

## Operation and Maintenance Plan (Permanent BMPs) Checklist

Please prepare the Operation and Maintenance Plan to be included in Application Package. Please adhere to the standards described in the Land Disturbance Permit Checklist and use this checklist to be sure Plan is complete. You must sign and date this checklist and attach to completed Plan for submittal.

### Plan Cover Sheet

- ☐ Title – *Operation and Maintenance Plan*
- ☐ Project Name
- ☐ Project Location
- ☐ Assessor Parcel Number
- ☐ Land Disturbance Permit Number
- ☐ Applicant Name
- ☐ Applicant Address, Phone Number, E-mail Address
- ☐ Owner Name
- ☐ Owner Address, Phone Number, E-mail Address

### Submission Requirements

Unless otherwise noted or waived by the (INSERT REGULATORY AUTHORITY), all items listed below are required to be submitted as part of this Plan for the application package to be considered complete.

Your Operation and Maintenance Plan will be a living document. Please prepare the O&M Plan with appropriately labeled tabs for each of the (INSERT CITY/TOWN)'s standard sections. One copy must be submitted to the (INSERT REGULATORY AUTHORITY) and at least one copy kept on-site. Please include revision date in the footer on each page.

### Section 1:

#### Narrative:

- ☐ Provide an overview of the stormwater's path through the on-site BMPs.
- ☐ Discuss the specific inspection and maintenance regimen for each BMP including source controls – provide an O&M sheet for each BMP. O&M sheets should serve as a checklist for design elements that require inspection, the frequency of inspections, and conditions that indicate that maintenance is needed.
- ☐ The general requirements listed in the Massachusetts Stormwater Handbook and Stormwater Standards should be reviewed and incorporated into the inspection and maintenance regimen for each BMP.
- ☐ Note any particular characteristics or circumstances that could require attention in the future, and include any troubleshooting advice.
- ☐ Include manufacturer's data, operating manuals, and maintenance requirements for pumps or other mechanical equipment and any proprietary devices used as BMPs. (Refer to these data in text and attach manufacturers' publications to plan).
- ☐ Provide a description on how responsible employees will be trained to perform O&M and how your organization will ensure ongoing training as needed in response to staff changes.

- ☐ Include a description of source control implementation procedures, schedules, and inspections. Refer to the Massachusetts Stormwater Handbook and Stormwater Standards.

**Responsibilities List:**

- ☐ The name(s) of the owner(s) for all components of the system.
- ☐ Maintenance agreements that specify:
  - The names and addresses of the person(s) responsible for operation and maintenance,
  - The person(s) responsible for financing maintenance and emergency repairs,
  - A Maintenance Schedule for all drainage structures, including swales and ponds,
  - A list of easements with the purpose and location of each, and
  - The signature(s) of the owner(s).
- ☐ Stormwater Management Easement(s)
  - Access for facility inspections and maintenance,
  - Preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the 100-year storm event; and
  - Direct maintenance access by heavy equipment to structures requiring regular cleanout.
- ☐ The purpose of each easement shall be specified in the maintenance agreement signed by the property owner.
- ☐ Stormwater management easements are required for all areas used for off-site stormwater control, unless a waiver is granted by the Authorized Enforcement Agency.
- ☐ Easements shall be recorded with the Worcester County Registry of Deeds prior to issuance of a Certificate of Occupancy.

**Site Plan:** This site plan should include information from the record drawings.

- ☐ Include property boundaries/lot lines.
- ☐ Map showing locations of all stormwater facilities including but not limited to catch basins, manholes, drainage piping, and stormwater devices.
- ☐ Show drainage patterns and stormwater runoff flow direction arrows.
- ☐ Detailed log of all preventative and corrective maintenance for the structural stormwater management measures incorporated into the design of the development, including a record of all inspection and copies of all maintenance-related work orders.
- ☐ Show and ID all BMPs that will be present permanently. Include plans, elevations, and details for each BMP.
- ☐ Show structural and non-structural controls used to control stormwater flows.
- ☐ Show and designate pervious and impervious areas on site.

**Spill Prevention Plan (long-term):** Plan for use in the event of a spill on site.

- ☐ Describe the facility, address, activities and materials involved. Include a facility map identifying the key locations of areas, activities, materials, and BMPs.
- ☐ Include spill reporting procedures and identify key spill response personnel and hospital contacts.
- ☐ Identify the potential spill areas or operations prone to spills/leaks and identify which areas should be or already are “containment” areas.
- ☐ Include material handling procedures and safety measures for each kind of waste and spill response procedures including proper record keeping procedures.
- ☐ Include a plan to protect all storm drains in the event of a spill.

## **Section 2:**

**Inspection and Maintenance Logs: Owner must keep the past seven (7) years of records on site.**

- ☐ Provide the inspection and maintenance (preventative and corrective) schedules for each BMP. Schedules for two or more similar BMPs on the same site may be combined.
- ☐ Include inspection checklists for each BMP (routine, annual, and after major storms). See Appendix A for inspection considerations for each BMP.
- ☐ Include blank inspection forms for each BMP. At a minimum, forms must contain:
  - Inspection date and weather conditions
  - Type of inspection (routine, post-storm, annual, or in response to a problem/complaint)
  - Name of inspector
  - BMP ID and corresponding inspection checklist items
  - Inspection results including exceptions noted and corrective actions needed
- ☐ Include blank maintenance log form. At a minimum, record the date maintenance was performed, type of maintenance performed, staff member or contractor who performed the maintenance, and any issues for follow-up. Include copies of any maintenance-related work orders.
- ☐ A copy of the O&M Plan must remain on site at all times, inspection and maintenance logs must be kept in this Section and must be submitted to DPW for review upon request.

## **Section 3:**

**Updates:** Administrative or clerical updates to the Operation and Maintenance Plan can be made at any time and should be placed in reverse chronological order (most recent on top) in a Section called O&M Plan Updates prior to Section 1. No BMP or site changes can be made without prior approval and recertification by the Holden DPW. At a minimum, an annual update is required.

- ☐ Prior to substantial completion or receipt of a signed Certificate of Occupancy, the initial Operation and Maintenance Plan will be reviewed by the Holden DPW and must be updated and finalized. The updated/finalized O&M Plan will become the first update of the Plan. The first update should include design information or calculations submitted in the detailed design phase (i.e., not included in the Stormwater Management Plan).
- ☐ Include a blank update form. At a minimum, this form must include:
  - Date of update
  - Date of last update to plan
  - Sections out of date and updates needed: Contact information for site personnel, Information on BMPs including Source Controls, Records of previous inspections
  - Review of maintenance logs: Comparison to maintenance schedule. Note exceptions.
  - Employee and contractor training: New employees/contractor training events, Refresher training events for existing staff/contractors
  - Annual site inspection and update: Overall condition of site and any exceptional circumstances (e.g. sediment deposition, erosion, compromised BMPs, flooding). Inspection results including exceptions noted and corrective actions needed. Overall evaluation of the effectiveness of the O&M Plan. Note certification of its effectiveness or provide DPW with a proposed revised plan for approval.

***Owner's Certification***

I, the undersigned, hereby certify that the attached Operation and Maintenance Plan submittal includes all items required by the (INSERT CITY/TOWN NAME) Stormwater Management Rules and Regulations. I understand that if any of the items required are found to be missing from the submittal, the Operation and Maintenance Plan will not be acceptable for review and will be returned as incomplete. I, the Owner, or approved applicant is aware of these criteria and will accept all responsibility for delays due to incomplete submittals. I am enclosing an explanation for each item which I feel is not required and, therefore, have not been included in this submittal package.

Owner's/Approved Applicant's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

***Owner's Certification***

I, the undersigned, hereby certify that I understand and accept the terms specified in the (INSERT CITY/TOWN NAME) Stormwater Management Rules and Regulations which include:

1. I am responsible for the maintenance of permanent BMPs on this site.
2. During a transfer of ownership, I am responsible for informing prospective new owner(s) of the requirements of the existing O&M Plan and of the requirement to file a new O&M Plan upon transfer of ownership.
3. I am responsible for allocating and making funds available to perform the required O&M functions on site.
4. The Authorized Enforcement Agency or its authorized representative may conduct inspections whenever it is necessary to enforce any provision of the Stormwater Management Rules and Regulations to determine compliance with the regulation.

I understand that failure to comply with the requirements of the approved Operation and Maintenance Plan can result in fines and penalties in accordance with the Stormwater Bylaw and the Stormwater Management Rules and Regulations.

Owner's/Approved Applicant's Signature: \_\_\_\_\_

Date: \_\_\_\_\_