activities.

## 2.2 Public Education and Outreach Activities

The following section describes the current status of the City of Lacey stormwater management efforts as required by Section S5.C.2 of the 2019-2024 Permit.

- General impacts are being addressed in many ways. Lacey utilizes a variety of avenues to disseminate information to the public including the City of Lacey and Stream Team website, Facebook, and Twitter, informational meetings, workshops, field trips, newspaper/newsletter articles, printed materials, projects with schools, community events, volunteer projects and press releases.
- The City of Lacey currently provides various brochures covering all aspects of stormwater management from flow control to streamside vegetation. They are used in conjunction with other activities to educate and invite the public to become involved in the protection of our environment.
- Lacey is member of the Stormwater Outreach for Regional Municipalities (STORM) Group. STORM is a coalition of cities and counties in the Puget Sound region, working together to address nonpoint pollution by advancing broad-scale behavior change among Puget Sound residents. The group has implemented a Department of Ecology grant-funded regional awareness campaign, *Puget Sound Starts Here (PSSH)* as a foundation upon which jurisdictions can build more specific behavior-change programs.

Lacey has implemented the PSSH campaign by:

- Branding written and online material with the PSSH logo.
- Coordinating a PSSH Month Facebook campaign on the regional Stream Team Facebook page which included pollution prevention messages.
- Participated and contributed funding for the regional STORM PSSH digital media campaign conducted by Rich Marketing. City of Lacey statistics for the campaign (fall 2021):
  - 29,723 impressions
  - 11,870 audio/video starts
  - 7,084 audio/video completions
- Lacey is a member of the Regional Environmental Education Partnership (REEP) which is an interlocal agreement between Thurston County and the cities of Lacey, Olympia and Tumwater. The ILA acts as a mechanism through which the partners can collaborate, develop and implement the funding of stormwater education and outreach messages, materials, activities, and assessments for the general public businesses and other target audiences as required by the NPDES permit and water quality needs. Lacey pays 25% of the costs of REEP activities.

- Since 1990, Lacey has participated in the regional Stream Team Program as a tool for outreach to local businesses and residents. Stream Team is jointly funded by the storm and surface water utilities of the cities of Lacey, Olympia, Tumwater, and Thurston County. Stream Team involves citizens in the protection and enhancement of our local water resources through education and action. Citizens learn about water quality through field classes and trainings, and then give back to the community through action projects. Stream Team volunteers contribute hundreds of hours annually to our community through habitat monitoring riparian re-vegetation projects, storm drain marking, and other activities. In 2021, Stream Team volunteers contributed 396 hours of service to improving local streams and habitat in Lacey alone.
  - Stream Team creates and distributes a quarterly newsletter that includes various stormwater education and outreach topics as well as volunteer opportunities, community water quality highlights, and more. In 2021, 5,813 newsletters were printed and distributed throughout the REEP jurisdictions. It is also posted to the Stream Team website and on Facebook. Articles include volunteer recruitment as well as stormwater educational messages including IDDE and BMPs messages for the general public and homeowners. IDDE and BMP messages include yard care, pesticides and fertilizers, vehicle maintenance, and pet waste.
  
- Lacey also facilitates volunteer projects for local non-profit groups which all include an introduction to stormwater awareness, stormwater treatment and residential best management practices. Groups such as college classes, youth groups, church groups, and military troops assist the City in removing invasive species, such as scotch broom, from our stormwater facilities, and improving the riparian buffer along Woodland Creek. In 2020, Lacey facilitated one of these volunteer groups (MLK Day of Service) before Covid-19 safety restrictions were put into place, which carried-over through 2021.
  
- South Sound GREEN (Global Rivers Environmental Education Network) is a place-based learning program that engages students through field and classroom studies focused on stormwater and non-point source pollution. The program is funded by local jurisdictions and grants. The South Sound GREEN coordinator works with local teachers to instruct students using a well-rounded curriculum aimed at many levels of watershed protection and understanding. Lacey signed a 5-year agreement in 2020 to continue to participate in this program, and contributes \$14,400 annually. Lacey also provides time, resources, classroom presentations and field trips for GREEN teachers. In 2021, South Sound GREEN worked with 184 Lacey teachers to provide watershed education to 3,572 students. The South Sound GREEN website received 1,917 views as part of the virtual watershed education.

- Lacey Water Resources has an ongoing Pet Waste Awareness Program.
  - The neighborhood portion of the program provides signs and bag dispensers to all interested neighborhoods and apartment complexes within Lacey City Limits. Signs and bag dispensers are mounted in areas of high pet use, educating and encouraging pet owners to pick up after their pets. Informational brochures about pet waste are distributed to residents of the neighborhoods and apartment complexes that receive neighborhood pet waste bag dispensers. In 2021, eight new pet waste stations were installed. The City is measuring the success of the program through surveys sent to program participants. (See “Measuring Understanding” section below).
  - The resident portion of this program provides any resident of Lacey or person who visits a City of Lacey outreach table at a community event a free “Bags on Board” portable pet waste bag dispenser, which attaches to their dog leashes. Recipients of the portable pet waste bag dispensers must sign the “Pet Poop Promise” to receive a dispenser. The dispensers say “Pick up for Puget Sound” and include the Stream Team website, which residents can visit to learn more about stormwater pollution. In 2021, 70 dispensers were distributed.
  - Pet waste markers (or buttons) are installed along walking paths at city parks. They read “Pick Up Poop Around The Loop” and are intended to educate residents who use the walking paths about the importance of picking up after their pets, especially while visiting these busy parks, some of which have lakes or creeks within the park boundary.
  
- The City would normally participate in various public outreach events to reach different audiences, increase stormwater awareness and encourage best management practices as they relate to stormwater pollution and runoff. In a typical year, there are 8-10 different outreach events reaching an estimated 25,000 attendees. All of these events were cancelled in 2021 due to the Covid-19 pandemic.
  
- Storm drain markers (or buttons) are applied to the curbs near storm drains in Lacey. They read “No Dumping, Flows to Waterways” to educate residents walking by that the runoff entering storm drains flows to local waterways and that dumping is not allowed. Through efforts completed over the past several years, nearly all of Lacey’s existing storm drains are marked with these weather resistant buttons. The City’s current Development Guidelines and Public Works Standards requires that the curbs or roadways immediately adjacent to all newly installed storm drains are marked with the same buttons. In 2021, 108 storm drains were marked with the “No Dumping, Flows to Waterways” buttons.

- Landscapes are being addressed in many ways, including educational material focused on landscaping available at City Hall and on the City's and Stream Team's websites. Bookmarks with information about the "Grow Smart Grow Safe" website are given out with all outdoor water conservation materials, and information is shared in the Stream Team newsletters & website.
- To prevent polluted runoff from charity car washes, the City, in coordination with other local jurisdictions, implemented a *Clean Cars, Clean Streams* Program to encourage local non-profit groups to either 1) purchase commercial car wash tickets from the Puget Sound Car Wash Association, or 2) hold their charity car washes at an approved site that receives treatment before being discharged to surface water or groundwater. For car washes held in Lacey at approved sites, the City offers a car wash kit that groups can check out which includes advertising material, hose nozzles, buckets, sponges and bio-degradable car wash soap. The groups also receive information about protecting surface water from pollution associated with washing cars on impermeable surfaces, which they are asked to provide to the car wash recipients. In 2020, 69 car wash tickets were purchased from the Puget Sound Car Wash Association by individuals or groups from Lacey, but this initiative was suspended in 2021 due to the Covid-19 pandemic.
- Buffers are being addressed through efforts by Lacey to protect the entire Woodland Creek corridor. This area is protected with 200-foot riparian buffers, which are mandated by City ordinance. In addition, the City has acquired several parcels in the corridor. The result is that the entire creek within the city limits is now protected. Many of the volunteer groups and events that take place at Woodland Creek Community Park specifically focus on repairing and re-building the riparian buffer. In 2021, a project was started to remove invasive plants and restore the buffer in the park.
- The Wellhead Protection Plan is intended to provide an overview of the extent of actions necessary to protect groundwater and to reduce risks to the City's water supply. It is also intended to be read in the context of on-going environmental protection and water resource planning activities by the City and County, such as Stormwater Management, Groundwater Monitoring Program implementation, water system planning and development, and Growth Management Act (GMA) planning and implementation.
- The importance of vehicle maintenance is being communicated to Lacey residents using brochures and newsletter articles. The public is being informed about the effects of pollution from leaky vehicles on groundwater and surface water. Lacey recruited 5 local auto repair shops in 2020 to participate in the regional "Don't Drip and Drive" campaign. Lacey also advertised the campaign to its residents by including an informational insert and coupon in a monthly utility bill and submitting an article to the regional online newspaper, ThurstonTalk.com.

## **2.3 Behavior Change** (2019-2024 Permit Section S5.C.2.a.ii)

The permit requires an evaluation of the effectiveness of an ongoing behavior change campaign, by measuring the adoption of the targeted behaviors among the targeted audiences. The resulting measurements shall be used to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors.

The City of Lacey has created programs to inform and involve the public on many different topics. The goal of the programs is adoption of desired behaviors and reduction of pollution to the maximum extent practicable.

- **Neighborhood Pet Waste Station Program**

The neighborhood pet waste station program has been evaluated to see if it increases residents' frequency of picking up their pet's poop. The City has provided free pet waste stations (sign and dispenser) to homeowners associations (HOAs) and apartment complexes for the past several years. As part of this program, participants agree to maintain the station and keep it filled with bags for pet owners to use. An evaluation is solicited from each pet waste station recipient six months following installation. 100% of 2014 and 2015 survey respondents indicated the stations are a worthwhile addition to their neighborhood or apartment complex and that they noticed a decrease in pet waste left on the ground following the installation of a station. Because this survey shows the pet waste stations are effective and residents are satisfied with them, the City has decided to continue the neighborhood pet waste station program as long as funding allows.

As part of the requirements in Section S5.C.2 of the 2019-2024 Permit, Lacey will forgo a new evaluation of the existing pet waste station program as it will not add value to the overall behavior change. Therefore Lacey will develop a strategy and schedule for a new target audience and BMP behavior change program (S5.c.2.a.ii.c.3) while following social marketing practices and methods, similar to community-based social marketing, and develop a campaign that is tailored to the community, including development of a program evaluation plan.

- **New Behavior Change Campaign following Community Based Social Marketing (CBSM) Principles**

The new CBSM behavior change campaign focuses on the audience of commercial business owners within City of Lacey limits and the BMP behavior of closing dumpster lids. City of Lacey participated in the regional STORM Dumpster Summit and completed the Social Marketing 10 Step Regional Planning Model. Baseline surveys were completed in October 2020 as well as February & March 2021 confirming local relevancy of dumpster issues on local water quality. The pilot phase of the dumpster behavior change program was completed in 2021. There were seven commercial businesses representing a variety of business types that participated in the pilot program in Lacey. The pilot was segmented to test a minimum

of three education tool types including signage in employee areas/doorway, stickers on dumpster, signage by dumpster, etc. The pilot phase ran through fall of 2021 and Lacey's evaluation data will be combined with partner data to provide a larger, more meaningful analysis of the pilot phase. Following the pilot phase analysis, campaign strategy adjustments will be made to improve behavior change outcomes before broad scale implementation begins in January 2022. Finally, all findings and materials from the dumpster campaign will be integrated into our Source Control Program for existing land uses, to direct effective ongoing outreach methods for operational BMPs related to dumpsters.

Partner data and regional accumulated data findings include an increase in closed lids from campaign outreach, 49% to 77%. The final lid closure rate for businesses participating in the pilot rose 57% over baseline observations. Lacey will adapt the pilot campaign in 2022 to better engage businesses.

## **2.4 Tracking and Maintaining Records**

All associated information is being tracked and recorded.

## **2.5 Future Education and Outreach Activities**

Throughout the permit cycle, The City of Lacey will continue evaluating and modifying the existing education and outreach programs to work towards the best program possible, educating all audiences on the importance of implementing existing BMPs in their lives and introducing them to changes in the program.

Actions recommended for continued compliance include:

- Continue collaboration with other NPDES municipalities to identify appropriate program evaluation techniques.
- Implement new or modify existing education and outreach activities, continue to track activities and monitor success.
- Continue evaluation of the understanding and adoption of targeted behaviors among targeted audience.
- Summarize annual activities for the "Public Education and Outreach" components of the Annual Compliance Report, and identify updates to the SWMP document.

## **2.6 Outreach Activities - Summary Sheets**

The following pages are a summary of the City of Lacey's Education and Outreach activities provided in 2021.

## 2.6 Activity Summary Sheet

SUMMARY			Total hours volunteered
Action Projects	150	Participants/Volunteers	396
Education	227,300	Individual Impressions	
Education	3,752	Students Reached	
OTHER	8	New pet waste stations installed (+1 replacement installed)	
OTHER	12,000	Educational pet waste brochures distributed	
OTHER	108	Storm drain markers installed	
OTHER	N.A.	Trees and shrubs planted along streams	

### Education - General Public

Date	Event Name	Event/Activity Description	Permit Requirement	Target Audience	Lacey Participants
Spring, Summer, Fall, & Winter	Stream Team Quarterly Newsletter	Each quarterly newsletter includes educational articles on IDDE, stormwater BMPs, public participation opportunities and more. An archive of all Stream Team newsletters are available on the website at streamteam.info	S5.C.2.a.i: general impacts, BMPs for pet waste, vehicle maintenance and landscaping S5.C.2.a.ii: BMPs for yard care, pesticides & fertilizers, auto repair	General public: Adults, Homeowners & Children	2,366 distributed in Lacey; 6,340 Total Regionally
5/10/2021 to 9/5/2021	CCCS Banner <sup>+</sup>	Hung a 30 ft. banner across College Street in Lacey that reads "It's Not Just Dirt" for 1 week at a time throughout the summer (hung for a total of 3 weeks).	S5.C.2.a.i: general impacts, BMPs for pet waste, vehicle maintenance and landscaping S5.C.2.a.ii: BMPs for yard care, pesticides & fertilizers, auto repair	General public: Adults & Children	691,089
Spring 2021	Online Stormwater HOA Workshop	Facilitated funding and planning of a Stormwater HOA Workshop in which attendees are given in-class and in-field learning about proper stormwater facilities maintenance. This event was part of REEP. Due to Covid-19, the workshop was converted to an online lesson platform using Thinkific which still included a live field trip and Q&A session. This event was part of REEP.	S5.C.2.a.i: general impacts, BMPs for pet waste, vehicle maintenance and landscaping S5.C.2.a.ii: BMPs for yard care, pesticides & fertilizers, auto repair	General public: Adults	40 HOA participants, 14 from Lacey HOAs
Fall 2021	Online Stormwater Contractors' Workshop	Facilitated funding and planning of a Stormwater Contractors' Workshop in which attendees are given in-class and in-field learning about proper stormwater facilities maintenance. This event was part of REEP.	S5.C.2.a.i: general impacts, BMPs for pet waste, vehicle maintenance and landscaping S5.C.2.a.ii: BMPs for yard care, pesticides & fertilizers, auto repair	General public: Adults	34 participants

## Education - Students

Date	Event Name	Event/Activity Description	Permit Requirement	Target Audience	Lacey Participants
2021	South Sound Global Rivers Environmental Education Network (GREEN)	Facilitated stormwater and watershed education with Lacey teachers and students including water quality testing, stream bug labs, virtual lessons, STEAM lessons, teacher professional development training, Thurston talk articles, and website content.	S5.C.2.a.i: general impacts, impervious surfaces S5.C.2.a.ii: behavior change, general public, prevention of illicit discharge S5.C.2.a.iii: stewardship opportunities	General public: Elementary & Middle School Students	184 teachers, 3,572 students, 1,917 views
2021	Pacific Shellfish Institute stormwater lessons	Because staff could not provide in-person stormwater lessons to students, we partnered with Pacific Shellfish Institute to provide in-person lessons on stormwater, water quality, and how everyday actions impact native species like shellfish.	S5.C.2.a.i: general impacts, impervious surfaces S5.C.2.a.ii: behavior change, general public, prevention of illicit discharge S5.C.2.a.iii: stewardship opportunities	General public: Elementary & Middle School Students	220

## Other Activities

Date	Program	Event/Activity Description	Permit Requirement	Target Audience	# Items Installed/ people reached
2021	Pet Waste Stations	Pet waste stations are provided to existing HOAs or apartment complexes with no up-front costs to the participants; they are also now required to be installed in new residential developments	S5.C.2.a.i: BMPs for pet waste	General Public: Pet Owners, Homeowners and Multifamily Housing Dwellers	8 new stations
2021	Educational Pet Waste Brochures	Joint Animal Services (Thurston County's primary regional animal shelter and animal control agency) mails out pet license renewal letters each month. As part of the REEP partnership, Lacey provides educational pet waste brochures to be included with the license renewals.	S5.C.2.a.i: general impacts, BMPs for pet waste S5C.2.a.ii: behavior change, general public	General public: Pet Owners	12,000 (REEP task)
2021	Pet Waste Leash Dispensers	Pet waste leash dispensers are provided to community members to reduce pet waste left on the ground and improve water quality. In 2021, leash dispensers were distributed to community partners like LOTT and Pacific Shellfish Institute for distribution at events within the City of Lacey.	S5.C.2.a.i: BMPs for pet waste	General public: Pet Owners	70
2021	Storm drain markers	Storm drain markers are installed in existing neighborhoods by volunteers; they are also now required to be installed at each catch basin in new developments.	S5.C.2.a.ii: illicit discharge	General public: Adults, Children, business owners, landscapers	108

## Other Activities - continued

2021	Stream Team Facebook Page	Stream Team managed Facebook page which posts events, pictures, BMPs, articles, stories and more. REEP task.	S5.C.2.a.i: general impacts, BMPs for pet waste, vehicle maintenance and landscaping S5.C.2.a.ii: BMPs for yard care, pesticides & fertilizers, auto repair	General public: Adults, Homeowners & Children	Total Page Views: 1,329 Average Post Reach: 7,294 Average Post Engagement: 493
2021	Stream Team Instagram	Stream Team managed Instagram account which posts events, pictures, BMPs, articles, stories and more. REEP task.	S5.C.2.a.i: general impacts, BMPs for pet waste, vehicle maintenance and landscaping S5.C.2.a.ii: BMPs for yard care, pesticides & fertilizers, auto repair	General public: Adults, Homeowners & Children	Total Followers: 814 Average Post Engagement: 199
2021	Stream Team Website	Stream Team website (streamteam.info) with general information, actions for clean water, event listing/registration, comprehensive resource library, and more. REEP task.	S5.C.2.a.i: general impacts, BMPs for pet waste, vehicle maintenance and landscaping S5.C.2.a.ii: BMPs for yard care, pesticides & fertilizers, auto repair	General public: Adults, Homeowners & Children	Total Users: 16,762 New Users: 16,010 Total Page Views: 32,807
2021	Stream Team Video Series	Throughout the year, Stream Team recorded and published multiple video series for the public to watch since events could not take place in person. Video series' included Marine Creature Mondays, Salmon Stewards, Northwest Bats, Purple Martins, Creatures of the Deep and Lights Camera Action for Clean Water Video Contest. REEP task.	S5.C.2.a.i: general impacts, BMPs for pet waste, vehicle maintenance and landscaping S5.C.2.a.ii: BMPs for yard care, pesticides & fertilizers, auto repair	General public: Adults, Homeowners & Children	Total Video Views: 33,841 Impressions: 227.3K Hours of Video Watched: 246.5 Subscribers: 48
2021	Pacific Shellfish Institute	Pacific Shellfish Institute (PSI) modified their normal in person plankton monitoring at Long Lake to provide virtual materials to educate the public about local water quality issues and encourage environmental stewardship, including weekly blog entries and posts to the PSI Facebook page. REEP task.	S5.C.2.a.i: general impacts, impervious surfaces S5.C.2.a.ii: behavior change, general public, prevention of illicit discharge S5C.2.a.iii: stewardship opportunities	General public: Adults, Homeowners & Children	31 virtual events (4 of which were Lacey specific locations & teachers) reaching 5,754 people (1,262 from Lacey specific events)
Fall 2021	Puget Sound Starts Here Month Campaign	City of Lacey participated in the regional STORM campaign to promote Puget Sound Starts Here month in September. The contractor Rich Marketing was hired to do the digital campaign and covering vehicle leaks, pet waste and natural yard care in multiple languages.	S5.C.2.a.i: general impacts, BMPs for pet waste, vehicle maintenance and landscaping S5.C.2.a.ii: BMPs for yard care, pesticides & fertilizers, auto repair	General public: Adults, Homeowners & Children	29,723 impressions, 11,870 video starts, 7,084 videos 100% completed
2021	Puget Sound Starts Here Coasters	City of Lacey partnered with the Cities of Olympia & Tumwater to design and purchase Puget Sound Starts Here themed coasters with native plants, report spills, fix car leaks and use a commercial car wash education. 20,800 coffee sleeves were distributed to 8 different coffee shops throughout City of Lacey.	S5.C.2.a.i: general impacts, BMPs for pet waste, vehicle maintenance and landscaping S5.C.2.a.ii: BMPs for yard care, pesticides & fertilizers, auto repair	General public: Adults & Children	20,800 coffee sleeves distributed to 8 different coffee shops

+ Count includes average daily 2014 traffic counts on College Street, multiplied by the number of days the banner was hung, which in all cases was 7 days.

\* This entry includes a separate set of data from the culmination of projects that are listed above under "action projects". The volunteers and number of hours will only be counted above under "action projects".

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## **S5.C.3 - Public Involvement and Participation**

### **3.1 Public Involvement and Participation - Requirements**

The City is required to provide ongoing opportunities for public involvement through advisory councils, public hearings, watershed committees, public participation in developing rate structures, stewardship programs, environmental activities or other similar activities. The public must be able to participate in the decision-making processes for the development, implementation and update of the program. In addition, the City must make the SWMP document and Annual Compliance Report available to the public, including posting it on the City's website.

The minimum performance measures are:

- a. Create opportunities for the public, including overburdened communities, to participate in the decision-making processes involving the development, implementation and update of the SMAP and SWMP.
- b. Post on the city's website the SWMP Plan and the annual report, no later than May 31 each year. Other submittals are available to the public upon request.

### **3.2 Public Involvement and Participation - Current Activities**

The most recent version of the SWMP document and Annual Compliance Report are posted on the City's website at the following link:

<http://www.ci.lacey.wa.us/city-government/reports-plans/library#stormwater>.

The documents are updated on the website as needed, at least annually. Comments on the SWMP will be considered, and subsequent editions of the documents will incorporate any appropriate suggestions. In this way, the SWMP will be a perpetual "work in progress" as it integrates revisions spawned in part by public comment, as well as new program components and progress toward program goals.

In 2021, the City provided a variety of public participation opportunities to the general public, however, due to the COVID-19 pandemic, activities were limited and conducted online. The following is a list of those activities and a brief description of each.

## **Storm Pond Maintenance Workshops**

All new developments in the City of Lacey are required to prepare a maintenance checklist and agreement for stormwater facilities that are filed with the deed to the property. In addition, residential developers are required to establish a homeowners association (HOA) with proper funding mechanisms to sustain community assets.

Some of the older developments are unprepared and unaware of their obligations for stormwater facility maintenance. To address this issue, Water Resources reaches out to HOAs that are not performing needed maintenance of their stormwater facility(s). Staff arrange meetings with the HOAs, provide copies of plans and maintenance guidelines, and conduct walk-throughs of the respective community's stormwater facility(s). This process provides the impetus for HOAs to become better organized with respect to maintenance and an opportunity for HOAs to provide the City with recommendations for improving the inspection process. Lacey Water Resources, in collaboration with Olympia, Tumwater, and Thurston County, offers annual workshops, one for HOAs and property managers, and a second for contractors. Both workshops focus on stormwater facility maintenance. These workshops provide participants an opportunity to understand the maintenance and inspection process and provide input for improving the program.

## **Stream Team**

Stream Team is a regional volunteer program sponsored by Lacey, Olympia, Tumwater, and Thurston County. The program manages a volunteer database of all ages who, in Lacey, participate in educational opportunities such as citizen science and free workshops. In turn, participants contribute to action projects intended to protect or enhance surface waters within the region. Examples of Stream Team action projects in Lacey include, re-vegetation along Woodland Creek and removing invasive species from stormwater facilities.

As part of the City's involvement in Stream Team, Lacey City staff writes articles and/or performs the editor/coordinator role for the 16-page quarterly Stream Team Newsletter each winter. The newsletter is distributed to more than 2,200 residents each quarter across all four jurisdictions. It is also posted to the website and on Facebook. Lacey pays for 25% of the expenses for the newsletter each quarter and maintains the printing and mailing contract for the newsletter and the volunteer management software used by Stream Team.

## **Comprehensive Planning**

The Lacey Planning Commission consists of nine members, seven of whom must live within the City limits and two who may live within the urban growth area boundary. This commission develops recommendations for long-range comprehensive planning goals and policies in the City of Lacey, and areas outside of the City which may seek annexation. Planning Commission meetings are open to the public, and meeting agendas are posted on the City's website.

The Comprehensive Land Use Plan is the City's comprehensive vision for development of the City over the next 20 years. It is the City's "long range plan." It consists of a series of text elements articulating goals and policies for various topic areas and a land use map. The City's Comprehensive Land Use Plan includes elements on land use, housing, transportation, utilities, capital facilities, environmental protection and resource conservation, and economic development. The land use map shows the entire Lacey Urban Growth Area (UGA) and designates properties for particular categories of land uses. Thurston County and the City of Lacey developed the majority of the Plan as a cooperative "joint" effort. The land use, housing and utilities elements and the land use map were adopted by both jurisdictions in the same form. Therefore, properties in the Lacey UGA, either in the incorporated City or unincorporated County, will be operating under the same Plan language and the same Plan map.

Under the State's Growth Management Act, amendments to the Plan can only be considered once each year, and must be considered at the same time to provide holistic comprehensive evaluation of proposed changes. The City requires a completed application to be submitted by January 2nd to be considered for that calendar year. All applications are required to go to the Planning Commission for a public hearing and evaluation. The Planning Commission recommends what action to take on each application and forwards the recommendations to the Lacey City Council for consideration and action, usually by the end of July.

During 2020, Lacey Water Resources completed the process of updating our Stormwater Comprehensive Plan. The plan serves to guide the activities, programs and projects of Lacey's Storm and Surface Water Utility, as well as to provide information to Lacey utility ratepayers. The updated plan document was adopted in November 2020, after a robust public outreach and participation effort during the winter/spring of 2020 to encourage Lacey citizens to review and provide feedback on the updated Stormwater Comprehensive Plan. Plan implementation was underway during 2021.

### **3.3 Public Involvement and Participation - Future Activities**

Actions recommended for continued compliance include:

- Defining public involvement opportunities for the annual SWMP update and reporting process.
- Making the SWMP document and Annual Compliance Report available to the public by posting on the City of Lacey website.
- Create opportunities for the public, specifically overburdened communities, to participate in the implementation of Lacey's Stormwater Management Program.
- Summarizing annual activities for the "Public Involvement and Participation" component of the Annual Report, including updates to the SWMP.

### **3.4 Public Involvement and Participation Summary**

Please see the Activity Summary Sheets in Section 2.6

### **S5.C.4 – MS4 Mapping and Documentation** (new section for 2019-2024)

MS4 Mapping and Documentation is a new permit section with new requirements for the 2019-2024 permit term. Although mapping of Lacey’s drainage system and stormwater facilities has not been a formal permit requirement in previous years, the city has been conducting mapping of all of our utilities – stormwater, potable water, wastewater and reclaimed water - for many years. The City of Lacey’s utility mapping is continually being updated in our GIS system, and will continue to be updated in accordance with the requirements of this new permit section.

#### **4.1 Mapping and Documentation - Requirements**

This new permit section adds several mandated activities and performance measures, as follows (this is an abbreviated summary; see the 2019-2024 Phase II permit for additional details):

The SWMP shall include an ongoing program for mapping and documenting the MS4 (municipal separate storm sewer system).

- a. *Ongoing Mapping:* Maintain mapping data for the features listed below:
  - i. Known MS4 outfalls and known MS4 discharge points.
  - ii. Receiving waters, other than groundwater.
  - iii. Stormwater treatment and flow control BMPs/facilities owned or operated by the city.
  - iv. Geographic areas served by the city’s MS4 that do not discharge stormwater to surface waters.
  - v. Tributary conveyances to all known outfalls and discharge points with a 24-inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems. The following features or attributes shall be mapped:
    - (a) Tributary conveyance pipe, material, and size.
    - (b) Associated drainage areas.
    - (c) Land use.
  - vi. Connections between the city’s MS4 and those owned or operated by other public entities.
  - vii. All connections to the MS4 authorized or allowed by the city after February 16, 2007 (mapping of driveways, sump pumps or roof downspout connections is not required).

- b. *New Mapping:*
  - i. No later than January 1, 2020, begin to collect size and material for all known MS4 outfalls, and update records.
  - ii. No later than August 1, 2023, complete mapping of all known connections from the MS4 to a privately-owned stormwater system.
- c. No later than August 1, 2021, the required format for mapping is electronic (e.g. Geographic Information System) with fully described mapping standards.
- d. Make available to Ecology, upon request, maps depicting the information described in the subsections above (a through c).
- e. Upon request, and as appropriate, provide mapping information to federally recognized Indian Tribes, municipalities, and other permittees.

## **4.2 Mapping - Current Activities**

During the current reporting period, the city's stormwater system mapping in our GIS system has been ongoing.

## **4.3 Mapping - Future Activities**

All activities listed under Stormwater Mapping and Documentation Requirements (above) are proposed to be addressed per the mandated compliance schedule.

## **S5.C.5 – Illicit Discharge Detection and Elimination (IDDE)**

### **5.1 IDDE - Requirements**

Section S5.C.5 of the 2019-2024 Permit requires the City to:

Implement an ongoing Illicit Discharge Detection and Elimination (IDDE) program to prevent, detect, characterize, trace and eliminate illicit discharges and illicit connections into the MS4. An illicit discharge is “any discharge to a municipal storm system that is not composed entirely of stormwater...” and an illicit connection is “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.”

The minimum performance measures are (this is an abbreviated summary; see the 2019-2024 Phase II permit for additional details):

- a. The IDDE program includes procedures for reporting and correcting or removing illicit connections, spills, and other illicit discharges, and procedures to address pollutants entering the MS4 from an interconnected, adjoining MS4. Illicit connections and illicit discharges are identified through means such as field screening, inspections, complaints/reports, or other means as appropriate.
- b. Inform public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste.
- c. Implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater illicit discharges into the city's MS4 to the maximum extent allowable under state and federal law.

Note: Lacey Municipal Code Chapter 14.29, Illicit Discharges, describes various pollutants, allowable discharges, and conditionally-allowable discharges, in accordance with this section of the phase II Permit.

- d. Implement an ongoing program to detect and identify non-stormwater discharges and illicit connections into the city's MS4. The program includes the following components:
  - i. Procedures for conducting investigations of the MS4, including field screening and methods for identifying potential sources. Field screening methodology is in general conformance with the *Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual* (Herrera Environmental Consultants, 2013 and 2019).
  - ii. A publicly listed and publicized hotline or other telephone number for public reporting of spills and other illicit discharges.
  - iii. An ongoing training program for all municipal field staff who might notice or observe an illicit discharge and/or illicit connection to the MS4. Document and maintain records of the trainings provided and the staff trained.
- e. Implement an ongoing program to address illicit discharges, including spills and illicit connections, into the city's MS4. The program includes:
  - i. Procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges found by or reported to the city, and an evaluation of how to address containment of the discharge
  - ii. Procedures for tracing the source of an illicit discharge, including visual inspections and other methods such as opening manholes, using mobile cameras, collecting and analyzing water samples, and/or other inspection procedures.
  - iii. Procedures for eliminating the discharge, including notification of appropriate authorities, notification of the property owner, technical assistance, follow-up inspections, and use of a compliance strategy including escalating enforcement.

- iv. Compliance with these three procedures is achieved by meeting these timelines:
  - (a) Immediately respond to all illicit discharges, including spills, which are determined to constitute a threat to human health, welfare, or the environment, consistent with General Condition G3.
  - (b) Investigate (or refer to the appropriate agency) within 7 days, on average, any complaints, reports, or monitoring information that indicates a potential illicit discharge.
  - (c) Initiate an investigation within 21 days of any report or discovery of a suspected illicit connection to determine the source of the connection, the nature and volume of discharge through the connection, and the party responsible for the connection.
  - (d) Upon confirmation of an illicit connection, use the compliance strategy in a documented effort to eliminate the illicit connection within 6 months. All known illicit connections to the MS4 shall be eliminated.
- f. Train staff who are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, and illicit connections, to conduct these activities. Provide follow-up training to address changes, and maintain records of training provided and staff trained.
- g. Recordkeeping: Track and maintain records of the activities conducted to meet the requirements of this permit section. In the annual report, submit data for the illicit discharges, spills, and illicit connections that were found, reported, or investigated during the previous calendar year. The data shall include the information specified in Appendix 12 of the permit and WQWebIDDE.

## **5.2 IDDE - 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:

### **System Mapping**

The City currently maintains a stormwater infrastructure map in electronic format. It is continuously updated to include new development as well as changes made to existing facilities. Both public and private facilities (when available) are included in the storm system mapping.

### **Illicit Discharge Regulations**

The City of Lacey has had Ordinances No. 791 and No. 1233 in place for many years prohibiting the discharge of pollutants to the City's stormwater system. Ordinance No. 1332 updated these existing ordinances to reflect the new requirements. Discharges of waste to natural outlets is prohibited under Lacey Municipal Code Title 13, Water and Sewage, Chapter 13.08 (Use of Sewers – Private Sewage Disposal). Further, under Chapter 13.08.015, discharging polluting

elements into the stormwater system is unlawful and subject to a fine of up to \$5,000. The purpose of these ordinances is to protect the receiving waters of the stormwater system. On December 21, 2017 Lacey adopted Ordinance 1525, which added Chapter 14.27 Stormwater Management and Chapter 14.29 Illicit Discharges to Lacey’s Municipal Code (see Appendix B).

Article 6 of Thurston County Code establishes a set of practices and procedures, which protect the waters of Thurston County against nonpoint source pollution. It applies to all persons, activities and locations in Thurston County, and can be used to enforce against nonpoint pollutant sources that have the potential to enter stormwater systems. The intent of Article 6 is to enable protection of public health, protection and improvement of water quality, and protection of present and future uses of water.

### **Spill Response Program**

City publications, such as the regional publication the *Stream Team Newsletter*, include information about the local spill response hotline. A webpage has been dedicated to this specific information about reporting spills: [www.ci.lacey.wa.us/report-a-spill](http://www.ci.lacey.wa.us/report-a-spill). Additionally, the City’s Street/Storm Maintenance Division responds to stormwater-related emergencies, primarily chemical spills and flooding events. In either situation, Division priorities are to protect human life, groundwater, the environment, and property, in that order. Local police and fire authorities contact the Division for flooding and spill events occurring within current City limits. Trained City of Lacey personnel will act as first responders to requests for assistance on hazardous material spills located within the incorporated City limits. Hazardous materials cleanup activities will be limited to the right-of-way and City-owned property; however, spills that occur on private property or outside the City limits may be addressed when there is a possible impact to City owned infrastructure or property.

### **Pollutant Source Identification**

Pollutant source investigation of spills and emergencies occurs through the mechanisms mentioned above. Pollutant sources are also tracked through long-term monitoring of surface and ground waters. Identified pollution sources that degrade water quality have been incorporated as priorities for capital improvement projects and mitigation efforts.

### **IDDE Training**

All field staff receives training on the City’s IDDE Program. Refresher training is provided annually as needed.

## **5.3 IDDE - Tracking**

Stormwater personnel document incidents of emergency response using HTE Data Management system. The data helps City Staff track problem flood areas and identify sources of spills in an

effort to prevent future occurrences or contamination. In addition, the City is required to notify the Ecology Spill Response Team so that Ecology can track spills and ensure that they are properly addressed. Spill data is included in the annual report submittal to Ecology.

## **5.4 IDDE - Future Activities**

The City of Lacey will continue to refine current efforts in order to protect our waterways and the environment, and to maintain compliance as Ecology phases in Permit requirements. Actions recommended for continued compliance include:

- In anticipation of the new 2019-2024 permit requirements, the City has begun to review and modify as necessary all IDDE activities to continue to meet permit requirements as needed.
- Review and update codes as needed.
- Review and develop additional public education and outreach, and Standard Operating Procedures (SOPs) for minimizing pollutant releases from permitted non-stormwater discharges.
- Further develop and implement the Stormwater Outfall Illicit Discharge screening program.
- Review and revise upstream illicit discharge source control programs to respond to illicit discharges found and/or reported.
- Summarize annual activities for the Illicit Discharge Detection and Elimination component of the Annual Report, including updates to the SWMP document.

## **S5.C.6 – Controlling Runoff from New Development, Redevelopment and Construction Sites**

### **6.1 Controlling Runoff - Requirements**

Section S5.C.6 of the 2019-2024 Permit requires the City to:

Implement and enforce a program to reduce pollutants in stormwater runoff to the MS4 from new development, redevelopment and construction site activities. The program applies to both private and public development projects, including transportation projects.

The minimum performance measures are (this is an abbreviated summary; see the 2019-2024 Phase II permit for additional details):

- a. Implement an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment and construction site projects. Adopt and make effective a local program, no later than June 30, 2022, that meets the requirements of (b) below, and applies to all applications submitted:
  - i. On or after July 1, 2022.
  - ii. Prior to January 1, 2017, that have not started construction (e.g. final grading or utilities) by January 1, 2022.
  - iii. Prior to July 1, 2022, that have not started construction by July 1, 2027.
- b. The ordinance or other enforceable mechanism shall include, at a minimum:
  - i. The minimum requirements, thresholds, and definitions in Appendix 1 of the permit, or Phase I program approved by Ecology and amended to include Appendix 10 of permit, for new development, redevelopment, or construction sites. More stringent requirements may be used, or requirements tailored to local circumstances, as long as they provide equal protection of receiving waters and equal levels of pollutant control to those provided in Appendix 1.
  - ii. The local requirements shall include the following, to help protect water quality, reduce the discharge of pollutants to the MEP, and satisfy the state requirement to apply AKART prior to discharge:
    - (a) Site planning requirements
    - (b) BMP selection criteria
    - (c) BMP design criteria
    - (d) BMP infeasibility criteria
    - (e) LID competing needs criteria
    - (f) BMP limitations

Permittees shall document how the criteria and requirements will protect water quality, reduce the discharge of pollutants to the MEP, and satisfy state AKART requirements. Permittees who choose to use the requirements, limitations, and criteria, above, in the (2019) *Stormwater Management Manual for Western Washington*, or a Phase I program approved by Ecology (such as Pierce County's) may cite this choice as their sole documentation to meet this requirement.
  - iii. The legal authority, through the approval process for new development and redevelopment, to inspect and enforce maintenance standards for private stormwater facilities approved under the provisions of this Section that discharge to the city's MS4.
- c. The program shall include a permitting process with site plan review, inspection and enforcement capability to meet the standards listed below, for both private and public projects, using qualified personnel. At a minimum, this program shall be applied to all sites that meet the minimum thresholds pursuant to Section S5.C.6.b.i, above.

- i. Review of all stormwater site plans for proposed development activities.
  - ii. Inspect, prior to clearing and construction, all construction sites that meet the minimum thresholds adopted pursuant to Section S5.C.6.b.i, above.
  - iii. Inspect all permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. Enforce as necessary based on the inspection.
  - iv. Manage maintenance activities to inspect all stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments every 6 months, until 90% of the lots are constructed (or when construction has stopped and the site is fully stabilized), to identify maintenance needs and enforce compliance with maintenance standards as needed.
  - v. Inspect all permitted development sites upon completion of construction and prior to final approval or occupancy, to ensure proper installation of permanent stormwater facilities. Verify that a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control BMPs/facilities. Enforce as necessary based on the inspection.
  - vi. Compliance with the inspection requirements above shall be determined by the presence and records of an established inspection program designed to inspect all sites, and achieving at least 80% of required inspections.
  - vii. The program shall include a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities shall be retained.
  - viii. An enforcement strategy shall be implemented to respond to issues of noncompliance.
- d. The program shall make available, as applicable, the link to the electronic *Construction Stormwater General Permit* Notice of Intent (NOI) form for construction activity and, as applicable, a link to the electronic *Industrial Stormwater General Permit* Notice NOI form for industrial activity to representatives of proposed new development and redevelopment. Permittees shall continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.
  - e. Each permittee shall ensure that all staff whose primary job duties are implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Follow-up training must be provided as needed to address changes in procedures, techniques, or staffing. Permittees shall document and maintain records of the training provided and the staff trained.

## 6.2 Controlling Runoff - Current Activities

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

- The City has developed and implemented a program to reduce pollutants in stormwater runoff to the municipal separate storm system from new development, redevelopment and construction site activities. The City enforces this program through the 2016 City of Lacey *Stormwater Design Manual* (SDM). The 2016 SDM was a complete update of the previous 2010 SDM. Lacey's 2016 SDM is based on Pierce County's 2015 *Stormwater Management and Site Development Manual*, which is an approved equivalent to the Washington State Department of Ecology 2012 *Stormwater Management Manual for Western Washington*, amended in December 2014. The 2016 SDM can be found at the following link:

<http://www.ci.lacey.wa.us/city-government/reports-plans/library#stormwater>

The 2016 SDM is being updated during the late 2020 – spring 2022 timeframe, in accordance with the Permit requirements.

- In 2017, the City adopted Ordinance # 1525 to update necessary development-related codes, rules, standards, and other enforceable documents to meet Permit requirements (see Appendix B).
- The City requires and completes construction and stormwater site inspections during pre- and post-construction phases.
- The City records and maintains inspections and enforcement actions by staff.
- The City will summarize associated activities in the Annual Compliance Report, including Program updates.

Prior to stormwater management regulations, stormwater management meant conveying the water away from a prospective project site. Now, development projects are required to keep stormwater on-site and infiltrate runoff water to the maximum extent feasible. Under a series of ordinances adopting Lacey's *Development Guidelines and Public Works Standards*, the City of Lacey requires new development and redevelopment projects to meet specific development guidelines. Lacey's *Development Guidelines and Public Works Standards* specifies criteria that must be met with regard to all forms of public works improvements.

The City of Lacey was the first in the state to adopt a low-impact development ordinance to encourage “zero effective drainage discharge.” Recognizing that accepted methods for mitigating the impacts of increased stormwater run-off from development may not be the most appropriate approach to habitat protection, the City in 1999 adopted the Zero Effect Drainage Discharge ordinance (Ordinance 1113), codified as LMC Chapter 14.31. This was an enabling

ordinance that invited non-traditional approaches to plat development and allowed justified exemptions from public works standards.

Proposed “zero effect” proposals faced higher scrutiny during the review and approval process. No standards were specified through the codification of this ordinance, but under the ordinance, justified exemptions from public works standards were allowed. However, when determining whether an exemption is justified, the burden of proof is the responsibility of the project proponent.

The nature of the zero-effect idea is that it allowed exemptions from certain public works standards such as road width, but it may be challenged by State stormwater regulations. One way to ensure water quality compliance is to monitor the performance of the project using methods such as groundwater quality monitoring or downstream water quality monitoring. In fact, the Zero Effect Drainage Discharge ordinance required the implementation of a monitoring program along with the project proposal.

One aspect of the zero effect drainage proposals that was not addressed through the ordinance is the issue of liability. The project owner or delineated responsible party would need a mitigation plan should the project stormwater system not function as designed or not provide proper water quality mitigation. The extent and details of this need were determined on a case-by-case basis.

Due at least in part to the lack of applicable standards and the uncertainties a developer faced in proposing a project under the Zero Effect Drainage Discharge ordinance, very few such proposals were presented.

In 2006, the City of Lacey participated in the Low Impact Development (L.I.D.) Local Regulation Assistance Project with staff from Puget Sound Action Team and AHBL. The goal of this project was to develop draft regulatory changes, standards and other recommendations to encourage the increased use of L.I.D. One of the findings of this project was that Lacey’s Zero Effect Drainage Discharge ordinance could be improved through clearer design objectives, more specific requirements, and flexibility within native vegetation retention requirements. These recommendations were included in subsequent local regulations.

The Zero Effect Drainage Discharge ordinance was repealed in 2016 along with other code revisions, due to the promotion of L.I.D. LMC Chapter 14.31 was Lacey’s original means of allowing L.I.D., so it became obsolete as L.I.D. became mandated by Ecology, and Lacey adopted the 2016 SDM which included L.I.D. principles and practices. The Zero Effect Drainage Discharge repeal, and 2016 SDM adoption, went into effect on December 31, 2016 under Ordinance 1496.

## **Inspection and Enforcement**

Investigations and inspections are made to check on complaints concerning compliance. These investigations can lead to enforcement actions that will ensure compliance with regulations.

Enforcement actions are based on the nature of the violation, the damage or risk to the public or public resources, and/or the degree of cooperation shown by the person subject to the enforcement.

Maintenance guidelines and erosion control standards are included in Lacey's 2016 *Stormwater Design Manual*. In addition to public education and outreach efforts that provide information regarding compliance with stormwater standards, Lacey Water Resources coordinates with other City divisions to monitor and enforce compliance of stormwater and erosion control systems.

The City has several full-time employees whose responsibility is to inspect and enforce development plans, including erosion control compliance. In 2018, Lacey added a new position, Stormwater Code Compliance Inspector, to ensure that construction-related erosion and sediment control BMPs are placed and maintained to protect water quality throughout the life of a project.

In 2017, the City of Lacey, along with the Cities of Olympia and Tumwater, and Thurston County, began participating in the development of a regional Construction Source Pollution Prevention (CSPP) program and continued the program through 2018. The smaller CSPP Workgroup formed with representation from all four jurisdictions and Ecology. Monthly meetings with CSPP Workgroup occurred through December. A consultant completed background and target audience research and completed a final report in May. The group developed an outreach plan using social marketing strategies for 2019 and developed the collector app for tracking baseline track-out data through 2019.

### **6.3 Controlling Runoff - Future Activities**

The City of Lacey has a program to help reduce stormwater runoff from new development and construction sites. Actions recommended for continued compliance include:

- With the new permit requirements implemented starting in 2019, the City is reviewing and modifying as necessary all Controlling Runoff activities to continue to meet permit requirements as needed.
- Updating the *Stormwater Design Manual* as required by the 2019-2024 permit.
- Developing standardized plan review, inspection, enforcement and compliance documentation and tracking processes and procedures.
- Conducting staff training and public education and outreach on implementation of the updated *Stormwater Design Manual*.
- Supporting Ecology by providing the "Notice of Intent" (NOI) forms for Construction Activity and Industrial Activity.
- Revising information management systems to track and report construction, new development and redevelopment permits, inspection and enforcement actions and Private Drainage Inspection Program inspections and enforcement actions.

- Summarizing annual activities for the “Controlling Runoff from New Development, Redevelopment, and Construction Sites” component of the Annual Report (including the post-construction private drainage system inspection and maintenance requirements), and including updates to the SWMP document.

## **S5.C.7 – Operations and Maintenance**

### **7.1 Operations and Maintenance - Requirements**

Section S5.C.7 of the 2019-2024 Permit requires the City to:

Implement and document a program to regulate maintenance activities and to conduct maintenance activities to prevent or reduce stormwater impacts.

The minimum performance measures are (this is an abbreviated summary; see the 2019-2024 Phase II permit for additional details):

- a. Implement maintenance standards that are as protective, or more protective, of facility function than those specified in the *Stormwater Management Manual for Western Washington* or a Phase I program approved by Ecology. For facilities which do not have maintenance standards, develop a maintenance standard. The City shall update our maintenance standards as necessary to meet the requirements of the Section by June 30, 2022.
  - i. The purpose of the maintenance standard is to determine if maintenance is required, and it is not a measure of the facility’s required condition at all times between inspections.
  - ii. Unless there are circumstances beyond the City’s control, when an inspection identifies an exceedance of the maintenance standard, maintenance shall be performed:
    - Within 6 months for catch basins.
    - Within 1 year for typical maintenance of facilities (except catch basins).
    - Within 2 years for maintenance that requires capital construction of less than \$25,000.
- b. Maintenance of stormwater facilities regulated by the Permittee (i.e. *private facilities*)
  - i. The program shall include provisions to verify adequate long-term O&M of stormwater treatment and flow control BMPs/facilities that are permitted and constructed pursuant to S5.C.6.c and shall be maintained in accordance with S5.C.7.a. The provisions include:
    - (a) Implementation of an ordinance or other enforceable mechanism that identifies the party responsible for maintenance, requires inspection of facilities as described in (b) below, and establishes enforcement procedures.
    - (b) Annual inspections of all stormwater treatment and flow control BMPs/facilities that discharge to the MS4 and were permitted by the City in accordance with S5.C.6.c,

- including those permitted in accordance with requirements adopted pursuant to the 2007-2019 municipal stormwater permits, unless there are maintenance records to justify a different frequency.
- ii. Compliance with these inspection requirements are determined by the presence of records of an established inspection program designed to inspect all facilities, and achieving at least 80% of required inspections.
  - iii. The program shall include a procedure for keeping records of inspections and enforcement actions by staff.
- c. Maintenance of stormwater facilities owned or operated by the City (i.e. *public facilities*).
- i. Each Permittee shall implement a program to annually inspect all municipally owned or operated stormwater treatment and flow control BMPs/facilities, and taking appropriate maintenance actions in accordance with the adopted maintenance standards.
  - ii. Each Permittee shall spot check potentially damaged stormwater treatment and flow control BMPs/facilities after major storm events (e.g. a 10-year storm event). Inspect all such BMPs/facilities that may have been affected. Conduct repairs or take appropriate maintenance action based on the results of the inspections.
  - iii. Each Permittee shall inspect all catch basins and inlets owned or operated by the Permittee every two years. Clean catch basins if the inspection indicates cleaning is needed to comply with maintenance standards established in the *Stormwater Management Manual for Western Washington*. Decant water shall be disposed of in accordance with Appendix 6 – *Street Waste Disposal*. Alternatives to the two-year catch basin inspection schedule are described in the permit.
  - iv. Compliance with the inspection requirements in S5.C.7.c (above) shall be determined by the presence of an established inspection program achieving at least 95% of required inspections.
- d. Implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. No later than December 31, 2022, document the practices, policies, and procedures. Lands owned or maintained by the permittee include streets, parking lots, buildings, parks, open space, maintenance yards, road right-of-ways, and stormwater treatment and flow control BMPs/facilities. This section of the permit includes a long list of activities that shall be addressed.
- e. Implement an ongoing training program for employees of the Permittee whose primary construction, operations, or maintenance job functions may impact stormwater quality. This section of the permit includes further details on the training and associated records to keep.
- f. Implement a Stormwater Pollution Prevention plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee that are not required to have coverage under another NPDES permit that authorizes stormwater discharges associated with the activity. As necessary, update SWPPPs no later than December 31, 2022, to include the following information, at minimum:

- i. A detailed description of the operational and structural BMPs in use at the facility and a schedule for implementation of additional BMPs when needed. The SWPPP must be updated as needed to maintain relevancy with the facility.
  - ii. Annual inspections of the facility, including visual observations of discharges, to evaluate the effectiveness of the BMPs, identify maintenance needs, and determine if additional or different BMPs are needed. The results of these inspections must be documented in an inspection report or checklist.
  - iii. An inventory of the materials and equipment stored on-site, and the activities conducted at the facility which may be exposed to precipitation or runoff and could result in stormwater pollution.
  - iv. A site map showing the facility's stormwater drainage, discharge points, and areas of potential pollutant exposure.
  - v. A plan for preventing and responding to spills at the facility which could result in an illicit discharge.
- g. Maintain records of the activities conducted to meet the requirements of this Section.

## **7.2 Operations and Maintenance - Current Activities**

One of the most important aspects of effective stormwater management is a proper operations and maintenance program. Regular maintenance is the only method to ensure storm system integrity and continued water quality enhancement. The City of Lacey has a maintenance staff dedicated to stormwater system maintenance. Their responsibilities are quite broad and include catch-basin inspection and cleaning, street sweeping, facility cleaning and maintenance, spill response and control, and flooding response and repair where applicable. City forces respond to dozens of spill incidents every year, many of which are caused by vehicle accidents.

One requirement of any operations and maintenance program is a complete and accurate inventory of infrastructure. New development is required to supply accurate as-built drawings that are added to the City's system maps. However, some systems were developed outside the City's jurisdiction or existed prior to development standards. Thus, many private storm systems in existence are not properly mapped.

The City has been divided into a number of maintenance areas to optimize the cleaning and maintenance schedule. The City's aggressive maintenance schedule has an inspection and cleaning goal for each of the City's 6,150 catch basins. The City also owns and maintains more than 50 stormwater ponds, as well as a variety of other associated structures. These facilities often require repair and vegetation management.

Operation and maintenance of Lacey's Stormwater systems is conducted by the Stormwater Division of the Transportation Maintenance Department of the City's Public Works Operations.

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

- The development and implementation of the City of Lacey Stormwater Pollution Prevention Plan.
- Conducting an Operations and Maintenance (O&M) program with the ultimate goal of minimizing pollutant runoff from municipal operations.
- Maintaining standard operating procedures (SOPs) to reduce stormwater impacts associated with runoff from municipal operation and maintenance activities including but not limited to streets, parking lots, and roads owned or maintained by the City. These procedures address such potential sources as utility installation, street cleaning, ditch maintenance and other City activities.
- Providing ongoing O&M training.

During rainy periods, concerned residents and business owners often notify the City's Street and Stormwater Maintenance Division of minor flooding issues. The Division responds to stormwater-related problems, including plugged grates, failed facilities and localized flooding. The Division keeps records of problem areas and facilities and attempts to perform maintenance and correct problems each year before the storm season begins. For storm related emergencies, local police and fire authorities contact the Division for flooding occurrences within current City limits, at city owned facilities or where City systems discharge to another jurisdiction or to private property.

### **7.3 Operations and Maintenance - Future Activities**

The City of Lacey performs many activities to limit stormwater pollution related to its municipal operations and maintenance program. However, updates will be necessary to maintain compliance as Ecology phases in Permit requirements. Actions recommended for continued compliance include:

- In order to address the new permit requirements scheduled for implementation in 2019-2024, the City has begun to review and modify as necessary all Operations and Maintenance activities to continue to meet permit requirements as needed.
- Reviewing and updating inspection, operation and maintenance processes and procedures for City owned or operated stormwater catch basins, flow control and treatment facilities.
- Administratively adopting standards equivalent to Ecology's maintenance standards for City-performed maintenance activities.
- Summarizing annual activities for the "Pollution Prevention and Operations and Maintenance" component of the Annual Report, including updates to the SWMP document.

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

(new section for 2019-2024)

Source Control Program for Existing Development is a new permit section with new requirements for the 2019-2024 permit term.

### **8.1 Source Control Program - Requirements**

This new permit section adds several mandated activities and performance measures, as follows (this is an abbreviated summary; see the 2019-2024 Phase II permit for additional details):

- a. The Permittee (City) shall implement a program to prevent and reduce pollutants in runoff from areas that discharge to the MS4 (municipal separate storm sewer system). The program shall include:
  - i. Application of operational source control BMPs, and if necessary, structural source control BMPs or treatment BMPs/facilities, or both, to pollution generating sources associated with existing land uses and activities.
  - ii. Inspections of pollutant-generating sources at publicly and privately owned institutional, commercial and industrial sites to enforce implementation of required BMPs to control pollution discharging into the MS4.
  - iii. Application and enforcement of local ordinances at sites, identified pursuant to S5.C.8.b.ii, including sites with discharges authorized by a separate NPDES permit.
  - iv. Practices to reduce polluted runoff from the application of pesticides, herbicides, and fertilizers from the sites identified in the inventory.
- b. Minimum performance measures:
  - i. No later than August 1, 2022, Permittees shall adopt and make affective an ordinance, or other enforceable documents, requiring the application of source control BMPs for pollutant-generating sources associated with existing land uses and activities.

The requirements of this subsection are met by using the source control BMPs in the SWMMWW, or a Phase I program approved by Ecology. BMPs may be adapted as needed, based on the professional judgment of the Permittee.

Applicable operational source control BMPs shall be required for all pollutant generating sources. Structural source control BMPs, or treatment BMPs/facilities, or both, shall be required for pollutant generating sources if operational source control BMPs do not prevent illicit discharges or violations of surface water, groundwater, or sediment management standards because of inadequate stormwater controls. Implementation of source control requirements may be done through education and technical assistance

programs, provided that formal enforcement authority is available to the Permittee and is used as determined necessary by the Permittee, in accordance with S5.C.8.b.iv, below.

- ii. No later than August 1, 2022, Permittees shall establish an inventory that identifies publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4. The inventory shall include:
  - (a) Businesses and/or sites identified based on the presence of activities that are pollutant generating (refer to Appendix 8 of Permit).
  - (b) Other pollutant generating sources, based on complaint response, such as: home-based businesses and multi-family sites.
- iii. No later than January 1, 2023, Permittees shall implement an inspection program for sites identified pursuant to S5.C.8.b.ii, above.
  - (a) All identified sites with a business address shall be provided information about activities that may generate pollutants and the source control requirements applicable to those activities. This information shall be provided by mail, telephone, electronic communications, or in person. This information may be provided all at one time, or spread out over the permit term to allow for tailoring and distribution of the information during site inspections.
  - (b) The Permittee shall annually complete the number of inspections equal to 20% of the businesses and/or sites listed in their source control inventory to assess BMP effectiveness and compliance with source control requirements. The Permittee may count follow-up compliance inspections at the same site toward the 20% inspection rate. The Permittee may select which sites to inspect each year and is not required to inspect 100% of sites over a five-year period. Sites may be prioritized for inspection based on their land use category, potential for pollution generation, proximity to receiving waters, or to address an identified pollution problem within a specific geographic area or sub-basin.
  - (c) Each Permittee shall inspect 100% of sites identified through credible complaints.
  - (d) Permittees may count inspections conducted based on complaints, or when the property owner denies entry, to the 20% inspection rate.
- iv. No later than January 1, 2023, each Permittee shall implement a progressive enforcement policy that requires sites to comply with stormwater requirements within a reasonable time period as specified below:
  - (a) If the Permittee determines that a site has failed to adequately implement required BMPs, the Permittee shall take appropriate follow-up action(s), which may include phone calls, reminder letters, emails, or follow-up inspections.
  - (b) When a Permittee determines that a site has failed to adequately implement BMPs after a follow-up inspection(s), the Permittee shall take enforcement action as

established through authority in its municipal codes or ordinances, or through the judicial system.

- (c) Each Permittee shall maintain records, including documentation of each site visit, inspection reports, warning letters, notices of violations, and other enforcement records, demonstrating an effort to bring sites into compliance. Each Permittee shall also maintain records of sites that are not inspected because the property owner denies entry.
- (d) A Permittee may refer non-emergency violations of local ordinances to Ecology, provided, the Permittee also makes a documented effort of progressive enforcement. At a minimum, a Permittee's enforcement effort shall include documentation of inspections and warning letters or notices of violation.
- v. Permittees shall train staff who are responsible for implementing the source control program to conduct these activities. The ongoing training program shall cover the legal authority for source control, source control BMPs and their proper application, inspection protocols, lessons learned, typical cases, and enforcement procedures. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staff. Permittees shall document and maintain records of the training provided and the staff trained.

## **8.2 Source Control Program - Current Activities**

During the current reporting period, Lacey staff are preparing for establishment and implementation of this new program, though permit requirements for this new section are not yet in effect.

## **8.3 Source Control Program - Future Activities**

All activities listed under Stormwater Control Program Requirements (above) are proposed to be addressed per the mandated compliance schedule.

\* \* \* \* \*

## **SECTION 6 – Secondary Permittees (Permit Section S6)**

This section of the permit does not apply to the City of Lacey.

## **SECTION 7 – Total Maximum Daily Load (TMDL) Requirements**

(Permit Section S7)

### **TMDL Requirements**

In the 2019-2024 Permit, Section S7 - Compliance With Total Maximum Daily Load (TMDL) Requirements, there are two TMDLs that apply to the City of Lacey: the most significant one is the Henderson Inlet Watershed Fecal Coliform Bacteria Water Quality Improvement Project, and the other is the Deschutes River Watershed. Both are in WRIA 13.

For the Henderson Inlet TMDL, the City of Lacey is required to take the following actions:

- 1) Annually implement the following best management practices in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.2 of the Western Washington Phase II Municipal Stormwater Permit:
  - a. Continue the Private Stormwater Facilities Maintenance Program, providing commercial and residential stormwater facility/BMP owners educational resources for facility function and maintenance requirements.
  - b. Offer bacteria pollution reduction brochures, signage and pet waste stations to homeowners associations.
  - c. Maintain pet waste bag dispenser units in City parks.
  - d. Install educational signage at City facilities/property.
  - e. Submit a summary of actions completed with each annual report.
- 2) Implement the Fecal Coliform Bacteria Wet Weather Sampling Program for the College Regional Stormwater Facility in accordance with the IDDE efforts and activities identified in S5. C.5 of the Western Washington Phase II permit.
  - a. Continue to use the Fecal Coliform Wet Weather Sampling Plan. The sampling program shall establish a regularly scheduled sampling schedule (at least two times per year) during the wet season (November through April), specific sampling locations, sampling protocols, parameters, analytical methods, and timelines for implementation.
  - b. If sampling results indicate potential illicit discharges, conduct an investigation in accordance with S5. C.5 of the Western Washington Phase II permit.
  - c. Submit a summary of sampling and investigations with each annual report.
- 3) Revise the City's coordinated plan with the City of Olympia to monitor and reduce fecal coliform bacteria discharges from the Fones/Taylor wetland treatment facilities by December 31, 2019 in accordance with S5. C.5 of the Western Washington Phase II permit.

- a. Submit a revised program plan to Ecology that includes a timeline for implementation, sampling frequencies, and identifies, at the minimum, who will be responsible for sampling, investigations, and enforcement by December 31, 2019.
  - b. If sampling results indicate potential illicit discharges, conduct an investigation in accordance with S5.C.5 of the Western Washington Phase II permit.
  - c. Submit a summary of the coordinated efforts with sampling, investigation, and enforcement actions taken with the annual reports.
- 4) Annually implement the following best management practices in areas discharging to the Henderson Inlet via the MS4 in accordance with S5.C.7 of the Western Washington Phase II Permit:
- a. Continue re-vegetation and nuisance vegetation management along Woodland Creek and its tributaries. Submit a summary of actions completed with each annual report.

For the Deschutes River TMDL, the City of Lacey is required to take the following actions:

- Annually report on temperature reduction measures in the watershed.

## **TMDL Current Activities**

The City of Lacey implemented many programs in 2020, designed to educate citizens and eliminate fecal coliform loading in our waterways, including:

- Continued implementation of the Private Stormwater Facilities Maintenance Program
- Providing bacteria pollution reduction brochures, signage and pet waste stations to homeowners associations and pet related businesses
- Maintaining pet waste bag dispensers in City parks
- Installing educational signage at City facilities/property

In 2013, the City of Lacey implemented a Fecal Coliform Bacteria Wet Weather Sampling Program for the College Regional Stormwater Facility (CRSF). This program was designed to identify and eliminate illicit discharges and illicit connections entering Woodland Creek and ultimately Henderson Inlet. During the wet season (November-April) samples are collected and if the results indicate a potential discharge, follow-up source tracking to identify the source will be performed. Samples collected in recent years at the inlet to the facility have been well below the threshold numbers so no additional IDDE tracing has been needed.

Lacey and Olympia updated the Henderson TMDL Coordinated Sampling Plan in 2019 per the new 2019-2024 permit. This is a coordinated plan between the cities to monitor and reduce fecal

coliform bacteria discharges to the Taylor wetland (Woodard Creek) from the Fones Rd./Taylor stormwater treatment facilities. The plan specifies sampling during at least two storm events during the water year, when the facility discharges to Taylor wetland. The cities coordinate sampling within their respective storm systems so that samples are collected at the same time, at predetermined locations. When samples exceed 5,000 CFU/100mL, Olympia and Lacey will discuss the results and follow-up with source tracing to isolate the problem(s). Sampling results in 2021 were below the threshold value and did not indicate illicit discharges.

City of Lacey's Targeted Educational Plan for Septic System Owners was designed to encourage all septic system owners who live in Henderson Inlet within Lacey City Limits to attend a septic maintenance workshop offered by Thurston county Environmental Health, teaching them how to properly care for their septic system and prevent system damage.

Property owners and people who rent homes with on-site septic systems learned to prolong the life of their septic system through water conservation and by eliminating harmful behaviors such as disposing of solid waste down drain or using hazardous cleaning products. They also learned how to protect their investment and the environment by maintaining their septic system and having it pumped every 3-5 years. Additionally, the City of Lacey included education about proper maintenance of on-site septic systems in the annual Consumer Confidence Report (Water Quality Report) which was mailed to over 30,000 Lacey water customers.

Replanting and nuisance vegetation management along Woodland Creek has been ongoing, with various coordinated volunteer events conducted annually in Woodland Creek Community Park.

In the Deschutes River Watershed, Lacey's primary contribution is several miles upstream from the Deschutes River. Flows from Lacey's Chambers Lake Stormwater Treatment Wetlands Facility discharge into Little Chambers Lake, which outflows to Chambers Ditch, which is beyond Lacey's city limits. Chambers Ditch conveys flow approximately 2.5 miles southwest to Chambers Creek, which then flows another approximately 1.5 miles west to its confluence with the Deschutes River. At the Chambers Lake Stormwater Treatment Wetlands Facility, vegetation management includes removal of invasive plant species and planting of trees around the wetlands perimeter by volunteers, which will help reduce the surface water temperature.

## **TMDL Future Activities**

In anticipation of the new permit requirements scheduled to be implemented in 2019, the City has begun to review and modify as necessary all TMDL activities to continue to meet permit requirements. In late 2019, the coordinated plan between the cities of Lacey and Olympia was updated and submitted to Ecology, to monitor and reduce fecal coliform bacteria discharges from the Fones Road/Taylor wetland stormwater treatment facilities.

The 2019-2024 Western Washington Phase II Municipal Stormwater Permit added a second TMDL applicable to the City of Lacey, for WRIA 13 – Deschutes River Watershed. The actions required of the City of Lacey are to annually report on temperature reduction measures in the watershed. This is primarily accomplished by planting/maintaining tree and vegetation cover along stormwater facilities to provide shade for cooling of flows. Lacey’s contribution of flows to the Deschutes drainage system are relatively minor, and travel a distance of several miles beyond Lacey’s city limits before reaching the river. Flows within Lacey are largely in subsurface pipes, where atmospheric heating is minimized, compared to surface flows.

## **SECTION 8 - Monitoring and Assessment (Permit Section S8)**

### **Monitoring Requirements**

The 2019-2024 permit requires regional monitoring for receiving water status and trends and stormwater program effectiveness. In 2014, Lacey opted to participate in both parts of the Regional Stormwater Monitoring Program implemented by the Department of Ecology by contributing funds, rather than conducting specific discharge monitoring. Lacey contributed funds to Ecology annually during the 2013-2019 permit cycle, and is continuing to contribute funds in the current 2019-2024 permit cycle, for the following regional programs:

#### **A. Regional Status and Trends Monitoring**

Lacey submitted written notification in 2019 that annual payments would be made to Ecology’s collective fund by August 15<sup>th</sup> each year beginning in 2020 for regional receiving water status and trends monitoring. Lacey’s annual payments for S8.A are \$8,055.

#### **B. Stormwater Management Program (SWMP) Effectiveness and Source Identification Studies**

Lacey submitted written notification in 2019 that annual payments would be made to Ecology’s collective fund by August 15<sup>th</sup> each year beginning in 2020 to implement effectiveness and source identification studies. Lacey’s annual payments for S8.B are \$14,721.

In addition to the monitoring conducted via payments to these collective funds, Lacey also collects water samples locally to conduct analyses of local water quality, including:

- Water quality monitoring required for compliance with TMDLs (total maximum daily pollutant loads). TMDL-required monitoring for Lacey is discussed above in Section 7.
- Any sampling or testing required for characterizing illicit discharges pursuant to the Program’s Illicit Discharge Detection and Elimination conditions.

## **Monitoring Current Activities**

### **Interlocal Monitoring Program**

For many years, the City of Lacey has participated in an Interlocal Cooperation Agreement with Thurston County and the Cities of Olympia and Tumwater, for a Water Resource Monitoring Program that focuses on monitoring streams. The Interlocal Monitoring Program components include stream flow monitoring, precipitation monitoring, ambient water quality monitoring, and special projects. There is one monitoring station on Woodland Creek that is monitored for flow, FC bacteria, nitrate, turbidity, temperature, conductance, pH, dissolved oxygen and total phosphorus. All of the monitoring stations are outside of Lacey city limits, and consequently represent cumulative impacts from at least two, and sometimes more, jurisdictions that oversee stormwater management. However, the long-term interlocal cooperative agreement was scaled back in 2013 so that program funding could be diverted to Ecology's Regional Stormwater Monitoring Program.

### **Volunteer Stream Monitoring Program**

South Sound GREEN (described in more detail in Section 2.2) elementary and middle school students collect water quality samples from Woodland Creek and associated lakes and tributaries from various points in the watershed twice a year. Data gathered include: pH, temperature, DO, BOD, turbidity, nitrates, and fecal coliform. With City staff facilitation, this data is evaluated by the students at an annual Student Congress. Students recommend and compile a list of behavior changes for watershed residents to improve the quality of the surface waters in the trouble. This list of recommendations is shared with Environmental Educators across the watershed.

### **Groundwater Monitoring**

Groundwater is the primary source of Lacey's drinking water supply. Source wells and monitoring wells are monitored regularly for water level and water quality parameters as part of Lacey's water system compliance and wellhead protection programs.

Water level monitoring provides information on seasonal and long-term trends in recharge, effects of resource development, and the direction of lateral and/or vertical groundwater flows between aquifers. Water quality monitoring of source wells ensures compliance with drinking water quality standards for inorganic contaminants, volatile organic contaminants, synthetic contaminants, and radionuclides. Sources are also sampled for unregulated contaminants for special projects or as part of EPA's programs to develop drinking water standards for additional contaminants. Results of monitoring data collected from source wells that supply the drinking water system are reported to all water customers and the public on Lacey's website.

Data collected from wellhead protection monitoring wells serve as an “early warning” system to signal potential contamination before it is detected in source wells. Some of the parameters monitored as part of the wellhead-monitoring programs include conductivity, turbidity, hardness, pH, nitrate, volatile organic compounds, selected herbicides and pesticides, and bacteria.

## **Monitoring Future Activities**

The City will continue to implement a Water Quality Monitoring Program to maintain compliance as Ecology phases-in current and future Permit requirements. The City will:

Implement the monitoring compliance strategy, including expanding the monitoring plans as necessary to implement the following Permit requirements and activities:

- Illicit Discharge Detection and Elimination Program outfall screening.
- Pollutant spill response (a.k.a., illicit discharge response) monitoring.
- Continued participation with Thurston County and the cities of Olympia and Tumwater monitoring work group.
- Summarize annual monitoring activities for the annual compliance report, including updates to the SWMP document.

There is currently monitoring coordination and data sharing with other local jurisdictions, and we generally know whom to contact if we need more information. However, individual monitoring activities are not currently planned to complement each other. For shared facilities (e.g. the Fones Road Stormwater Facilities) or for areas with multiple authorities (e.g. the Woodland Creek basin, where the county has most of the authority at the mouth and headwaters), there could be room for improving coordination.

## **Appendix A: Federal, State, and City of Lacey Regulations**

The following pages contain stormwater management-related policies, ordinances and regulations that relate to stormwater, surface water, and groundwater.

### FEDERAL REGULATIONS

- ▶ Clean Water Act – including:
  - Compliance with state water quality standards for discharges of stormwater
  - NPDES Phase II Municipal Stormwater Permit requirements
  - Total Maximum Daily Load (TMDL) for the Henderson Inlet watershed
  - Compliance with Section 404 filling of wetlands
- ▶ Endangered Species Act

### STATE REGULATIONS AND PROGRAMS

- ▶ State Environmental Policy Act (SEPA) review of City actions, per RCW 43.21C.120 and the SEPA rules, WAC 197-11-904
- ▶ Growth Management Act
- ▶ Department of Ecology’s *Stormwater Management Manual for Western Washington*
- ▶ Department of Fish & Wildlife Hydraulic Project Approval (HPA)
- ▶ Water Quality Standards for discharges, per WAC 200, Chapter 90.48 RCW
- ▶ Underground Injection Control Program (UIC), per WAC 173-218

### CITY OF LACEY POLICIES, CODES AND ORDINANCES

- ▶ Lacey Municipal Code (LMC), including the Titles and Chapters listed on the following page
- ▶ City of Lacey *Development Guidelines & Public Works Standards*
- ▶ City of Lacey *Stormwater Design Manual*

Lacey Municipal Code  
Titles and Chapters Affecting the  
Stormwater Management Program

**Title 12 STREETS AND SIDEWALKS**

Chapter 12.28 Development Standards and Public Works Standards

**Title 13 WATER AND SEWAGE**

Chapter 13.08 Use of Sewers--Private Sewage Disposal

Chapter 13.70 Storm and Surface Water Utility Charges

**Title 14 BUILDINGS AND CONSTRUCTION**

Chapter 14.23 Design Review

Chapter 14.24 Environmental Policy

Chapter 14.26 Shoreline Master Program

Chapter 14.27 Stormwater Management (see text on pages 51-58 below)

Chapter 14.28 Wetlands Protection

Chapter 14.29 Illicit Discharges (see text on pages 58-66 below)

Chapter 14.30 Removal of Topsoil

Chapter 14.31 Zero Effect Drainage Discharge (*Repealed by Ordinance 1496*)

Chapter 14.32 Tree and Vegetation Protection and Preservation

Chapter 14.33 Habitat Conservation Areas Protected

Chapter 14.34 Flood Hazard Prevention

Chapter 14.36 Critical Aquifer Recharge Areas Protection

Chapter 14.37 Geologically Sensitive Areas Protection

Chapter 14.40 Civil Violations and Abatement

**Title 16 Zoning**

Chapter 16.52 Environmentally Sensitive Areas

## Washington State Statutes and Regulations Applicable to Stormwater Management

The following state statutes and administrative regulations should be reviewed in conjunction with this Chapter to ensure that all state requirements are satisfied:

### A. Revised Code of Washington (RCW)

#### **Title**

43.20	Drinking Water
70.95	Dangerous and Solid Waste
70.105	Dangerous Waste, MTCA, Sediment Standards
90.48	Ground Water, Surface Water, Sediment
90.54	Ground Water
90.70	Sediment

### B. Washington Administrative Code (WAC)

#### **Title**

173-200	Water Quality Standards for Ground Waters of the State of Washington
173-201	Water Quality Standards for Surface Waters of the State of Washington
173-216	State Waste Discharge Permit Program
173-220	National Pollutant Discharge Elimination
173-204	Sediment Management Standards
173-303	Dangerous Waste Regulations
173-304	Minimum Functional Standards for Solid Waste Handling
173-340	The Model Toxics Control Act Cleanup Regulation
246-290	Public Water Supplies

## Chapter 14.27

### STORMWATER MANAGEMENT

#### Sections:

- 14.27.000 Purposes.
- 14.27.010 Definitions.
- 14.27.020 Applicability/Regulated Activities.
- 14.27.030 Exemptions.
- 14.27.040 Administration and Authority.
- 14.27.050 Requirements for New and Redevelopment.
- 14.27.060 Inspection and Maintenance of Stormwater Facilities.
- 14.27.070 Applicability to Government Entities.
- 14.27.080 Related Requirements.
- 14.27.090 Appeals.
- 14.27.100 Enforcement.
- 14.27.110 Conflict.
- 14.27.120 Severability.

#### **14.27.000 Purposes.**

The provisions of this Chapter are intended to:

- A. Set forth standards for managing stormwater runoff from construction and development sites to minimize:
  - 1. Degradation of surface water quality by controlling the scouring and sedimentation of creeks, streams, wetlands, ponds, lakes, and other water bodies.
  - 2. Degradation of groundwater quality.
  - 3. Damage to adjacent and other downstream private properties from erosion or other impacts from stormwater runoff.
  - 4. Damage to city-owned parcels, city roads, rights-of-way, and associated infrastructure.
- B. Establish the minimum level of compliance that must be met, and provide standards and procedures for inspection, maintenance, and repair of stormwater facilities in Lacey to help contribute to an effective and functional stormwater system.
- C. Control stormwater runoff generated by development, redevelopment, construction sites, or modifications to existing stormwater systems that directly or indirectly discharge to the city stormwater system, in a manner that complies with requirements in the National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit as issued by the Washington State Department of Ecology (Ecology).
- D. Complement site planning activities that minimize:
  - 1. Impervious surfaces area.

2. The loss of native or non-native site vegetation.
  3. The generation of stormwater runoff.
- E. Make low impact development (LID) the preferred and commonly used approach to site development; to require LID be considered at the site planning stage; and to implement LID BMPs unless they are infeasible.
- F. Require that all publicly-owned and privately-owned Stormwater Treatment and Flow Control best management practices (BMPs)/Facilities are operated, maintained and repaired in manner that conforms to this chapter.
- G. Guide and advise all who conduct inspection, maintenance, or repair of stormwater facilities, and provide the authority for the city to inspect privately-owned Stormwater Treatment and Flow Control BMPs/Facilities.
- H. To provide enforcement procedures for ensuring compliance with this chapter.

#### **14.27.010 Definitions.**

For the purposes of this chapter, the following definitions shall apply. See also the definitions within the Glossary of the *Stormwater Design Manual*.

“Best management practices (BMPs)” means the physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State.

“City” means city of Lacey, Washington.

“Flow Control BMP or Facility” means a drainage facility designed to mitigate the impacts of increased surface and stormwater runoff flow rates generated by development. Flow control facilities are designed either to hold water for a considerable length of time and then release it by evaporation, plant transpiration, and/or infiltration into the ground, or to hold runoff for a short period of time, releasing it to the conveyance system at a controlled rate.

“Groundwater” means water in a saturated zone or stratum beneath the surface of the land or below a surface water body.

“Low Impact Development (LID)” means a stormwater and/or 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.

“MS4” means a municipal separate stormwater sewer system. A system of conveyances (including streets, curbs, gutters, catch basins, pipes and ditches) owned or operated by a city or other public entity, that is used for collecting or conveying stormwater (excluding combined sewers).

“Native vegetation” means vegetation including trees, comprised of plant species that are either indigenous or naturalized to the Puget Sound region. Native vegetation does not include noxious weeds.

“Person” means any individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, agency of the state, or local governmental unit, however designated.

“Started construction” means, at a minimum, issuance of a grading permit and the site work associated with and directly related to the approved project has begun.

“Stormwater” means surface runoff due to precipitation or snowmelt; that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels, or pipes into a defined surface water channel or a constructed infiltration facility.

“Stormwater Design Manual” means the *City of Lacey Stormwater Design Manual* as currently adopted.

“Stormwater facility” means constructed component of a stormwater system, designed or constructed to perform a particular function or multiple functions. Stormwater facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catch basins, oil/water separators, and sediment basins. Stormwater facilities are described in the *Stormwater Design Manual*. “Stormwater facility” includes both public and privately owned facilities.

“Stormwater system” means constructed and natural features which function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate, divert, treat, or filter stormwater.

“Stormwater system” includes both public and privately owned features.

“Waters of the State” means those waters 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.

#### **14.27.020 Applicability/Regulated Activities.**

- A. This chapter applies to applications submitted on or after January 1, 2017, and applications submitted prior to January 1, 2017, which have not started construction by January 1, 2022.
- B. Existing regional or shared stormwater facilities - Commercial.
  - 1. Development projects proposed in areas that were previously designed to convey on-site stormwater runoff to regional or shared facilities shall be permitted to do so provided the existing facility is functioning per the approved design and has remaining capacity.
  - 2. New development projects shall meet water quality standards identified in the current Stormwater Design Manual. If a development project proposes to convey stormwater runoff to a regional or shared facility that does not meet current water quality standards then on-site stormwater treatment shall be required prior to conveyance to the regional or shared facility.
- C. Subdivision – Residential.
  - 1. Individual lots shall manage on-site stormwater runoff in accordance to the current Stormwater Design Manual in effect at the time of complete building permit application, unless the subdivision’s stormwater management system was designed to accommodate runoff from individual lots.
- D. This chapter applies to the following actions on sites that discharge to the city’s MS4 or discharges to waters of the state whether or not a city-issued permit is required:
  - 1. Land-disturbing activity, or
  - 2. Creation of new hard surfaces, or
  - 3. Replacement of existing hard surfaces, or

4. Conversion of pervious surfaces, or
5. New connections to the city's MS4, or
6. Any other actions that can increase the volume or rate of stormwater runoff, or cause the generation of pollutants, from the site.

#### **14.27.030 Exemptions.**

- A. Exemptions. Unless otherwise indicated in this section, the practices described in this section are exempt from the core requirements, even if such practices meet the definition of new development or redevelopment.
  1. Forest Practices. Forest practices regulated under Title 222 WAC, except for Class IV General Forest Practices that are conversions from timberland to other uses, are exempt.
  2. Commercial Agriculture. Commercial agriculture practices involving working the land for production are generally exempt; however, the conversion from timberland to agriculture, and the construction of impervious surfaces are not exempt.
  3. Pavement Maintenance. The following pavement maintenance practices are exempt from the core requirements, but shall use appropriate BMPs to minimize erosion and sediment transport: pothole and square cut patching, grinding/inlays, overlaying existing asphalt or concrete pavement with asphalt or concrete without expanding the area of coverage, shoulder grading, reshaping/regrading drainage systems, crack sealing, resurfacing with in-kind material without expanding the road prism, and vegetation maintenance. The following pavement maintenance practices are not categorically exempt:
    - a. Removing and replacing a paved surface to base course or lower, or repairing the pavement base. If impervious surfaces are not expanded, Core Requirements #1 through #5 apply.
    - b. Extending the pavement edge without increasing the size of the road prism, or paving graveled shoulders. These are considered new impervious surfaces and are subject to the core requirements that are triggered when the thresholds identified for new or redevelopment projects are met.
    - c. Resurfacing by upgrading from dirt to gravel, asphalt, or concrete; upgrading from gravel to asphalt, or concrete; or upgrading from a bituminous surface treatment ("chip seal") to asphalt or concrete. These are considered new impervious surfaces and are subject to the core requirements that are triggered when the thresholds identified for new or redevelopment projects are met.
  4. Underground Utility Projects. Underground utility projects that replace the ground surface with in-kind material or materials with similar runoff characteristics are only subject to Core Requirement #2: Construction Stormwater Pollution Prevention.

#### **14.27.040 Administration and Authority.**

- A. The city shall administer, implement, and enforce the provisions of this chapter.

- B. The city shall have the authority to develop, implement, and enforce policies and procedures to administer and enforce this chapter.
- C. Application, Submittals, and Review.
  - 1. The city of Lacey shall review and approve all plans and all other submittals required for compliance with this chapter when:
    - a. An application for a city permit is required under all other chapters of LMC, or
    - b. Stormwater management is required and shall comply with the current *City of Lacey Stormwater Design Manual*, or
    - c. In all other situations when actions under LMC 14.27.020 apply to a project site, review shall be under a city stormwater permit. The stormwater permit shall follow the procedure for limited administrative review described in Chapter 1 of the Development Guidelines and Public Works Standards.
  - 2. All stormwater review submittals shall contain, in addition to the information required under any other applicable city code, a Stormwater Site Plan as described in the *Stormwater Design Manual* and any other information required by the city of Lacey.
- D. Inspections.
  - 1. The city shall inspect projects at various stages of the work to determine if they comply with the requirements of this chapter, and enforcement actions shall be taken as necessary. These inspections will include, but not be limited to, the following:
    - a. Prior to site clearing and construction to assess site erosion potential, and
    - b. During construction to verify proper installation and maintenance of required erosion and sediment controls and other approved plan components, and
    - c. All permanent stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments every six months until 90 percent of the lots are constructed (or when construction is stopped and the site is fully stabilized) to identify maintenance needs and enforce compliance with maintenance standards as needed, and
    - d. Upon completion of construction and prior to final approval to ensure proper installation of permanent stormwater control facilities and verify that a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control BMPs/facilities, and
  - 2. When reasonably required by the city to accomplish the purpose of this chapter or to comply with local, state or federal law or regulation on stormwater, special inspection or testing shall be performed by the applicant.
- E. Fees. Application, review and inspection fees shall be paid as required, in accordance with the schedule as established by the City.

**14.27.050 Requirements for New Development and Redevelopment.**

- A. All projects shall comply with the *Stormwater Design Manual*. See Chapter 2 of the *Stormwater Design Manual* for details and applicability of the 9 Core Requirements:

- Core Requirement #1: Preparation of stormwater site plans.
- Core Requirement #2: Construction stormwater pollution prevention plan (SWPPP).
- Core Requirement #3: Source control of pollution.
- Core Requirement #4: Preservation of natural drainage systems and outfalls.
- Core Requirement #5: On-site stormwater management.
- Core Requirement #6: Runoff treatment.
- Core Requirement #7: Flow control.
- Core Requirement #8: Wetlands protection.
- Core Requirement #9: Operation and maintenance.

#### **14.27.060 Inspection and Maintenance of Stormwater Facilities.**

These maintenance standards are intended to give support and guidance to all persons and property owners who must comply with local stormwater management requirements. All privately owned stormwater systems, including flow control and water quality treatment facilities, shall be inspected annually and maintained by the owner at his/her expense. The stormwater system owner shall complete and file an inspection and maintenance form with the city following inspection and maintenance.

- A. All parts of the privately owned stormwater systems shall be inspected annually and maintained and/or restored to assure performance as designed and intended. All physical parts of the stormwater system shall be repaired and maintained per the *Stormwater Design Manual*, Development Guidelines and Public Works Standards, and any guidelines specific to the respective facility.
- B. Stormwater system modifications or major repairs must be reviewed and approved by the city of Lacey prior to implementation. This is required to ensure that the intent of the originally approved stormwater system is achieved. The city may require the property owner to submit detailed drawings and/or specifications regarding proposed modifications and/or repairs.
- C. A licensed, bonded, and insured contractor must accomplish all maintenance of privately owned stormwater systems except for normal vegetation maintenance of facilities.
- D. All State and Federal confined space entry regulations and requirements must be followed.
- E. All privately owned pipes, catch basins, manholes, inlets, ditches, swales/bioswales, flow control facilities, vaults, water quality facilities, oil/water separators, sedimentation ponds, and stream channels located on (or running through) commercial properties, multi-family developments, private plats, and private short plats shall be inspected annually unless vested under a different frequency of inspection by the city and/or property owner and shall be maintained by the property owner when inspection identifies maintenance needs.
- F. Stormwater system maintenance shall be required and performed in accordance with the *Stormwater Design Manual* or other standards identified by the city within one year for typical maintenance of facilities, within six months for catch basins, and within two years for maintenance that requires capital construction of greater than \$25,000.
- G. Stormwater Maintenance Inspection Procedures.

1. City inspection procedures will be maintained and updated as necessary in the “Private Stormwater Facilities Inspection Program” standard operating procedure within Public Works Operations.
2. Prior to making any inspections on private property that has no dedicated access easements to the city, the inspector shall present identification credentials, state the reason for the inspection, and request entry.
3. If the property or any building or structure on the property is unoccupied the inspector shall first make a reasonable effort to locate the owner or other person(s) having charge or control of the property or portions of the property and request entry.
4. If, after reasonable effort, the inspector is unable to locate the owner or other person(s) having charge or control of the property and has reason to believe the condition of the stormwater system creates an immediate hazard to persons or property, the inspector may enter the property.
5. Unless entry is consented to by the owner or person(s) in control of the property or portion of the property, the city inspector shall obtain a search warrant prior to entry as authorized by the laws of the State of Washington except where one of the following conditions exist:
  - a. conditions are reasonably believed to exist which create imminent hazard, or
  - b. an access easement to the stormwater facility was dedicated to the city.
6. The inspector may inspect the stormwater system without obtaining a search warrant provided for above, provided the inspection can be conducted while remaining on the public property or other property on which permission to enter is obtained.

H. Inspection and maintenance records.

1. Owners of storm drainage systems will be required to provide the city with all existing inspection, maintenance, and repair records, as well as any record drawings or diagrams that they may have for their storm drainage systems when requested.

**14.27.070 Applicability to Government Entities.**

All municipal corporations and governmental entities shall be required to comply with the terms of this chapter when developing and/or improving land, including but not limited to road building and widening, within the areas of the city.

**14.27.080 Related Requirements.**

It is recognized that many other city, county, state and federal permit conditions may apply to the proposed action and that compliance with the provisions of this chapter does not constitute compliance with such other requirements.

**14.27.090 Appeals.**

Any decision of the city of Lacey in the administration of this chapter may be appealed in accordance with Chapter 1D of the *City of Lacey Development Guidelines and Public Works Standards*.

**14.27.100 Enforcement.**

If any person violates or fails to comply with any of these provisions, Chapter 14.40 LMC regarding civil violations shall be applied.

**14.27.110 Conflict.**

In the event of a conflict between this chapter and any other provision of any Lacey Municipal Code, the most restrictive shall apply.

**14.27.120 Severability.**

If any one or more sections, subsections, or sentences of this chapter are held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portion of this chapter and the same shall remain in full force and effect.

## Chapter 14.29

### ILLCIT DISCHARGES

14.29.000 Purposes.

14.29.010 Definitions.

14.29.020 Applicability.

14.29.030 Administration.

14.29.040 Stormwater Discharges.

14.29.050 Inspections and monitoring of discharges.

14.29.060 Industrial or Construction Activity Discharges.

14.29.070 Source Control Requirements.

14.29.080 Spill Hotline and Response.

14.29.090 Appeals.

14.29.100 Enforcement.

14.29.110 Conflict.

14.29.120 Severability.

#### **14.29.000 Purposes.**

The purposes of this chapter are:

- A. To provide for the health, safety, and general welfare of the citizens of the City of Lacey, Washington, through the regulation of non-stormwater discharges to the city's municipal separate storm sewer system (MS4), as well as to all groundwaters and waterbodies, to the maximum extent practicable as required by federal and state law.
- B. To establish methods for controlling the introduction of pollutants into the city's MS4 in order to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. Specifically:
  1. To regulate the contribution of pollutants to the MS4 by stormwater discharges from any user.
  2. To prohibit illicit connections and illegal discharges to the MS4, as well as to all groundwaters and waterbodies.
  3. To define the city's legal authority to carry out all inspection, surveillance and monitoring necessary to effectuate said purposes.
- C. To protect and enhance water quality and aquatic wildlife and its habitat by preventing harmful discharges to local waterbodies.

#### **14.29.010 Definitions.**

For the purposes of this chapter, the following shall mean:

“AKART” means all known, available, and reasonable methods of prevention, control, and treatment (AKART). See also the State Water Pollution Control Act, sections 90.48-010 RCW and 90.48.520 RCW.

“Allowable discharges” means types of discharges that are not considered illegal discharges for the purposes of this chapter unless the city determines that the type of discharge, whether singly or in combination with others, is causing or is likely to cause pollution of surface water or groundwater.

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

“City” means city of Lacey, Washington.

“Conditionally allowable discharges” means types of discharges that are not considered illegal discharges for the purposes of this chapter if they meet the stated conditions, or unless the city determines that the type of discharge, whether singly or in combination with others, is causing or is likely to cause pollution to surface water or groundwater.

“Groundwater” means water in a saturated zone or stratum beneath the surface of the land or below a surface water body.

“Hazardous Materials” means substances that may create a public nuisance or constitute a hazard to humans, animals, fish or fowl, or any solid, dangerous, or extremely hazardous waste, as defined by the Chapter 173-304 of the Washington Administrative Code (WAC) or Chapter 173-303 WAC. Harmful materials also include substances that, when released into the environment, may cause non-compliance with the following Chapters of the WAC: 246-290, 173-200, 173-201, 173-204, and/or 173-340.

“Hyperchlorinated” means water that contains more than 10mg/liter chlorine.

“Illicit Discharge” means any direct or indirect non-stormwater discharge to the city’s stormwater system, except as expressly allowed by this chapter.

“Illicit connection” means any man-made conveyance that is connected to a municipal separate storm sewer system without a permit, excluding roof drains and other similar type connections. Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the municipal separate storm sewer system.

“Municipal separate storm sewer system (MS4)” means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- a. Owned or operated by the city of Lacey;
- b. Designed or used for collecting or conveying stormwater;
- c. Which is not part of a Publicly Owned Treatment Works (POTW). “POTW” means any device or system used in treatment of a municipal sewage or industrial wastes of a liquid nature which is publicly owned; and
- d. Which is not a combined sewer. “Combined sewer” means a system that collects sanitary sewage and stormwater in a single sewer system.
- e. Which is defined as “large” or “medium” or “small” or otherwise designated by the Ecology pursuant to 40 CFR 122.26.

“National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit” means a permit issued by the Environmental Protection Agency (EPA) (or by the Washington Department of

Ecology under authority delegated pursuant to 33 USC Section 1342(b)) that authorizes of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

“Non-stormwater discharges to the stormwater system” means discharges to any portion of the public or privately owned stormwater system that are not composed entirely of stormwater (i.e. rainfall or snow melt). Examples may include, but are not limited to, sanitary wastewater, laundry wastewater, non-contract cooling water, vehicle wash wastewater, radiator flushing wastewater, spills from roadway accidents, and improperly disposed motor oil, solvents, lubricants, and paints.

“Person” means any individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, agency of the state, or local governmental unit, however designated.

“Pollutant” means anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes and solvents; oil and other automotive fluids; nonhazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes, sewage, fecal coliform and pathogens; dissolved and particulate metals; animals wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

“Stormwater” means surface runoff due to precipitation or snowmelt. That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels, or pipes into a defined surface water channel or a constructed infiltration facility.

“Stormwater Design Manual” means the *City of Lacey Stormwater Design Manual* as currently adopted.

“Stormwater facility” means a constructed component of a stormwater system, designed or constructed to perform a particular function or multiple functions. Stormwater facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catch basins, oil/water separators, and sediment basins. Stormwater facilities are described in the Stormwater Design Manual. “Stormwater facility” includes both public and privately owned facilities.

“Stormwater pollution prevention plan (SWPPP)” means a document which describes the best management practices and activities to be implemented by a person to identify sources of pollution or contamination at a premises and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

“Stormwater system” means any stormwater facilities, including the city's municipal separate storm sewer system, by which stormwater is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures. “Stormwater system” includes both public and privately owned features.

“Waters of the State” means those waters 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.

“Waterbody” means surface water feature, whether standing or flowing, including, but not limited to, sounds, lakes, ponds, rivers, streams, and creeks including waters of the state.

#### **14.29.020 Applicability.**

This chapter shall apply to all non-stormwater discharges entering the MS4, groundwaters, or a waterbody from any developed or undeveloped lands, unless explicitly exempted by the city.

#### **14.29.030 Administration.**

The city shall administer, implement, and enforce the provisions of this chapter.

#### **14.29.040 Stormwater Discharges.**

- A. Prohibition of Illicit Discharges. No person shall discharge or cause to be discharged into the city's storm drainage system, groundwater, or a waterbody any materials (including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable State of Washington Department of Ecology water quality standards) other than stormwater. This prohibition of the discharge of pollutants shall include discharges from a stormwater facility that is not maintained properly by the owner per the city of Lacey maintenance standards. Pollutants include, but are not limited to, the following:
1. All non-stormwater discharges to the stormwater system, unless such discharges are authorized in accordance with Chapter 173-216 of the Washington Administrative Code. (WAC) (State Waste Discharge Permit Program) or Chapter 173-220 WAC (National Pollutant Discharge Elimination System Permit Program).
  2. Any solid, dangerous, or extremely hazardous waste, as defined by Chapters 173-304 WAC (Minimum Functional Standards for Solid Waste Handling) or Chapter 173-303 WAC (Dangerous Waste Regulations).
  3. Any substance that, when released into the environment, may cause non-compliance with Chapters 246-290 WAC (Public Water Supplies); 173-200 WAC (Water Quality Standards for Ground Waters of the State of Washington), 173-201 WAC (Water Quality Standards for Surface Waters of the State of Washington), 173-204 WAC (Sediment Management Standards); or 173-340 WAC (The Model Toxics Control Act Cleanup Regulation).
  4. Trash or debris;
  5. Construction materials and residues;
  6. Petroleum products, including but not limited to; oil, gasoline, grease, fuel oil and heating oil;
  7. Antifreeze and other automotive products;
  8. Metals in either particulate or dissolved form;
  9. Flammable or explosive materials;
  10. Radioactive material;
  11. Batteries;
  12. Acids, alkalis, or bases;
  13. Paints, stains, resins, lacquers, or varnishes;
  14. Degreasers and/or solvents;
  15. Drain cleaners;
  16. Pesticides, herbicides, or fertilizers;
  17. Steam cleaning wastes;

18. Uncured concrete wash water (generated during cleaning, finishing or during exposure of aggregate).
19. Soaps, detergents, or ammonia;
20. Swimming pool or spa filter backwash;
21. Chlorine, bromine, or other disinfectants;
22. Heated water;
23. Animal wastes;
24. Sewages;
25. Recreational vehicle waste;
26. Animal carcasses;
27. Earth in quantities which cause violation of State water quality standards.
28. Wash water, sediment, and debris from street sweeping and street washing
29. Food wastes;
30. Bark and other fibrous materials;
31. Lawn clippings, leaves, or branches;
32. Silt, sediment, concrete, cement or gravel;
33. Dyes (except as described in subsection (C) of this section under “allowable discharges”);
34. Chemicals, including suspected metals, not normally found in uncontaminated water;
35. Any other process-associated discharge except as otherwise allowed in this section;
36. Any hazardous material or waste not listed above.

**B. Prohibition of Illicit Connections.**

1. The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
2. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
3. A person is considered to be in violation of this chapter if the person connects a line conveying sewage to the municipal separate storm sewer system, or allows such a connection to continue.

**C. Allowable Discharges.** The following types of discharges shall not be considered illicit discharges for the purposes of this chapter unless the city determines that the type of discharge, whether singly or in combination with others, is causing or is likely to cause pollution of groundwater or a waterbody:

1. Diverted stream flows;
2. Rising groundwaters;
3. Uncontaminated groundwater infiltration (as defined in 40 CFR 35.2005(20));
4. Uncontaminated pumped groundwater,
5. Discharge from foundation drains;
6. Air conditioning condensation;
7. Irrigation water from agricultural sources that is commingled with urban stormwater;
8. Springs;
9. Uncontaminated water from crawl space pumps;
10. Water from footing drains;
11. Flows from riparian habitats and wetlands;
12. Discharges resulting from dye testing authorized by the city;

13. Non-stormwater discharges covered by another NPDES permit;
14. Discharges from emergency firefighting activities by a fire department or a fire district.

D. Conditionally Allowable Discharges. The following types of discharges shall not be considered illicit discharges for the purposes of this chapter if they meet the stated conditions, or unless the city determines that the type of discharge, whether singly or in combination with others, is causing or likely to cause pollution of surface water or groundwater:

1. Potable water, including water from water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges shall be dechlorinated to a concentration of 0.1 parts per million (ppm) or less, pH-adjusted, if necessary, and in volumes and velocities controlled to prevent resuspension of sediments in the stormwater system.
2. Lawn watering and other irrigation runoff are permitted but shall be minimized through, at minimum, public education and water conservation efforts.
3. De-chlorinated swimming pool, spa and hot tub discharges. These discharges shall be de-chlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted, and re-oxygenated, if necessary and in volumes and velocities controlled to prevent re-suspension of sediments in the stormwater system. Discharge shall be thermally controlled to prevent increase in temperature of the receiving water.
4. Street and sidewalk wash water, used to control dust, and routine external building wash down that does not use detergents are permitted if the amount of street wash and dust control used is minimized. At active construction sites, street sweeping must be performed prior to washing the street.
5. Non-stormwater discharges covered by another NPDES permit; provided, that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations; and provided, that written approval has been granted for any discharge to the storm drain system.
6. Other non-stormwater discharges. The discharges shall be in compliance with the requirements of a stormwater pollution prevention plan (SWPPP) reviewed and approved by the city which addresses control of such discharges by applying AKART to prevent pollutants from entering the municipal storm drainage system, groundwaters, or a waterbody. A permit is required for all construction site dewatering and may be required by the city for other non-stormwater discharges approved by the city in a SWPPP.

#### **14.29.050 Inspections and monitoring of discharges.**

A. Access to Facilities.

1. As a condition of service, all persons and premises connected to the municipal storm drainage system shall allow the city to:
  - a. Enter onto a person's property at reasonable times after notice to, and with the permission of, the property owner to inspect the system and any connection made to the system by the property owner or to install appropriate monitoring equipment. This provision shall not be interpreted to limit the city's rights under any easement, license or right arising from public right-of-way.
  - b. Inspect records of the person relating to discharges to the city system upon request and at reasonable times.

2. Failure to permit entry or inspection may result in the following actions or consequences:
  - a. The city may at its sole option seek a search warrant from a court of competent jurisdiction.
  - b. If it is later determined that a violation of this chapter has occurred, the violation shall be assumed to have been occurring from the date of the city's original request and to have continued until discovered by the city. Each and every day shall be a separate violation. This presumption may be overcome by the presumed violator only by clear and convincing evidence that the violation began at a later date.

B. Confidential information. Information and data furnished to the city with respect to the nature and frequency of discharge into the stormwater system shall be available to the public or to other governmental agencies without restriction unless the person specifically requests and is able to demonstrate to the satisfaction of the city that the release of such information would divulge information, processes, or methods of production entitled to protection as trade secrets or proprietary information of the person. When requested by a person furnishing a report, the portions of a report or other information which may disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available upon written request to governmental agencies for uses related to these regulations, the NPDES permit and/or other programs as amended; however, such portions of a report or other information shall be available for use by the city, the state, or any other public agency in enforcement proceedings involving the person furnishing the report. The constituents and characteristics of the stormwater will not be recognized as confidential information. Information accepted by the city as confidential shall not be transmitted to any governmental agency or to the general public by the city until and unless a 10-day notification is given to the person to the extent permitted by law.

C. The city may require either partial or complete cleaning of a stormwater system whenever a prohibited substance (see subsection 14.29.040.A) is found to be present in a stormwater system.

#### **14.29.060 Industrial or Construction Activity Discharges.**

Any person or activity subject to an NPDES stormwater discharge permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the federal Environmental Protection Agency or Washington State Department of Ecology, shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the city of Lacey prior to allowing discharges to the MS4.

#### **14.29.070 Source Control Requirements.**

The city of Lacey has developed a Stormwater Design Manual that outlines requirements identifying best management practices, including pollutant source control for any activity, operation, or facility that may cause or contribute to pollution or contamination of stormwater, the storm drain system, or waters of the United States. The owner or operator of a commercial or industrial establishment shall provide, at its own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drainage system or waterbody through the use of these structural and nonstructural BMPs. Further, any person responsible for a premises which is, or may be, the source of an illicit discharge may be required to implement, at said person's expense, additional structural and nonstructural BMPs to prevent the further discharge of pollutants to the MS4. Compliance with all terms and conditions

of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed in compliance with the provisions of this section. These BMPs shall be part of a SWPPP as necessary for compliance with requirements of the NPDES permit. Technical assistance materials and information may be provided by the city upon reasonable request.

#### **14.29.080 Spill Hotline and Response.**

Notwithstanding other requirements of law, as soon as any person responsible for a premises or operation, or responsible for emergency response for a premises or operation, has information of any known or suspected release of materials which are resulting or may result in illicit discharges or pollutants discharging into stormwater, the storm drainage system, or waterbodies, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release.

In the event of such a release of hazardous materials, said person shall immediately notify:

- A. Emergency response agencies of the occurrence via emergency dispatch services; and
- B. The City of Lacey Spill Response Hotline at (360) 491-5644, Monday through Friday 7:00 am to 3:30 pm. After hours, leave a voicemail at the number above, or select the option to be connected to Thurston County Central Dispatch, who will notify the city of Lacey's stand-by Spill Response Staff.

In the event of a release of nonhazardous materials, said person shall notify the city in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the city of Lacey within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

#### **14.29.090 Appeals.**

Any decision of the city of Lacey in the administration of this chapter may be appealed in accordance with Chapter 1D of the *City of Lacey Development Guidelines and Public Works Standards*.

#### **14.29.100 Enforcement.**

If any person violates or fails to comply with any of these provisions, Chapter 14.40 LMC regarding civil violations shall be applied. The NPDES Phase II permit requires escalating enforcement, and LMC 14.40 addresses this enforcement action.

#### **14.29.110 Conflict.**

In the event of a conflict between this chapter and any other provision of any Lacey Municipal Code, the most restrictive shall apply.

#### **14.29.120 Severability.**

If any one or more sections, subsections, or sentences of this chapter are held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portion of this chapter and the same shall remain in full force and effect.

## **Appendix B: General Conditions of the Phase II Permit**

### **G1. DISCHARGE VIOLATIONS**

All discharges and activities authorized by this Permit shall be consistent with the terms and conditions of this Permit.

### **G2. PROPER OPERATION AND MAINTENANCE**

The Permittee shall at all times properly operate and maintain all facilities and systems of collection, treatment, and control (and related appurtenances) which are installed or used by the Permittee for pollution control to achieve compliance with the terms and conditions of this Permit.

### **G3. NOTIFICATION OF SPILL**

If a Permittee has knowledge of a spill into a municipal storm sewer which could constitute a threat to human health, welfare, or the environment, the Permittee shall notify the Ecology regional office and other appropriate spill response authorities immediately but in no case later than within 24 hours of obtaining that knowledge. Spills which might cause bacterial contamination of shellfish, such as might result from broken sewer lines, shall be reported immediately to the Department of Ecology and to the Department of Health, Shellfish Program. The Department of Ecology's regional office 24-hour number is (425)649-7000 for NWRO and (360)407-6300 for SWRO and the Department of Health's shellfish 24-hour number is (360)236-3330.

### **G4. BYPASS PROHIBITED**

The intentional bypass of Stormwater from all or any portion of a Stormwater treatment BMP whenever the design capacity of the treatment BMP is not exceeded, is prohibited unless the following conditions are met:

A. Bypass is: (1) unavoidable to prevent loss of life, personal injury, or severe property damage; or (2) necessary to perform construction or maintenance-related activities essential to meet the requirements of the Clean Water Act (CWA); and

B. There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated Stormwater, or maintenance during normal dry periods.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

## **G5. RIGHT OF ENTRY**

The permittee shall allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law at reasonable times:

- A. To enter upon the Permittee's premises where a discharge is located or where any records must be kept under the terms and conditions of this Permit;
- B. To have access to, and copy at reasonable cost and at reasonable times, any records that must be kept under the terms of the Permit;
- C. To inspect at reasonable times any monitoring equipment or method of monitoring required in the Permit;
- D. To inspect at reasonable times any collection, treatment, pollution management, or discharge facilities; and
- E. To sample at reasonable times any discharge of pollutants.

## **G6. DUTY TO MITIGATE**

The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this Permit which has a reasonable likelihood of adversely affecting human health or the environment.

## **G7. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort, or any exclusive privilege.

## **G8. COMPLIANCE WITH OTHER LAWS AND STATUTES**

Nothing in the Permit shall be construed as excusing the Permittee from compliance with any other applicable federal, state, or local statutes, ordinances, or regulations.

## **G9. MONITORING**

### **A. Representative Sampling:**

Samples and measurements taken to meet the requirements of this Permit shall be representative of the volume and nature of the monitored discharge, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

### **B. Records Retention:**

The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the application for this permit, for a period of at least five years. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the Ecology. On request, monitoring data and analysis shall be provided to Ecology.

**C. Recording of Results:**

For each measurement or sample taken, the Permittee shall record the following information: (1) the date, exact place and time of sampling; (2) the individual who performed the sampling or measurement; (3) the dates the analyses were performed; (4) who performed the analyses; (5) the analytical techniques or methods used; and (6) the results of all analyses.

**D. Test Procedures:**

All sampling and analytical methods used to meet the monitoring requirements in this permit shall conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136, unless otherwise specified in this permit or approved in writing by Ecology.

**E. Flow Measurement:**

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements are consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations or at a minimum frequency of at least one calibration per year. Calibration records should be maintained for a minimum of three years.

**F. Lab Accreditation:**

All monitoring data, except for flow, temperature, conductivity, pH, total residual chlorine, and other exceptions approved by Ecology, shall be prepared by a laboratory registered or accredited under the provisions of, Accreditation of Environmental Laboratories, Chapter 173-50 WAC. Soils and hazardous waste data are exempted from this requirement pending accreditation of laboratories for analysis of these media by Ecology.

**G. Additional Monitoring:**

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

**G10. REMOVED SUBSTANCES**

With the exception of decant from street waste vehicles, the Permittee shall not allow collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of Stormwater to be resuspended or reintroduced to the storm sewer system or to waters of the state. Decant from street waste vehicles resulting from cleaning Stormwater facilities may be reintroduced only when other practical means are not available and only in accordance with the Street Waste Disposal Guidelines in Appendix 4.

#### **G11. SEVERABILITY**

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

#### **G12. REVOCATION OF COVERAGE**

The director may terminate coverage under this General Permit in accordance with Chapter 43.21B RCW and Chapter 173-226 WAC. Cases where coverage may be terminated include, but are not limited to the following:

- A. Violation of any term or condition of this general permit;
- B. Obtaining coverage under this general permit by misrepresentation or failure to disclose fully all relevant facts;
- C. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
- D. A determination that the permitted activity endangers human health or the environment, or contributes significantly to water quality standards violations;
- E. Failure or refusal of the permittee to allow entry as required in Chapter 90.48.090 RCW;
- F. Nonpayment of permit fees assessed pursuant to Chapter 90.48.465 RCW;

Revocation of coverage under this general permit may be initiated by Ecology or requested by any interested person.

#### **G13. TRANSFER OF COVERAGE**

The director may require any discharger authorized by this General Permit to apply for and obtain an individual permit in accordance with Chapter 43.21B RCW and Chapter 173-226 WAC.

#### **G14. GENERAL PERMIT MODIFICATION AND REVOCATION**

This General Permit may be modified, revoked and reissued, or terminated in accordance with the provisions of WAC 173-226-230. Grounds for modification, revocation and reissuance, or termination include, but are not limited to the following:

- A. A change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this General Permit;
- B. Effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this General Permit;
- C. A water quality management plan containing requirements applicable to the category of dischargers covered under this General Permit is approved; or
- D. Information is obtained which indicates that cumulative effects on the environment from dischargers covered under this General Permit are unacceptable.
- E. Changes in state law that reference this permit.

#### **G15. REPORTING A CAUSE FOR MODIFICATION OR REVOCATION**

A Permittee who knows or has reason to believe that any activity has occurred or will occur which would constitute cause for modification or revocation and reissuance under Condition G12, G14, or 40 CFR 122.62 must report such plans, or such information, to Ecology so that a decision can be made on whether action to modify, or revoke and reissue this Permit will be required. Ecology may then require submission of a new or amended application. Submission of such application does not relieve the Permittee of the duty to comply with this Permit until it is modified or reissued.

#### **G16. APPEALS**

- A. The terms and conditions of this General Permit, as they apply to the appropriate class of dischargers, are subject to appeal within thirty days of issuance of this General Permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.
- B. The terms and conditions of this General Permit, as they apply to an individual discharger, are appealable in accordance with chapter 43.21B RCW within thirty days of the effective date of coverage of that discharger. Consideration of an appeal of General Permit coverage of an individual discharger is limited to the General Permit's applicability or nonapplicability to that individual discharger.

C. The appeal of General Permit coverage of an individual discharger does not affect any other dischargers covered under this General Permit. If the terms and conditions of this General Permit are found to be inapplicable to any individual discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

D. Modifications of this Permit are appealable in accordance with chapter 43.21B RCW and chapter 173-226 WAC.

### **G17. PENALTIES**

40 CFR 122.41(a)(2) and (3), 40 CFR 122.41(j)(5), and 40 CFR 122.41(k)(2) are hereby incorporated into this Permit by reference.

### **G18. DUTY TO REAPPLY**

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit.

### **G19. CERTIFICATION AND SIGNATURE**

All applications, reports, or information submitted to the Department shall be signed and certified.

A. All permit applications shall be signed by either a principal executive officer or ranking elected official.

B. All reports required by this Permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Department, and

2. The authorization specifies either an individual or a position having responsibility for the overall development and implementation of the SWMP. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

C. Changes to authorization. If an authorization under condition G19.B.2 is no longer accurate because a different individual or position has responsibility for the overall development and implementation of the SWMP, a new authorization satisfying the requirements of condition G19.B.2 must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

D. Certification. Any person signing a document under this Permit shall make the following certification: “I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that Qualified Personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for willful violations.”

## **G20. NON-COMPLIANCE NOTIFICATION**

In the event the Permittee is unable to comply with any of the terms and conditions of this permit, including discharges from the Permittees MS4 which may cause a threat to human health or the environment, the Permittee shall:

A. Take appropriate action to correct or minimize the threat to human health or the environment or otherwise stop or correct the condition of noncompliance.

B. Notify Ecology of the failure to comply with the permit terms and conditions within 30 days of becoming aware of the non-compliance.

C. Notify Ecology immediately in cases where the Permittee becomes aware of a discharge from the Permittee’s MS4 which may cause or contribute to an imminent threat to human health or the environment.

## **G21. UPSETS**

Permittees must meet the conditions of 40 CFR 122.41(n) regarding “Upsets.” The conditions are as follows:

A. Definition. “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

B. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (C) of this condition are met. Any determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, will not constitute final administrative action subject to judicial review.

C. Conditions necessary for demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset;
2. The permitted facility was at the time being properly operated; and
3. The Permittee submitted notice of the upset as required in 40 CFR 122.41(l)(6)(ii)(B) (24-hour notice of noncompliance).
4. The Permittee complied with any remedial measures required under 40 CFR 122.41(d) (Duty to Mitigate).

D. Burden of proof. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

## **Appendix C: Glossary of Acronyms and Definitions**

The following acronyms and definitions are adapted from the Phase II Permit and are reproduced here for the reader's convenience. Refer to the current Phase II Permit for updated definitions.

**AKART** means all known, available, and reasonable methods of prevention, control and treatment.

**All known, available and reasonable methods of prevention, control and treatment** refers to the State Water Pollution Control Act, Chapter 90.48.010 and 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 the Permittee's application is received by Ecology, or prior to a modification of this Permit, whichever is later.

**Beneficial Uses** means uses of waters of the states 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** ("BMPs") are the schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices approved by the Department 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.

**Common plan of development or sale** means a site where multiple separate and distinct construction activities may be taking place at different times on different schedules, but still under a single plan. Examples include: phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate owners (e.g. a development where lots are sold to separate builders); a development plan that may be phased over multiple years, but is still under a consistent plan for long-term development; and projects in a contiguous area that may be unrelated but still under the same contract, such as construction of a building extension and a new parking lot at the same facility. If the project is part of a common plan of development or sale, the disturbed area of the entire plan shall be used in determining permit requirements.

**Component** or **Program Component** means an element of the SWMP listed in S5 SWMP for Cities, Towns, and Counties or S6 Stormwater Management Program for Secondary Permittees of this permit.

**Co-permittee** means an operator of a regulated small MS4 which is applying jointly with another applicant for coverage under this permit. A co-permittee is an owner or operator of a regulated small MS4 located within or adjacent to another regulated MS4. A co-permittee is only responsible for complying with the conditions of this permit 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.

**Detailed Implementation Plan** means the formal implementation plan for a Total Maximum Daily Load (TMDL) or water quality clean-up plan.

**DIP** means Detailed Implementation Plan.

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

**Discharge** for the purpose of this permit means, unless indicated otherwise, any discharge from a MS4 owned or operated by the permittee.

**Entity** means another governmental body, or public or private organization, such as another permittee, a conservation district, or volunteer organization.

**Equivalent document** means a technical Stormwater management manual developed by a state agency, local government or other entity that includes the Minimum Technical Requirements in Appendix 1 of this Permit. The Department may conditionally approve manuals that do not include the Minimum Technical Requirements in Appendix 1; in general, the Best Management Practices (BMPs) included in those documents may be applied at new development and redevelopment sites, but the Minimum Technical Requirements in Appendix 1 must still be met.

**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.

**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.

**Ground water** means water in a saturated zone or stratum beneath the surface of the land or below a surface water body.

**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.

**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. Disinfection of water mains and appurtenances requires a chlorine residual of 10 mg/L at the end of the disinfection period. This level is well above the Maximum Residual Disinfectant Level of an annual average of 4 mg/Liter chlorine for potable water.

**Illicit connection** means any man-made conveyance that is connected to a municipal separate storm sewer without a permit, excluding roof drains and other similar type connections. Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the municipal separate storm sewer system.

**Illicit discharge** means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.

**Large Municipal Separate Storm Sewer System** means all municipal separate storm sewer systems located in an incorporated place with a population of 250,000 or more, a county with unincorporated urbanized areas with a population of 250,000 or more according to the 1990 decennial census by the Bureau of Census.

**Low Density Residential Land Use** means, for the purpose of permit section S8 Monitoring, one unit per 1-5 acres.

**Low Impact Development (LID)** means a stormwater management and land development strategy applied at the parcel and subdivision scale that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely mimic pre-development hydrologic functions.

**Major Municipal Separate Storm Sewer Outfall** means a municipal separate storm sewer outfall from a single pipe with an inside diameter of 36 inches or more, or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive Stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 12 acres or more).

**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 (MEP)** 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.

**Medium Municipal Separate Storm Sewer System** means municipal separate storm sewer systems located in an incorporated place with a population of more than 100,000 but less than 250,000, or a county with unincorporated urbanized areas of more than 100,000 but less than 250,000 according to the 1990 decennial census by the Bureau of Census.

**MEP** means Maximum Extent Practicable.

**MTRs** means Minimum Technical Requirements.

**Municipal Separate Storm Sewer System (MS4)** 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, storm water, 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 the United States.

(ii) designed or used for collecting or conveying Stormwater.

(iii) which is not a combined sewer; and (iv) which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

**National Pollutant Discharge Elimination System (NPDES)** 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 Department of Ecology.

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

**Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity** mean the application forms for coverage under the *Baseline General Permit for Stormwater Discharges Associated with Industrial Activities*.

**Outfall** means point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the State and does not include open conveyances connecting two municipal separate storm sewer systems, or pipes, tunnels, or other conveyances which connect segments of the same stream or other waters of the State and are used to convey waters of the State.

**Permittee** unless otherwise noted, the term “Permittee” includes Permittee, Co-Permittee, and Secondary Permittee, as defined below:

(i) A “Permittee” is a city, town, or county owning or operating a regulated small MS4 applying and receiving a permit as a single entity.

(ii) A “Co-Permittee” is any operator of a regulated small MS4 that is applying jointly with another applicant for coverage under this Permit. Co-Permittees own or operate a regulated small MS4 located within or adjacent to another regulated small MS4.

(iii) A “Secondary Permittee” is an operator of regulated small MS4 that is not a city, town or county.

**Physically Interconnected** means that one MS4 is connected to a second MS4 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 MS4 belonging to another entity.

**Pollutant Generating Impervious Surfaces (PGIS)** are surfaces considered to be significant sources of pollutants in Stormwater runoff. Such surfaces include those that are subject to vehicular use, industrial activities, or storage of erodible or leachable materials that receive direct rainfall or run-on or blow-in of

rainfall. Metal roofs are considered to be PGIS unless coated with an inert, non-leachable material. Roofs that are subject to venting of indoor pollutants from manufacturing, commercial or other operations or processes are also considered PGIS. A surface, whether paved or not, shall be considered PGIS if it is regularly used by motor vehicles. The following are considered regularly-used surfaces: roads, unvegetated road shoulders, bike lanes within the traveled lane of a roadway, driveways, parking lots, unfenced fire lanes, vehicular equipment storage yards, and airport runways.

**Process Wastewater** means any water which, during manufacture or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by product, or waste product.

**Qualified Personnel or Consultant** 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.

**RCW** means the Revised Code of Washington State.

**Regulated Small Municipal Separate Storm Sewer System (MS4)** 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 the NPDES permitting authority and is not eligible for a waiver or exemption under S1.C.

**Replaced impervious surfaces** means, for structures, the removal and replacement of any exterior impervious surfaces or foundation; or, for other impervious surfaces, the removal down to bare soil, or base course, and replacement. Exemptions and partial exemptions are defined in Appendix 1 of this Permit.

**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.”

**Shared Waterbodies** means waterbodies, including downstream segments, lakes and estuaries that receive discharges from more than one permittee.

**Secondary Permittee** is an operator of regulated small municipal separate storm sewer system which is not a city, town or county. Secondary Permittees include special purpose districts and other MS4s that meet the criteria for a regulated small MS4 in S1.B.

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

**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 6 Determining Construction Site Sediment Transport Potential for a more detailed definition.

**Small Municipal Separate Storm Sewer System or Small MS4** is a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels and/or storm drains which is:

- a. Owned or operated by a city, town, county, district, association or other public body created pursuant to State law having jurisdiction over disposal of sewage, industrial wastes, Stormwater, or other wastes, including special districts under State law such as a sewer districts, flood control districts or drainage districts, or similar entity.
- b. Designed or used for collecting or conveying Stormwater.
- c. Not a combined sewer system,
- d. Not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.
- e. 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).

Small MS4s include systems similar to separate storm sewer systems in municipalities such as: universities, large publicly owned hospitals, prison complexes, highways and other thoroughfares. Storm sewer systems in very discrete areas such as individual buildings do not require coverage under this Permit.

Small MS4s do *not* include storm drain systems operated by non-governmental entities such as: individual buildings, private schools, private colleges, private universities, and industrial and commercial entities.

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

**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 Management Manual for Western Washington** means the 5-volume technical manual (Publication Nos. 99-11 through 15 for the 2001 version and Publication Nos. 05-10-029-033 for the 2005 version (The 2005 version replaces the 2001 version) prepared by Ecology for use by local governments that contains BMPs to prevent, control, or treat pollution in storm water.

**Stormwater Management Program (SWMP)** means a set of actions and activities designed to reduce the discharge of pollutants from the regulated small MS4 to the maximum extent practicable and to protect water quality, and comprising the components listed in S5 or S6 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*.

**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 seasonable 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.

**Urbanized Area (UA)** is a 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. For the year 2000 Census, the U.S. Census Bureau classified "urban" as all territory, population, and housing units located within an Urbanized Area (UA) or an Urban Cluster (UC). It delineated UA and UC boundaries to encompass densely settled territory, which consists of: core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. In addition, under certain conditions, less densely settled territory may be part of each UA or UC. The U.S. Census Bureau announced the "Census 2000 Urbanized Areas" on May 1, 2002. More information can be found at the U.S. Census Bureau website.

**Urban/higher density rural subbasins** means any subbasin or portion thereof that is within or proposed to be within the urban growth area (UGA), or any rural area subbasin or portion thereof fifty percent or more of which is comprised of lots smaller than 5 acres in size.

**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.

**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.

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