

POST-CONSTRUCTION OPERATION AND MAINTENANCE

Bioretention for Infiltration Systems:

- Activity Schedule:**
- As needed
 - Water plants during first growing season
 - Water plants during dry periods after first growing season
 - Remulch void areas
 - Treat diseased trees and shrubs
 - Keep overflow free and clear of leaves
 - If compaction occurs at the base of the bioretention device, the soil shall be refractured to a depth of at least 12 inches.
 - If smearing occurs, the smeared areas of the interface shall be corrected by raking or roto-tilling
 - Monthly
 - Inspect soil and repair eroded areas
 - Remove litter and debris
 - Clear leaves and debris from overflow
 - Twice per year
 - Inspect vegetation to evaluate health
 - Once per year
 - Add additional mulch
 - Inspect facility and pretreatment areas for sediment buildup, erosion, vegetative conditions, etc.

Vegetated Swales

- Activity Schedule:**
- As needed
 - Trim vegetation to ensure safety, aesthetics, proper swale operation, or to suppress weeds and invasive vegetation
 - Mow at the end of the season such that the grasses are 6" to 8" high and only when swale is dry to avoid rutting.
 - Re-seed bare areas; install appropriate erosion control measures when native soil is exposed or erosion channels are forming.
 - Plant alternative grass species in the event of unsuccessful establishment.
 - Repair damaged or eroded areas by filling with engineered topsoil mix.
 - Remove litter.
 - Clear obstructions and repair any channelization near check dams (if applicable)
 - Limit the use of pesticides and fertilizers.
 - Once per year
 - Inspect and correct erosion problems, damage to vegetation, sediment and debris accumulation, and pools of standing water.
 - Inspect for uniformity in cross-section and longitudinal slope, correct as needed.

Trees
Maintenance Guidelines:
 No special maintenance is required for natural landscaping or stormwater trees other than pruning and trimming in late fall or winter to remove dead wood and excess growth to maintain an open and healthy canopy. Native landscaping planting may be managed similar to the recommendations for bioinfiltration facilities. Trees that do not survive should be replaced.

Infiltration Basins

- Activity Schedule:**
- As needed
 - Sediment should be removed from the basin as needed (at least once every 5 to 10 years)
 - Fertilizer application shall conform to the criteria located in NRCS Conservation Practice Technical Standard, Critical Area Planting (342) or WDNR Conservation Practice Standard Seeding for Construction Site Erosion Control (1059).
 - Snow should not be placed in the effective infiltration area.
 - If standing water is observed over 50% of the basin floor 3 days after rainfall, the basin is clogged and measures should be undertaken to unplug it
 - Quarterly
 - Inspect inlet pipe(s) and outlet control structure for clogging
 - Inspect overflow spillway for indication of failure
 - After every storm greater than one inch
 - Remove trash and debris
 - Remove invasive plants
 - Grassed areas also require periodic prudent fertilizing, dethatching and soil conditioning
 - Trees, shrubs, and other vegetative cover will require periodic maintenance such as fertilizing, pruning, and pest control
 - Mow / trim detention basin vegetation to a height of 5" to 6"
 - Once per year
 - Inspect detention basin, potential problems include: subsidence, erosion, cracking or tree growth on the embankment; damage to the emergency spillway; sediment accumulation around the outlet; inadequacy of the inlet/outlet channel erosion control measures; changes in the condition of the pilot channel; and erosion within the basin and banks.
 - Regularly
 - Beginning the second year, burning shall occur in the early spring (prior to May 1st) or in the late fall (after November 1st).
 - Burning shall be done two consecutive years and then up to three years can pass before the next burning.
 - Under no circumstances shall burning occur every other year.

Underground pipes and structures

- Activity Schedule:**
- As needed
 - Removal of sediment and debris from structures when the sump is full as well as from inlet and outlet pipes. Sediments should be tested for toxicants in compliance with applicable disposal requirements if land uses in the catchment include commercial or industrial zones, or if indications of pollution are noticed.
 - Quarterly
 - Floating debris should be removed.
 - Once per year
 - Inspection of subsurface pipes and structures.

OPERATION AND MAINTENANCE NOTES

The landowner or owner's representative shall inspect and maintain all construction site erosion control measures weekly during construction, and after each rainfall of 0.5" or more, as required by DNR permit. The DNR "Construction Site Inspection Report" form will be provided to the landowner to assist with the inspection logging.

O&M Plan procedures and practices must be reviewed and assessed annually.

Access routes including roadways and sidewalks shall be inspected annually and maintained as needed.

Drainage structures and flow restrictors must be inspected and cleaned semi-annually.

Volume control BMPs shall be inspected semi-annually and after significant rainfall events exceeding 0.5 inches.

The Owner shall keep an updated log book documenting the performance of the required O&M activities for perpetuity. Log books must be produced upon the request of a DNR inspector.

Vegetation shall be maintained on a regular basis.

Pest control measures shall be implemented to address insects and rodents.

Signage and fencing shall be installed and maintained where necessary to protect property and the public.

OWNER CONTACT INFORMATION

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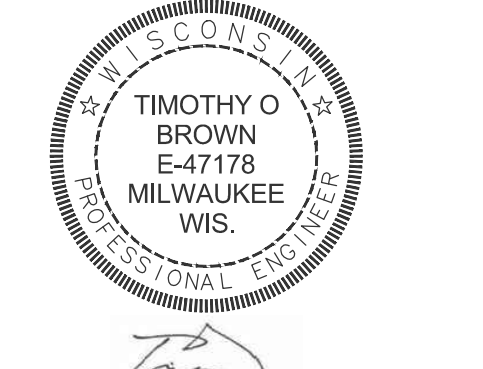


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Reserved for Seal:



No.	Date	Description
	08.01.19	Owner Review
	08.09.19	Progress Set
	09.10.19	Coordination Set
	09.16.19	Issued for Permit Set
	10.04.19	Reissued for Permit Set
	10.15.19	Issued for Plan Commission

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OPERATION AND MAINTENANCE PLAN

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