

Stormwater Management

PROGRAM DOCUMENT

2019-2024

NPDES MS4 PHASE II
GENERAL PERMIT 100032



CITY OF KEIZER | Public Works Department
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Prepared by the Environmental & Technical Division



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Executive Summary

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The Oregon Department of Environmental Quality issued a National Pollutant Discharge Elimination System Phase II General Permit (#102904) to the City of Keizer in November 2018. The General Permit, effective March 1, 2019 through February 29, 2024, conditionally authorizes the City to discharge stormwater from the municipal separate storm-sewer system (MS4) to waters of the state.

Pursuant to 40 CFR §122.34(a), the City must develop, implement and enforce a Stormwater Management Program (SWMP) designed to reduce pollutants from the MS4 to the maximum extent practicable in order to protect water quality and to satisfy the requirements of the federal Clean Water Act. The General Permit identifies specific management practices, control techniques and engineering methods necessary to meet these standards. Through compliance with all of the terms and conditions of the General Permit, it is presumed that the City is not causing or contributing to an excursion of the applicable water quality standards as established in OAR 340-041.

The General Permit additionally requires the City to maintain a written SWMP Document that describes in detail how the City will comply with the following six minimum control measures, which are fully described in Schedule A.3.a-f of the permit:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Runoff Control for New and Redevelopment
6. Pollution Prevention for Municipal Operations (Good Housekeeping)

This document serves that purpose. This SWMP Document builds on existing stormwater management programs and practices that were developed under the City's first NPDES Phase II Permit (issued in 2007). Unlike previous stormwater management plans, the SWMP Document is intended to be a living document. It will be reviewed by staff annually and updated as necessary to adapt to changing conditions within the community. The SWMP Document will be made available to the public through the City's website and submitted to DEQ with the second Annual Report on November 1, 2021 as required in Schedule A.2.c of the General Permit.

Finally, while the SWMP Document is designed to comply with the NPDES MS4 Phase II General Permit, many of the programs and practices established herein will function concurrently to meet similar requirements in the City's other mandated stormwater programs. This will allow for a more streamlined approach to stormwater management that reduces the overall cost to the City and its constituents.

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Abbreviations and Acronyms

An alphabetical list of the acronyms and abbreviations used in this document.

BMP	Best Management Practice
CESCL	Certified Erosion and Sediment Control Lead
CSPPP	Construction Site Pollution Prevention Plan
CWA	Clean Water Act
DEQ	Oregon Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
ESC	Erosion and Sediment Control
ESCP	Erosion and Sediment Control Plan
ERP	Enforcement Response Plan
ESRI	Environmental Systems Research Institute
GIS	Geographic Information System
IDDE	Illicit Discharge Detection and Elimination
LID	Low Impact Development
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
OHA	Oregon Health Authority
PCSM	Post-Construction Stormwater Management
PEP	Public Education Plan
SDM	Stormwater Design Manual
SDS	Stormwater Design Standards
SWMP	Stormwater Management Program
SWAC	Stormwater Advisory Committee
TMDL	Total Maximum Daily Load
UIC	Underground Injection Control
VSF	Vegetated Stormwater Facility
WPCF	Water Pollution Control Facility

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Background

A brief history of the permit and an introduction to the requirements addressed in document.

The federal Clean Water Act (CWA) requires that stormwater be regulated as a point-source discharge under the National Pollutant Discharge Elimination System (NPDES) program. In 1990, the U.S. Environmental Protection Agency (EPA) issued regulations specific to stormwater discharges from entities that own and operate municipal separate storm sewer systems (MS4), requiring such entities to obtain NPDES permit coverage for their stormwater discharges.

The NPDES MS4 program was implemented in two phases: Phase I regulations were adopted in 1990 to address stormwater discharges from medium and large MS4 entities serving urbanized populations of 100,000 or more; Phase II regulations were adopted in 1999 to address stormwater discharges from small MS4 entities serving urbanized populations between 10,000 and 100,000.

The Code of Federal Regulations [40 DFR Part 122.26] established a process for qualifying MS4 entities to apply for NPDES permit coverage. To obtain coverage, permittees are required to develop a Stormwater Management Program (SWMP) that addresses the following six minimum control measures:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Site Runoff (for New and Redevelopment)
6. Pollution Prevention for Municipal Operations (Good Housekeeping)

For each minimum control measure, permittees are required to develop and implement strategies (best management practices or BMPs) aimed at reducing discharges of pollutants to the MS4 to the maximum extent practicable.

In Oregon, the EPA delegated authority for administering and enforcing permit requirements to the Department of Environmental Quality (DEQ). The DEQ identified the City of Keizer as a qualifying Phase II community due to its population size and location within the City of Salem Urbanized Area.

The City of Keizer was issued its first 5-year NPDES MS4 Phase II Permit in March 2007. Prior to expiration, in February 2012, the City applied for permit renewal. In lieu of reissuance, the DEQ administratively continued the City's existing permit. The City has since continued to implement and refine the BMPs described in the original Stormwater Management Plan.

In November 2018, DEQ issued the City a new NPDES MS4 Phase II General Permit that conditionally authorizes the City to discharge stormwater from the MS4 to surface waters of the state. The General Permit is effective from March 1, 2019 through February 29, 2024.

The General Permit dictates that the City must continue to implement all of the previously permitted BMPs while working to develop and implement BMPs designed to meet the new requirements of the General Permit. The implementation deadlines for meeting each of the six minimum control measure requirements are as follows:

Minimum Control Measures	Implementation Deadline
1. Public Education and Outreach	February 28, 2020
2. Public Involvement and Participation	February 28, 2020
3. Illicit Discharge Detection and Elimination	February 28, 2022
4. Construction Site Runoff Control	February 28, 2023
5. Post-Construction Site Runoff for Development	February 28, 2023
6. Pollution Prevention in Municipal Operations	February 28, 2022



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Introduction

Overview of the City of Keizer and its Stormwater Management Programs.

The City of Keizer incorporated in 1982 and serves a population of approximately 39,713 (U.S. Census, 2019). Located in Marion County, the City encompasses roughly 7.5 square miles and is bordered by the Willamette River on the west, Interstate-5 on the east, the City of Salem on the south and agricultural land to the north. The climate is mild with an average annual rainfall of 40.35 inches. Seventy percent of the total rainfall occurs from November through March, with only six percent occurring during June, July and August.

Organizational Structure

The City employs just over 100 employees and is governed by a mayor, six city councilors, and a city manager who oversees the daily operations of the organization. Operations are distributed across six departments that include Administration, Finance, Human Resources, Police, Community Development, and Public Works. Keizer Rural Fire Protection District and Marion County Fire District 1 provide fire and emergency services. Sanitary sewer service, which includes maintenance and repair work, are provided by the City of Salem through an intergovernmental agreement. Maintenance and treatment of that system are reported under the City of Salem regulatory permits.

Areas of Responsibilities

The Public Works Department is responsible for managing the City's storm and surface water, which includes environmental permitting, and planning, designing, constructing, operating and maintaining the stormwater drainage system. Public Works performs a variety of services through five divisions: Water, Stormwater Operations, Streets, Parks and Facilities, and Environmental & Technical.

The Public Works Director oversees and approves all Public Works activities. The Director manages the stormwater budget and serves as the inter-agency agency lead.

The Stormwater Operations Division is responsible for stormwater system inspections and repairs, implementation of the Good Housekeeping and Operations and Maintenance plans, field investigation and response to illicit discharges and spills, and employee training. The Stormwater Division consists of a Division Manager and three maintenance personnel.

The Environmental & Technical Division is responsible for developing compliance strategies and programs consistent with federal, state, and local environmental laws and policies and coordinating compliance citywide. The Environmental & Technical Division works closely with the Stormwater Division and provides technical support within the Department. Environmental staff also collaborate with other departments where permit goals overlap (e.g., legal counsel, utility billing, community development, code enforcement, etc.). The Environmental & Technical Division

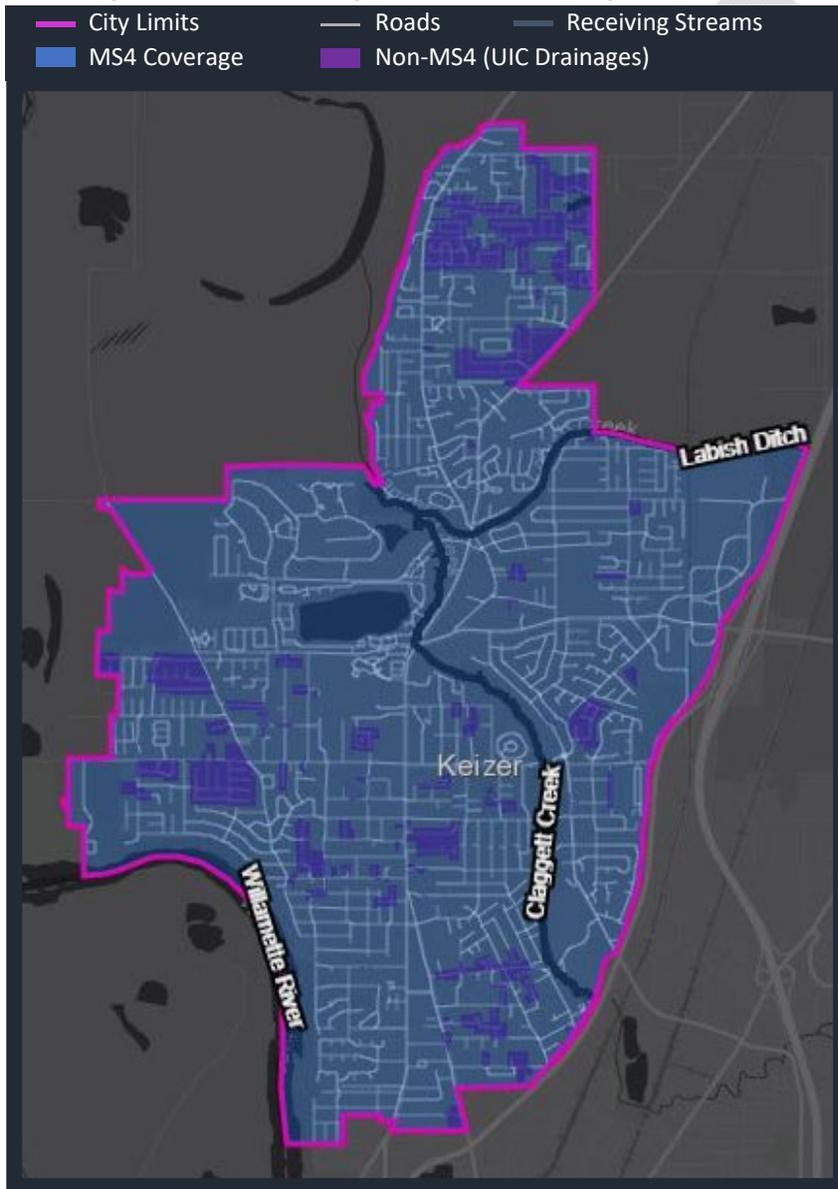
consists of a Division Manager, a Senior Environmental Program Technician, two Environmental Program Technicians, and a GIS Technician.

The Department's Project Manager and Customer Service Technician also perform extensive fieldwork to support the City's Erosion Control and Illicit Discharge programs.

Permit Coverage Area

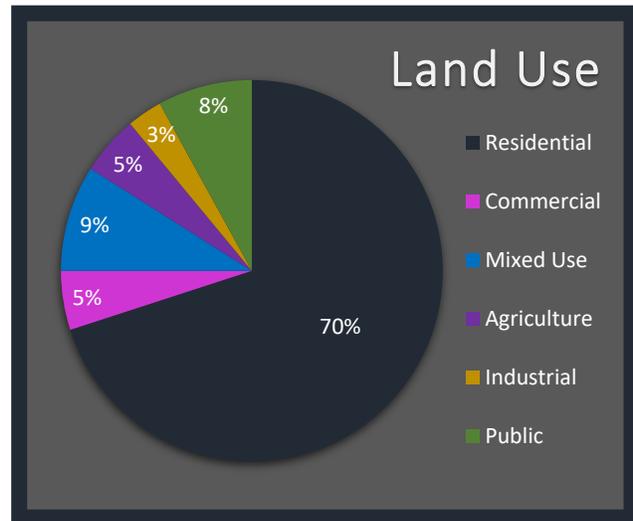
The permit applies to the geographic area served by the City that is located within the Salem Urbanized Area as defined by the U.S. Bureau of Census. A map of the City's MS4 Coverage and Receiving Streams is provided in Figure 1.

Figure 1: MS4 Coverage Area and Receiving Streams



Land Use and Community Development

The land use within Keizer is predominantly residential (70%). Commercial (5%) and mixed use (9%) designations typically align with the City's high-traffic corridors. Keizer also has pockets of agriculture (5%) and light industrial (3%). Public lands make up approximately 8% of the land use which includes 19 City parks. Due to the limited amount of buildable land remaining within the urban growth boundary, residential development is limited to small-scale subdivisions and infill. New commercial development is occurring near Interstate-5 at Keizer Station.



Major Receiving Streams

The City's major receiving streams are the Willamette River, Claggett Creek and Labish Creek (see Figure 1). The majority of the City lies within the historic floodplain of the Willamette River or Claggett Creek. The Willamette River flows along a portion of the City's western boundary. Labish Creek drains agricultural land in Marion County flowing from east to west into Keizer. Claggett Creek originates in the East Salem Service District in Marion County. It flows northwesterly, passing through northeast Salem before entering the City of Keizer. Claggett Creek and Labish Ditch transect the City until Labish Ditch joins Claggett Creek at the City's center. Claggett Creek discharges to Clear Lake (an oxbow lake west of Keizer) before entering the Willamette River.

Water Quality Standards

Through compliance with all the terms and conditions of General Permit, it is presumed that the City is not causing or contributing to an excursion of the applicable water quality standards as established in OAR 340-041. If a discharge from the MS4 is known to be causing or contributing to an excursion of an applicable water quality standard, the City will take the following corrective actions:

- Begin to investigate the cause within 48 hours of becoming aware or being notified of the excursion.
- Notify DEQ in writing of the excursion within 30 days
- Submit a report to DEQ within 60 days that documents the results of the investigation, a description of the conditions that triggered the violation, and the corrective actions taken or planned including a completion date.

Stormwater Conveyance

The Stormwater Operations Division manages, operates and maintains the City's stormwater infrastructure, which includes approximately 77 miles of storm pipe, 1,200 manholes, 2,400 inlets, 120 outfalls, 1.6 acres of vegetated stormwater facilities, and 135 UICs. The Stormwater Division Manager plans and implements annual capital improvement projects and system repairs, conducts

annual inspections and cleanings of catch basins and manholes, and oversees contractors performing pipe cleaning and inspections, street sweeping, and vegetated stormwater facility maintenance.

Program Funding

A stormwater utility and fee was established by ordinance in 2007 to provide funding for stormwater infrastructure. The ordinance was replaced in 2014 by Ordinance 2014-707, *“to provide sufficient funds to properly manage and maintain public stormwater facilities and may be used to meet the requirements of the NPDES permit, the WPCF permit, and other state and federal laws and regulations pertaining to stormwater”*.

The stormwater fees are based on the amount of impervious surface area and may be applied to stormwater quality regulations, preparation of a master plan, and/or the construction of new stormwater facilities. The City Council may change the fees by resolution based upon revised estimates of the cost of properly managing, maintaining, extending and constructing public stormwater facilities, or due to changes in state or federal regulations.

Stormwater funds may only be used for the purposes of the management, maintenance, treatment, collection, disposal, extension and construction of public stormwater facilities, including all monitoring, reporting, and program implementation requirements under state and federal law.

Program Evaluation and Reporting

Compliance Evaluation

For each minimum control measure, the City developed best management practices with clearly stated goals and measurable objectives to set priorities. In addition to tracking activities and documenting outcomes, each year staff will evaluate the City’s implementation progress against the requirements of the General Permit using the DEQ’s Annual Report template. All required reports and supporting documentation will be submitted to DEQ as noted below. All Annual Reports will be made available to the public on the City’s website.

Annual Reporting

The City will submit an Annual Report to DEQ using the report template as specified below.

Annual Report	Reporting Period	Due Date
Year 1	Mar. 1, 2019 - June 30, 2020	Nov. 1, 2020
Year 2	July 1, 2020 - June 30, 2021	Nov. 1, 2021
Year 3	July 1, 2021 - June 30, 2022	Nov. 1, 2022
Year 4	July 1, 2022 - June 30, 2023	Nov. 1, 2023
Year 5	July 1, 2023 - June 30, 2024	Nov. 1, 2024

Other Regulated Stormwater Programs

In addition to the NPDES MS4 Phase II General Permit, the City manages a Total Maximum Daily Load (TMDL) Implementation Plan for the Keizer reach of the Willamette River and a Water Pollution Control Facility (WPCF) Class V Stormwater Permit. To improve the efficiency and efficacy

of stormwater management, the BMPs described in this SWMP Document will function concurrently to meet overlapping requirements with the TMDL Plan and WPCF Permit. Integration of BMPs allows for a more effective approach to stormwater management that also reduces the overall cost to the City and its constituents.

Total Maximum Daily Load

Under Section 303(d) of the federal CWA, states are required to identify waters which fail to meet applicable water quality standards and develop a TMDL to address the specific pollutants contributing to the water quality degradation. DEQ issued the Willamette Basin TMDL as an order in September 2006, listing the Keizer reach of the Willamette River as being water quality limited for temperature, mercury and bacteria pollution. As such, the City of Keizer was recognized by DEQ as one of several Designated Management Agencies (DMA) in the Willamette River basin. This designation gives the City legal authority over the source(s) that contribute pollution to the Willamette River within its jurisdiction. Sources may include water from Claggett Creek, Labish Ditch, the in-ground stormwater system and overland flow.

An updated Willamette Basin TMDL was reissued by the EPA and DEQ in November 2019. This may require the City to develop a new TMDL Implementation Plan to address the revised criteria. Since it is presumed by DEQ that if Keizer is compliant with the terms of the NPDES General Permit, then it is also compliant with the TMDL waste load allocations, the BMPs established in this SWMP Document will be included in the new TMDL Implementation Plan. The TMDL Implementation Plan may include additional BMPs specific to reducing water quality pollutants of concern (e.g., temperature), which are not addressed in this document.

Water Pollution Control Facility

The federal Underground Injection Control (UIC) program was enacted in 1974 under the Safe Drinking Water Act. According to the DEQ, the goal of the UIC program is to protect freshwater aquifers from contamination due to underground injection systems. The EPA granted DEQ the authority to regulate UICs in Oregon; UICs are regulated under OAR Chapter 340, Division 44.

The City was issued a WPCF Class V Stormwater permit by the DEQ in October 2013, which will expire September 30, 2023. This permit allows the City to manage stormwater through publicly owned UICs. The City currently owns and operates approximately 135 UICs, many of which are connected to the MS4 system through sections of shallow perforated pipe.

Schedule A.6 of the WPCF permit requires the City to implement and maintain site control measures and BMPs to reduce or eliminate pollutants in accordance with a DEQ approved UIC Management Plan. The City's approved plan outlines how the City will comply with the requirements of the WPCF permit and includes several BMPs developed under the NPDES permit. With the issuance of the new NPDES MS4 Phase II General Permit and subsequent changes to the BMPs, Keizer will need to update the UIC Management Plan to reflect new practices for reducing pollution. Any BMPs specific to the WPCF permit requirements will only be listed in the UIC Management Plan.

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Minimum Control Measures

Detailed descriptions of the best management practices selected to meet the six minimum control measures including the goals, strategies, measurable objectives and implementation timelines for each.

MCM 1: Public Education & Outreach

The Public Education and Outreach Program is developed and implemented by Environmental Division staff who are supervised by the Environmental & Technical Division Manager for the Public Works Department.

The City of Keizer has selected four Best Management Practices (BMPs) to comply with the requirements specified in the Public Education and Outreach minimum control measure in Schedule A.3.a. The BMPs are shown in **Table 1**. The goals, strategies, measurable objectives, and implementation timelines for each BMP are described below.

TABLE 1. PUBLIC EDUCATION & OUTREACH BMPs

ID	Best Practices
PE-1	Implement a Public Education and Outreach Program
PE-2	Offer Stormwater Education Activities
PE-3	Deliver Target Topics to Target Audiences
PE-4	Provide Education to Construction Professionals

PE-1 Implement a Public Education and Outreach Program

Goals

- Implement a Public Education and Outreach Program to inform the public about the impacts of stormwater discharges on waterbodies and the behaviors and practices that cause or contribute to adverse impacts on receiving waters on or before February 28, 2020.
- Track implementation and assess progress of the Public Education and Outreach Program for annual reporting.

Strategy

The City will continue to implement its existing Public Education and Outreach Program while working to develop and implement the requirements of Schedule A.3.a. The new program requirements will be met through the development and implementation of a comprehensive Public Education Plan (PEP).

The PEP is intended to lay a strategic path for implementation of all of the City's public education activities related to stormwater. That is, in addition to outlining the specific actions the City will take to meet the requirements in Schedule A.3.a-b of the General Permit, the PEP will include educational activities that staff will conduct to comply with the City's TMDL Implementation Plan and WPCF Class V Stormwater Permit. The PEP will be reviewed annually to identify strengths

and/or deficiencies and updated as necessary to effectively address stormwater issues of significance in Keizer.

The PEP will outline the activities planned for each year of the permit term and define the target message(s), target audience(s), distribution method(s), and performance measure(s) for each activity.

Staff will employ a variety of recordkeeping methods to track and document implementation of the Public Education and Outreach Program, including spreadsheets, documents, databases and GIS applications. Staff will assess progress using the measurable objectives listed for each BMP.

Measurable Objectives

1. Develop a comprehensive PEP that integrates all of the City’s public education and outreach activities on or before February 28, 2020
2. Implement the planned activities for each year as shown in the PEP
3. Review the PEP annually and update as needed
4. Track implementation and assess progress of the Public Education and Outreach Program annually using the measurable objectives defined for each BMP

Implementation Timeline

Year 1	– Continue to implement the existing programs – Develop a comprehensive PEP and implement the planned activities on or before February 28, 2020
Years 2-5	– Implement the planned activities in the PEP
Annual	– Review the PEP and update as needed – Track program implementation and assess progress

PE-2 Offer Stormwater Education Activities

Goals

- Conduct at least two educational activities per year to increase the public’s understanding of the impacts of stormwater on local waterways and promote specific actions the public can take to reduce stormwater pollution and prevent illicit discharge from entering the MS4.
- Evaluate at least one education and outreach activity each year to inform and improve future stormwater education and outreach efforts.

Strategy

Environmental Division Staff will evaluate existing efforts and continue to implement educational activities that have been successful in the past while developing new educational activities to meet the requirements of the General Permit. New activities will be designed to promote specific actions the public can take to reduce stormwater pollution and will be delivered in an appropriate manner to maximize reach for each target audience. Staff will use a variety of tools to engage the public such as printed and digital materials, online resources, social media, workshops, special events, classroom presentations, and more. Educational activities will be fully documented and described in the PEP.

At least one planned activity will be evaluated each year using the performance measures listed for that activity. Results of the evaluation will be summarized and presented in annual reports.

Measurable Objectives

1. Conduct at least two stormwater educational activities each year of the permit term
2. Evaluate at least one educational activity each year using the performance measures listed for that activity

Implementation Timeline

In many cases, activities have been scheduled to coincide with implementation of minimum control measures three through six, outlined in Schedule A.3.c-f.

Year 1	– Continue to implement the existing activities – Implement the planned activities on or before June 30, 2020
Years 2-5	– Implement the planned activities for each year
Annual	– Evaluate at least one activity

PE-3 Deliver Target Topics to Target Audiences

Goal

- Deliver Target Topics to the Target Audiences over the course of the permit term, reaching the general public and local elected officials at least once and construction site operators twice.

Target Audiences:

1. General public: homeowners, homeowner associations, school children, and businesses (including home-based and mobile business)
2. Local elected officials, land use planners and engineers
3. Construction site operators

Target Topics:

1. Impacts of illicit discharges on receiving waters and how to report them
 2. Impacts from impervious surfaces and appropriate techniques to avoid adverse impacts
 3. Best management practices for proper use, application storage and disposal of pesticides and fertilizers
 4. Best management practices for litter and trash control
 5. Best management practices for recycling programs
 6. Best management practices for power washing, carpet cleaning and auto repair and maintenance
 7. Low-impact development/green infrastructure
 8. Septic systems, information pertaining to maintenance of septic systems
 9. Watershed awareness and how storm drains lead to local creeks and rivers, and potential impacts to fish and other wildlife
 10. Stormwater issues of significance identified by permit registrant
-

Strategy

Under the previous permit, staff delivered a variety of stormwater messages to the community through events, classroom presentations, newsletters, and informational brochures. The City will continue to deliver educational messages to the community while developing a messaging strategy to meet the new requirements.

Each of the planned activities outlined in the PEP will define the intended target topic(s) and target audience(s) to ensure that the required messages are delivered and that each of the three audiences are reached. Messages will be distributed through annual newsletters, events, classroom presentations and demonstrations, community meetings, homeowner and business workshops and/or materials published to the City’s website and social media platforms.

As part of the City’s messaging strategy, staff will conduct an incentivized, community-wide survey in the spring of 2021. The survey will be designed to 1) identify our audience’s communication preferences, 2) gauge public awareness of water quality issues, and 3) understand the audience’s values regarding water resources to determine if there are barriers to behavior change. Results of the survey will be used by staff to refine the planned educational activities in the PEP. A follow-up survey will be conducted in 2023 to gauge effectiveness and to inform future messaging strategies.

Measurable Objectives

1. Conduct a survey in 2020-21 to refine the messaging strategy for delivering stormwater topics to target audiences in an effective manner; repeat in 2023-24
2. Deliver one or more Target Topics to the general public and elected officials at least once during the permit term

Implementation Timeline

Year 1	– Continue to deliver messages using existing strategies
Years 1-5	– Deliver Target Topics to Target Audiences as outlined in the PEP
Year 2	– Conduct a community-wide survey regarding water quality values/issues in Keizer
Year 4	– Conduct a follow-up survey and evaluate progress
Annual	– Track the Target Topics delivered and the Target Audiences reached

PE-4 Provide Education to Construction Professionals

Goal

- Conduct educational outreach to construction site operators working within the community at least twice during the permit term.

Strategy

The City’s existing Erosion and Sediment Control Program provides multiple opportunities for educating construction site operators. The program includes in-person consultations and online guidance materials for the permitting, plan review, and inspection processes that contain information on the appropriate selection, design, installation, use and maintenance of erosion and sediment control measures. The cornerstone of the program is the offering of an annual training event developed specifically for construction professionals. Staff will continue to implement these activities while working to update the Erosion and Sediment Control Program to meet the new requirements of the General Permit.

The Environmental Compliance Coordinator provides site-specific, technical guidance to contractors during the permitting and plan review process as necessary to ensure compliance with

the City’s Erosion Control ordinance. All education provided to contractors during pre-application meetings, plan reviews, and inspections is evaluated by the Environmental Education Coordinator to inform future educational efforts.

The City’s website contains resources for construction site operators such as ordinances, permits, permitting thresholds and procedures, fee schedules, technical guidance on erosion prevention and sediment control best practices, and training materials. Content is reviewed annually and updated as necessary to reflect current practices and new technologies.

Environmental Division staff also co-host the annual Mid-Willamette Erosion Control and Stormwater Management Summit for construction professionals. The event is held in partnership with the cities of Salem, Albany, and Corvallis, Marion County, and the Marion Soil & Water Conservation District. While presentations vary from year to year, the event’s framework includes a regulatory update, a keynote discussion on erosion prevention and sediment control, forms and functions of green stormwater infrastructure, implementation of low-impact development and case studies. Staff will continue to work with partners to host this (or a similar) event as interest and resources allow.

Measurable Objectives

1. Deliver at least two educational activities to construction site operators during the permit term
2. Maintain educational resources for construction site operators on the website
3. Document education provided to contractors during the permit, plan review, and inspection process
4. Document training events offered to construction professionals
5. Develop and/or update guidance documents pertinent to the Erosion and Sediment Control Program on or before February 28, 2023.

Implementation Timeline

Guidance documents will be updated to reflect any changes in the Erosion and Sediment Control Program on or before February 28, 2023.

Years 1-5	– Continue existing educational outreach to construction site operators
Annual	– Host the Mid-Willamette Erosion Control & Stormwater Management Summit (or similar event) – Evaluate education provided to contractors through the permit process – Review online resources for construction site operators and update as needed

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MCM 2: Public Involvement & Participation

The Public Involvement and Participation Program is developed and implemented by Environmental Division staff who are supervised by the Environmental and Technical Division Manager for the Public Works Department.

The City of Keizer has selected three Best Management Practices (BMPs) to comply with the requirements specified in the Public Involvement and Participation minimum control measure in Schedule A.3.b of the General Permit. The BMPs are shown in **Table 2**. The goals, strategies, measurable objectives, and implementation timelines for each BMP are described below.

TABLE 2. PUBLIC INVOLVEMENT & PARTICIPATION BMPs

ID	Best Practices
PI-1	Implement a Public Involvement and Participation Program
PI-2	Maintain a Publicly Accessible Website
PI-3	Offer a Stewardship Opportunity

PI-1 Implement a Public Involvement and Participation Program

Goals

- Implement a Public Involvement and Participation Program that provides opportunities for the public to effectively participate in the development of the SWMP Document control measures on or before February 28, 2020.
- Comply with all public notice requirements.
- Track implementation and assess progress of the Public Involvement and Participation Program for annual reporting.

Strategy

The City will continue to implement its existing Public Involvement and Participation Program while working to develop and implement the requirements of Schedule A.3.b. The current program consists of public meetings, stewardship opportunities, and utilization of the City's website to share permit related documents, solicit and receive public comments and intake illicit discharge complaints.

Consistent with public notice requirements, the City has a process in place to receive public comments verbally or in writing during any open comment period.

The Stormwater Advisory Committee (SWAC) provides a venue for the public to provide comments directly to Environmental Division staff on the development of the Stormwater Management Program. The committee was established in May 2008 and is made up of elected officials, representatives from the City of Salem and Marion County, and citizens at large. Meetings may be held more frequently in 2019-20 through development of the SWMP Document and then periodically (as needed) thereafter to keep members apprised of implementation progress and for

staff to receive guidance. Meetings are open to the public and are advertised on the City’s website and shared through local media outlets.

For detailed information on the utilization of the website and stewardship opportunities, please refer to PI-2 and PI-3 below.

Staff will employ a variety of recordkeeping methods such as spreadsheets, documents, databases and GIS applications to track and document implementation of the Public Involvement and Participation Program. Staff will assess progress using the measurable objectives listed for each BMP.

Measurable Objectives

1. Continue to implement the existing Public Involvement and Participation Program while working to develop and implement the requirements of Schedule A.3.b.
2. Host regular meetings through the development of the SWMP Document in 2019-20 then meet periodically thereafter
3. Document compliance with public notice requirements
4. Track implementation and assess progress of the Public Involvement and Participation Program annually using the measurable objectives defined for each BMP

Implementation Timeline

Year 1	– Continue to implement the existing program – Host monthly SWAC meetings to develop the SWMP Document
Years 2-5	– Host at least two SWAC meetings per year after SWMP Document is final
Annual	– Track program implementation and assess progress

PI-2 Maintain a Publicly Accessible Website

Goal

- Maintain and promote a publicly accessible website that contains educational materials, contact information for program staff, Stormwater Management Program documents, illicit discharge reporting procedures, and links to all ordinances, policies and/or guidance documents related to the construction and post-construction programs, including education, training, licensing and permitting.

Strategy

The City currently maintains a public website. The Environmental & Technical Division’s web pages host the required programmatic content including the following: a process to report illicit discharges, draft documents issued for public comment, links to all ordinances, policies and guidance documents related to the construction and post-construction programs, regulatory documents, program management plans, annual reports, permits, educational materials, and contact information for program staff.

An online resource library will be added to provide educational content complete with tools, tips, and techniques for improving water quality, strategies for pollution prevention, educational brochures, and information on current events. When practical, online content will be paired with social media posts to promote engagement and viewership.

Measurable Objectives

1. Update and/or publish all required content to the website on or before February 28, 2020
2. Maintain a publicly accessible website with current content as required in Schedule A.3.b.ii.
3. Review the website annually and update as needed

Implementation Timeline

Year 1	– Continue to implement the existing program – Update and/or publish content to the website on or before February 28, 2020
Years 2-5	– Maintain a publicly accessible website with current content
Annual	– Review the website and update content as needed

PI-3 Offer a Stewardship Opportunity

Goal

- Create (or partner in the development of) one stewardship opportunity during the permit term.

Strategy

The City currently offers two stewardship opportunities designed to garner public participation in protecting natural resources: Storm Drain Marking and Invasive Weed Removal. Participation in these programs has steadily decreased over time; therefore, staff will consider new outreach methods to increase participation and/or explore new opportunities for more meaningful involvement.

In addition to this, staff encourages stewardship through partner projects with agencies such as the Claggett Creek Watershed Council and the Marion Soil & Water Conservation District. The City will continue to collaborate on volunteer opportunities in the community as resources allow.

Measurable Objectives

1. Continue to offer existing stewardship opportunities and partner on volunteer projects
2. Evaluate participation in existing stewardship programs
3. Explore new stewardship opportunities and develop an implementation strategy
4. Create and promote at least one stewardship opportunity during the permit term

Implementation Timeline

Years 1-2	– Continue to implement the existing program
Year 2	– Evaluate and develop an implementation strategy for a stewardship program
Years 3-5	– Implement (or partner to provide) at least one stewardship opportunity
Annual	– Track and assess participation in the program

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MCM 3: Illicit Discharge Detection & Elimination

The Illicit Discharge Detection and Elimination (IDDE) Program is developed and managed by Environmental Division staff. Implementation of the IDDE Program is coordinated across Public Works and supported by Code Enforcement. The Public Works Director oversees all Public Works activities.

The City of Keizer has selected six Best Management Practices (BMPs) to comply with the requirements specified in the Illicit Discharge Detection and Elimination minimum control measure in Schedule A.3.c of the General Permit. The BMPs are shown in **Table 3**. The goals, strategies, measurable objectives, and implementation timelines for each BMP are described below.

TABLE 3. ILLICIT DISCHARGE DETECTION & ELIMINATION BMPs

ID	Best Practices
ID-1	Implement an Illicit Discharge Detection and Elimination Program
ID-2	Maintain a Map and Digital Inventory of the MS4
ID-3	Prohibit Illicit Discharges by Ordinance
ID-4	Maintain Enforcement Procedures
ID-5	Conduct Dry-Weather Inspections of Outfalls
ID-6	Provide IDDE Training to Program Staff

ID-1 Implement an Illicit Discharge Detection and Elimination Program

Goals

- Implement and enforce an Illicit Discharge Detection and Elimination Program to detect and eliminate illicit discharges into the MS4 on or before February 28, 2022.
- Track implementation and assess progress of the Illicit Discharge Detection and Elimination Program for annual reporting.

Strategy

The City will continue to implement its existing Illicit Discharge Detection and Elimination (IDDE) Program while developing updates to meet the new requirements in Schedule A.3.c. The existing program is implemented in accordance with the City's IDDE Plan. The IDDE Plan will be updated to reflect the new requirements of the General Permit and implemented on or before February 28, 2022. The updated IDDE Plan will describe the City's strategy for prohibiting illicit discharges, mechanisms for enforcement, complaint intake and response, spill response, detection and elimination of transient and chronic discharges, agency referrals, dry-weather screening, and staff training. In addition, the IDDE Plan will incorporate strategies that the City employs to comply with the illicit discharge requirements outlined in the TMDL Implementation Plan and the WPCF permit.

Staff will employ a variety of recordkeeping methods such as spreadsheets, documents, databases and GIS applications to track and document implementation of the IDDE Program. Staff will assess progress using the measurable objectives listed for each BMP.

Measurable Objectives

1. Continue to implement the existing IDDE Program while working to develop and implement the requirements of Schedule A.3.c.
2. Develop and implement a comprehensive plan that integrates all of the City's IDDE activities on or before February 28, 2022
3. Review the IDDE Plan annually and update as needed
4. Track implementation and assess progress of the IDDE Program annually using the measurable objectives defined for each BMP

Implementation Timeline

Year 1	– Continue to implement the existing IDDE Program
Year 2	– Develop a comprehensive IDDE Plan and tracking mechanism
Years 3-5	– Implement the IDDE Plan on or before February 28,2022
Annual	– Review the IDDE Plan and update as needed
Annual	– Track implementation and assess progress

ID-2 Maintain a Map and Digital Inventory of the MS4

Goals

- Maintain a current map of the MS4 that includes the location of outfalls, conveyance system, stormwater control locations, and chronic illicit discharges.
- Maintain an inventory of all known outfalls owned or operated by the City that includes a unique identifier, any geographic information necessary to locate these outfalls in the field, and the name(s) of the receiving water(s).
- Maintain an inventory of the MS4 collection system and all known structural stormwater controls that includes a unique identifier and any geographic information necessary to locate these features in the field.
- Delineate the MS4 by drainage basin, as appropriate, and identify the location and characteristics of any ongoing dry weather flows.
- Submit the MS4 map with the third Annual Report (Nov 2022).

Strategy

The Environmental & Technical Division develops, manages and operates the geographic information system (GIS) for the Public Works Department. Under the previous permit, staff developed maps and spatial inventories of stormwater assets within the MS4. The City will continue to maintain a current map of the MS4 and update the stormwater asset registry while working to meet additional requirements in Schedule A.3.c.ii.

Public Works added a full-time GIS Technician position in September 2019. The GIS Technician reports to the Environmental & Technical Division Manager and works closely with the Stormwater Division to maintain the stormwater asset registry through regularly scheduled updates. The map of the MS4 collection system includes pipes, open channels/ditches, detention basins, vegetated stormwater facilities, manholes, catch-basins, and outfalls. As required, each stormwater asset in the geodatabase includes a unique identifier and the necessary geographic information to locate

them in the field. The MS4 is delineated by drainage basin and will continue to be updated as new infrastructure is added and/or removed.

The City also maintains a spatial record of transient and chronic illicit discharges. Through past investigations and efforts, Keizer has successfully eliminated all known sources of chronic illicit discharges.

Keizer uses ArcGIS software from Environmental Systems Research Institute (ESRI) which supports shapefiles, feature classes, coverages, tables, databases and personal/file geodatabases.

Mapping and Data Standards:

Horizontal datum: NAD 83 HARN
 Project system: Lambert_Conformal_Conic
 Coordinate system: NAD_1983_HARN_StatePlane_Oregon_North_FIPS_3601_Feet_Intl
 Coordinate units: U.S. Survey Feet
 Accuracy standard: +/- 10 feet
 Vector import format: Arc Export E00 file, Shape file, File Geodatabase, Personal Geodatabase
 Raster import format: TIFF, BIL/BIP/BSQ, ESRI Grid, ERDAS Imagine
 Metadata: Federal Geographic Data Committee (FGDC), Metadata Content Standards
 Point data collection method: latitude-longitude degrees, minutes, seconds.

The City will provide the required MS4 maps with the third Annual Report. Otherwise, all pertinent maps and digital inventories will be made available to DEQ upon request.

Measurable Objectives

1. Maintain a current map of the MS4 each year that accurately represents the locations of outfalls, conveyances, stormwater controls, and chronic discharges
2. Update the outfall inventory annually (or as needed) to ensure accurate representation of all known outfall locations and their attributes
3. Update the stormwater asset registry annually (or as needed) to ensure accurate representation of all known conveyances and controls
4. Maintain the stormwater asset registry to support routine inspections, operations and maintenance of the stormwater system
5. Submit the MS4 Map to DEQ with the third Annual Report

Implementation Timeline

Years 1-5	– Continue to maintain the existing stormwater geodatabase through routine updates
Year 3	– Submit the MS4 Map to DEQ with the Annual Report (Nov 2022)
Annual	– Update the stormwater registry to represent current stormwater system asset locations and attributes

ID-3 Prohibit Illicit Discharges by Ordinance

Goals

- Prohibit non-stormwater discharges into the MS4 through enforcement of an ordinance to the extent allowable under state law on or before February 28, 2022.

- Define the range of illicit discharges it covers (see Schedule A.3.c.iii).

Strategy

The City Council adopted the Stormwater Discharge Control Ordinance #2009-585 by resolution in March 2009. The purpose and intent of this ordinance is *“...to protect and enhance the quality of waterways in a manner pursuant to and consistent with the Federal Clean Water Act, Oregon Revised Statutes, Oregon Administrative Rules, and the Oregon Department of Environmental Quality by reducing pollutants in stormwater discharges and by prohibiting non-stormwater discharges to the storm drain system.”*

Staff will evaluate the existing ordinance and make updates as needed to include allowable and non-allowable discharges defined in the General Permit on or before February 28, 2022.

Measurable Objectives

1. Evaluate the terms and conditions established in the Stormwater Discharge Control ordinance against the new requirements
2. Update the Stormwater Discharge Control ordinance as needed to include new definitions of allowable and non-allowable discharges
3. Provide training to program staff, city employees and the public as necessary to effectively enforce the terms of the ordinance

Implementation Timeline

Year 1	– Continue to prohibit illicit discharges through enforcement of the Stormwater Discharge Control ordinance
Year 2	– Evaluate the terms and conditions of the Stormwater Discharge Control ordinance – Revise the Stormwater Discharge Control ordinance to comply with the General Permit
Years 3-5	– Enforce the updated Stormwater Discharge Control ordinance

ID-4 Maintain Enforcement Procedures

Goal

- Implement and maintain a written escalating enforcement and response procedure that addresses repeat violations through progressively stricter responses as needed, to achieve compliance on or before February 28, 2022.

Strategy

The City will continue to implement its existing Illicit Discharge Enforcement Response Plan while developing new enforcement procedures to meet the requirements in Schedule A.3.c.iv. The existing Illicit Discharge Enforcement Response Plan (ERP) defines the types of non-compliance and establishes corrective action protocols for both illicit discharges and illicit connections with set timelines for achieving compliance. Factors for determining enforcement response include the amount and type of pollutant discharged. Staff will update the Illicit Discharge ERP to address

intent (whether the discharge was intentional or accidental) and to define progressively stricter responses for repeat violations.

In addition, staff will evaluate the Civil Infraction Ordinance (which is the primary means of enforcement) to ensure compatibility with escalating enforcement protocols. Enforcement updates will be made as necessary.

The Enforcement Response Plan will be submitted with the third Annual Report.

Measurable Objectives

1. Revise the existing Enforcement Response Plan to reflect escalating enforcement requirements
2. Evaluate the Civil Infraction ordinance to ensure compatibility with the Enforcement Response Plan

Implementation Timeline

Year 1	– Continue to implement the existing IDDE Enforcement Response Plan
Year 2	– Revise the IDDE Enforcement Response Plan – Evaluate the Civil Infraction ordinance
Year 3	– Submit the Enforcement Response Plan with the third Annual Report
Years 3-5	– Implement the updated Enforcement Response Plan on or before February 28, 2022
Annual	– Track illicit discharge enforcement actions

ID-5 Conduct Dry Weather Inspections of Outfalls

Goals

- Conduct dry weather inspections of at least 40% of MS4 outfalls on or before February 28, 2022 and an additional 20% of MS4 outfalls each year thereafter.
- Identify and document priority outfall locations and inspect them annually.

Strategy

The City will continue to implement its existing Dry-Weather Outfall Inspection Program while developing new activities to meet the requirements of Schedule A.3.c.vi. Through previous compliance efforts, all public outfalls have been inspected. Staff will therefore focus on identifying priority outfalls. At a minimum, the City will inspect 20% of MS4 outfalls each year, including all of the identified priority locations.

When possible, inspections will take place at an accessible location downstream of any source of suspected illegal or illicit activity. Priority locations will be identified through an analysis based on an equitable consideration of hydrological conditions, total drainage area of the location, population density of the location, traffic density, age of the structures or buildings in the area, history of the area, land use types, personnel safety, accessibility, historical complaints or other appropriate factors.

All dry-weather inspection activities will occur after an antecedent dry period of at least 72-hours and will document the following: general observations, inspection results and analysis, pollutant parameter action levels, and laboratory analysis (as described in Schedule A.3.c.vi.(D-G)).

Measurable Objectives

1. Continue to implement the existing Dry-Weather Outfall Inspection Program
2. Establish Field Inspection, Pollutant Parameter Action Levels and Analysis protocols
3. Identify and document priority outfall locations using the criteria outlined in Schedule A.3.c.vi.(C).
4. Update the field collection methods to document the general observations, inspection results, pollutant parameter action levels, and laboratory analyses.
5. Inspect at least 40% of the MS4 outfalls on or before February 28, 2022.
6. Inspect 20% of MS4 outfalls each year of the permit term including all priority outfalls
7. Track and document all program results for annual reporting

Implementation Timeline

Year 1	– Continue to implement the existing Dry-Weather Outfall Inspection Program
Year 2	– Establish field inspection, pollutant parameter action levels and analysis protocols; and update the field collection methods
Year 3	– Inspect at least 40% of the MS4 outfalls on or before February 28, 2022 – Submit pollutant parameter action Levels with the Annual Report
Years 3-5	– Implement the updated Dry-Weather Inspection Program, inspect at least 20% of MS4 outfalls (including priority outfalls).
Annual	– Track and report dry-weather outfall screening results

ID-6 Provide IDDE Training to Program Staff

Goals

- Provide training to all program staff at least once during the permit term.
- Ensure that all staff responsible for investigating and eliminating illicit discharges and illicit connections into the MS4 are appropriately trained to conduct such activities.
- Provide orientation and training to all new staff working to implement the IDDE program within 30 days of their assignment to this program.
- Provide follow-up training as procedures or technology utilized in this program change.

Strategy

Through previous compliance efforts, Environmental Division staff provided annual training to program staff on detection and elimination of illicit discharges. The City will continue to provide annual training while developing new training materials to meet the new requirements in Schedule A.3.C.vii.

On or before February 28, 2022, Environmental staff will update the existing training program and implement it to ensure that all persons responsible for investigating and eliminating illicit discharges and illicit connections are appropriately trained. The training program will target all staff directly responsible for conducting dry weather screening activities or responding to reports

of illicit discharges and spills. All Public Works staff will receive training at least once during the permit term with additional follow-up training provided as procedures or technology change. In addition, Environmental staff will create and implement a training module for all new staff working to implement the IDDE program within 30 days of their assignment to this program.

Illicit discharge trainings will be documented with sign-in sheets or other methods as appropriate. Results will be summarized in annual reports.

Measurable Objectives

1. Continue to provide illicit discharge detection and elimination training to program staff during the first two years of the permit term.
2. Update or develop new training materials to reflect current illicit discharge detection and elimination strategies
3. Provide training to all Public Works staff at least once during the permit term or as procedures or technology change
4. Provide training to new staff within 30 days of their assignment to the program

Implementation Timeline

Years 1-2	– Continue to provide illicit discharge detection and elimination training to program staff
Year 2	– Update/develop training materials
Years 3-5	– Implement updated training to all program staff (on or before February 28, 2022)
Annual	– Track and report all training provided and/or received by program staff

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MCM 4: Construction Site Runoff Control

The Erosion and Sediment Control Program is managed and implemented by Environmental Division staff. The program is primarily implemented by Environmental Division staff, with close coordination from the Public Works Project Manager and the City Engineer. All Public Works activities are approved and overseen by the Public Works Director.

The City of Keizer has selected eight Best Management Practices (BMPs) to comply with the requirements specified in the Construction Site Runoff Control minimum control measure in Schedule A.3.d of the General Permit. The BMPs are shown in **Table 4**. The goals, strategies, measurable objectives, and implementation timelines for each BMP are described below.

TABLE 4. CONSTRUCTION SITE RUNOFF CONTROL BMPs

ID	Best Practices
EC-1	Implement an Erosion and Sediment Control Program
EC-2	Prohibit Construction Site Runoff by Ordinance
EC-3	Require NPDES Construction Permits for Large-Scale Projects
EC-4	Develop Written Erosion Control Standards
EC-5	Review Erosion and Sediment Control Plans
EC-6	Inspect Construction Sites for Compliance
EC-7	Maintain Enforcement Procedures
EC-8	Provide Training to Program Staff

EC-1 Implement an Erosion and Sediment Control Program

Goals

- Implement and enforce an Erosion and Sediment Control Program to reduce discharges of pollutants from construction sites on or before February 28, 2023.
- Track implementation and assess progress of the Erosion and Sediment Control Program for annual reporting.

Strategy

The City's Erosion and Sediment Control (ESC) Program has been in place since 2011. The ESC Program requirements apply to all public and private development and construction projects in the City of Keizer. The City will continue to implement the ESC Program while working to develop and implement the requirements of Schedule A.3.d.

The ESC Program is implemented by Environmental Division staff who are responsible for the intake and review of erosion and sediment control plans, making permit referrals to external agencies, issuing erosion control permits, performing inspections, enforcing compliance, providing technical assistance and customer service to contractors, and performing all program tracking and documentation duties.

Instructional guidance documents have been developed to assist construction professionals with navigating the permit, plan review, and inspection process. Staff will combine these documents to develop a comprehensive ESC Manual that will better serve the development community. Through

this process, staff will update program materials such as permit applications, templates, plan review checklists, inspection procedures, guidance documents, etc., as necessary to comply with the terms of the General Permit. Updates to the ESC Program will be made and implemented on or before February 28, 2023.

Staff will employ a variety of recordkeeping methods such as spreadsheets, documents, databases and GIS applications to track and document implementation of the ESC Program. Staff will assess progress using the measurable objectives listed for each BMP.

Measurable Objectives

1. Continue to implement the existing ESC Program while working to develop and implement the requirements of Schedule A.3.d.
2. Develop and implement a comprehensive ESC Manual that integrates all of the City’s erosion prevention and sediment control activities on or before February 28, 2023
3. Review the ESC Manual annually and update as needed
4. Track implementation and assess progress of the Erosion and Sediment Control Program annually using the measurable objectives defined for each BMP

Implementation Timeline

The new elements of the ESC Program will be fully implemented on or before February 28, 2023 and continue throughout the permit term.

Years 1-3	– Continue to implement the existing ESC Program
Year 3	– Develop a comprehensive ESC Manual
Years 4-5	– Implement the ESC Manual on or before February 28,2023
Annual	– Review the ESC Manual and update as needed – Track implementation and assess progress

EC-2 Prohibit Construction Site Runoff by Ordinance

Goals

- Require erosion controls, sediment controls, and waste materials management controls to be used and maintained at all qualifying construction projects from initial clearing through final stabilization to reduce pollutants in stormwater discharges to the MS4 from construction sites.
- Require construction site operators to complete and implement an Erosion and Sediment Control Plan (ESCP) for construction project sites that results in a minimum land disturbance of 7,000 square feet or more and use appropriate enforcement procedures and actions to ensure compliance with Schedule A.3.d.ii-vi.

Strategy

The City Council adopted an Erosion Control Ordinance (#2011-635) in 2011 and revised it in December 2014 to establish disturbance thresholds and permit requirements. The purpose and intent of the Erosion Control Ordinance (#2014-711) is *“to minimize the amount of sediment and other pollutants reaching the stormwater system as a result of construction, grading, excavating, clearing and any other activity which may cause or accelerate erosion and to minimize the disturbance of existing vegetation in order to maximize infiltration of runoff”*.

The ordinance requires construction site operators to use erosion controls, sediment controls and waste materials management controls on all permitted sites; all controls must be properly maintained from initial clearing through final stabilization. In Keizer, the ESCP is known as a Construction Site Pollution Prevention Plan, or CSPPP. The ordinance stipulates the following thresholds for which a CSPPP is required:

Disturbance Threshold (sq.ft.)	Plan Required	Fee***
200 – 1,999 Waterway Adjacent*	Small Project Plan (CSPPP-B)	None
2,000 – 9,999	Small Project Plan (CSPPP-B)	\$100
10,000-19,999	Large Project Plan (CSPPP)	\$200
20,000-43,559	Large Project Plan (CSPPP)	\$500
43,560 (1 acre) +	Large Project Plan (CSPPP)	\$1000
Re-Inspection Fee**	N/A	\$75

* Waterway Adjacent means the disturbance takes place within 50 feet of any waterway. See ordinance language for details. No fee is assessed on projects until the 2000 sq.ft. threshold is reached.

** If additional inspections are required due to improper or inadequate implementation of the plan, re-inspection fees will be assessed.

*** All permits are subject to an annual renewal requirement.

Projects that do not meet the established thresholds must still comply with the Erosion Control Ordinance.

Keizer will evaluate the ordinance against the requirements listed in Schedule A.3.d and make updates as necessary on or before February 28, 2023.

Measurable Objectives

1. Continue to prohibit construction site runoff through the existing ordinance
2. Evaluate the ordinance for compliance with new requirements and make any necessary updates with support from legal counsel
3. Implement enforcement of the ordinance on or before February 28, 2023

Implementation Timeline

Years 1-2	– Continue to prohibit construction site runoff through the existing ordinance
Year 3	– Evaluate the ordinance and make any necessary updates
Years 4-5	– Implement enforcement of the ordinance on or before February 28,2023

EC-3 Require NPDES Construction Permits for Large-Scale Projects

Goals

- Refer project sites to DEQ, or the appropriate DEQ agent, to obtain NPDES Construction Stormwater Permit coverage for construction projects that disturb one or more acres (or that disturb less than one acre, if it is part of a “common plan of development or sale” disturbing one or more acres)

Alternative

- Maintain 1200-CN Qualified Local Program status through DEQ to issue construction permits for projects that disturb up to five acres.
- Refer project sites to DEQ, or the appropriate DEQ agent, to obtain NPDES Construction Stormwater Permit coverage for construction projects that disturb five or more acres (or that disturb less than five acres, if it is part of a “common plan of development or sale” disturbing five or more acres)

Strategy

In 2018, the City became a permitted 1200-CN “Qualified Local Program” through DEQ, granting the authority to issue construction permits for projects that disturb up to five acres (or that disturb less than five acres, if it is part of a “common plan of development or sale” disturbing one or more acres). The City’s 1200-CN permit is set to expire December 14, 2020 however, the City plans to apply for renewal in order to maintain its status as a Qualified Local Program.

If successful, the City will continue to issue erosion control permits for projects up to five acres. For construction projects that disturb five or more acres (or that disturb less than five acres as part of a common plan of development greater than five acres), customers will be referred to the appropriate permitting agent, to obtain additional NPDES Construction Stormwater Permit coverage. Proof of said coverage will be required prior to issuance of an erosion control permit by the City.

If unsuccessful, Keizer will issue erosion control permits for projects up to one acre and refer customers with larger projects to the appropriate permitting agent, to obtain additional NPDES Construction Stormwater Permit coverage. Proof of said coverage will be required prior to issuance of an erosion control permit by the City.

Measurable Objectives

1. Continue to implement the 1200-CN Qualified Local Program requirements and refer projects for appropriate coverage
2. Apply for and obtain coverage under the 1200-CN permit before December 14, 2020.
3. Track and document referrals and proof of NPDES Construction Stormwater Permit coverage for qualifying sites

Implementation Timeline

Years 1-2	– Continue to implement the existing 1200-CN Qualified Local Program
Year 2	– Apply for and obtain 1200-CN permit coverage
Years 3-5	– Implement the 1200-CN permit per DEQ requirements
Annual	– Document referrals and proof of NDPEs Construction Stormwater Permits

EC-4 Develop Written Erosion Control Standards

Goal

- Maintain written specifications that address the proper installation and maintenance of erosion and sediment controls during all phases of construction activity and provide an ESCP template, worksheet or similar document to construction site operators in order to

demonstrate how erosion, sediment, and waste material management controls should be implemented at the construction project site.

Strategy

The City’s Erosion Control Ordinance (#2014-711) gives the Public Work’s Director the authority to adopt written standards and specifications. For BMP selection, design and installation, the Director has approved the use of the Erosion and Sediment Control—Planning and Design Manual that was developed by Clean Water Services.

Public Works staff are in the process of developing Keizer-specific standards for erosion and sediment control BMPs that will include appropriate sizing criteria, performance criteria, design specifications, and guidance on selection and placement of controls, and specifications for long term operation and maintenance, including planned inspection intervals and self-inspection checklists for use by the construction site operator. Once the standards and written specifications have been adopted by the Director, program staff will publish them to the City’s website and conduct outreach to construction professionals.

The City’s ESC Program currently requires construction site operators to submit site-specific ESCPs for qualifying permitted sites; it requires contractors to obtain permits prior to any land disturbance; it requires ESCPs to be maintained and updated as conditions change; and, it requires ESCPs to be kept on-site and available for review. While Keizer provides contractors with an ESCP checklist for plan submissions, staff will create an ESCP template to fully meet the requirements in Schedule A.3.d.iv.

Measurable Objectives

1. Continue to implement the existing, referenced written specifications for ESCPs
2. Develop and adopt Keizer-specific erosion and sediment control standards and written specifications
3. Create and implement an ESCP template to accompany the current plan/permit checklist for contractors
4. Implement and enforce the written standards and specifications before February 28, 2023

Implementation Timeline

Year 1	– Continue to implement the existing, referenced written specifications
Year 2	– Develop and adopt erosion and sediment control standards for Keizer
Year 3	– Create and implement an ESCP template for construction site operators
Years 4-5	– Implement the new standards/specifications on or before February 28, 2023

EC-5 Review Erosion and Sediment Control Plans

Goal

- Review Erosion and Sediment Control Plans (ESCPs) from construction projects that will result in land disturbance of one or more acres (or that disturb less than one acre, if it is part of a common plan of development or sale disturbing one or more acres) using a checklist or similar

document to determine compliance with the ordinance or other regulatory mechanism required.

Strategy

The City will continue to review ESCPs from construction projects that result in land disturbance of 2,000 square feet or more using a checklist to determine compliance with the Erosion Control Ordinance. The existing checklist includes a review of the potential impacts construction activities may have on local waterways and drainages. Staff will continue to abide by state and local public notice requirements for qualifying sites.

Environmental and Technical Division staff will also evaluate the existing plan submission and review process and make adjustments where necessary to meet the General Permit requirements. All updates will be made and implemented on or before February 28, 2023. Updated guidance materials will be posted on the City's website.

Measurable Objectives

1. Continue to review ESCPs for qualifying permitted sites
2. Evaluate the ESCP submission and review process for compliance with the General Permit
3. Update program guidance materials and applicable documents and publish them to the City's website
4. Implement the revised ESCP review process on or before February 28, 2023
5. Track and document plan reviews annually using a checklist

Implementation Timeline

Year 1	– Continue to review ESCPs for qualifying permitted sites
Year 2	– Evaluate the plan submission and review process for compliance
Year 3	– Update program guidance materials/documents and post on the City's website
Years 4-5	– Implement the revised ESCP review process on or before February 28, 2023
Annual	– Track and document plan reviews using a checklist

EC-6 Inspect Construction Sites for Compliance

Goals

- Inspect all construction sites that will result in land disturbance of one or more acres at least once during the permit term, or if sediment is visible in stormwater discharge from the site, or if a complaint is received.
- Inspect at least 25% of qualifying permitted construction sites that will result in land disturbance less than one acre at least once during the permit term.
- Maintain a written/electronic inspection report that includes all documentation necessary for follow up actions to ensure compliance with the applicable requirements.

Strategy

The City has developed a standard operating procedure for construction site inspections that ensures compliance with the Erosion Control Ordinance from initial site preparation through final stabilization. Initial inspections ensure that all planned erosion control measures are in place and

properly installed prior to site disturbance. Routine project inspections ensure that erosion controls are functioning properly and maintained to provide adequate protection against site runoff. Final inspections ensure that all exposed soil is permanently stabilized and that temporary controls have been removed.

Public Works staff currently inspects all permitted construction sites (public and private) on a routine basis. Additional inspections are performed when a complaint is received and/or when a potential violation has occurred (e.g., if sediment is visible in stormwater discharge or dewatering activities). Additional inspections are also performed prior to or during significant storm events.

All inspections are tracked using a GIS-compatible, mobile application and are fully documented in compliance with the terms in Schedule A.4.d.vi (B). The tracking method allows for statistical analyses of the types of violations and education/instruction provided to construction site operators. This information will be reviewed annually and used to inform future education and outreach to construction professionals.

Keizer will continue to implement the existing inspection procedures, which are compliant with the requirements in Schedule A.4.d.vi.

Measurable Objectives

1. Continue to perform initial, routine and final inspections per existing standard operating procedures
2. Track and document inspections per requirements in Schedule A.4.d.vi (B).
3. Analyze the inspection data annually to determine education and outreach needs

Implementation Timeline

The existing inspection procedures meet the requirements of the General Permit and have therefore been successfully implemented before February 28, 2023.

Years 1-5	– Continue to perform inspections per existing standard operating procedures
Annual	– Analyze inspection data to determine and inform future education and outreach needs

EC-7 Maintain Enforcement Procedures

Goals

- Maintain written escalating enforcement and response procedures for all qualifying construction sites that addresses repeat violations through progressively stricter response, as needed to achieve compliance.
- Submit escalating enforcement procedures to DEQ with the third Annual Report.

Strategy

The City has developed and implemented an Enforcement Response Plan (ERP) specific to the ESC Program. The ESC ERP identifies the types of non-compliance and provides explicit guidance to staff for consistently implementing escalating enforcement protocols to gain compliance with the City’s Erosion Control Ordinance and other regulatory requirements. The City will continue to

implement the existing ERP while developing new criteria for evaluating appropriate enforcement as required in Schedule A.3.d.vii.

The existing corrective action protocols address the amount and type of pollutant discharged and provide timelines for gaining compliance. Staff will revise the existing ERP to include enforcement actions that distinguish between intentional or accidental discharges. The revised ERP will be submitted with the third Annual Report.

Measurable Objectives

1. Continue to implement the existing ERP while developing new criteria to comply with the terms in Schedule A.3.d.vii.
2. Revise the ERP and implement on or before February 28, 2023
3. Submit the revised ERP with the third Annual Report
4. Document enforcements and the associated corrective actions taken by the City during the reporting period.

Implementation Timeline

Years 1-2	– Continue to implement the existing ERP
Years 3-5	– Revise the ERP and implement on or before February 28, 2023 – Submit the revised ERP with the third Annual Report
Annual	– Document enforcements and corrective actions

EC-8 Provide Training to Program Staff

Goals

- Ensure that all staff responsible for ESCP reviews, site inspections, and enforcement of the permit registrant’s requirements are trained or otherwise qualified to conduct such activities.
- Provide orientation and training to all new staff working to implement the ESC Program within 30 days of their assignment to this program.
- All staff must receive training at least once during the permit term. The permit registrant must provide follow-up training as procedures and/or technology utilized in this program change.

Strategy

The ESC Program is primarily implemented by Environmental and Technical Division staff. Environmental Program Technicians are required to obtain Certified Erosion Control Lead (CESCL) certification within 90 days of hire. Environmental Program Technicians receive program-specific training from the Senior Environmental Program Technician and Division Manager as part of their onboarding. Three additional employees in Public Works maintain CESCL certification to inspect capital improvement projects and projects in the public right-of-way, including the Project Manager, the Public Works Customer Service Technician and two Stormwater Division employees. CESCL certification must be renewed every three years.

Program staff also attend the annual Mid-Willamette Erosion Control & Stormwater Management Summit to stay current on regulatory requirements and erosion control techniques (See PE-4 for information on this event).

Measurable Objectives

1. Continue to provide training to program staff during the first year of the permit term.
2. Update or develop new training materials to reflect current erosion and sediment control requirements and methods
3. Provide training to all program staff at least once during the permit term or as procedures or technology change
4. Provide training to new staff within 30 days of their assignment to the program

Implementation Timeline

Years 1-2	– Continue to provide erosion and sediment control training to program staff
Year 3	– Update/develop training materials
Years 4-5	– Implement updated training to all program staff on or before February 28, 2023
Annual	– Track all training provided and/or received by program staff

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MCM 5: Post-Construction Site Runoff for New and Redevelopment

The Post-Construction Stormwater Management (PCSM) Program is developed and implemented by Public Works staff with coordination between the Environmental Division, the Project Manager and the City Engineer. All Public Works activities are approved and overseen by the Public Works Director.

The City of Keizer has developed seven Best Management Practices (BMPs) to comply with the requirements specified in the Post-Construction Site Runoff minimum control measure in Schedule A.3.d of the General Permit. The BMPs are shown in **Table 5**. The goals, strategies, performance measures, and implementation timelines for each BMP are described below.

TABLE 5. POST-CONSTRUCTION SITE RUNOFF BMPs

ID	Best Practices
PC-1	Implement and Enforce a Post-Construction Stormwater Management (PCSM) Program
PC-2	Maintain Legal Authority to Control Post-Construction Runoff
PC-3	Prioritize Low Impact Development
PC-4	Update Stormwater Design Standards
PC-5	Review Plans for Compliance with Stormwater Design Standards
PC-6	Implement a Long-Term PCSM Operations & Maintenance Program
PC-7	Provide PCSM Training to Program Staff

PC-1 Implement and Enforce a Post Construction Stormwater Management Program

Goals

- Reduce discharges of pollutants and control stormwater runoff from new development and redevelopment project sites within the City.
- Track implementation and assess progress of the Post-Construction Stormwater Management Program for annual reporting.

Strategy

The City will continue to implement the existing PCSM Program while working to develop, implement, and enforce the requirements of Schedule A.3.e. The City currently implements post-construction requirements through referenced design standards enforced on the authority of the Public Works Director.

The new requirements of the PCSM Program will be met through the development and implementation of stormwater design standards and the creation of a comprehensive Stormwater Design Manual (SDM). In anticipation of the General Permit, Environmental program staff made considerable progress in developing a manual. Environmental program staff will continue this effort in collaboration with the City Engineer, the Project Manager, and Stormwater Division staff, with oversight from the Public Works Director. For details on the stormwater design standards refer to PC-2 below.

The SDM will provide a strategic path for staff to implement the PCSM Program and serve as a detailed guidance document for the development community to assist with designing stormwater management systems to meet stormwater regulations, understanding the City’s stormwater requirements and approval processes, and preparing submissions to Public Works. The SDM will also reference applicable development codes and design standards and provide guidance on topics relating to proper construction and maintenance of stormwater facilities and controls including green stormwater infrastructure and UICs. The SDM will be reviewed annually and updated as necessary to effectively manage stormwater runoff from new and redevelopment projects in Keizer.

Keizer will employ a variety of recordkeeping methods such as forms, checklists, permit documents, spreadsheets, databases and GIS applications to track implementation of the PCSM Program. Staff will assess progress using the performance measures listed for each of the eight BMPs.

Measurable Objectives

1. Continue to implement the existing PCSM program while working to meet new permit requirements
2. Develop a comprehensive SDM that integrates all of the City’s post-construction stormwater management guidance/tools on or before February 28, 2023
3. Review the SDM annually and update as needed
4. Track implementation and assess progress of the PCSM Program annually using the measurable objectives defined for each BMP

Implementation Timeline

Years 1-3	– Continue to implement the existing program
Years 2-3	– Develop a comprehensive SDM
Years 4-5	– Implement the SDM on or before February 28, 2023
Annual	– Review the SDM and update as needed – Track implementation and assess progress

PC-2 Maintain Legal Authority to Control Post-Construction Runoff

Goals

- Require and enforce the use of stormwater controls at project sites discharging stormwater to the MS4 that create or replace 5,000 square feet of impervious surface area.
- Require and enforce a site-specific approach that targets natural surface or pre-development hydrological function through the installation and long-term operation and maintenance of stormwater controls.
- Require and enforce long-term operation and maintenance of stormwater controls at project sites that are under the ownership of a private entity.

Strategy

On the authority of the Public Works Director, Keizer will continue to require and enforce the use of stormwater controls on all qualifying sites per reference to alternative design standards. To

meet the new requirements in Schedule A.3.e., Keizer will adopt and implement Keizer-specific stormwater design standards (SDS) to be enforced on the authority of the Public Works Director (refer to PC-4 for details). In addition, staff will evaluate the need to adopt a new ordinance to fully enforce the requirements of Schedule A.3.e. If applicable, the City will adopt and implement the new ordinance on or before February 28, 2023.

The long-term operation and maintenance of stormwater controls at project sites that are under the ownership of a private entity are currently enforced through a contractual Private Maintenance Agreement (see PC-6) with property owners that is recorded through Marion County property records. Staff will continue to rely on contracts as a means of enforcing proper function of private stormwater controls, or may consider alternative methods as appropriate.

Measurable Objectives

1. Continue to implement the existing SDS while developing new standards to meet the requirements under Schedule A.3.e.
2. Evaluate the need for additional enforcement mechanism (ordinance) to fully enforce PCSM Program compliance
3. Revise the City’s SDS to incorporate criteria per General Permit (and WPCF) requirements
4. Implement the new SDS (and/or ordinance) on or before February 28, 2023

Implementation Timeline

Years 1-3	– Continue to implement the existing PC stormwater design standards
Years 2-3	– Evaluate enforcement strategy (ordinance) and take steps to implement – Develop/revise stormwater design standards to meet regulatory requirements
Years 4-5	– Adopt and implement the SDS (and/or ordinance) on or before February 28,2023
Annual	– Track implementation and assess progress

PC-3 Prioritize Low Impact Development

Goals

- Review ordinance, code and development standards for barriers to low-impact development on or before February 28, 2023.
- Identify barriers to low impact development in ordinances, codes and development standards then minimize or eliminate barriers that inhibit design and implementation techniques intended to minimize impervious surfaces and reduce stormwater runoff (Low Impact Development and Green Stormwater Infrastructure).
- Modify applicable ordinance, code or development standard within three years.

Strategy

Environmental program staff began a cursory review of ordinances, codes, and development standards prior to the issuance of the General Permit. To continue that effort, Environmental program staff will assemble an interdisciplinary Low Impact Development (LID) Review Team consisting of engineers, planners, the Project Manager, Environmental staff and legal counsel. The goals of the LID Review Team will be to 1) review LID practices used by other municipalities and agencies, 2) create an adequate definition of LID that can be used to assess existing practices, 3)

evaluate potential for LID practices, and 4) create a LID Priority Action Plan for removing barriers through regulation and/or incentive-based programs.

Measurable Objectives

1. Complete a cursory review of ordinances, codes, and standards
2. Assemble a project team to review ordinances, codes, and development standards for barriers to low-impact development
3. Develop a Priority Action Plan to remove barriers to LID on or before February 28, 2023
4. Implement the LID Priority Action Plan to remove barriers within three years

Implementation Timeline

Year 1	– Perform a cursory review of ordinances, codes, and standards
Years 2-3	– Create a project team to conduct a comprehensive review of LID barriers – Develop an LID barrier action plan
Years 4-5	– Implement the action plan on or before February 28,2023
Annual	– Track implementation and assess progress

PC-4 Update Stormwater Design Standards

Goal

- Develop enforceable post-construction stormwater management requirements that include a site performance standard, a treatment standard, stormwater-control design specifications, an allowance for alternative compliance, and stormwater mitigation options.

Strategy

The City’s existing PCSM Program is primarily implemented through alternative referenced design standards that are enforced on the authority of the Public Works Director. The referenced design standards pertinent to post-construction runoff control include King County’s Surface Water Design Manual and Appendix B: Water Quality & Quantity Facility Design from Clean Water Services. Keizer will continue to implement the referenced standards while developing new, Keizer-specific stormwater design standards (SDS) to meet the requirements in Schedule A.3.e.iv.

The existing SDS require a site-specific approach to stormwater management that targets natural surface or predevelopment hydrological function. As part of the SDS updating process, the City will add design standards to establish a threshold on projects that create or replace at least 5,000 square feet or more of new impervious surface area. Staff will also work with the City Engineer to update the SDS in order to incorporate the specific site performance and treatment standards, stormwater control design specifications, alternative compliance methodology, and options for stormwater mitigation.

The City will adopt a site performance standard with a numeric stormwater retention requirement to target natural surface or predevelopment hydrologic function to retain rainfall on-site and minimize the offsite discharge of precipitation utilizing stormwater controls that infiltrate and evapotranspire stormwater using a storm-event percentile-based method. For projects that cannot comply with the retention requirement due to technical infeasibility, the City will allow for alternative compliance.

For projects that are unable to fully meet the retention requirement, the City will require treatment of any excess runoff prior to discharge using a structural stormwater control that is designed to remove, at minimum, 80 percent of the total suspended solids. The City’s standards will prioritize the use of green infrastructure before considering other structural stormwater controls.

The City will also provide a description of all allowable structural stormwater controls including site-specific design requirements, design requirements that do not inhibit maintenance, conditions where each control applies, and operation and maintenance standards for each control. The City Engineer will be responsible for identifying conditions where the implementation of green infrastructure or equivalent approaches may be impracticable during the plan review process.

For project sites requesting alternative compliance, the City will require and subsequently review the written technical justification as to evaluate the technical infeasibility or site constraints, which prevent the onsite management of the runoff amount stipulated in the stormwater retention requirement or a portion thereof.

Prior to implementation of the PCSM Program, the City will establish stormwater mitigation options for alternative compliance, including institutional standards and management systems to value, estimate, and account for how these mitigation projects retain the unmet volume of the stormwater specified in this retention requirement. Staff will ensure that mitigation projects occur within the same sub-watershed as the site undergoing development. Stormwater mitigation options will include offsite mitigation, groundwater replenishment project, and/or treatment standard equivalency.

Keizer will employ plan review checklists, permit documents, and/or spreadsheets to track implementation of the SDS.

Measurable Objectives

1. Continue to implement the existing design standards while developing new standards to meet the General Permit requirements
2. Develop new SDS to comply with the criteria listed in Schedule A.3.e.iv.
3. Adopt and implement new SDS on or before February 28, 2023

Implementation Timeline

Years 1-3	– Continue to implement the existing standards
Years 2-3	– Develop new SDS
Years 4-5	– Adopt and implement the new SDS on or before February 28,2023
Annual	– Track implementation and assess progress

PC-5 Review Plans for Compliance with Stormwater Design Standards

Goals

- Develop and implement procedures for review and approval of structural stormwater control plans for new development and redevelopment projects.

- Review and approve plans for structural stormwater control at new development and redevelopment sites and sites that use alternative compliance to meet the retention requirement in Schedule 3.A.e.v.(A).

Strategy

The City currently reviews construction plans for all permitted development within its jurisdiction. Plan reviews, performed by the Project Manager and the City Engineer, include assessment and approval of structural stormwater controls for all new development and redevelopment sites that result from a land disturbance of 2,000 square feet. Staff will develop a review process for evaluating compliance with the retention and treatment standards as well as an approval process for sites that use alternative compliance to meet the retention requirement. All plans will be reviewed for compliance with PCSM Program requirements (which are consistent with the specifications required by Schedule A.3.e.vi.).

Measurable Objectives

1. Continue to review plans for compliance with existing SDS while developing new design standards to comply with the General Permit
2. Update plan review process to include retention and treatment standards as well as alternative compliance options
3. Revise the plan review checklist to document evaluations of compliance with new standards
4. Implement the plan review process and checklist on or before February 28, 2023

Implementation Timeline

Years 1-3	– Continue to review plans using the existing process and checklist
Year 3	– Update the plan review process – Revise the plan review checklist
Years 4-5	– Implement the plan review process/checklist on or before February 28,2023
Annual	– Track implementation and assess progress

PC-6 Implement a Long-Term Operations & Maintenance Program

Goal

- Maintain an inventory and implement a strategy to ensure that all stormwater controls are operated and maintained to meet the site performance standards.

Strategy

Environmental Division staff began an effort to develop an inventory of private stormwater facilities in 2013. Staff used GIS to perform a citywide analysis of stormwater assets and parcel data to identify potential facilities and conducted site visits to verify the facilities. In 2015, a Private Facility Inspection Program was implemented to ascertain the condition and functionality of inventoried facilities. Through mechanisms granted in the City’s Stormwater Utility Ordinance and Discharge Ordinance, Public Works personnel may enter private property to perform inspections and recommend and enforce maintenance of stormwater facilities. Environmental program staff will continue to implement the Private Facility Inspection Program over the duration of the permit

term to ensure stormwater controls are operated and maintained to meet site performance standards.

In addition, the City enforces long-term Operation & Maintenance (O&M) for stormwater controls through a contractual Private Maintenance Agreement between the City and commercial property owners. The contract includes a provision for staff to inspect stormwater controls and facilities. It requires property owners to report/submit records of maintenance on an annual basis. The City reserves the right to require additional maintenance if the facility is under performing or has failed. The City may also perform the required maintenance and assess the cost of maintenance to the property owner; reimbursement of expenses to the City for mitigating deficiencies of private facilities are subject to an abatement lien on the property pursuant to the abovementioned ordinances.

The SDM will provide guidance for standard maintenance and operation of stormwater controls and facilities.

Measurable Objectives

1. Continue to implement the Stormwater Facility Inventory and Inspection Program to ensure proper function of public and private stormwater controls
2. Continue to enforce long-term O&M through ordinances and Private Maintenance Agreements

Implementation Timeline

The existing procedures meet the requirements in Schedule A.3.e.vi of the General Permit and have therefore been successfully implemented before February 28, 2023.

Years 1-5	– Continue to implement the Stormwater Facility Inventory and Inspection Program – Continue to enforce long-term O&M
Annual	– Track implementation and assess progress

PC-7 Provide PCSR Training to Program Staff

Goal

- Ensure that staff responsible for performing post-construction runoff site plan reviews, administrating the alternative compliance program, or performing O&M practices or evaluating compliance with long-term O&M requirements are trained or otherwise qualified to conduct such activities

Strategy

The City will continue to provide routine training to PCSM Program staff while developing new training materials to meet the requirements in Schedule A.3.e.vii of the General Permit. Staff will develop orientation for all new staff working to implement the PCSM Program within 30 days of their assignment to this program. All program staff will receive training at least once during the permit term. Follow-up training will also be provided as procedures and/or technology utilized in this program change. The new training for program staff will be implemented on or before February 28, 2023.

Measurable Objectives

1. Continue to provide onboarding and annual training to program staff while developing new training materials
2. Develop and implement new training materials for all staff working to the implement the PCSM Program on or before February 28,2023
3. Track implementation and assess progress

Implementation Timeline

Years 1-3	– Continue to provide onboarding and annual training to program staff
Year 3	– Develop PC training materials for PC program staff
Years 4-5	– Implement PC training on or before February 28,2023
Annual	– Track implementation and assess progress

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MCM 6: Pollution Prevention for Municipal Operations

The Municipal Pollution Prevention Program is developed and implemented by Public Works staff with close coordination between the Stormwater Division and the Environmental and Technical Division. All Public Works activities are approved and overseen by the Public Works Director.

The City of Keizer has developed six Best Management Practices (BMPs) to comply with the requirements specified in the Pollution Prevention for Municipal Operations minimum control measure in Schedule A.3.f. of the General Permit. The BMPs are shown in **Table 6**. The goals, strategies, performance measures, and implementation timelines for each BMP are described below.

TABLE 6. MUNICIPAL POLLUTION PREVENTION BMPs

ID	Best Practices
MPP-1	Implement a Municipal Pollution Prevention (MPP) Program
MPP-2	Inspect and Clean Catch Basins
MPP-3	Implement Integrated Pest/Vegetation Management Plans
MPP-4	Control Litter
MPP-5	Develop and Implement a Materials Management Plan
MPP-6	Provide MPP Training to Program Staff

MPP-1 Implement a Municipal Pollution Prevention Program

Goals

- Develop and implement an operation and maintenance strategy for stormwater controls owned or operated by the City and for privately owned/operated controls discharging into the MS4 on or before February 28, 2022.
- Conduct municipal operations and maintenance activities in a manner that reduces the discharge of pollutants through the MS4 to protect water quality.
- Operate and maintain facilities using pollution prevention and good housekeeping to reduce the discharge of pollutants from the MS4 to waters of the state.
- Track implementation and assess progress of the Municipal Pollution Prevention Program for annual reporting.

Strategy

Through previous compliance efforts, Keizer developed and implemented two distinct municipal pollution prevention programs aimed at reducing water quality impacts from City operations: Good Housekeeping and Operations and Maintenance. Keizer will continue to implement these programs while developing new strategies to meet the criteria listed in Schedule 3.A.f.

The City's Good Housekeeping (GH) Field Manual serves as a guidance document for Public Works staff to ensure that operation and maintenance activities are conducted in a manner that reduces the discharge of pollutants to surface waters, groundwater, or stormwater systems. The manual identifies operation and maintenance activities that have the potential to contribute pollutants to the stormwater system and receiving waters; establishes a set of best management practices to reduce the impacts of those activities; guides training for Public Works staff on environmental best

practices; identifies and prioritizes maintenance activities in the stormwater drainage system; and ensures that the Department complies with the conditions of the NPDES and WPCF permits. The manual also provides guidance on performing routine inspections at facilities owned and operated by the City. The existing GH Field Manual will be revised to ensure full compliance with Schedule A.3.f.iv-viii, including management of pesticides and fertilizers (MPP-3), litter control (MPP-4) and materials disposal (MPP-5) per Schedule A.3.f.vi-vii. The manual will be implemented on or before February 28, 2022.

The O&M program consists of a variety of inspection and cleaning activities for both public and private stormwater controls, which overlaps with the City's WPCF O&M Plan. For example, Public Works performs routine inspections of public and private owned pipes, inlets, outfalls, vegetated stormwater facilities, and UICs. City-owned stormwater controls are cleaned and maintained by the Stormwater Division or through contracted labor, while private stormwater controls are required to be maintained by the property owner. Environmental Program staff implement a Private Stormwater Facility Inventory and Inspection Program to ensure that private stormwater controls are maintained and functioning properly.

To strengthen the existing O&M strategy and streamline implementation, Public Works staff will create a new comprehensive O&M Plan that integrates the inspection and cleaning activities with the existing O&M Plan. The revised O&M Plan will also describe the long-term O&M requirements that staff must implement to comply with the terms in Schedule A.3.f.ii. Note that the City does not own or operate any NPDES Industrial Stormwater permitted facilities per Schedule A.3.f.v. The new O&M Plan will be implemented on or before February 28, 2022.

Environmental Program Staff will continue to maintain a spatial inventory of public and private stormwater controls and performs routine inspections to track, document, and prioritize O&M activities.

Keizer will employ a variety of recordkeeping methods such as forms, spreadsheets, databases and GIS applications to track implementation of the MPP Program and assess progress annually using the performance measures listed for each of the six BMPs.

Measurable Objectives

1. Continue to implement the existing O&M programs while developing new strategies to comply with the requirements in Schedule A.3.f.
2. Revise the existing GH Field Manual to reflect new permit requirements, including pesticides and fertilizers, litter controls, and waste disposal practices.
3. Develop and implement a comprehensive O&M Plan for public and private stormwater controls that integrates existing O&M strategies to meet requirements for both NPDES and WPCF permits on or before February 28, 2022
4. Maintain a current spatial inventory of public and private stormwater controls to support inspections and long-term O&M.
5. Review the GH Field Manual and the O&M Plan at least once during the permit term and update as needed
6. Track implementation and assess progress of the MPP Program annually using the measurable objectives defined for each BMP

Implementation Timeline

Year 1	– Continue to implement the existing O&M programs
Year 2	– Develop a comprehensive O&M Plan
Years 3-5	– Implement the new O&M Plan on or before February 28, 2022 – Review the O&M Plan at least once during the permit term and update as needed
Annual	– Maintain spatial inventory of public and private stormwater controls and perform routine inspections – Track implementation and assess progress

OM-2 Inspect and Clean Catch Basins

Goals

- Inspect at least 50% of the catch basins and inlets within the MS4 at least once every five years and take all appropriate maintenance or cleaning action based on those inspections to ensure the catch basins and inlets continue to function as designed.
- Maintain catch basin inspection records and cleaning records for annual reporting.

Strategy

The City owns and operates approximately 2,400 inlets, of which roughly 75% discharge to the MS4 and 25% discharge to UICs. Through previous compliance efforts, the Stormwater Division has implemented an annual Inlet Inspection and Cleaning Program in which all catch basins and or manholes equipped with stormwater controls (flow controls, sumps, etc.) are inspected annually and cleaned if sediment accumulation is greater than six-inches in depth. The City will continue to implement the program on an annual basis, as resources allow, to prevent pollution and to protect the public's investment in this infrastructure. The City may establish a catch basin inspection prioritization system and/or establish an alternate inspection frequency.

The Inlet Inspection and Cleaning Program is tracked using a mobile data collection application linked to the stormwater GIS.

Measurable Objectives

1. Continue to implement the Inlet Inspection and Cleaning Program
2. Track and document inspections and cleanings for annual reporting

Implementation Timeline

The existing program meets the requirements of the General Permit and have therefore been successfully implemented before February 28, 2022

Years 1-5	– Continue to implement the Inlet Inspection and Cleaning Program
Annual	– Track and document inspections and cleanings for annual reporting

OM-3 Implement Integrated Pest/Vegetation Management Plans

Goals

- Implement practices to reduce the discharge of pollutants to the MS4 associated with the application and storage of pesticides and fertilizers in public rights-of-way, parks, recreational facilities and landscaped areas.

- Require all employees or contractors applying pesticides to follow all label requirements, including application methods, rates, number of applications allowed, and disposal of pesticides, fertilizers and rinsates.

Strategy

The GH Field Manual provides guidance on vegetation management including proper storage, disposal, and application practices. The City’s existing practice is to utilize only licensed applicators for pesticide and fertilizer applications in public rights-of-way, parks, facilities, vegetative swales and landscaped areas. Public Works has two licensed applicators in the Parks and Facilities Division who follow all label requirements when applying pesticides and fertilizers. Pesticides and fertilizers are stored indoors with appropriate spill protection in place. It is common practice to prepare pesticides and fertilizers in conservative quantities to reduce waste and minimize rinsate and disposal of chemicals. Keizer will continue to implement the existing practices while developing new practices to meet General Permit requirements.

In the process of revising the GH Field Manual, Environmental staff will work with Parks and Facilities to create Integrated Pest/Vegetation Management Plans (IPM and IVM). The plans are intended to provide a proactive approach to managing pests and vegetation in public spaces and rights-of-way that utilizes appropriate control methods to balance site-specific needs with environmental considerations. Environmental staff will use resources from Marion County and the State of Oregon to develop the plans and provide training to all Public Works staff prior to implementation on or before February 28, 2022.

Measurable Objectives

1. Continue to implement existing pesticide and fertilizer application practices as outlined in the GH Field Manual while developing new practices to meet General Permit requirements
2. Develop Integrated Pest and Vegetation Management Plans
3. Provide training to all Public Works staff prior to implementation on or before February 28, 2022
4. Track IPM and IVM implementation for annual reporting

Implementation Timeline

Years 1-2	– Continue to implement existing practices per O&M Manual
Year 2	– Develop IPM and IVM plans and training materials
Years 3-5	– Implement IPM and IVM plans and training on or before February 28, 2022
Annual	– Track and report implementation progress of IPM and IVM plans

OM-4 Control Litter

Goal

- Implement methods to reduce litter within the City limits by working cooperatively with other departments, organization, or other entities to control litter on a regular basis and after major public events, in order to reduce the discharge of pollutants and litter to the MS4.

Strategy

While litter control activities are not programmatic, the City does control litter on a regular basis and works cooperatively with other organization to clean up trash after major public events like

parades and festivals. For example, the City coordinates with local garbage haulers, street sweeping contractors and volunteers from the public to clean up after major events like the Holiday Light Parade, Keizer Fest, and Summer Concerts in the park. Public Works also promotes and implements a year-round Adopt-A-Street program to control litter along roadways and performs annual cleanings of inlets to prevent litter from discharging to local waterways through the MS4. The Parks and Facilities Division is responsible managing waste and controlling litter in 19 city parks and all City owned facilities.

Keizer will continue to implement existing litter control practices to meet the requirements in Schedule A.3.f.vii. Environmental staff will incorporate Litter Control activities into the revised Good Housekeeping Field Manual and/or the O&M Plan as appropriate and develop and implement a tracking method to document these efforts on or before February 28, 2022.

Measurable Objectives

1. Continue to implement the existing practices to meet the requirements in Schedule A.3.f.vii.
2. Add Litter Control practices to the revised GH Field Manual and O&M Plan and develop and implement a tracking method to document litter control activities on or before February 28, 2022

Implementation Timeline

Years 1-5	– Continue to implement the existing litter control practices
Year 2	– Add litter control practices to the revised GH Field Manual and O&M Plan – Develop a tracking method to document litter control activities
Years 3-5	– Implement litter control tracking on or before February 28, 2022
Annual	– Track implementation and assess progress

OM-5 Develop and Implement a Municipal Waste Management Plan

Goal

- Manage and dispose of all collected material or pollutants removed in the course of maintenance, treatment, control of stormwater, or other wastewaters in a manner that prevents such pollutants from entering the waters of the state in accordance with state and federal rules.

Strategy

Municipal waste management practices are described in the GH Field Manual. Keizer will continue to follow the good housekeeping best practices for managing and disposing of waste materials collected or removed during operation and maintenance activities. Examples of waste managed by Public Works includes materials accumulated and/or acquired from maintenance of stormwater controls such as catch basin spoils, vegetation/organic debris, and excavated gravels/soils. Public Works is in the process of securing access to Salem’s Waste Processing Facility for disposal of municipal waste generated through operations and maintenance activities. Waste generated by street sweeping, storm line cleaning, and vegetated stormwater facility maintenance is managed and disposed of by third parties according to contract terms and conditions.

On or before February 28, 2022, Environmental staff will work with Public Works to create a new Municipal Waste Management Plan to meet the requirements of Schedule A.3.f.viii. The plan will be incorporated into the revised GH Field Manual, either as a section, as task-specific practices, or as an appendix.

Measurable Objectives

1. Continue to follow good housekeeping best practices while developing new strategies to meet the requirements in Schedule A.3.f.viii.
2. Develop and implement a Municipal Waste Management Plan on or before February 28, 2022.
3. Develop and implement a tracking method to document implementation of the plan

Implementation Timeline

Years 1-2	– Continue to follow existing best practices for managing and disposing of municipal waste
Year 2	– Develop a Municipal Waste Management Plan – Develop a tracking method to document plan implementation
Years 3-5	– Implement the Municipal Waste Management Plan and tracking on or before February 28, 2022
Annual	– Track implementation and assess progress of the plan

OM-6 Provide MPP Training to Program Staff

Goals

- Ensure that staff responsible for evaluating O&M practices, evaluating compliance with long-term O&M requirements or ensuring pollution prevention at facilities and during operations are trained or otherwise qualified to conduct such activities.
- Provide orientation and training to all new staff working to implement the MPP Program within 30 days of their assignment to this program and at least once during the permit term.
- Provide follow-up training as procedures and/or technology utilized in this program change.

Strategy

Through previous compliance efforts, Environmental Program staff developed and implemented a training program for Public Works staff specific to Good Housekeeping and O&M practices. Trainings are typically paired with monthly safety meetings, though trainings vary in frequency. Keizer will continue to offer regular training to staff responsible for implementing O&M while developing a new training regimen to meet the requirements in Schedule A.3.f.ix.

Environmental staff conducted a preliminary survey of Public Works staff in 2019 to gauge internal awareness of the impacts of stormwater pollution on local waterways. The information will be used to guide the development of training for crew members.

The existing training program will be revised to include specific training on the GH Field Manual and O&M Plan revisions, bi-annual trainings for all Public Works staff, and a GH module for new Public Works employees to complete within 30 days of hire. The new training program will be implemented on or before February 28, 2022.

Measurable Objectives

1. Continue to implement the existing training program while developing new training materials to meet the requirements in Schedule A.3.f.ix.
2. Update the existing MPP training program and materials to reflect MPP Program revisions.
3. Conduct biannual MPP Program trainings to reinforce good housekeeping practices and update crews on new practices and/or technologies
4. Develop a new employee orientation training module for Public Works staff on MPP requirements
5. Implement the new MPP Training Program on or before February 28, 2022
6. Track and evaluate MPP training to document implementation progress and inform future trainings.

Implementation Timeline

Years 1-2	– Continue to implement the existing MPP training program
Year 2	– Update the MPP training program and materials to reflect program revisions – Develop a new employee orientation training module on the MPP Program for Public Works staff
Years 3-5	– Implement the new MPP Training Program on or before February 28, 2022
Annual	– Conduct bi-annual MPP Program trainings – Track and evaluate MPP training to document progress and inform future efforts



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Table of Best Management Practices

The best management practices selected to meet each of the six minimum control measures.

MCM 1: Public Education and Outreach	
PE-1	Implement a Public Education and Outreach Program
PE-2	Deliver Target Topics to Target Audiences
PE-3	Provide Education to Construction Professionals
PE-4	Offer Stormwater Education Activities
MCM 2: Public Involvement and Participation	
PI-1	Implement a Public Involvement and Participation Program
PI-2	Maintain a Publicly Accessible Website
PI-3	Offer a Stewardship Opportunity
MCM 3: Illicit Discharge Detection and Elimination	
ID-1	Implement an Illicit Discharge Detection and Elimination Program
ID-2	Maintain a Map and Digital Inventory of the MS4
ID-3	Prohibit Illicit Discharges by Ordinance
ID-4	Maintain Enforcement Procedures
ID-5	Conduct Dry-Weather Screening of Outfalls
ID-6	Provide IDDE Training to Program Staff
MCM 4: Construction Site Runoff Control	
EC-1	Implement an Erosion and Sediment Control Program
EC-2	Prohibit Construction Site Runoff by Ordinance
EC-3	Require NPDES Construction Permits for Large-Scale Projects
EC-4	Develop Written Erosion Control Standards
EC-5	Review Erosion and Sediment Control Plans
EC-6	Inspect Construction Sites for Compliance
EC-7	Maintain Enforcement Procedures
EC-8	Provide ESC Training to Program Staff
MCM 5: Post Construction Site Runoff for New and Redevelopment	
PC-1	Implement and Enforce a Post-Construction Stormwater Management (PCSM) Program
PC-2	Maintain Legal Authority to Control Post-Construction Runoff
PC-3	Prioritize Low Impact Development
PC-4	Update Stormwater Management Design Standards
PC-5	Review Plans for Compliance with Stormwater Design Standards
PC-6	Implement a Long-Term PCSM Operations & Maintenance Program
PC-7	Provide PCSM Training to Program Staff
MCM 6: Pollution Prevention in Municipal Operations	
OM-1	Implement a Municipal Pollution Prevention (MPP) Program
OM-2	Inspect and Clean Catch Basins
OM-3	Implement Integrated Pest/Vegetation Management Plans
OM-4	Control Litter
OM-5	Develop and Implement a Municipal Waste Management Plan
OM-6	Provide MPP Training to Program Staff

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