

*This SWMP is an attachment to the City's 2019 Annual Report  
to the Washington State Department of Ecology for its Phase II NPDES Permit*

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*In compliance with the provisions of  
The State of Washington Water Pollution Control Law Chapter 90.48 Revised Code of Washington  
and  
The Federal Water Pollution Control Act (The Clean Water Act)  
Title 33 United States Code, Section 1251 et seq.*

## Stormwater Management Program Plan 2020 for

City of Kelso

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January 2015

Updated January 2020 by Van McKay, P.E., City of Kelso

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### Abbreviation and Acronyms

AKART	All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment
BMP	Best Management Practice
City	City of Kelso
Ecology	Washington State Department of Ecology
IDDE	Illicit Discharge Detection and Elimination
KMC	Kelso Municipal Code
KSAC	Kelso Stormwater Advisory Committee
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
Permit	Western Washington Phase II Municipal Stormwater Permit
SWMMWW	Stormwater Management Manual for Western Washington
SWMP	Stormwater Management Program Plan
SWPPP	Stormwater Pollution Prevention Plan

# CITY OF KELSO STORMWATER MANAGEMENT PROGRAM PLAN 2020

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## I. INTRODUCTION

### I.1 Overview and Background

The City of Kelso (City) operates a municipal separate storm sewer system (MS4) which collects and conveys stormwater runoff from developed areas of the City to surface waters. Discharge of runoff from the MS4 is regulated by the Washington State Department of Ecology (Ecology), and the City is required to obtain a Western Washington Phase II Municipal Stormwater Permit (Permit) to operate the MS4.

The Permit outlines stormwater program activities and implementation milestones that the City must follow to comply with the federal Clean Water Act. As a general permit, the Permit applies to more than 80 MS4s in western Washington. The City was first issued the Permit in 2007 and has been implementing a Stormwater Management Program Plan (SWMP) since that time.

To document progress toward Permit compliance, each permittee is required to develop a SWMP that includes a description of the required activities and is required to implement activities within the required timeframes of the Permit term and submit annual reports to Ecology by March 31<sup>st</sup> of the following year.

Ecology re-issued the Permit in 2012, and it became effective on August 1, 2013. Ecology then issued a Permit modification on December 17, 2014, which became effective January 16, 2015. The Permit covered a five-year period from August 2013 to July 2018 and Ecology subsequently extended that period to July 2019. Ecology re-issued the Permit July 1, 2019 and the current Permit is effective from August 1, 2019 to July 31, 2024. This SWMP reflects the changes and additional requirements of the current permit.

Stormwater runoff via the MS4 eventually enters the Cowlitz and Coweeman Rivers through a combination of gravity outfalls and pump stations operated by the Diking Improvement District No. 1 and the Consolidated Diking Improvement District No. 3. The City's MS4 also connects to and discharges stormwater to the City of Longview's MS4 and the stormwater is eventually discharged to the Columbia River via a pump station operated by the Consolidated Diking Improvement District No. 1.

In accordance with Permit requirements, the City has developed a SWMP designed to reduce the discharge of pollutants to the maximum extent practicable (MEP), to meet all known, available, and reasonable methods of prevention, control and treatment (AKART) requirements, and to protect water quality. A main goal of the SWMP is to inform the public of the stormwater activities the City plans to achieve during the year. The following sections describe the actions that the City has and will take to comply with the requirements of the Permit.

## **I.2 Departmental Responsibilities**

The Community Development Department employs a full-time Senior Stormwater Engineer, who acts as the City's National Pollutant Discharge Elimination System (NPDES) Coordinator.

The Community Development Department is responsible for general Permit compliance, stormwater public education and outreach, public involvement in stormwater concerns, regulating the entrance of stormwater pollutants into the MS4, regulating runoff on construction sites and developments, developing procedures for compliance with the Permit, planning stormwater capital projects, training staff from other departments, and reporting.

The Operations Department is responsible for spill response, maintaining components of the MS4, and maintaining City properties such as roads, rights-of-way, parks, and municipal buildings in a manner that prevents and reduces stormwater impacts.

Employees in the Police Department are responsible for maintaining awareness of the stormwater system and reporting potential illicit discharges that may be observed during the normal course of their duties in the community.

The City's stormwater utility funds the SWMP and is based on impervious area for commercial properties and on a base rate for residential properties.

## **I.3 Document Organization**

This report comprises the required written documentation of the City's SWMP.

To aid in tracking Permit requirements, this document has been organized into sections that correspond with the Permit Special Conditions and are outlined in the Permit as follows:

- Chapter 2 – Stormwater Management Program
  - 2.1 – Stormwater Planning, Special Condition S5.C.1
  - 2.2 – Public Education and Outreach, Special Condition S5.C.2
  - 2.3 – Public Involvement and Participation, Special Condition S5.C.3
  - 2.4 – MS4 Mapping and Documentation, Special Condition S5.C.4
  - 2.5 – Illicit Discharge Detection and Elimination (IDDE), Special Condition S5.C.5
  - 2.6 – Controlling Runoff from New Development, Redevelopment, and Construction Sites, Special Condition S5.C.6
  - 2.7 – Municipal Operation and Maintenance (O&M), Special Condition S5.C.7
  - 2.8 – Source Control Program for Existing Development, Special Condition S5.C.8
  - 2.9 – NPDES Program Administration
- Chapter 3 – Monitoring and Assessment, Special Condition S8

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## 2. STORMWATER MANAGEMENT PROGRAM

This chapter describes eight required components of the Permit and the City's plan to meet each requirement and administer the program.

### 2.1 Stormwater Planning, Special Condition S5.C.1

The City will develop and implement a new Stormwater Planning program to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters. This program will be carried out by the NPDES Coordinator.

#### 2.1.1 Permit Requirements

Section S5.C.1 requires the following:

- By August 1, 2020, convene an inter-disciplinary team to inform and assist in the development, progress, and influence of this program.
- Coordinate with long-range plan updates.

#### 2.1.2 Existing Programs and Activities

As this is a new requirement, there is no current program or activities. The City will begin developing the Stormwater Planning program.

#### 2.1.3 Planned Activities

Planned activities for 2020 include:

- Determine the inter-disciplinary team members who will develop the Stormwater Planning program.
- Hold at least one meeting by August 1, 2020 to begin development of the Stormwater Planning program.

### 2.2 Public Education and Outreach, Special Condition S5.C.2

The City's public education and outreach program focuses on building general awareness among the public of problems created by stormwater runoff and of behavior changes to clean up local surface waters. The program is carried out by the NPDES Coordinator.

#### 2.2.1 Permit Requirements

Section S5.C.2 requires the following:

- Develop and administer an education program to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts and encourage the public to participate

in stewardship activities. The program must target residents, businesses, industry, and city employees at all levels.

- Provide an education and outreach program designed to build general awareness about methods to address and reduce impacts from stormwater runoff.
- Educate target audiences about the stormwater problem and provide specific actions they can follow to minimize the problem.
- Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.
- Create stewardship opportunities that encourages community engagement in addressing the impacts from stormwater runoff.

## 2.2.2 Existing Programs and Activities

The City's activities in this area are ongoing:

- Continue to maintain the City's stormwater educational website at <https://www.kelso.gov/engineering/stormwater/stormwater-documents>.
- Continue partnership with Cowlitz Clean Waters that develops a public information and education campaign to inform the Lower Columbia region about the impacts of stormwater runoff on our local waterways and to affect behavior changes and water quality improvements in our communities.
- Track and document all public education and outreach efforts.
- Continue implementation of the education and outreach program for the area served by the MS4.

## 2.2.3 Planned Activities

Planned activities for 2020 include:

- Select a target audience and a subject area to build general awareness and provide the subject area information to the target audience.
- Continue to develop stewardship opportunities with Kelso High School.
- Collaborate activities with the Cowlitz Clean Water Partners to produce educational materials, including bus ads, pet waste signs, refrigerator magnets and student art/haiku calendars.
- Collaborate with Cowlitz Clean Waters to update the *Solution to Stormwater Pollution* brochure
- Select a target audience and one Best Management Practice (BMP) to affect behavior change.
- By July 1, 2020, conduct a new evaluation of the effectiveness of the ongoing behavior change campaign.

## 2.3 Public Involvement and Participation, Special Condition S5.C.3

The City's public involvement and participation program is designed to seek regular input from stakeholders through the Kelso Stormwater Advisory Committee (KSAC). The purpose of KSAC is to help guide the development, implementation and updates to the SWMP. KSAC members exhibit an interest in the quality of surface waters within and around Kelso and include a variety of stakeholders. The NPDES Coordinator is a liaison to KSAC and carries out this requirement.

### 2.3.1 Permit Requirements

Section S5.C.2 requires the following:

- Provide ongoing opportunities for public involvement through advisory councils, public hearings, watershed committees, participation in developing rate structures or other similar activities.
- Create opportunities for the public to participate in the decision-making processes involving the development, implementation and update of the Permittee's Stormwater Management Action Plan (SMAP) and its SWMP.
- Make the SWMP document and Annual Report available to the public on the City's website by May 31. Any other submittals required by Ecology also must be available on the website.

### 2.3.2 Existing Programs and Activities

The City's activities in this area are ongoing:

- Holds quarterly public meetings of KSAC.
- Seeks public input through the City Council.
- Posts annual reports, the SWMP, and other stormwater-related documents to the City's website.
- Tracks and documents public involvement and participation efforts.

### 2.3.3 Planned Activities

Planned activities for 2020 include:

- Continue to hold quarterly meetings of KSAC.
- Continue to post KSAC meeting minutes to the City's website
- Post the 2020 SWMP to the City's website by February, 28, 2020.
- Update the SWMP for 2021 by December 31, 2020.

## 2.4 MS4 Mapping and Documentation, Special Condition S5.C.4

The City must implement an ongoing program for mapping and documenting the MS4.

### 2.4.1 Permit Requirements

Section S5.C.4 requires the following:

- Ongoing Mapping: Maintain an ongoing program for mapping data for many features such as outfalls, discharge points, receiving waters, BMPs, connections between MS4s, connections to the MS4 after February 16, 2007 and other features.
- New Mapping: Collect size and material for all known MS4 outfalls during normal course of business such as during field screening.
- New Mapping: Complete mapping of all known connections from the MS4 to a privately owned stormwater system by August 1, 2023.
- Map and store points, lines, polygons of the MS4 with fully described mapping standards in a Geographical Information System or in CAD drawings no later than August 1, 2021.
- Make available to Ecology upon request the City's MS4 depicting the items above.

- Provide mapping information upon request to federally recognized Indian Tribes, municipalities and other permittees.

### 2.4.2 Existing Programs and Activities

The City's activities in this area are ongoing:

- Maintains a GIS of the MS4.

### 2.4.3 Planned Activities

Planned activities for 2020 include:

- Map any new public (City-operated) stormwater treatment and flow control facilities constructed in 2020.
- Map discharge points and new catch basins.
- Research options to improve the City's GIS including online mapping and asset management software as well as budget for purchase of same.

## 2.5 Illicit Discharge Detection and Elimination (IDDE), Special Condition S5.C.5

The City's stormwater management ordinance prohibits the discharge of anything that is not stormwater, with a few exceptions, into the MS4. The IDDE program guides City responses to spills and to reports of potential discharges to the storm sewer. Staff monitors the system through inspection of priority outfalls. The program is carried out primarily by Community Development, although support for spill response is provided by the Operations Department.

### 2.5.1 Permit Requirements

Section S5.C.4 requires the following:

- Implement an ongoing program to prevent, detect, characterize, trace, and eliminate illicit discharges, connections and improper disposal into the MS4.
- Implement a program for reporting and correcting or removing illicit connections, spills and other illicit discharges. Illicit connections and illicit discharges must be identified through field screening, inspections, source control inspections and other methods.
- Implement an ordinance to prohibit non-stormwater, illicit discharges into the MS4 that includes allowable discharges, conditionally allowable discharges, and escalating enforcement procedures and actions.
- Implement an ongoing program to detect and identify non-stormwater discharges and illicit connections to the MS4, including the following components:
  - Procedures for conducting investigations of the MS4, including field screening and methods for identifying potential sources of illicit discharges and connections.
  - Publicize a hotline or other local telephone number for reporting of spills or other illicit discharges.
  - Provide appropriate training to City field staff on identification and reporting of illicit discharges.
  - Inform public employees, businesses, and the general public of the hazards associated with illicit discharges and improper disposal of waste.

- Implement an ongoing program to address illicit discharges and illicit connections, including the following components:
  - Procedures for characterizing the nature of, and threat posed by, any illicit discharges found by or reported to the City, including evaluating if the discharge must be immediately contained.
  - Procedures for tracing the source of an illicit discharge, including visual inspection and other methods and procedures.
  - Procedures for eliminating the discharge through notification, technical assistance, inspections and the compliance strategy required above.
- Comply with requirements to address illicit discharges found or reported within Permit-established timelines (see S5.C.5.d.iv.).
- Train technical staff that is responsible to conduct these activities.
- Track and maintain records of the activities conducted to meet the requirements of S5.C.5.

### 2.5.2 Existing Programs and Activities

The City's activities in this area are ongoing:

- Follows procedures for detection, reporting, characterization, response, investigation, removal, clean-up, and enforcement of illicit connections and illicit discharges detailed in the *Municipal Stormwater Illicit Discharge Detection and Elimination (IDDE) Program 2015*.
- Contacts the public to provide education and enforcement when illicit discharges are reported or discovered.
- Provides training on IDDE awareness, one time per Permit term unless procedures are updated, to Operations field staff and Police staff.
- Operates the City's stormwater hotline.
- Encourages the public to report illicit discharges, spills, or other stormwater-related issues using the online Stormwater Incident Report at <http://www.kelso.gov/stormwater-incident-report>.
- Tracks illicit discharge reports and responses.
- Tracks and documents required recordkeeping.

### 2.5.3 Planned Activities

Planned activities for 2020 include:

- Ensure all new field employees are trained in IDDE.
- Continue ongoing activities listed above, including enforcing Kelso Municipal Code (KMC) 13.09.050, responding to illicit discharges and spills, educating the public about the hazards of IDDE through educational enforcement, and providing the public ways to report illicit discharges and spills, including the hotline and an online incident report.
- Follow indicator sampling procedures, when required, in response to illicit discharges discovered during field screening.
- Field screen at least 12% of the MS4 by December 31 of each year for non-stormwater discharges and illicit connections and track the total percentage of the MS4 screened.

## 2.6 Controlling Runoff from New Development, Redevelopment, and Construction Sites, Special Condition S5.C.6

The City's stormwater regulatory program currently implements standards for temporary erosion control and permanent stormwater control on development, redevelopment, and construction projects greater than 2000 square feet in size. The program is based on the current ordinance that was required by the previous Permit.

### 2.6.1 Permit Requirements

Section S5.C.6 requires the following:

- Implement and enforce a program to reduce pollutants in stormwater runoff that enters the MS4 from new development, redevelopment and construction site activities.
- Implement an ordinance to address runoff from development, redevelopment and construction site projects. The ordinance shall include the minimum technical requirements, thresholds and definitions found in the Permit appendices.
- Include a permitting process with site plan review, inspection, and enforcement capability to all sites that meet the minimum thresholds in Appendix 1 of the City's Permit, including the following components:
  - Review all stormwater site plans.
  - Inspect, prior to clearing and construction, all permitted development sites that have high potential for sediment transport.
  - Inspect all permitted development sites during construction to verify proper installation of erosion and sediment controls.
  - 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 complete and responsibility for maintenance is assigned.
  - An enforcement strategy to respond to issues of non-compliance with above-noted components.
- Make available the link to the electronic *Construction Stormwater General Permit* Notice of Intent (NOI) form and as applicable a link to the electronic *Industrial Stormwater General Permit* NOI.
- Train staff on the new codes, standards, processes and procedures.

### 2.6.2 Existing Programs and Activities

The City's activities in this area are ongoing:

- Enforce existing local stormwater and erosion control codes for development, redevelopment, and construction sites that meet stormwater thresholds.
- Enforce stormwater and erosion control regulations using Ecology's 2014 Stormwater Management Manual for Western Washington (SWMMWW) for sites over 2000 square feet that meet thresholds established in the Permit Appendix 1.
- Review site plans and grading permit applications that meet the SWMMWW Minimum Requirements.

- Make known the NOIs for Construction Activity and Industrial Activity to developers.
- Continue review of development, redevelopment, and construction sites using thresholds established in Appendix 1 of the 2019 permit.
- Continue inspecting regulated sites before, during, and after construction.
- Document all required recordkeeping.

### 2.6.3 Planned Activities

Planned activities for 2020 include:

- Ensure all Community Development staff are trained on the updated stormwater requirements, provisions and procedures.

## 2.7 Operation and Maintenance (O&M), Special Condition S5.C.7

The Operations Department operates the MS4 and City properties, including streets, rights-of-way, parks, and municipal buildings. Employees follow procedures to reduce stormwater impacts from City operations. During the Permit term, the City plans to replace more catch basins and replace failing or faulty portions of the MS4.

### 2.7.1 Permit Requirements

Section S5.C.7 requires the following:

- Implement and document an O&M program with the ultimate goal of preventing or reducing stormwater impacts.
- Implement maintenance standards for components of the municipal separate stormwater system that are at least as protective as those specified in the SWMMWW.
- Conduct annual inspections of City-operated stormwater treatment and flow control and treatment BMPs/facilities, and conduct required maintenance within Permit-established deadlines.
- Spot checks of potentially damaged permanent stormwater treatment and flow control BMPs/facilities after major storm events and system-wide inspection if spot checks indicate widespread damage. Then conduct required maintenance within Permit-established deadlines.
- Inspect all City-operated catch basins and inlets every two years and clean, if necessary, to comply with maintenance standards of the SWMMWW.
- Implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from municipal operation and maintenance activities including but not limited to streets, parking lots, roads, highways, buildings, parks, open space and maintenance yards owned or maintained by the City. Document practices no later than December 31, 2022 of these practices, policies, and procedures.
- Implement an ongoing training program for staff whose job functions may impact stormwater quality. Document the training program.
- Implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards and material storage facilities owned or operated by the City that are not covered by an Industrial Stormwater General Permit.
- Maintain records of inspections and maintenance or repair activities.

## 2.7.2 Existing Programs and Activities

The City's activities in this area are ongoing:

- Annual inspection of City-operated permanent stormwater treatment and flow control facilities.
- Review of inspection and maintenance records submitted to the City of parcels that have stormwater treatment and flow control BMPs permitted under the Permit and spot checks of those facilities.
- Spot check stormwater facilities and flood-prone areas of the conveyance system after rain storms larger than the 24-hour, 10-year storm event.
- Routine street sweeping.
- Clean ditches and culverts as needed.
- Follow City of Kelso *Municipal Stormwater O&M Program 2015* for operation of stormwater facilities, streets, parks and buildings owned or operated by the City.
- Follow City of Kelso *Nutrient, Integrated Pest Management and Herbicide Plan 2015* to guide the use of nutrients and chemicals on City-operated properties and rights-of-way.
- Follow protocols for spills response on City streets and properties in the City of Kelso *Illicit Discharge Detection and Elimination (IDDE) Program 2015*.
- Train new Operations staff on operational source control BMPs for the maintenance yard, City street and property operations, and City parks operations or when the program is modified.
- Maintain the SWPPP for the Operations maintenance yard and conduct quarterly inspections of the yard.
- Document all required recordkeeping.

## 2.7.3 Planned Activities

Planned activities for 2019 include:

- Implement a catch basin structural repair and replacement program to repair or replace approximately 10 catch basins in 2020.
- Inspect approximately half of City-operated catch basins and maintain those that need it.

## 2.8 Source Control Program for Existing Development, Special Condition S5.C.8

The Source Control Program is a new requirement of the Permit. The City will develop and implement a program to prevent and reduce pollutants in runoff from areas that discharge to the MS4. The program will include tasks such as application of operational source control BMPs, inspections of pollutant generating sources at private and public sites, and adopting an ordinance to require source control BMPs.

### 2.8.1 Permit Requirements

Section S5.C.8 requires the following:

- Adopt and make effective no later than August 1, 2022, an ordinance requiring the application of source control BMPs for pollutant generating sources.

- Establish an inventory identifying publicly and privately owned institutional, commercial and industrial sites that have the potential to generate pollutants to the MS4 no later than August 1, 2022.

### **2.8.2 Existing Programs and Activities**

As this is a new requirement, there is no current program or activities. The City will begin developing the Source Control Program.

### **2.8.3 Planned Activities**

Planned activities for 2020 include:

- Develop the methods and sources to determine an inventory of sites that have the potential to generate pollutants to the MS4.

## **2.9 NPDES Program Administration**

The City's NPDES compliance program requires administration to develop plans and schedules, administer contracts, maintain tracking systems, process payments, and prepare reports.

### **2.9.1 Planned Activities**

Planned activities for 2020 include:

- Submit to Ecology the annual Permit fee.
- Submit to Ecology the 2019 Annual Report and attachments, including the 2020 SWMP by February 28, 2020.
- Post the 2019 Annual Report to City's website by February 28, 2020.
- Maintain records of NPDES activities for each Permit component.

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## 3. MONITORING AND ASSESSMENT

### 3.1 Stormwater Monitoring

Stormwater monitoring requirements are given in Section S8 of the Permit. The basic requirements for stormwater monitoring include the following:

- For Regional Status and Trends Monitoring, make annual payments into a collective fund to implement regional receiving water status and trends monitoring.
- For Effectiveness and Source Identification Studies, make annual payments into a collective fund to implement effectiveness and source identification studies.

#### 3.1.1 Ongoing Activities

- The City will continue to pay into collective funds to implement both Regional Status and Trends Monitoring and Effectiveness and Source Identification Studies.
- The City will continue to assist in the development of the Quality Assurance Project Plan for southwest Washington.