

Three Oaks Environmental

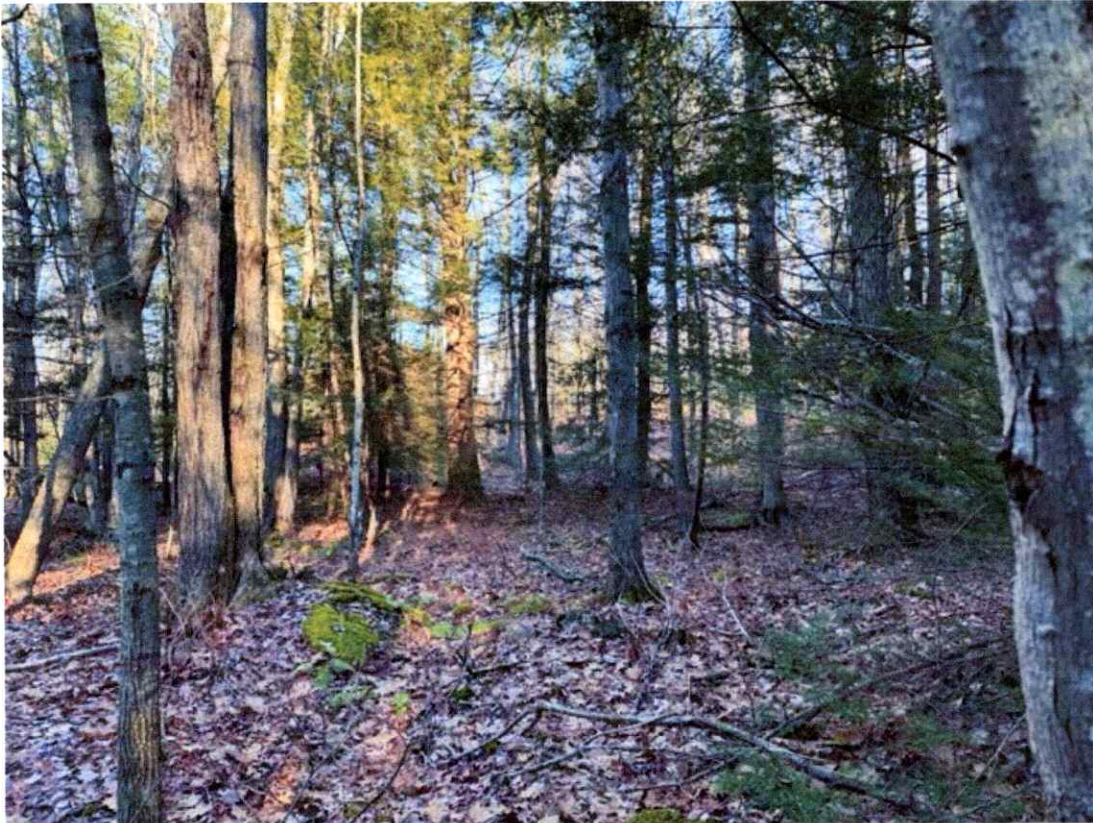
P.O. Box 404 Hubbardston, MA 01452
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December 14, 2022

John Deline
jdeline@verizon.net

Re: Wetlands delineation, Sunny 39°F
43 Baldwinville Rd. Winchendon

I delineated the wetland at the above-referenced site on December 9, 2022 in preparation for designing a septic system repair. From the end of the driveway the site drops down to an upland terrace of American beech, white pine, red oak, white ash, and eastern hemlock. It eventually grades into a Bordering Vegetated Wetland (BVW) as depicted in the photo below. I used blue flagging beginning with number W1 at the southern end of the property.



View from the wetland towards the upland and existing home

Vegetation observed in the wetland includes: winterberry holly, red maple, yellow birch, cinnamon fern, sphagnum moss, an unknown sedge, wool grass, and highbush blueberry.

Vegetation observed in the upland includes: red oak, american beech, white pine, christmas fern, white ash, wintergreen, hayscented fern, princess pine clubmoss, staghorn clubmoss, and eastern hemlock.



View from the wetland boundary into the shrub swamp

The BVW boundary was located by keeping the clubmosses, wintergreen, and christmas fern on the upland side of the line.

I researched MassGIS data layers and determined that there are no rare species, priority habitats, certified or potential vernal pools indicated on the site (see attached MassGIS mapping). The wetland is not considered to be an Outstanding Resource Water, or ACEC (Area of Critical Environmental Concern). There is no FEMA 100-year floodplain indicated on the site. The NRCS soil mapping indicates that the upland is a Becket-Skerry association soil, extremely stony. The wetland soil is depicted as Bucksport and Wonsqueak muck. This is consistent with my observations in the field. The soil descriptions are attached to this report.

Please feel free to contact me if you have any questions regarding this report.

Sincerely,

MaryAnn DiPinto, PWS #0227

threeoaksenvironmental@gmail.com

attachments

Mary Ann DiPinto
12/14/22

43 Baldwinville Rd Locus

Property Tax Parcels



43 Baldwinville Rd Winchendon Wetland Resources



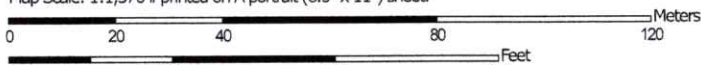
- Outstanding Resource Waters
 - ACEC
 - Cape Cod National Seashore
 - Protected Shoreline
 - Public Water Supply Watershed
 - Retired Public Water Supply
 - Scenic/Protected River
 - Wildlife Refuge
- Q3 Flood Zones (from Paper FIRMs, where NFHL Unavailable)
 - A
 - AE
 - AE Floodway
 - AH
 - AO
 - D
 - VE
 - Area Not Included
 - X500
- NHESP Priority Habitats of Rare Species
 - NHESP Estimated Habitats of Rare Wildlife
 - NHESP Certified Vernal Pools
 - Potential Vernal Pools
 - DEP Wetlands Labels
- DEP Wetlands Linear Features
 - SHORELINE
 - HYDROLOGIC CONNECTION
 - MEAN WATER LINE
 - APPARENT WETLAND LIMIT
 - CLOSURE LINE
 - EDGE OF INTERPRETED AREA
- Property Tax Parcels

Soil Map—Worcester County, Massachusetts, Northwestern Part
(43 Baldwinville Rd)



Soil Map may not be valid at this scale.

Map Scale: 1:1,370 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 18N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
59A	Bucksport and Wonsqueak mucks, 0 to 2 percent slopes	2.7	31.0%
351B	Becket fine sandy loam, 3 to 8 percent slopes	0.1	0.9%
908C	Becket-Skerry association, 0 to 15 percent slopes, extremely stony	5.8	67.6%
917B	Pillsbury-Peacham association, 0 to 8 percent slopes, extremely stony	0.0	0.5%
Totals for Area of Interest		8.6	100.0%

Worcester County, Massachusetts, Northwestern Part

59A—Bucksport and Wonsqueak mucks, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2ty70
Elevation: 0 to 1,770 feet
Mean annual precipitation: 31 to 95 inches
Mean annual air temperature: 27 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Bucksport and similar soils: 48 percent
Wonsqueak and similar soils: 41 percent
Minor components: 11 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bucksport

Setting

Landform: Mountains, hills
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Mountainbase, interfluve, base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Herbaceous organic material and/or woody organic material

Typical profile

Oa1 - 0 to 12 inches: muck
Oa2 - 12 to 25 inches: muck
Oa3 - 25 to 45 inches: muck
Oa4 - 45 to 65 inches: muck

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water supply, 0 to 60 inches: Very high (about 21.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: B/D
Ecological site: F143XY210ME - Marsh Wetland Complex,
F143XY302ME - Mucky Swamp
Hydric soil rating: Yes

Description of Wonsqueak

Setting

Landform: Mountains, hills
Landform position (two-dimensional): Foothills, toeslope
Landform position (three-dimensional): Mountainbase, interfluve,
base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Herbaceous organic material over loamy till

Typical profile

Oa1 - 0 to 8 inches: muck
Oa2 - 8 to 32 inches: muck
2Cg - 32 to 65 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water
(Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Very high (about 18.8
inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: B/D
Ecological site: F143XY302ME - Mucky Swamp
Hydric soil rating: Yes

Minor Components

Peacham, very stony

Percent of map unit: 6 percent
Landform: Mountains, hills
Landform position (two-dimensional): Foothills, toeslope
Landform position (three-dimensional): Mountainbase, interfluve,
base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Worcester County, Massachusetts, Northwestern Part

908C—Becket-Skerry association, 0 to 15 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: 2x9ny
Elevation: 820 to 1,280 feet
Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Becket, extremely stony, and similar soils: 45 percent
Skerry, extremely stony, and similar soils: 35 percent
Minor components: 20 percent
*Estimates are based on observations, descriptions, and transects of
the mapunit.*

Description of Becket, Extremely Stony

Setting

Landform: Mountains, hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainflank,
mountainbase, interfluve, nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy lodgment till derived from granite and
gneiss and/or schist over sandy lodgment till derived from
granite and gneiss and/or schist

Typical profile

O_i - 0 to 2 inches: slightly decomposed plant material
E - 2 to 4 inches: fine sandy loam
B_{hs} - 4 to 5 inches: fine sandy loam
B_{s1} - 5 to 7 inches: fine sandy loam
B_{s2} - 7 to 14 inches: fine sandy loam
B_{s3} - 14 to 24 inches: gravelly sandy loam
BC - 24 to 33 inches: gravelly sandy loam
Cd - 33 to 65 inches: gravelly loamy sand

Properties and qualities

Slope: 0 to 15 percent
Surface area covered with cobbles, stones or boulders: 6.0 percent
Depth to restrictive feature: 21 to 43 inches to densic material
Drainage class: Well drained
*Capacity of the most limiting layer to transmit water
(K_{sat}):* Moderately low to moderately high (0.01 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)
Hydric soil rating: No

Description of Skerry, Extremely Stony

Setting

Landform: Mountains, hills
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy lodgment till derived from granite and gneiss and/or schist over sandy lodgment till derived from granite and gneiss and/or schist

Typical profile

Oa - 0 to 2 inches: highly decomposed plant material
E - 2 to 4 inches: fine sandy loam
Bhs - 4 to 6 inches: fine sandy loam
Bs1 - 6 to 20 inches: gravelly fine sandy loam
Bs2 - 20 to 25 inches: gravelly fine sandy loam
Cd1 - 25 to 34 inches: gravelly loamy sand
Cd2 - 34 to 65 inches: gravelly loamy sand

Properties and qualities

Slope: 0 to 15 percent
Surface area covered with cobbles, stones or boulders: 6.0 percent
Depth to restrictive feature: 21 to 43 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)
Depth to water table: About 19 to 34 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C/D
Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)
Hydric soil rating: No