



City of Poulsbo
Public Works Department
☒ Policy / ☐ Procedure

Title: Maintenance Plan Template

Number of Pages:

Effective Date: 12-31-16

Revision Date:

Approved by: Andrzej Kasiniak, P.E., Engineering Director

POLICY:

All new development and redevelopment projects which are subject to stormwater management requirements must submit a maintenance plan for the site stormwater system.

PURPOSE:

The purpose of this Maintenance Plan Template Policy is to support compliance with the City's NPDES Permit, Stormwater Management Manual, and municipal code.

Use of the template assures that the maintenance plan includes all required information in a systematic and organized manner which enables the property owner to understand his stormwater system and his obligations for continual proper operation, inspection, and maintenance of the system in accordance with City standards.

Use of the template also aids the City in determining that the plan is complete and correct.

REFERENCE:

NPDES Permit Section S5.C.4.b.iv

2014 Stormwater Management Manual for Western Washington

PMC 13.17.070(D)(6).

ATTACHMENT:

Template for Stormwater Management Facility Operations and Maintenance (O&M) Plan



CITY OF POULSBO

TEMPLATE

FOR

STORMWATER MANAGEMENT FACILITY

OPERATIONS AND MAINTENANCE (O&M) PLAN

Directions

1. Maintain 1' margins around each page per requirements for document recording, including appendices and attachments.
2. Items shown in *red italic font* indicate areas where the plan preparer must insert the requested information into the plan when applicable. Delete the examples.
3. Return all red font to black after requested information is inserted.
4. Submit the completed plan electronically and per Engineering Department requirements.



STORMWATER MANAGEMENT FACILITY OPERATIONS AND MAINTENANCE (O&M) PLAN

FOR:

Insert Development Name

LOCATED AT:

Insert Site Location/Address

TAX PARCEL NUMBER:

Insert Tax Parcel Number(s)

Stormwater Management Facility Operation and Maintenance (O&M) Plan

TABLE OF CONTENTS

- 1 Maintenance Plan – Purpose and Goal**
- 2 Compliance with the Poulsbo Municipal Code**
- 3 Operation, Inspection, and Maintenance Responsibility**
- 4 Documentation**
- 5 General Location and Description of Facilities**
- 6 Inspection and Maintenance Standards**
- 7 Maintaining Stormwater Management Facilities**
- 8 Preventative Measures to Reduce Maintenance Costs**
- 9 Safety**
- 10 Special Considerations**
- Appendix A – Site Map**
- Appendix B – Maintenance Standards**

Stormwater Management Facility Operation and Maintenance (O&M) Plan

1 MAINTENANCE PLAN PURPOSE and GOAL

Purpose

The purpose of this plan is to ensure the continued proper operation of all stormwater facilities associated with the property. Lack of maintenance could lead to the discharge of pollutants (illicit discharges), which are harmful to humans and aquatic life, into the City's storm drainage system and local waterways. Illicit discharges are prohibited by the Poulsbo Municipal Code [PMC 13.18] and State and Federal statutes. Most pollution will be generated by motor vehicles and lawn/landscape maintenance. Lack of maintenance can also cause local flooding, water damage, and costly repairs or replacements to the facilities or other infrastructure.

Goal

Regular inspection and maintenance of the storm water facilities serves to minimize pollution and the rate of stormwater runoff from impervious surfaces that are typically associated with development.

2 COMPLIANCE WITH THE POULSBO MUNICIPAL CODE

In accordance with Poulsbo Municipal Code 13.17, Stormwater Management, all property owners are responsible for ensuring that stormwater facilities installed on their property are properly operated and maintained and that they function as designed. The property owner is subject to a maintenance covenant with the City as recorded with the Kitsap County auditor and which runs with the land and is binding on all parties having or acquiring any right, title or interest in the property or any part thereof.

In accordance with Poulsbo Municipal Code 13.18, Illicit Discharge Detection and Elimination, the property owner is responsible for the prevention of illicit discharges to the City stormwater system.

3 OPERATION, INSPECTION, AND MAINTENANCE RESPONSIBILITY

The property owner of the parcel associated with this Plan is responsible for the proper operation, inspection, and maintenance of the stormwater management facilities on the parcel. Inspection and maintenance must be performed annually in addition to any additional intervals described in the maintenance standards and as required per the

manufacturer's maintenance manual for any proprietary components of the drainage facility. The City may perform compliance inspections to confirm that annual inspection and maintenance are being performed properly.

4 DOCUMENTATION

Documentation of inspection and maintenance activities shall be provided to the City at least annually and shall be in accordance with the City of Poulsbo Private Facility Maintenance Program in effect at the time. The City will provide appropriate forms for the annual inspection and maintenance report and indicate the deadline for submittal. Interim inspections and maintenance should be documented by the owner for his records.

5 GENERAL LOCATION AND DESCRIPTION OF FACILITIES

General Site Description

Insert General Site Description (example below)

Residential Site A, Piney Creek Filing 122, is located in Southwest Arapahoe County on Lakeview Drive approximately one half mile east of Piney Road. The 78-acre site consists of 331 single-family residential units.

General Stormwater Management Description

Insert General Description of stormwater facilities for the site (example below)

All stormwater is conveyed via curb and gutter and conventional reinforced concrete pipe (RCP) storm sewer to two extended detention basins that provide water quality treatment. Flows from the extended detention basins are conveyed in a major drainageway to a regional detention storage facility owned and maintained by the Southeast Metro Stormwater Authority.

On-Site Stormwater Management Facilities

List all facilities for each of the types (see examples provided below)

Volume Reduction Facilities

Residential Site A utilizes Level I MDCIA – All impervious surfaces are routed over grass buffer strips. Gutter downspouts are disconnected from the storm conveyance system and are routed over grassed areas.

Storage Facilities (Detention)

Detention for Residential Site A is provided in a Regional Detention Pond, the Piney Creek Pond X, located at Piney Creek Road and Harvest St.

Water Quality Facilities

Residential Site A utilizes 2 extended detention basins for providing water quality capture volume for the site.

Source Control Best Management Practices

Residential Site A does not include any nonstructural BMPs.

On-Site Stormwater Management Facilities

Identify the equipment and access required for maintenance, including provisions for access in the absence of a ramp, access for a vector truck, and any required flex hose, or other special equipment or needs.

Stormwater Facilities Site Plan

Appendix A contains a site map which shows the locations of the stormwater management facilities.

6 INSPECTION AND MAINTENANCE STANDARDS

Inspection and maintenance shall be performed under the direction of the property owner in accordance with the maintenance standards of the City of Poulsbo and the manufacturer of any proprietary components. The standards applicable to the site stormwater system are included or referenced within this plan in Appendix B. In the case of discrepancies or insufficient information, determination of an appropriate standard shall be made by the City of Poulsbo. City of Poulsbo standards are also available from the City's website. Standards for proprietary components are available from the manufacturer.

7 MAINTAINING STORMWATER MANAGEMENT FACILITIES

Stormwater management facilities must be properly maintained to ensure that they operate correctly and provide the water quality treatment for which they were designed. Routine maintenance performed on a frequently scheduled basis, can help avoid more costly rehabilitative maintenance that results when facilities are not adequately maintained. The Maintenance requirements are contained in Appendix B. These requirements should be updated to reflect any changes or updates to these facilities.

Routine Work

Most this work consists of inspection, scheduled mowing, weed control, and trash and debris pickups for stormwater management facilities. These activities normally will be performed numerous times during the year.

Minor Work

This work consists of a variety of isolated or small-scale maintenance and work needed to address operational problems. Most of this work can be completed by a small crew, with minor tools, and small equipment.

Major Work

This work consists of large-scale maintenance and major improvements needed to address failures within the stormwater management facilities. This work may require an engineering design with construction plans to be prepared for review and approval by the City. This work may also require more specialized maintenance equipment, surveying, construction permits or assistance through private contractors and consultants. These items require prior correspondence with the City of Poulsbo and may be subject to permits.

8 PREVENTATIVE MEASURES TO REDUCE MAINTENANCE COSTS

The most effective way to maintain a water quality facility is to prevent the pollutants from entering the facility in the first place. Common pollutants include sediment, trash & debris, chemicals, dog waste, runoff from stored materials, illicit discharges into the storm drainage system (like car wash or pressure washing runoff) and many others. A thoughtful maintenance program will include measures to address these potential contaminants, and will save money and time in the long run. Key points to consider in a maintenance program include:

- Educate tenants to be aware of how their actions affect water quality, and how they can help reduce maintenance costs.
- Keep properties, streets and gutters, and parking lots free of trash, debris, and lawn clippings.
- Ensure the proper disposal of hazardous wastes and chemicals.
- Plan lawn care to minimize the use of chemicals and pesticides.
- Sweep paved surfaces and put the sweepings back on the lawn or dispose of them properly.
- Be aware of automobiles leaking fluids. Use absorbents such as cat litter to soak up drippings – dispose of properly.
- Re-vegetate disturbed and bare areas of soil to maintain vegetative stabilization.
- Clean out the upstream components of the storm drainage system, including inlets, storm sewers and outfalls.
- Do not store materials outdoors (including landscaping materials) unless properly protected from runoff.
- Keep dumpster areas clean and dumpster lids closed to deter wildlife and reduce pollutants in runoff.
- Clean up any spills immediately using a method which prevents the material from entering the storm drainage system.

9 SAFETY

Never enter a confined space (outlet structure, manhole, etc.) without proper training and equipment. A confined space should never be entered without at least one additional person present.

If a toxic or flammable substance is discovered, leave the immediate area and call 911. Potentially dangerous (e.g., fuel, chemicals, hazardous materials) substances found in the areas must be referred to the local Fire Department immediately for response by the Hazardous Materials Unit. The emergency contact number is 911.

Vertical drops may be encountered in areas located within and around the facility. Avoid walking on top of retaining walls or other structures that have a significant vertical drop.

If any hazard is found within the facility area that poses an immediate threat to public safety, call 911 immediately.

Identify site specific hazards here.

10 SPECIAL CONSIDERATIONS

Identify any special considerations (see examples provided below)

- 1. A vector truck or equivalent will be required to remove any accumulated sediment and/or debris from the vault bottom. Trash and larger debris may need to be removed by hand.*
- 2. Equipment may be needed in the bottom of the vault to consolidate the sediment for the vector truck. There is a 12' double swing gate at the NE corner of the vault for equipment access.*
- 3. Maintain the control structure and perforated pipe to the wetland buffer*
- 4. The owner, tenants and anyone doing landscaping on the property must be careful to avoid introducing landscape fertilizer to receiving waters or groundwater.*

Appendix A

SITE MAP

This is a simplified map(s) of the site that shows the location of the stormwater system components

Appendix B

MAINTENANCE STANDARDS

1. *Only insert the Maintenance Standards that pertain to this development.*
2. *Use the applicable pages from the City of Poulsbo Stormwater Facility Maintenance Manual available from the City's website at www.cityofpoulsbo.com. From the home page, navigate to Departments > Public Works > Stormwater > Publications and Resources.*

Please check the City website each time a plan is prepared to ensure that you are using the latest pages and standards. For reproduction legibility of the recorded document, please download the manual and extract the applicable pages for insertion in the plan rather than copying or scanning the pages.

3. *Include all maintenance manuals/documentation for proprietary components.*