



LONG-TERM INSPECTION AND MAINTENANCE PLAN FOR STORMWATER MANAGEMENT STRUCTURES (BMPs)

The long-term operation and maintenance of a stormwater management system is as critical to its performance as its design and construction. Proper operation and maintenance ensures that the BMP will continue to remove pollutants effectively over the long-term, decreases the risk of re-suspending sediment; and therefore, improves water quality. Without proper maintenance, BMPs are likely to fail and no longer provide the necessary stormwater treatment. Common maintenance issues that are encountered include:

- A single family residential lot draining to a wooded buffer which is eliminated because the owners are unaware of the importance of their buffer;
- Maintenance that occurs too infrequently;
- Owners not understanding the long-term financial burden for the maintenance of a stormwater system;
- Lack of a maintenance easement or proper access to a stormwater system for maintenance;
- Lack of the knowledge on the maintenance needs of the system; and,
- Conflicts between municipalities and landowners on who is responsible for maintenance of a stormwater system.

Operation and Maintenance Plan: The proper operation and maintenance of a stormwater system must be laid out in an operation and maintenance plan that clearly identifies required inspection activities, the maintenance schedule, and provides a method for determining when maintenance is necessary. The operations and maintenance plan must also consider staffing and budget needs to perform maintenance.

Specific maintenance needs for each type of BMP are provided in their respective sections of the Stormwater BMP Manual. A summary table of the inspection and maintenance needs of each BMP type is included in the table on the next page.

Questions? Our environmental engineers are available to answer your questions about operation and maintenance. Please contact our staff based on the region your project is located in:

- Northern and Eastern Maine Region: [Ken Libbey](#) (207) 299-4823
- Central Maine Region: [Kerem Gungor](#) (207) 446-3915
- Southern Maine Region: [Ben Viola](#) (207) 822-6365

INSPECTION AND MAINTENANCE PLAN FOR STORMWATER MANAGEMENT STRUCTURES (BMPS)

| | INSPECTION SCHEDULE | CORRECTIVE ACTIONS |
|--|---|--|
| VEGETATED AREAS | Annually early spring and after heavy rains | Inspect all slopes and embankments and replant areas of bare soil or with sparse growth |
| | | Armor rill erosion areas with riprap or divert the runoff to a stable area |
| | | Inspect and repair down-slope of all spreaders and turn-outs for erosion |
| | | Mow vegetation as specified for the area |
| DITCHES, SWALES AND OPEN STORMWATER CHANNELS | Annually spring and late fall and after heavy rains | Remove obstructions, sediments or debris from ditches, swales and other open channels |
| | | Repair any erosion of the ditch lining |
| | | Mow vegetated ditches |
| | | Remove woody vegetation growing through riprap |
| | | Repair any slumping side slopes |
| | | Repair riprap where underlying filter fabric or gravel is showing or if stones have dislodge |
| CULVERTS | Spring and late fall and after heavy rains | Remove accumulated sediments and debris at the inlet, outlet, or within the conduit |
| | | Remove any obstruction to flow |
| | | Repair any erosion damage at the culvert's inlet and outlet |
| CATCH BASINS | Annually in the spring | Remove sediments and debris from the bottom of the basin and inlet grates |
| | | Remove floating debris and oils (using oil absorptive pads) from any trap |
| ROADWAYS AND PARKING AREAS | Annually in the spring or as needed | Clear and remove accumulated winter sand in parking lots and along roadways |
| | | Sweep pavement to remove sediment |
| | | Grade road shoulders and remove accumulated winter sand |
| | | Grade gravel roads and gravel shoulders |
| | | Clean out the sediment within water bars or open-top culverts |
| | | Ensure that stormwater runoff is not impeded by false ditches of sediment in the shoulder |
| RESOURCE AND TREATMENT BUFFERS | Annually in the spring | Inspect buffers for evidence of erosion, concentrated flow, or encroachment by development |
| | | Manage the buffer's vegetation with the requirements in any deed restrictions |
| | | Repair any sign of erosion within a buffer |
| | | Inspect and repair down-slope of all spreaders and turn-outs for erosion |
| | | Install more level spreaders, or ditch turn-outs if needed for a better distribution of flow |
| | | Clean out any accumulation of sediment within the spreader bays or turnout pools |
| | | Mow non-wooded buffers no shorter than six inches and less than three times per year |
| WETPONDS AND DETENTION BASINS | Annually in fall and after heavy rains | Inspect the embankments for settlement, slope erosion, piping, and slumping |
| | | Mow the embankment to control woody vegetation |
| | | Inspect the outlet structure for broken seals, obstructed orifices, and plugged trash racks |
| | | Remove and dispose of sediments and debris within the control structure |
| | | Repair any damage to trash racks or debris guards |
| | | Replace any dislodged stone in riprap spillways |
| FILTRATION AND INFILTRATION BASINS | Annually in the spring and late fall | Clean the basin of debris, sediment and hydrocarbons |
| | | Provide for the removal and disposal of accumulated sediments within the basin |
| | | Renew the basin media if it fails to drain within 72 hours after a one inch rainfall event |
| | | Till, seed and mulch the basin if vegetation is sparse |
| | | Repair riprap where underlying filter fabric or gravel is showing or where stones have dislodged |
| PROPRIETARY DEVICES | As specified by manufacturer | Contract with a third-party for inspection and maintenance |
| | | Follow the manufacturer's plan for cleaning of devices |
| OTHER PRACTICES | As specified for devices | Contact the department for appropriate inspection and maintenance requirements for other drainage control and runoff treatment measures. |