Operation and Maintenance (O&M) Plan and Long-Term Pollution Prevention Plan (LTPPP) User Guidance

(This guidance is for user’s reference and not to be included in the plans.)

The designer should use this template as a guide to create a project-specific O&M Plan and LTPPP; however, the designer should use their judgement to determine which sections in this template are applicable. Instructions or guidance are shown in blue italics. Suggested content is shown in black text, but this text should be edited/modified/expanded upon by the designer, as necessary. Multiple reports may be necessary if a project crosses town boundaries or sections in this report may be divided into subsections by town to facilitate review by local conservation commissions.

The designer is responsible for ensuring that all the necessary information is included. The designer should consult with MassDOT’s Environmental Services Section if additional guidance is needed for the designer to complete their O&M Plan and LTPPP.

This template assumes the Project is owned by MassDOT. If the Project is owned by a municipality and funded and/or constructed by MassDOT, then the O&M Plan and LTPPP need to be tailored to the municipality, and the content should be discussed, reviewed, and approved by the municipality’s Department of Public Works (DPW). As owner of the Project, the municipality is responsible for implementing the measures described in these plans.

This template will be updated as MassDOT’s operation and maintenance program evolves. Check MassDOT’s Stormwater Management website[[1]](#footnote-2) and/or the MassDOT Environmental Services Section for the latest version of this template.

|  |
| --- |
| Operation and Maintenance Plan | Long-Term Pollution Prevention Plan |

*Project Name*

Stormwater Management System
Operation and Maintenance Plan and
Long-Term Pollution Prevention Plan
*City or Town*

|  |
| --- |
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| PREPARED BY[Logo]NameAddressTown, State, ZipMONTH/DATE/YEAR |

Table of Contents

1. [Stormwater Management System Operation and Maintenance (O&M) Plan 1](#_Toc102742423)

[1.1 Responsible Party 1](#_Toc102742424)

[1.2 Inspection and Maintenance Measures and Record-Keeping 2](#_Toc102742425)

[1.3 Erosion and Sediment Control Measures during Maintenance Activities 5](#_Toc102742426)

[1.4 O&M Budget 6](#_Toc102742427)

1. [Long-Term Pollution Prevention Plan 7](#_Toc102742428)

[2.1 Practices for Long-Term Pollution Prevention 7](#_Toc102742429)

[2.1.1 Litter Pick-up 8](#_Toc102742430)

[2.1.2 Inspection and Maintenance of Stormwater Assets 8](#_Toc102742431)

[2.1.3 Maintenance of Landscaped Areas 8](#_Toc102742432)

[2.1.4 Snow and Ice Management 8](#_Toc102742433)

[2.1.5 Street Sweeping 8](#_Toc102742434)

[2.1.6 Prohibition of Illicit Discharges 8](#_Toc102742435)

[2.1.7 Spill Prevention and Response 9](#_Toc102742436)

# Stormwater Management SystemOperation and Maintenance (O&M) Plan

This Stormwater Management System Operation and Maintenance (O&M) Plan describes the approach for inspection and maintenance of drainage infrastructure and structural stormwater control measures (SCMs) to minimize contaminant loading for [list name of Project and name of the municipality(s) the project is located within]. In general, inspection and maintenance activities will be conducted consistent with the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer System (MS4) and MassDOT’s anticipated NPDES Transportation Separate Storm Sewer System (TS4) Permit.

This document has been prepared per the requirements of Massachusetts Department of Environmental Protection (MassDEP) Regulations 310 CMR 10.05 (6)(k)(9) and satisfies the requirements of Massachusetts Stormwater Standard 9.

## Responsible Party

If owned by MassDOT and MassDOT will be responsible for maintenance use this narrative:

In accordance with MassDOT procedures, the MassDOT District [#] office located in [City/Town], MA, is responsible for the maintenance of all stormwater management systems on MassDOT roads within the project area.

Questions or concerns regarding activities associated with this O&M Plan should be addressed to MassDOT’s District [#] office located at [address of the District’s office], phone (xxx) xxx-xxxx, during regular weekday hours, or to MassDOT’s Highway Operations Center located in South Boston, MA at (800) 227-0608 during all other times and days, including weekends and holidays.

Use the following table to fill in the above information.

|  |  |  |
| --- | --- | --- |
| District | Address | Phone Number |
| 1 | 270 Main Street, Lenox, MA 02140 | (857) 368-1000 |
| 2 | 811 North King Street, Northampton, MA 01060 | (857) 368-2000 |
| 3 | 499 Plantation Parkway, Worcester, MA 01605 | (857) 368-3000 |
| 4 | 519 Appleton Street, Arlington, MA 02476 | (857) 368-4000 |
| 5 | 1000 County Street, Taunton, MA 02780 | (857) 368-5000 |
| 6 | 185 Kneeland Street, Boston, MA 02111 | (857) 368-6000 |

If the project is owned by a municipality and funded and/or constructed by MassDOT, then use this narrative. Confirm the contact information with the municipality’s DPW and provide a contact person, as necessary.

*The* [City/Town] will be responsible for the operation and maintenance of all stormwater management systems within the project area. Questions or concerns regarding activities associated with this O&M Plan should be address to [City/Town’s Department of Public Works] located at [address], phone (xxx) xxx-xxxx.

## Inspection and Maintenance Measures and Record-Keeping

Note to designer: Do not use the inspection frequencies and maintenance requirements for stormwater best management practices as listed in the Massachusetts Stormwater Handbook. MassDOT has a customized approach for operating and maintaining their stormwater assets.

**If the project is owned by a municipality and funded and/or constructed by MassDOT**, then revise this section to reflect the DPW’s approach to inspection and maintenance measures and record-keeping.

See Figure X of the Stormwater Management Report for the proposed stormwater system within the project limits. The stormwater management system covered by this O&M Plan consists of the following measures:

• List the structural SCMs

MassDOT uses a performance-based inspection and maintenance program for SCMs and catch basins. For SCMs, MassDOT’s overall approach is to inspect SCMs, and based on the results of the inspections, perform maintenance to preserve functionality. For catch basins, MassDOT’s overall approach is to perform maintenance at an interval that maintains the functionality of the catch basin (e.g., sump is less than 50% full of sediment). Catch basin inspections, including documentation of sediment accumulation, and maintenance will generally occur simultaneously.

MassDOT’s O&M program is data driven. Inspections and maintenance are recorded by personnel using hand-held tablets in the field to document sediment accumulation, maintenance action performed, and follow-up actions needed. Data are recorded in MassDOT’s asset management system which is accessible in the field (mobile) or the office (desktop).

The table below summarizes data that is generally collected for each asset type. For all assets, the inspector and inspection date are recorded. Photo documentation of structure condition is taken and attached to the inspection record.

Delete rows in the table below for assets that are not applicable to the Project.

| Inspection Form | Applicable Stormwater Assets | Information Collected |
| --- | --- | --- |
| Inlets | * Catch basins
* Outlet control structures
 | * Sediment accumulation
* Trash/Debris accumulation
* Signs of contamination
* Frame and grate condition
* Overall structure condition
 |
| SCMs | Consistent with the MassDOT Stormwater Design Guide (SDG), SCM categories include: * Infiltration SCMs
* Stormwater wetland SCMs
* Bioretention SCMs
* Other SCMs
 | * SCM accessibility
* Presence of standing water
* Level of erosion
* Sediment accumulation
* Trash/Debris accumulation
* Vegetation condition
* Overall SCM condition
 |
| Storm Discharge Points | * Outlets to SCMs
 | * Presence of flow
* Signs of contaminated flow
* Sediment accumulation
* Level of erosion
* Pipe condition
* Scour protection condition
* Overall structure condition
 |

Inspection and maintenance records can be made available using the asset management system through request with the MassDOT District [#] Environmental Engineer. Records will be kept for at least three years. Representatives of the [City/Town’(s)] Conservation Commission(s), MassDEP, and US EPA may obtain access to these records, upon request. Additionally, MassDOT will allow members and agents of MassDEP and the Conservation Commission(s) to enter and inspect the premises, upon request, to evaluate and ensure that the Operation and Maintenance Plan requirements for each SCM are being followed.

Maintenance actions will not occur at any set frequency, but rather will be based on condition and impact to functionality. Maintenance to be performed on the stormwater system includes: [Use relevant information from the table below to identify potential maintenance activities to be performed on the SCMs included in the Project.]

|  |  |
| --- | --- |
| Stormwater Feature | Potential Maintenance Actions |
| Surface SCMs | * Remove and properly dispose of accumulated material (e.g., sediment, trash, leaf litter, debris)
* Mow vegetated areas and remove and dispose of grass clippings
* Regrade areas that show signs of unwanted ponding and channelization
* Stabilize or reconstruct eroded areas and reseed
* Replace stones/soil and/or replant vegetation
 | * Remove woody growth
* Treat invasive plants according to MassDOT Landscape Design Section
* Infiltration and bioretention SCMs only:
	+ Address issues of standing water
	+ Drain and reconstruct SCM
	+ If rehabilitation is not possible, then retrofit to be a wet SCM while considering safety implications
 |
| Underground SCMs | * Remove and properly dispose of trash, sediment, debris, and root intrusions
* Clean out sumps at an interval to maintain functionality (less than 50% full of sediment)
* Jet and repair pipes
 | * Rehabilitate filtering and infiltration materials (e.g., geotextile fabric, crushed stone)
* Stabilize and replace deteriorated structures
* Perform evaluations (e.g., test pits) to evaluate subsurface conditions
 |
| Inlets and Outlets to SCMs | * Clear inlet and remove and properly dispose of sediment, trash, leaf litter, debris, and vegetation
* Regrade areas that show signs of ponding and channelization
* Repair or replace structural components
* Repair damaged or eroded areas
 | * Provide or rehabilitate erosion control at the outlet
* Regrade and replace the channel materials
* Remove woody growth
* Stabilize or reconstruct eroded areas
* Treat invasive plants according to MassDOT Vegetation Management Plan
 |

Based on the results of the inspection, repairs will be made in accordance with MassDOT standard practices. Maintenance will be prioritized given the urgency of the required maintenance and availability of staff, contracts, etc. Maintenance may require contracting if existing contracts are unavailable to perform the work. More intensive remedial activities may require permitting and/or an engineering solution.

## Erosion and Sediment Control Measures during Maintenance Activities

If the project is owned by a municipality and funded and/or constructed by MassDOT, then revise this section to reflect the DPW’s approach to erosion and control measures during maintenance activities.

For maintenance activities that could result in discharges of sediments or other contaminants into wetlands, waterways, or other resource areas regulated under 310 CMR 10.00, the responsible maintenance personnel will employ measures to prevent migration of these sediments/contaminants. Such temporary measures may include, but are not necessarily limited to, the use of siltation barriers, catch basin silt sacks/filter bags, pipe plugs, cofferdams deployed within the stormwater structure, turbidity curtains, or other practices designed to prevent such discharges.

See the following resources for more guidance on erosion and sediment (E&S) control design:

* The MassDOT Erosion and Sediment Control Field Guide includes detailed descriptions, photographs, and illustrations of E&S controls that the designer may incorporate into the plans.
* Chapter 8 of the MassDOT Project Development & Design Guide,[[2]](#footnote-3) Section 8.5 - Erosion During Construction, includes a description of common construction period E&S control practices.
* The Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas[[3]](#footnote-4) is an authoritative reference on erosion prevention measures.
* The Massachusetts Nonpoint Source Pollution Management Manual[[4]](#footnote-5) provides an innovative user interface to present comprehensive detailed guidance on E&S controls for construction projects.

Where maintenance occurs in areas that are confined, with no risk of discharge to adjacent water bodies, no special measures may be needed. Examples include, but are not limited to: (1) cleaning of a forebay under dry conditions when the work can be completed and exposed surfaces stabilized prior to placing it back into service; and (2) catch basin cleaning where the activity is limited to removing material from a sump below the elevation of the outlet pipe.

## O&M Budget

If the project is owned by a municipality and funded and/or constructed by MassDOT, then revise this section to reflect the municipality’s estimated budget for O&M of stormwater management systems.

MassDOT performs maintenance for stormwater management systems as part of their routine operation and maintenance budget for roadways and bridges. Budgets are managed at the district level and vary by fiscal year, depending on funding sources.

# Long-Term Pollution Prevention Plan

This Long-Term Pollution Prevention Plan (LTPPP) describes the approach for pollution prevention and related maintenance activities for [list name of Project and name of the municipality(s) the project is located within]. In general, long-term pollution prevention and related maintenance activities will be conducted consistent with:

* The National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer System (MS4),
* MassDOT’s anticipated NPDES Transportation Separate Storm Sewer System (TS4) Permit, and
* Measures outlined in MassDOT’s Stormwater Management Plan (SWMP).

This LTPPP satisfies the requirements related to pollution prevention under Massachusetts Stormwater Standards 4, 5, 6, and 10.

## Practices for Long-Term Pollution Prevention

For the facilities covered, long-term pollution prevention includes the following measures.

If the project is owned by a municipality and funded and/or constructed by MassDOT, then revise this section to reflect the DPW’s approach to suitable practices for source control and pollution prevention. The LTPPP should include proper procedures for the following applicable activities:

* good housekeeping;
* storing materials and waste products inside or under cover;
* vehicle washing;
* routine inspections and maintenance of SCMs;
* spill prevention and response;
* maintenance of lawns, gardens, and other landscaped areas;
* storage and use of fertilizers, herbicides, and pesticides;
* pet waste management;
* operation and management of septic systems; and
* proper management of [deicing chemicals and snow](http://www.mass.gov/eea/agencies/massdep/water/regulations/guidelines-on-deicing-chemical-road-salt-storage.html).

### Litter Pick-up

MassDOT will conduct litter pick-up from the stormwater management facilities in conjunction with routine road maintenance activities.

### Inspection and Maintenance of Stormwater Assets

MassDOT will conduct inspection and maintenance of drainage infrastructure and the stormwater control measures (SCMs) in accordance with the O&M Plan, as described in Section 1.

### Maintenance of Landscaped Areas

Routine mowing will be conducted according to standard MassDOT practices. SCM basin bottoms and embankments designed to impound water should be mowed as required to prevent establishment of woody vegetation.

Except in rare circumstances, MassDOT does not use fertilizers, herbicides, and pesticides for the maintenance of facilities. Exceptions include using fertilizer to ensure the survival of new plantings and herbicides to control invasive plants. Use of fertilizers and herbicides is reviewed and approved by the MassDOT Landscape Design Section and District [#] Environmental Engineer prior to application. Local Conservation Commission review may also be required.

### Snow and Ice Management

Snow and Ice Management will be conducted consistent with the practices outlined in the MassDOT Snow and Ice Control Program Environmental Status and Planning Report (ESPR), formerly known as the Snow and Ice Control Generic Environmental Impact Report (GEIR).

In accordance with the Snow and Ice Control ESPR, no sand is used on MassDOT properties for snow and ice control. The exception to this rule is within reduced salt areas where high sodium levels have been found in drinking water sources. Describe if any portions of the project area are within a water supply watershed and/or designated reduced-salt area. Describe if there are any specific MassDOT agreements with drinking water suppliers regarding snow and ice management.

### Street Sweeping

Routine highway cleaning, with a brush-type street sweeper, will be conducted in accordance with standard MassDOT practices. Sweeping will occur annually in the Spring.

### Prohibition of Illicit Discharges

This section certifies that the project area was reviewed for illicit discharges. Review and confirm there are no known or proposed illicit connections.

The MassDEP Stormwater Management Standard 10 prohibits illicit discharges to the stormwater management system. Illicit discharges are discharges that do not consist entirely of stormwater, except for certain specified non-stormwater discharges.

In accordance with the existing MS4 permit and anticipated TS4 permit requirements, examples of discharges from the following sources are not considered illicit discharges:

|  |  |
| --- | --- |
| * Firefighting activities\*
 | * Flows from riparian habitats/wetlands
 |
| * Foundation drains
 | * Potable water sources
 |
| * Water line flushing
 | * Dechlorinated swimming pool water
 |
| * Footing drains
 | * Street wash waters
 |
| * Landscape irrigation
 | * Wash water from residential buildings (no detergents)
 |
| * Individual residential car washing
 | * Condensation from air conditioning units
 |
| * Uncontaminated groundwater
 | * Run-on from private driveways caused by precipitation
 |
| * Rising groundwater
 | * Lawn watering
 |
| * Diverted stream flows
 | * Water from crawl space pumps
 |

\*Water from firefighting activities is allowed and need only be addressed where they are identified as significant sources of pollutants to waters of the United States.

Based on plan review and confirmation in the field, there are no known or proposed illicit connections associated with the [project name]. Should an interconnection to the stormwater management system be identified, the MassDOT PM will coordinate with the District Permits Engineer to confirm if the connections are authorized. For unauthorized connections, the MassDOT PM and/or MassDOT Environmental Services Section will investigate the connections and if they are determined to be illicit, the connections will be managed through MassDOT’s Illicit Discharge Detection and Elimination (IDDE) program and/or through other agencies.

### Spill Prevention and Response

This section is optional. See below for more guidance.

If the Project discharges to a public water supply such as Zone I Wellhead Protection Area or Zone A Surface Water Supply Protection Area, the designer should provide a section on spill prevention and response. If the Project affects other Critical Areas, review the Critical Areas for need of spill prevention and response and include section as appropriate.

Response procedures will be implemented at [list SCMs or outfalls that discharge to Zone I Wellhead Protection Area, Zone A Surface Supply Water Protection Area, or other Critical Area(s)] for any significant release of hazardous materials such as fuels, oils, or chemical materials that have the potential of discharging to [name of water body], a [Zone I, Zone A, Outstanding Resource Water, etc.]. Describe spill containment measures provided nearby the site (e.g., spill kits such as booms, caps, covers, pneumatic plugs, absorbent material etc.). Discuss approach with MassDOT Environmental Services Section and append the Project’s Spill Containment and Control Plan as an appendix to this document, as necessary.

Reportable quantities will immediately be reported to the applicable Federal, State, and local agencies as required by law. Reportable quantities of chemical, fuels, or oils are established under the Clean Water Act and enforced through MassDEP. The MassDEP Emergency Response Program shall be immediately notified in accordance with required procedures for the report of a release (telephone (888) 304-1133).

MassDOT works with first responders and/or public water supply owners to determine the best approach to protect water supplies, and provides training and materials to carry out action plans. In the case of a spill, applicable containment and clean-up procedures will be performed immediately. These procedures are implemented in accordance with the Unified Response Manual at the local level by first responders, which includes the [City/Town’(s)] local public safety departments (e.g., fire, police, public works, board of health). MassDOT will be on-site to aid with traffic control and to provide clean-up supplies, as necessary. Spill material collected during the response will be promptly removed and disposed of in accordance with Federal, State, and local requirements. If necessary, a licensed emergency response contractor will assist in cleanup of releases depending on the amount of the release and the ability of the responsible party to perform the required response.

1. <https://www.mass.gov/service-details/stormwater-management-massdot-environmental-services> [↑](#footnote-ref-2)
2. See MassDOT PDDG at: <https://www.mass.gov/lists/design-guides-and-manuals>. [↑](#footnote-ref-3)
3. See Complete Erosion and Sedimentation Control Guidelines: A Guide for Planners, Designers, and Municipal Officials (May 2003) at: <https://www.mass.gov/service-details/stormwater>. [↑](#footnote-ref-4)
4. See Massachusetts Nonpoint Source Pollution Management Manual at: <https://megamanual.geosyntec.com/npsmanual/default.aspx>. [↑](#footnote-ref-5)