LONG-TERM INSPECTION AND MAINTENANCE PLAN FOR STORMWATER MANAGEMENT PRACTICES

The long-term inspection 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 stormwater best management practice (BMP) will continue to remove pollutants effectively over the long-term and improving water quality. Without proper maintenance, BMPs are likely to fail and not provide the necessary stormwater treatment. Common maintenance issues that are encountered include:

- A single-family residential lot draining to a wooded stormwater treatment buffer that was eliminated because the owners were unaware of the function of the buffer;
- Maintenance that occurs too infrequently;
- Owners that don't understand, or fail to budget for, long-term maintenance of the approved stormwater system;
- Lack of a maintenance easement or proper access to the stormwater system for maintenance;
- Lack of the knowledge on the maintenance needs of the stormwater system; and
- Conflicts between municipalities and landowners on who is responsible for maintenance of the stormwater system.

Inspection and Maintenance Plan: The proper operation and maintenance of a stormwater treatment system must be laid out in an inspection and maintenance plan that clearly identifies required inspection activities, defines the maintenance schedule, and provides a method for determining when maintenance is necessary. The inspection 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 inspection and maintenance. Please contact staff based in your project's region:

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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 with bare soil or sparse growth.
		Armor 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 & debris from ditches, swales and other open channels.
		Repair any erosion of the ditch lining.
		Mow vegetated ditches no shorter than six inches and no more than twice a year.
		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 dislodged.
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.
		Remove sediments and debris from the bottom of the basin and inlet grates.
CATCH BASINS	Annually in the spring	Remove floating debris and hydrocarbons (using oil absorptive pads) from any structure.
		Clear and remove accumulated winter sand in parking lots and along roadways.
ROADWAYS AND PARKING AREAS	Annually in the spring or as needed	Sweep pavement to remove sediment and sand.
		Grade road shoulders and remove accumulated winter sand.
		Grade gravel roads and gravel shoulders.
		Ensure that stormwater runoff is not impeded by false ditches of sediment in the shoulder.
		Clean out the sediment within water bars or open-top culverts.
RESOURCE AND STORMWATER 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 level spreaders or ditch turn-outs as needed for even 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 no more than twice a 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.
		Remove and dispose of accumulated sediments within the impoundment and forebay.
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 approved by the manufacturer 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.