
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

