



Commonwealth of Massachusetts  
City/Town of Burlington

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

### A. Facility Information

Burlington Public Schools

Owner Name

114 Winn Street

Street Address

Burlington

City

MA  
State

Map/Lot #

01803

Zip Code

### B. Site Information

1. (Check one)  New Construction  Upgrade

2. Soil Survey USDA WEEb Soil Survey 420B and 73B Canton Fine Sandy Loam and Whitman F.S.L.  
Source Soil Map Unit Soil Series

Moraines

Landform

Area includes filled soils 656- Udothents - Urban Land Complex  
Soil Limitations

Fine Sandy Loam

Soil Parent material

3. Surficial Geological Report

2025

Year Published/Source

Map Unit

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): 12/2/25 Range:  Above Normal  Normal  Below Normal

Month/Day/ Year

8. Other references reviewed:  
(Zone II, IWPA, Zone A, EEA Data Portal, etc.) Winchester is normal, Waltham is below normal. No data point for Burlington per USGS.



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

Deep Observation Hole Number:	1 Hole #	12/2/25 Date	8:00 am Time	30s cloudy Weather	Latitude	Longitude
1. Land Use	Athletic Field (e.g., woodland, agricultural field, vacant lot, etc.)	Grass Vegetation	None	Surface Stones (e.g., cobbles, stones, boulders, etc.)	2% Slope (%)	
Description of Location: Corner of proposed field by existing track						
2. Soil Parent Material:	Sandy Loam	Moraines Landform	TS Position on Landscape (SU, SH, BS, FS, TS, Plain)			
3. Distances from:	Open Water Body 500 feet	Drainage Way 100 feet	Wetlands 100+ feet			
	Property Line 250+ feet	Drinking Water Well 250+ feet	Other _____ feet			
4. Unsuitable Materials Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    If Yes: <input checked="" type="checkbox"/> Disturbed Soil/Fill Material <input type="checkbox"/> Weathered/Fractured Rock <input type="checkbox"/> Bedrock					
5. Groundwater Observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    If yes: _____ Depth to Weeping in Hole 62" 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			
0-15	A(fill)	Sandy Loam	10YR 3/2	n/a	Cnc :n/a	n/a	0-2%	0%	Granular	friable	
					Dpl:						
15-42	C1(fill)	Sandy Loam	10YR 5/6	n/a	Cnc :n/a	n/a	2-5%	5-10%	Subangular	firm	
					Dpl:						
42-62	C2(fill)	Sandy Loam	G1-5/10Y	n/a	Cnc :n/a	n/a	2-5%	5-10%	Subangular	firm	
					Dpl:						
62-66+	A(buried)	Sandy Loam	G1-2.5/N	n/a	Cnc :	n/a	0-2%	0%	Massive	friable	
					Dpl:						

#### Additional Notes:

Standing water at 10:30 am. depth of standing water at 62" perched high ground water estimated at 42" at the interface of C1 and C2 soils due to depletion.



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

Deep Observation Hole Number: <u>2</u>		Date <u>12/2/25</u>	Time <u>8:30 am</u>	Weather <u>30s cloudy</u>	Latitude	Longitude	
1.	Land Use: <u>Athletic Field</u> (e.g., woodland, agricultural field, vacant lot, etc.)	Vegetation <u>Grass</u>	None	Surface Stones (e.g., cobbles, stones, boulders, etc.) <u>2%</u> Slope (%)			
Description of Location: <u>Backyard of Residence</u>							
2.	Soil Parent Material: <u>Sandy Loam</u>	Moraines Landform	TS	Position on Landscape (SU, SH, BS, FS, TS, Plain)			
3.	Distances from: Open Water Body <u>400</u> feet	Drainage Way <u>50</u> feet	Wetlands <u>50</u> feet				
	Property Line <u>250+</u> feet	Drinking Water Well <u>250+</u> feet	Other <u>      </u> feet				
4.	Unsuitable Materials Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes: <input checked="" type="checkbox"/> Disturbed Soil/Fill Material <input type="checkbox"/> Weathered/Fractured Rock <input type="checkbox"/> Bedrock					
5.	Groundwater Observed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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			
0-8	A(fill)	Sandy Loam	10 YR 3/2	n/a	Cnc :n/a Dpl:	n/a	0-2%	0%	granular	friable	
8-36	C1(fill)	Sandy Loam	10 YR 5/6	n/a	Cnc :n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
36-64	C2(fill)	Sandy Loam	G1-5/10Y	n/a	Cnc :n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
64-70+	A(buried)	Sandy Loam	G1-2.5/N	n/a	Cnc : Dpl:		0-2%	0%	massive	friable	
					Cnc : Dpl:						
					Cnc : Dpl:						

#### Additional Notes:

High ground water estimated at 36" at the interface of C1 and C2 soils due to depletion.



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

Deep Observation Hole Number:	3	Hole #	12/2/25	Date	9:00 am	Time	30s cloudy	Weather	Latitude	Longitude
1. Land Use	Athletic Field (e.g., woodland, agricultural field, vacant lot, etc.)	Grass Vegetation	None	Surface Stones (e.g., cobbles, stones, boulders, etc.)	2%	Slope (%)				
Description of Location: Corner of proposed field by existing track										
2. Soil Parent Material:	Sandy Loam	Moraines Landform	TS Position on Landscape (SU, SH, BS, FS, TS, Plain)							
3. Distances from:	Open Water Body 300 feet	Drainage Way 50 feet	Wetlands 50 feet							
	Property Line 100 feet	Drinking Water Well 250+ feet	Other _____ feet							
4. Unsuitable Materials Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes: <input checked="" type="checkbox"/> Disturbed Soil/Fill Material <input type="checkbox"/> Weathered/Fractured Rock <input type="checkbox"/> Bedrock								
5. Groundwater Observed:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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			
0-10	A(fill)	Sandy Loam	10YR 3/2	n/a	Cnc :n/a	n/a	0-2%	0%	Granular	friable	
					Dpl:						
10-27	C1(fill)	Sandy Loam	10YR 5/6	n/a	Cnc :n/a	n/a	2-5%	5-10%	Subangular	firm	
					Dpl:						
27-55	C2(fill)	Sandy Loam	G1-5/10Y	n/a	Cnc :n/a	n/a	2-5%	5-10%	Subangular	firm	
					Dpl:						
55-58+	A(buried)	Sandy Loam	G1-2.5/N	n/a	Cnc :	n/a	0-2%	0%	Massive	friable	
					Dpl:						

#### Additional Notes:

Perched high water table estimated at 27" at the interface between C1 and C2



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

Deep Observation Hole Number: 4		12/2/25	9:30 am	30s cloudy	Latitude	Longitude
Hole #	Date	Time	Weather			
1. Land Use: Athletic Field (e.g., woodland, agricultural field, vacant lot, etc.)	Grass Vegetation	None	Surface Stones (e.g., cobbles, stones, boulders, etc.)			
Description of Location: Backyard of Residence						
2. Soil Parent Material: Sandy Loam	Moraines Landform	TS	Position on Landscape (SU, SH, BS, FS, TS, Plain)			
3. Distances from:	Open Water Body 110 feet	Drainage Way 50 feet	Wetlands	50 feet		
	Property Line 75 feet	Drinking Water Well 250+ feet	Other	feet		
4. Unsuitable Materials Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes: <input checked="" type="checkbox"/> Disturbed Soil/Fill Material <input type="checkbox"/> Weathered/Fractured Rock <input type="checkbox"/> Bedrock					
5. Groundwater Observed:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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			
0-8	A(fill)	Sandy Loam	10 YR 3/2	n/a	Cnc :n/a Dpl:	n/a	0-2%	0%	granular	friable	
8-24	C1(fill)	Sandy Loam	10 YR 5/6	n/a	Cnc :n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
24-50	C2(fill)	Sandy Loam	G1-5/10Y	n/a	Cnc :n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
50-52+	A(buried)	Sandy Loam	G1-2.5/N	n/a	Cnc : Dpl:		0-2%	0%	massive	friable	
					Cnc : Dpl:						
					Cnc : Dpl:						

#### Additional Notes:

Weeping at 50" high ground water estimated at 24" at the interface of C1 and C2 soils due to depletion.



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## 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:	5	Hole #	12/2/25	Date	10:00 am	Time	30s cloudy	Weather	Latitude	Longitude
1. Land Use	Athletic Field (e.g., woodland, agricultural field, vacant lot, etc.)	Grass Vegetation	None	Surface Stones (e.g., cobbles, stones, boulders, etc.)	2%	Slope (%)				
Description of Location: Corner of proposed field by existing track										
2. Soil Parent Material:	Sandy Loam	Moraines Landform	TS Position on Landscape (SU, SH, BS, FS, TS, Plain)							
3. Distances from:	Open Water Body 300 feet	Drainage Way 50 feet	Wetlands 50 feet							
	Property Line 100 feet	Drinking Water Well 250+ feet	Other _____ feet							
4. Unsuitable Materials Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes: <input checked="" type="checkbox"/> Disturbed Soil/Fill Material <input type="checkbox"/> Weathered/Fractured Rock <input type="checkbox"/> Bedrock								
5. Groundwater Observed:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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			
0-8	A(fill)	Sandy Loam	10YR 3/2	n/a	Cnc :n/a	n/a	0-2%	0%	Granular	friable	
					Dpl:						
8-28	C1(fill)	Sandy Loam	10YR 5/6	n/a	Cnc :n/a	n/a	2-5%	5-10%	Subangular	firm	
					Dpl:						
28-53	A(buried)	Sandy Loam	G1-2.5/N	n/a	Cnc :n/a	n/a	0-2%	0%	Subangular	firm	
					Dpl:						
53-55+	Glay	Sandy Loam	G1-5/10Y	n/a	Cnc :	n/a	0-2%	0%	Massive	friable	
					Dpl:						

#### Additional Notes:

Seasonal High Groundwater at 53" (Glay Soil under buried topsoil)



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### D. Determination of High Groundwater Elevation

1. Method Used (Choose one):

Depth to soil redoximorphic features      Obs. Hole # \_\_\_\_\_ inches      Obs. Hole # \_\_\_\_\_ 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: \_\_\_\_\_ inches      Lower boundary: \_\_\_\_\_ inches

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

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



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## 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.

*Arsen Hambardzumian*

Signature of Soil Evaluator

Arsen Hambardzumian

Typed or Printed Name of Soil Evaluator / License #

Christine Mathis

Name of Approving Authority Witness

12/2/25

Date

6/30/26

Expiration Date of License

Burlington BOH

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:

See updated existing conditions plan with surveyed test pit locations and elevations.

Note: Additional witnesses at the time of test pits include Eileen Coleman (Town of Burlington) and Stephen Cadorette (GM2)