

INSPECTION AND MAINTAINANCE MANUAL

August 2022

MEENA, LLC
NH ROUTE 25
Effingham, New Hampshire



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INSPECTION AND MAINTENANCE MANUAL

FOR

**MEENA, LLC
NH ROUTE 25
EFFINGHAM, NH**

AUGUST 2022

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**INSPECTION AND MAINTENANCE MANUAL
FOR
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NH ROUTE 25, EFFINGHAM, NH**

August 2022

Introduction

This document is intended to provide a unified procedure for the party(ies) responsible for inspecting and maintaining the stormwater management device(s) that are located within the proposed development (see attached Location Plan for the device locations). The activities specified in this plan are consistent with the New Hampshire Department of Environmental Services (DES) Alteration of Terrain Program.

Responsible Parties

The ultimate responsibility for complying with this plan rests with the owners of the Property.

Owner's Name: **MEENA, LLC, c/o Pankaj Garg**

Prior to transfer of ownership to another entity, the existing owner shall notify Town in writing of such transfer.

Parties assigned to complete inspection and maintenance tasks are presented in the following table:

DEVICE	TASK	PARTY RESPONSIBLE
Structural Stormwater Devices		
Concrete Pads	Inspection	OWNER
	Maintenance	OWNER
	Reporting	OWNER
Deep Sump Catch Basins	Inspection	OWNER
	Maintenance	OWNER
	Reporting	OWNER
Oil Water Separator	Inspection	OWNER
	Maintenance	OWNER
	Reporting	OWNER
Infiltration Trench	Inspection	OWNER
	Maintenance	OWNER
	Reporting	OWNER
Level Spreader	Inspection	OWNER
	Maintenance	OWNER
	Reporting	OWNER

Stormwater BMP Inspection and Maintenance Plan
For
MEENA, LLC
NH ROUTE 25 EFFINGHAM, NH

Frequency of Activities

The best time to perform inspections is during the onset of rain. To the extent practicable inspections should be timed to coincide with moderate storms that do not have the potential for severe (thunderstorms, etc) precipitation. The frequency of inspection and maintenance will vary by intensity of use; however, the following shall serve as the minimum inspection frequency and required maintenance tasks:

- Pretreatment measures should be inspected and cleaned at least twice annually.
- Structural Devices: Spring and fall
- Road side ditch, treatment swales, and surface filter ponds: Twice annually, and following any rainfall event exceeding 2.5 inches in a 24-hour period. At least once annually, the basin upstream of the level spreader should be inspected for a drawdown time of 72 hours.
- Pretreatment measures (Deep Sump Catch Basins) should be inspected and cleaned at least twice annually.
- Periodic mowing of embankments
- Removal of woody vegetation from fill embankments
- Removal of debris from outlet structures (culverts, level spreader)
- Removal of accumulated sediment
- Inspection and repair of embankments, inlet and outlet structures, and appurtenances
- Trash and debris shall be removed at each inspection.
- Do not place basin upstream of the level spreader into service until the level spreader BMP has been installed, backfilled, and fully stabilized.
- To prevent degradation of the infiltration function:
 1. Do not discharge sediment-laden waters from construction activities (runoff, water from excavations) to the basin upstream of the level spreader during any stage of construction.
 2. Do not traffic or compact exposed soil surface within the area of the basin upstream of the level spreader with construction equipment. Perform excavation for the construction of this BMP with equipment positioned outside the limits of this system.

Maintenance frequencies shall be adjusted based upon the results of the inspections and if specific maintenance thresholds are observed to have been crossed during inspections.

All inspection activities shall be recorded on the appropriate attached Inspection Form. One form shall be used for each stormwater device.

Records

A record of inspection and maintenance activities shall be recorded on the Inspection and Maintenance Log presented below. Records of Inspection forms and Inspection and Maintenance Logs shall be made available to the Town of Effingham upon request.

Stormwater BMP Inspection and Maintenance Plan
For
MEENA, LLC
NH ROUTE 25 EFFINGHAM, NH

Year

Stormwater BMP Inspection and Maintenance Log

FOR
MEENA, LLC
NH ROUTE 25, EFFINGHAM, NH

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Stormwater BMP Inspection and Maintenance Plan
For
MEENA, LLC
NH ROUTE 25 EFFINGHAM, NH

Infiltration Trench Inspection Form

FOR
MEENA, LLC
NH ROUTE 25, EFFINGHAM, NH

BMP Name

Date of today's inspection __/__/__ Inspector Name _____
 Date of last inspection (of this BMP) __/__/__

Recent Weather history

Storm date(s)	Storm duration	Rainfall amount	Did runoff occur?

Today's Weather _____

OUTLET(S) FROM BMP				
	Turbid Discharge?	Y	N	Follow turbidity upgradient to source and stabilize
	Scour?	Y	N	Replace scour apron to original plan dimensions, may need to increase D ₅₀ stone size
	Clogged weir	Y	N	Remove clog and debris in vicinity of outlet
	Woody growth on dam faces?	Y	N	Remove, seed and apply erosion control matting
Floor				
	Trash or debris accumulations?	Y	N	Remove all trash at every inspection
	Does system fail to drain in 72 hours?	Y	N	Seek a qualified professional to assess the condition to determine measures required to restore filtration function, including but not limited to removal of accumulated sediments.
	Is grass covering the 1" gravel debris screen?	Y	N	Remove grass and restore 1" of crushed gravel.
Inlet(s) to BMP				
	Scour?	Y	N	Replace scour apron to original plan dimensions, may need to increase D ₅₀ stone size and/ or add check dam
	Sediment accumulation?	Y	N	Look at the canopy surface to determine if the source of sediment comes from here. If not, check the ground surface immediately upslope of the trench to determine if that area needs additional periodic sweeping to prevent sediment from reaching the trench

Stormwater BMP Inspection and Maintenance Plan
For
MEENA, LLC
NH ROUTE 25 EFFINGHAM, NH

Deep Sump Catch Basin

BMP Name

Inspection Form

FOR

MEENA, LLC
NH ROUTE 25, EFFINGHAM, NH

Date of today's inspection __/__/__ Inspector Name _____
Date of last inspection (of this BMP) __/__/__

Recent Weather history

Storm date(s)	Storm duration	Rainfall amount	Did runoff occur?

Today's Weather _____

INSPECTION AREAS	LOOK FOR	CIRCLE ONE		IF YES
Outlet(s) from BMP				
	Turbid Discharge?	Y	N	Follow turbidity upgradient to source and stabilize
	Scour?	Y	N	Replace scour apron to original plan dimensions, may need to increase D ₅₀ stone size
	Clogged pipe/weir	Y	N	Remove clog and debris in vicinity of outlet
	Seepage	Y	N	If Dam, consult O&M plan otherwise attempt to find source with dye and plug with bentonite
Sumps				
	Sediment accumulations?	Y	N	Vacuum-Truck when sediment occupies 50% of sump depth
Inlet(s) to BMP				
	Scour?	Y	N	Replace scour apron to original plan dimensions, may need to increase D ₅₀ stone size and/ or add check dam
	Sediment accumulation?	Y	N	Look at pretreatment device and clean once sediment occupies 50% of sump depth, then clean out inlet pipe to main device

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Oil/Water Separator

Inspection Form FOR

MEENA, LLC
NH ROUTE 25, EFFINGHAM, NH

BMP Name

Date of today's inspection ___/___/___ Inspector Name _____

Date of last inspection (of this BMP) ___/___/___

Recent Weather history

Storm date(s)	Storm duration	Rainfall amount	Did runoff occur?

Today's Weather _____

INSPECTION AREAS	LOOK FOR	CIRCLE ONE		IF YES
Outlet(s) from BMP				
	Turbid Discharge?	Y	N	Follow turbidity upgradient to source and stabilize
	Rills present or crest not level?	Y	N	Patch/grade to ensure discharge is not concentrated and re-vegetate.
Tank (bays/compartments)				
	hydrocarbons?	Y	N	Remove floating hydrocarbons immediately whenever detected; see SPCC
Device Floor				
	Sediment accumulations?	Y	N	Inspect upstream devices and landscape to determine source and stabilize. Vacuum-Truck when sediment reaches six inches in depth
Inlet (s) from BMP				
	Sediment accumulation?	Y	N	Look at pretreatment device and clean once sediment occupies 50% of the sump depth, then clean the inlet pipe to main device

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Control of Invasive Plants Guidance Manual

**MEENA, LLC
NH ROUTE 25
EFFINGHAM, NH**

Invasive Plants (as provided by the NHDES)

Invasive plants are introduced, alien, or non-native plants, which have been moved by people from their native habitat to a new area. Some exotic plants are imported for human use such as landscaping, erosion control, or food crops. They can also arrive as “hitchhikers” among shipments of other plants, seeds, packing material, or fresh produce. Some exotic plants become invasive and cause harm by:

- becoming weedy and overgrown;
- killing established shade trees;
- obstructing pipes and drainage systems;
- forming dense beds in water;
- lowering water levels in lakes, streams, and wetlands;
- destroying natural communities;
- promoting erosion on stream bank and hillsides; and
- resisting control except by hazardous chemical.

See the attached documentation by the “University of New Hampshire Cooperative Extension” titled “Methods for Disposing Non-Native Invasive Plants”. This document is to be used as guidance for removing invasive plants. The owner and the maintenance supervisor should take necessary measure to prevent the spread of invasive plants in accordance with RSA 430:53 and AGR 3800 from the New Hampshire Regulations.

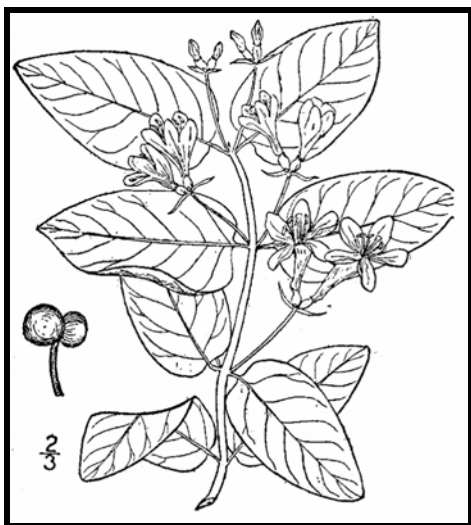
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Methods for Disposing Non-Native Invasive Plants

Prepared by the Invasives Species Outreach Group, volunteers interested in helping people control invasive plants. Assistance provided by the Piscataquog Land Conservancy and the NH Invasives Species Committee. Edited by Karen Bennett, Extension Forestry Professor and Specialist.



Tatarian honeysuckle

Lonicera tatarica

USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 3: 282.

Non-native invasive plants crowd out natives in natural and managed landscapes. They cost taxpayers billions of dollars each year from lost agricultural and forest crops, decreased biodiversity, impacts to natural resources and the environment, and the cost to control and eradicate them.

Invasive plants grow well even in less than desirable conditions such as sandy soils along roadsides, shaded wooded areas, and in wetlands. In ideal conditions, they grow and spread even faster. There are many ways to remove these non-native invasives, but once removed, care is needed to dispose the removed plant material so the plants don't grow where disposed.

Knowing how a particular plant reproduces indicates its method of spread and helps determine the appropriate disposal method. Most are spread by seed and are dispersed by wind, water, animals, or people. Some reproduce by vegetative means from pieces of stems or roots forming new plants. Others spread through both seed and vegetative means.

Because movement and disposal of viable plant parts is restricted (see NH Regulations), viable invasive parts can't be brought to most transfer stations in the state. Check with your transfer station to see if there is an approved, designated area for invasives disposal. This fact sheet gives recommendations for rendering plant parts non-viable.

Control of invasives is beyond the scope of this fact sheet. For information about control visit www.nhinvases.org or contact your UNH Cooperative Extension office.

New Hampshire Regulations

Prohibited invasive species shall only be disposed of in a manner that renders them nonliving and nonviable. (Agr. 3802.04)

No person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transplant any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1 of the New Hampshire prohibited invasive species list. (Agr 3802.01)