



## Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

### A. Facility Information

James Morin

Owner Name

Mallard Lane

Street Address

Bolton

City

MA

State

2c/15.1

Map/Lot #

01740

Zip Code

### B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade
2. Soil Survey Web Soil Survey Pits, Gravel Worcester County Northeastern Part  
Source Soil Map Unit Soil Series  
Base Slope None  
Landform Soil Limitations  
Loose Sandy and Gravelly Glaciofluvial Deposits  
Soil Parent material
3. Surficial Geological Report Version 16, Sept 3, 2021 600  
Year Published/Source Map Unit  
Pits, Gravel  
Description of Geologic Map Unit:
4. Flood Rate Insurance Map Within a regulatory floodway? ☐ Yes ☒ No
5. Within a velocity zone? ☐ Yes ☒ No
6. Within a Mapped Wetland Area? ☐ Yes ☒ No If yes, MassGIS Wetland Data Layer: Wetland Type
7. Current Water Resource Conditions (USGS): 4/8/2022 Range: ☐ Above Normal ☒ Normal ☐ Below Normal  
Month/Day/ Year
8. Other references reviewed: USGS maps  
(Zone II, IWPA, Zone A, EEA Data Portal, etc.)



Commonwealth of Massachusetts  
City/Town of Bolton

## Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

### C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TH-1      4/8/2022      10:00 A.M.      Sunny 60F      42 24'24"      71 36' 78"  
Hole #      Date      Time      Weather      Latitude      Longitude

1. Land Use: Vacant Lot      grass      None      3%  
(e.g., woodland, agricultural field, vacant lot, etc.)      Vegetation      Surface Stones (e.g., cobbles, stones, boulders, etc.)      Slope (%)

Description of Location: Open Meadow Lot #0 South Bolton Road

2. Soil Parent Material: Sand      Back Slope      BS  
Landform      Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from:      Open Water Body >100 feet      Drainage Way >100' feet      Wetlands >100' feet  
Property Line >10 feet      Drinking Water Well >100 feet      Other \_\_\_\_\_ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No      If Yes: ☐ Disturbed Soil/Fill Material      ☐ Weathered/Fractured Rock      ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No      If yes: \_\_\_\_\_ Depth to Weeping in Hole      \_\_\_\_\_ Depth Standing Water in Hole

### Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-6"	A	SL	10 YR2/2		Cnc : _____ Dpl: _____						
6-18"	B	SL	7.5YR5/4		Cnc : _____ Dpl: _____						
18-156"	C	SAND	7.5YR5/4		Cnc : _____ Dpl: _____						
					Cnc : _____ Dpl: _____						
					Cnc : _____ Dpl: _____						
					Cnc : _____ Dpl: _____						

Additional Notes:



Commonwealth of Massachusetts  
City/Town of Bolton

## Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

### C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TH-2      4/8/2022      10:00 A.M.      SUNNY 60 F      42 24' 24"      71 36' 78"  
Hole #      Date      Time      Weather      Latitude      Longitude

1. Land Use Vacant Lot      grass      None      3%  
(e.g., woodland, agricultural field, vacant lot, etc.)      Vegetation      Surface Stones (e.g., cobbles, stones, boulders, etc.)      Slope (%)

Description of Location: Open Meadow Lot#0 South Bolton Road

2. Soil Parent Material: Sand      Back slope      BS  
Landform      Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from:      Open Water Body >100 feet      Drainage Way >100 feet      Wetlands >100 feet  
Property Line >10 feet      Drinking Water Well >100 feet      Other        feet

4. Unsuitable Materials Present: ☐ Yes ☒ No      If Yes: ☐ Disturbed Soil/Fill Material      ☐ Weathered/Fractured Rock      ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No      If yes:        Depth to Weeping in Hole             Depth to Standing Water in Hole

#### Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-9"	A	SL	10YR2/2		Cnc : Dpl:						
9-24"	B	SL	7.5 YR5/6		Cnc : Dpl:						
24-144"	C	SAND	7.5 YR5/4		Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:



Commonwealth of Massachusetts  
City/Town of Bolton

## Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

### C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TH-3      34/8/2022      10:00 A.M.      Sunny 60F      42 24'24"      71 36' 78"  
Hole #      Date      Time      Weather      Latitude      Longitude

1. Land Use: Vacant Lot      grass      None  
(e.g., woodland, agricultural field, vacant lot, etc.)      Vegetation      Surface Stones (e.g., cobbles, stones, boulders, etc.)      3%  
Slope (%)

Description of Location: Open Meadow Lot #0 South Bolton Road

2. Soil Parent Material: Sand      Back Slope      BS  
Landform      Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from:      Open Water Body >100 feet      Drainage Way >100' feet      Wetlands >100' feet  
Property Line >10 feet      Drinking Water Well >100 feet      Other \_\_\_\_\_ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No      If Yes: ☐ Disturbed Soil/Fill Material      ☐ Weathered/Fractured Rock      ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No      If yes: \_\_\_\_\_ Depth to Weeping in Hole      \_\_\_\_\_ Depth Standing Water in Hole

#### Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-9"	A	SL	10 YR2/2		Cnc : Dpl:						
9-24"	B	SL	7.5YR5/4		Cnc : Dpl:						
18-156"	C	SAND	7.5YR5/4		Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:



## Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

### C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TH-4      4/8/2022      10:00 A.M.      SUNNY 60 F      42 24' 24"      71 36' 78"  
Hole #      Date      Time      Weather      Latitude      Longitude

1. Land Use Vacant Lot      grass      None      3%  
(e.g., woodland, agricultural field, vacant lot, etc.)      Vegetation      Surface Stones (e.g., cobbles, stones, boulders, etc.)      Slope (%)

Description of Location: Open Meadow Lot#0 South Bolton Road

2. Soil Parent Material: Sand      Back slope      BS  
Landform      Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from:      Open Water Body >100 feet      Drainage Way >100 feet      Wetlands >100 feet  
Property Line >10 feet      Drinking Water Well >100 feet      Other \_\_\_\_\_ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No      If Yes: ☐ Disturbed Soil/Fill Material      ☐ Weathered/Fractured Rock      ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No      If yes: \_\_\_\_\_ Depth to Weeping in Hole      \_\_\_\_\_ Depth to Standing Water in Hole

#### Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-9"	A	SL	10YR2/2		Cnc : Dpl:						
9-24"	B	SL	7.5 YR5/6		Cnc : Dpl:						
24-144"	C	SAND	7.5 YR5/4		Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:



## Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

### D. Determination of High Groundwater Elevation

1. Method Used (Choose one):

☒ Depth to soil redoximorphic features

Obs. Hole # TH-2

Obs. Hole # \_\_\_\_\_

144 inches

\_\_\_\_\_ inches

☐ Depth to observed standing water in observation hole

\_\_\_\_\_ inches

\_\_\_\_\_ inches

☐ Depth to adjusted seasonal high groundwater ( $S_h$ )  
(USGS methodology)

\_\_\_\_\_ inches

\_\_\_\_\_ inches

Index Well Number \_\_\_\_\_

Reading Date \_\_\_\_\_

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole/Well# \_\_\_\_\_  $S_c$  \_\_\_\_\_  $S_r$  \_\_\_\_\_  $OW_c$  \_\_\_\_\_  $OW_{max}$  \_\_\_\_\_  $OW_r$  \_\_\_\_\_  $S_h$  \_\_\_\_\_

### E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

☒ Yes ☐ No

b. If yes, at what depth was it observed (exclude O, A, and E Horizons)?

Upper boundary: 18"  
inches

Lower boundary: 144"  
inches

c. If no, at what depth was impervious material observed?

Upper boundary: \_\_\_\_\_  
inches

Lower boundary: \_\_\_\_\_  
inches



Commonwealth of Massachusetts  
City/Town of Bolton

## Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

### F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator

James Morin

#12907

Typed or Printed Name of Soil Evaluator / License #

William Brookings

Name of Approving Authority Witness

4/15/2022

Date

6/30/2024

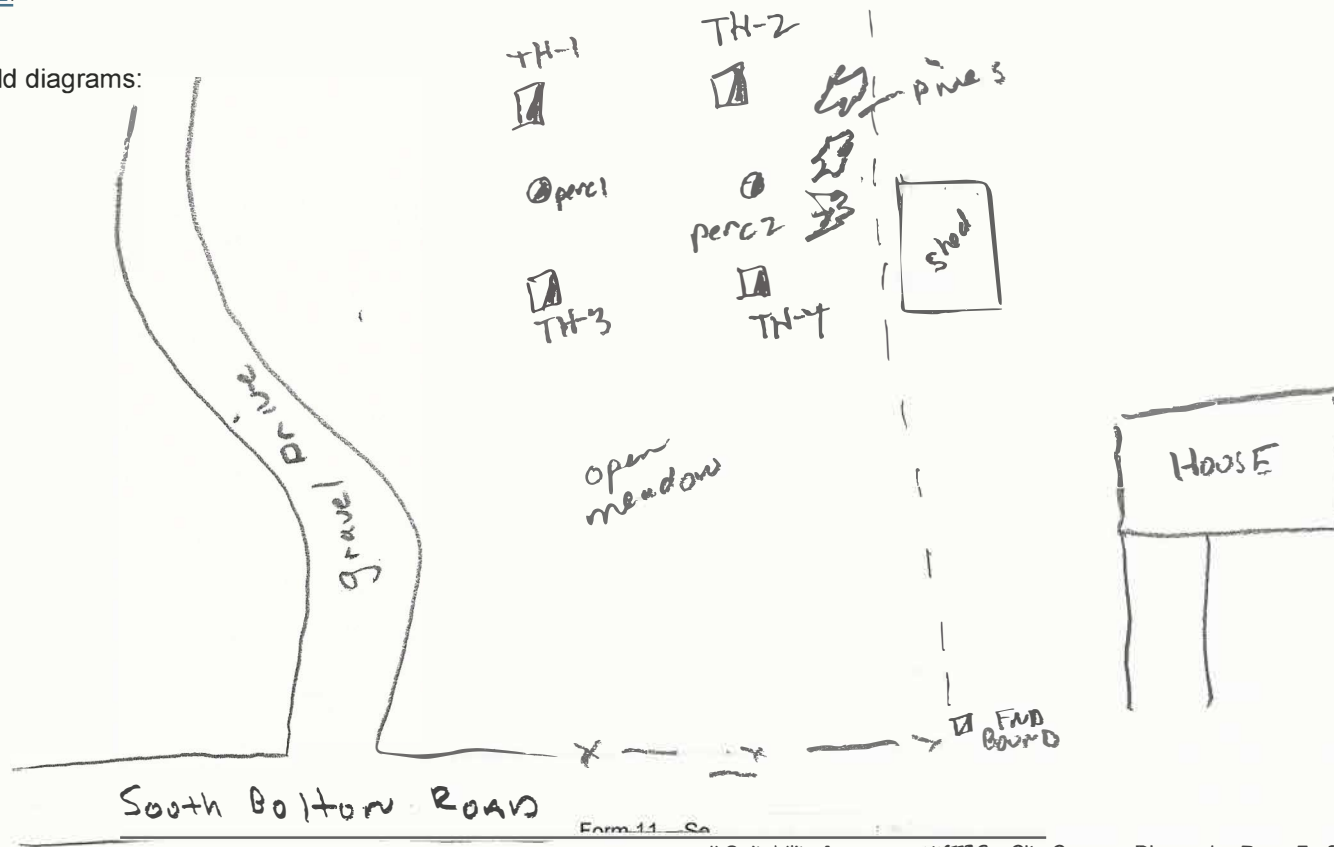
Expiration Date of License

Nashoba Board of Health

Approving Authority

**Note:** In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with [Percolation Test Form 12](#).

**Field Diagrams:** Use this area for field diagrams:







Commonwealth of Massachusetts  
City/Town of Bolton  
**Percolation Test**  
**Form 12**

Percolation test results must be submitted with the Soil Suitability Assessment for On-site Sewage Disposal. DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



## A. Site Information

James Morin

Owner Name

Mallard Lane

Street Address or Lot #

Bolton

City/Town

MA

State

01740

Zip Code

774-696-2246

Telephone Number

Contact Person (if different from Owner)

## B. Test Results

	4/8/2022 Date	10:00 Time	4/8/2022 Date	10:00 Time
Observation Hole #	Perc-1		Perc-2	
Depth of Perc	40"		42"	
Start Pre-Soak				
End Pre-Soak				
Time at 12"				
Time at 9"				
Time at 6"				
Time (9"-6")				
Rate (Min./Inch)	2 MPI		2 MPI	
	Test Passed: <input checked="" type="checkbox"/>		Test Passed: <input checked="" type="checkbox"/>	
	Test Failed: <input type="checkbox"/>		Test Failed: <input type="checkbox"/>	

James Morin

Test Performed By:

William Brookings

Board of Health Witness

Comments:

Added 24 Gallons Couldn't saturate 2MPI