REQUEST FOR DETERMINAION OF APPLICABILITY
66 Leverett Road Environmental Investigation

Town of Shutesbury
Shutesbury, Massachusetts

September 2022

FUSS & O'NEILL

1550 Main Street, Suite 400
Springfield, MA 01103

Project No. 2009-1032-A22

Project No. 2009-1032-A22

FUSS & O'NEILL

September 30, 2022

Shutesbury Conservation Commission
1 Cooleyville Road
PO Box 276
Shutesbury, MA 01072

Re: Request for Determination of Applicability
66 Leverett Road Environmental Investigation
Shutesbury, Massachusetts

Dear Members of the Conservation Commission:

On behalf of the Town of Shutesbury, Fuss & O'Neill is submitting this Request for Determination of Applicability (RDA) under the Massachusetts Wetlands Protection Act (MAWPA: M.G.L. c 131 § 40) and the Town of Shutesbury General Wetlands Protection Bylaw (Wetlands Bylaw) and associated regulations for the 66 Leverett Road Environmental Investigation.

This RDA is being filed since portions of the proposed work will occur within the 100-foot Buffer Zone to Bordering Vegetated Wetlands (BVW), as regulated under the MAWPA and Wetlands Bylaw. In addition, the proposed work requires access through an IVW within an existing access route and activities within the 100-foot Buffer Zone of IVW, as regulated under the Wetlands Bylaw only.

Work within the 100-foot Buffer Zone to BVW is limited to soil test pits which are considered exempt under the MAWPA in accordance with 310 CMR 10.02(2)(b)(2)(g) as they consist of "*Activities that are temporary in nature, have negligible impacts, and are necessary for planning and design purposes (e.g., installation of monitoring wells, exploratory borings, sediment sampling and surveying and percolation tests for septic provided that resource areas are not crossed for the site access.*"

Based on the minimal disturbance necessary to conduct the environmental investigation, we respectfully request that the Shutesbury Conservation Commission make a Negative 3 Determination, finding that *"the work described in the Request is within the Buffer Zone, as defined in the regulations, but will not alter an Area subject to protection under the Act. Therefore, said work does not require the filing of a Notice of Intent."*

Subject Parcel

The 21.2-acre subject parcel, Parcel ID #O-32, is located at 66 Leverett Road, Shutesbury and is owned by the Town of Shutesbury (Town). The subject parcel was formerly operated as a military

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Massachusetts
New Hampshire
Rhode Island
Vermont

communications facility with a radio tower, a three-car garage, and other infrastructure, which has since been demolished. There are no buildings currently present on the parcel.

The northeast portion of the parcel is regularly mowed and contains a gravel driveway accessed from Leverett Road. The remainder of the parcel is forested with a mixed deciduous and coniferous species. A compacted, sandy access route generally aligned in a north south direction provides access from the regularly maintained portion of the parcel to the interior of the parcel. The access route is approximately 12 feet wide, 1,300 feet long, and transitions into a narrower walking path at its southernmost extent. The access route is shown on Figures 2 and 3 in Attachment B. Additional access routes and walking paths are present within the subject parcel, but were not included in the attached figures.

The subject parcel consists of forested uplands, with four wetland areas primarily within the northern portion. Refer to the Delineation Report in Attachment C for a detailed description of wetlands identified on site.

Proposed Activities

Subsurface environmental investigation is proposed at two general areas: the former three-car garage area and former radio tower area. The environmental investigation is being overseen by a Licensed Site Professional (LSP) and is described below.

Soil Test Pit Investigation – Former Three-Car Garage Area

Up to eight (8) exploratory test pits will be advanced within the vicinity of the demolished three-car garage. A minimum of one test pit will be excavated at the location of the historic floor drain and one at the location of the terminus of the historic floor drain. Prior to commencement of work, a "BRP WS06 – Registration of a Class V Underground Injection Control (UIC) Well and Modification of an Existing Registration" will be filed with the Massachusetts Department of Environmental Protection (MassDEP).

The soil test pit investigation will consist of the following:

- A backhoe or excavator will access the site from the driveway.
- Test pits (approximately 12 square feet each) will be excavated to a depth of approximately three to four feet.
- Soil conditions will be logged and field screening of soils performed with an organic vapor meter (OVM).
- Up to two (2) three-point composite soil samples will be collected from the test pits at the interface between the disturbed and native soils.
- Soil samples will be analyzed by a laboratory using MassDEP-approved testing methods.
- Upon completion of work, soil test pits will be backfilled to grade, seeded, and mulched with straw.
- Following receipt of the data, Fuss & O'Neill will complete and file a UIC Post-Closure Notification Form and corresponding letter report.

Soil Borings Investigation – Former Radio Tower Area

Fuss & O'Neill will perform a soil boring investigation within the vicinity of the demolished radio tower to evaluate the reproducibility of the reportable concentration of Volatile Petroleum Hydrocarbon (VPH) Ranges identified in an October 2021 report by O'Reilly, Talbot & Okun. Soil borings will be advanced to further delineate the nature and extent of the release condition and confirm the absence or presence of related environmental conditions in the area.

The soil borings are located outside of the 100-foot Buffer Zone to BVW and IVW, but require access along an established access route through an IVW (IVW 4) that has established in the depressions caused by tire ruts. IVW 4 was likely manmade and formed from the compaction of soils overtime from vehicle access. Due to its geomorphic position, water likely collects at this low point in the road and remains there. Refer to Figure 2 for the proposed location for soil borings.

The soil boring investigation will generally consist of the following:

- A drilling rig will utilize the existing access route for soil boring and soil sampling.
- Borings will be advanced via Geoprobe® direct-push methods to a maximum depth of up to 15 feet below grade or refusal for up to eight (8) locations.
- Soil conditions will be logged and field screening of soils performed with an organic vapor meter (OVM).
- Soil samples will be collected from the soil borings for laboratory analysis in accordance with Massachusetts Contingency Plan.
- Soil samples will be analyzed by a laboratory using MassDEP-approved testing methods.
- Upon completion of work, soil borings will be backfilled to grade.

Buffer Zone Impacts

The proposed project will result in approximately 96 sf of temporary impacts to the 100-foot Buffer Zone to IVW resulting from the soil test pits. The soil boring investigation will require access through an IVW, but due to the compacted nature of the IVW and historic use of this access route through the IVW, impacts are not anticipated. As described in the Delineation Report, the IVW was likely created as a result of compaction from vehicle access.

Summary

We look forward to discussing the project with the Shutesbury Conservation Commission and anticipate being included in the Commission's public meeting on October 13, 2022. Abutters were notified in accordance with the MAWPA and Wetlands Bylaw and notice of the public meeting for this RDA will be published in the Daily Hampshire Gazette.

We trust the materials are sufficient for the Commission to issue a Negative Determination. Should you have any questions regarding this application, please contact me at mkissane@fando.com / 413-333-5472.

Sincerely,

Matthew Kissane
Environmental Geologist

Copy: MassDEP (WERO) Division of Wetlands and Waterways
Mary Anne Antonellis, Director, M.N. Spear Memorial Library

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ATTACHMENTS

A **WPA Form 1 – Request for Determination of Applicability**

B **Figures**

- Topographic Map (Figure 1)
- Wetland Delineation Overview (Figure 2)
- Site Plan (Figure 3)

C **Massachusetts Inland Resource Area Delineation Report**

C **Abutters Information**

- Certified List of Abutters
- Abutter Notification Form

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Attachment A

WPA Form 1 – Request for Determination of Applicability

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Shutesbury
City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information

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

1. Applicant:

Town of Shutesbury (Attn: Mary Anne Antonellis) — Name
library.director@shutesbury.org — E-Mail Address
10 Cooleyville Road, PO Box 256 — Mailing Address
Shutesbury — City/Town
MA — State
01072 — Zip Code
413-259-1213 — Phone Number
Fax Number (if applicable)

2. Representative (if any):

Fuss & O'Neill — Firm
Matthew Kissane — Contact Name
mkissane@fando.com — E-Mail Address
1550 Main Street, Suite 400 — Mailing Address
Springfield — City/Town
MA — State
01103 — Zip Code
413-333-5472 — Phone Number
Fax Number (if applicable)

B. Determinations

1. I request the Shutesbury (Conservation Commission) make the following determination(s). Check any that apply:

☐ a. whether the **area** depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act.

☐ b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.

☒ c. whether the **work** depicted on plan(s) referenced below is subject to the Wetlands Protection Act.

☒ d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any **municipal wetlands ordinance** or **bylaw** of:

Shutesbury
Name of Municipality

☐ e. whether the following **scope of alternatives** is adequate for work in the Riverfront Area as depicted on referenced plan(s).

C. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

66 Leverett Road	Shutesbury
Street Address	City/Town
O	O-32
Assessors Map/Plat Number	Parcel/Lot Number

b. Area Description (use additional paper, if necessary):

The proposed project is located within two primary areas, within the vicinity of the demolished three-bay garage and the demolished radio tower. Refer to the cover letter for more details.

c. Plan and/or Map Reference(s):

Topographic Map (Figure 1)	September 2022
Title	Date
Wetland Delineation Overview (Figue 2)	September 2022
Title	Date
Site Plan (Figure 3)	September 2022
Title	Date

2. a. Work Description (use additional paper and/or provide plan(s) of work, if necessary):

The proposed work includes excavation of up to eight (8) exploratory test pits within the vicinity of the demolished three-bay garage, and advancement of soil borings within the vicinity of the demolished radio tower. Refer to the cover letter for more details.

C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

310 CMR 10.02 (2)(b)(2)(g) - Activities that are temporary in nature, have negligible impacts, and are necessary for planning and design purposes (e.g., installation of monitoring wells, exploratory borings, sediment sampling and surveying and percolation tests for septic provided that resource areas are not crossed for the site access.

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

☐ Single family house on a lot recorded on or before 8/1/96

☐ Single family house on a lot recorded after 8/1/96

☐ Expansion of an existing structure on a lot recorded after 8/1/96

☐ Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96

☐ New agriculture or aquaculture project

☐ Public project where funds were appropriated prior to 8/7/96

☐ Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision

☐ Residential subdivision; institutional, industrial, or commercial project

☐ Municipal project

☐ District, county, state, or federal government project

☐ Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Shutesbury
City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

Town of Shutesbury
Name

PO Box 276
Mailing Address

Shutesbury
City/Town

MA
State

01072
Zip Code

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Signature of Applicant

Date 9/30/22

Signature of Representative (if any)

Date 9/30/22

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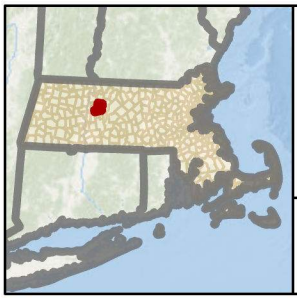
Attachment B
Figures



Subject Parcel

0 1,000 2,000 Feet

N

Topographic Map
66 Leverett Road
Shutesbury, Massachusetts
September 2022

Disclaimer: This map is not the product of a Professional Land Survey. It was created by Fuss & O'Neill, Inc. for general reference, informational, planning and guidance use, and is not a legally authoritative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. Fuss & O'Neill, Inc. makes no warrantee, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.

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Springfield, MA 01103
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Figure 1

Folder: K:\P2009\1032\A22\MXD\Shutesbury Wetlands Maps\ Project: Shutesbury Wetlands Maps Layout: 1-USGS Map: Main Data Frame Map Frame
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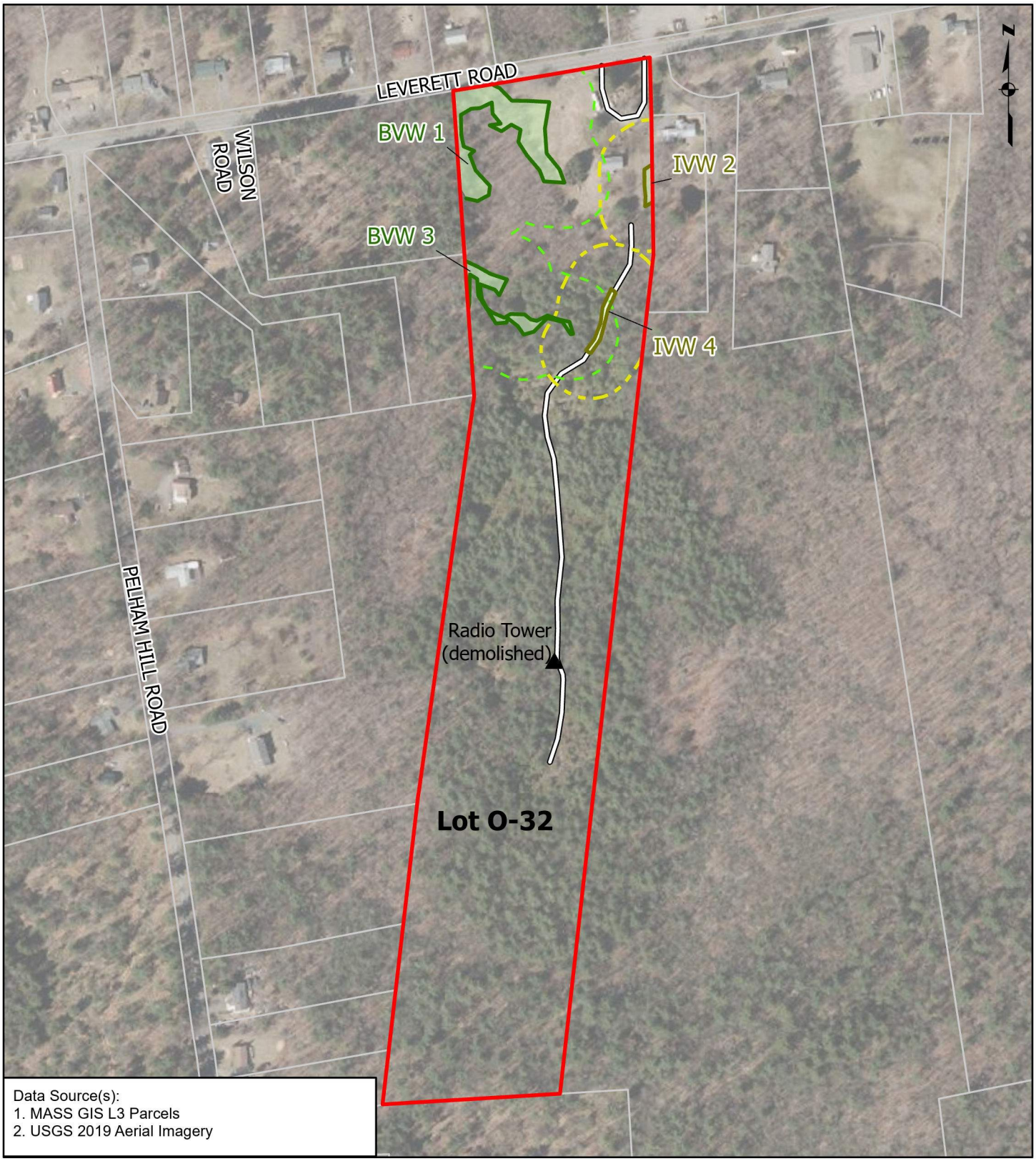
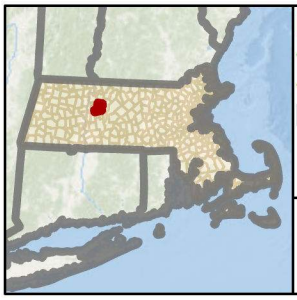


Data Source(s):
1. MASS GIS L3 Parcels
2. USGS 2019 Aerial Imagery



Subject Parcel
BVW Boundary
IVW Boundary
BVW Area
Access
Parcel Boundary
100-ft Buffer Zone (MAWPA & Local)
100-ft Buffer Zone (Local only)

0 75 150 300 Feet

Wetland Delineation conducted by Fuss & O'Neill on August 5 and 16, 2022.

Disclaimer: This map is not the product of a Professional Land Survey. It was created by Fuss & O'Neill, Inc. for general reference, informational, planning and guidance use, and is not a legally authoritative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. Fuss & O'Neill, Inc. makes no warrantee, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.

Wetland Delineation Overview

66 Leverett Road
Shutesbury, Massachusetts

September 2022

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Figure 2

Folder: K:\P2009\1032\A22\MXD\Shutesbury Wetlands Maps\ Project: Shutesbury Wetlands Maps Layout: 2-WetlandSketch Map: Main Data Frame Map Frame
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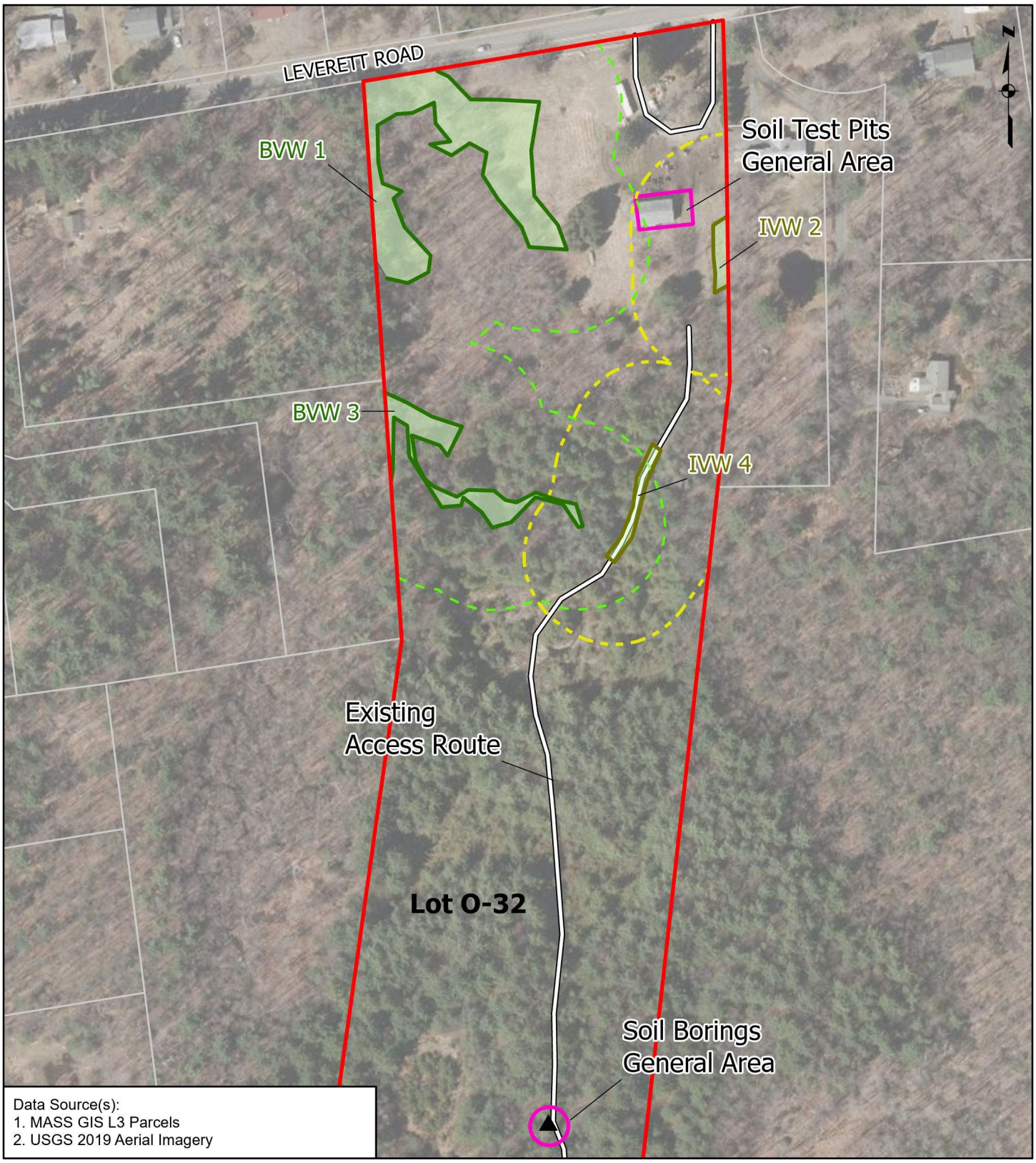

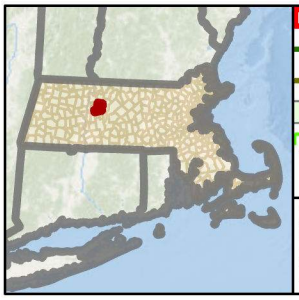

Subject Parcel
BVW Boundary
IVW Boundary
Wetland Area
100-ft Buffer Zone (MAWPA & Local)
100-ft Buffer Zone (Local only)
Environmental Investigation Areas
Access
Parcel Boundary

0 40 80 160 Feet

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Wetland Delineation conducted by Fuss & O'Neill on August 5 and 16, 2022.

Site Plan
66 Leverett Road
Shutesbury, Massachusetts
September 2022

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Figure 3

Folder: K:\P2009\1032\A22\MXD\Shutesbury Wetlands Maps\ Project: Shutesbury Wetlands Maps Layout: 3-RDA Site Overview Map: Main Data Frame Map Frame
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Attachment C

Massachusetts Inland Resource Area Delineation Report

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Massachusetts Inland Resource Area Delineation Report

Report Date: September 6, 2022 (last revised September 30, 2022)

Prepared For: Ms. Mary Anne Antonellis, Director
M.N. Spear Memorial Library
10 Cooleyville Road
PO Box 256
Shutesbury, MA 01072

Site Address: 66 Leverett Road
Shutesbury, Massachusetts 01072

Delineation Date(s): August 5 and 16, 2022

Regulated & Protected Resource Areas[1]

- ☐ Bank
- ☐ Land Under Water Bodies and Waterways
- ☐ Riverfront Area
- ☒ Isolated Vegetated Wetlands (IVW)
- ☐ Priority Habitats of Rare Species
- ☒ Bordering Vegetated Wetland (BVW)
- ☐ Land Subject to Flooding
- ☒ Buffer Zone
- ☐ Estimated Habitats of Rare Wildlife
- ☐ Vernal Pool (Certified and/or Potential)

Table 1
Summary of Wetland Delineation Flag Series

Flag Series	Flag Number	MAWPA and Shutesbury Wetlands Bylaw Resource Area Type	Description
1	1A-100 → 1A-133	BVW	Palustrine Forested Wetland (PFO) and mowed Palustrine Emergent Wetland (PEM)
2	2A-100 → 2A-105	IVW	PFO
3	3A-100 → 3A-118 3B-100 → 3B-113	BVW	PEM and PFO
4	4A-100 → 4A-109	IVW	PEM in access route

Inland resource areas were delineated in accordance with applicable local, state, and federal statutes, as detailed within the Resource Area Description. This delineation does not constitute an official wetland boundary until such time as it is accepted and approved by local, state, or federal regulatory agencies.

The wetland delineation was conducted by:

April Doroski, PWS, CPSS
Water Resources and Climate Resilience Specialist

[1]Under the Massachusetts Wetlands Protection Act (MAWPA), Shutesbury General Wetlands Protection Bylaw (Shutesbury Wetlands Bylaw), and Massachusetts Endangered Species Act (MESA)

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ATTACHMENTS

A Figures
- USGS Topographic Map (Figure 1)
- Wetland Delineation Overview (Figure 2)
- Wetland Flag Locations (Figure 3)

B Site Photographs

C Wetland Determination Data Forms – Northcentral and Northeast Region
- BVWs 1 and 3
- IVWs 2 and 4
- Upland Forms

D FEMA Information
- FEMA FIRMette (Panel No. 250128 0001 0020, effective June 18, 1980)

E NRCS Custom Soil Resource Report
- Custom Soil Resource Report of Franklin County, Massachusetts (August 30, 2022)

Resource Area Description

1.1 Introduction

On August 5 and 26, 2022, a Fuss & O'Neill Inc. wetland and soil scientist performed a wetland resource area delineation within Parcel O-32 at 66 Leverett Road ("Subject Parcel") located in Shutesbury, Massachusetts. The purpose of this investigation was to identify and delineate the jurisdictional limits of regulated and protected resource areas as defined by the Wetlands Protection Act (M.G.L. c. 131 § 40) and its implementing regulations (310 CMR 10.00), the 1987 Corps of Engineers Wetlands Delineation Manual, the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Northcentral and Northeast Region (2012), and the Shutesbury General Wetlands Protection Bylaw and its implementing regulations. This report also includes an assessment of areas protected under the Massachusetts Endangered Species Act (M.G.L. c. 131A).

This report provides a summary of wetland resource areas within the Subject Parcel and includes figures (*Attachment A*), site photographs (*Attachment B*), wetland determination data forms (*Attachment C*), and supplemental information (*Attachments D* and *E*).

1.2 Methodology of Resource Area Delineation

The wetland delineation was conducted in conformance with local, state, and federal regulations and guidelines including:

- *Massachusetts Wetlands Protection Act* ("MAWPA"; M.G.L. c. 131, § 40), its implementing regulations set forth at 310 CMR 10.00
- Massachusetts Department of Environmental Protection (MassDEP) *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act* (March 1995)
- *Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1 (January 1987)
- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012)
- *Field Indicators for Identifying Hydric Soils in New England in New England* (Version 4, April 2019)
- *Town of Shutesbury General Wetlands Protection Bylaw (Shutesbury Wetlands Bylaw)* and associated *Regulations under the General Wetlands Protection Bylaw*

During the August 5 and 26, 2022 delineation, the Fuss & O'Neill wetland and soil scientist walked transects approximately 50 feet apart within the Subject Parcel in a generally south to north alignment across the width of the subject parcel. Fuss & O'Neill observed vegetation throughout the subject parcel as well as soils, verifying the presence or absence of wetlands.

Where Bordering Vegetated Wetlands (BVW), Isolated Vegetated Wetlands (IVW), or Bank was observed, the resource area boundaries were delineated and information regarding vegetation, soils, and hydrology was collected. Each flag location was named based on a numeric-alpha-numeric nomenclature and collected by GPS with sub-meter accuracy.

Fuss & O'Neill also conducted a desktop review of available online resources prior to performing the wetland delineation including Massachusetts Mapper (MassMapper) and FEMA mapping. The Franklin County FEMA Flood Insurance Rate Map (FIRM, Map No. 250128 0001-0020, effective June 18, 1980) and the Natural Heritage & Endangered Species Program (NHESP) database 15th Edition, effective August 1, 2021 was reviewed for the Subject Parcel.

1.3 Resource Areas

1.3.1 Resource Areas Not Present

The following resource areas are not located within the Subject Parcel according to MassMapper and the FEMA FIRM:

- FEMA 100-year Floodplain
- Natural Heritage Endangered Species Program (NHESP) Estimated Habitats of Rare Wildlife
- NHESP Priority Habitats of Rare Species
- NHESP Certified Vernal Pools
- Potential Vernal Pools

1.3.2 Resource Areas and Protected Areas Present Within the Site

Bordering Vegetated Wetlands (BVW): Regulatory Framework

Bordering Vegetated Wetlands are defined under 310 CMR 10.55(2)(a) as "*freshwater wetlands which border on creeks, rivers, streams, ponds, and lakes. The types of freshwater wetlands are wet meadows, marshes, swamps and bogs. Bordering Vegetated Wetlands are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The ground and surface water regime and the vegetation community which occur in each type of freshwater wetland are specified in M.G.L. c. 131, § 40.*"

Bordering Vegetated Wetlands are also regulated under the Shutesbury Wetlands Bylaw. Two BVW's were identified during the wetland delineation. These BVW's extended beyond the Subject Parcel and therefore bordering status was not confirmed, but assumed based on mapped DEP wetlands and hydrologic connections.

BVW: Resource Area Description

BVW 1
Bordering Vegetated Wetland 1 is best described as a seasonally saturated Palustrine Forested Wetland (PFO) and a Palustrine Emergent Wetland (PEM). BVW 1 is located within the northern portion of the Subject Parcel. The western portion of the wetland is primarily forested, while the eastern portion consists of a disturbed, regularly mowed area. Due to recent mowing, species identification was limited, but pockets of sensitive fern (*Onoclea sensibilis*, FACW) were visible. Within the mowed area, the wetland slopes down to the north to a vegetated drainage swale which conveys flow to the west. No standing water was observed within the swale at the time of the delineation. Within the mowed wetland area, BVW 1 was generally delineated based on the presence of sensitive fern, observations of multiple soil test holes, and minor changes in topographic relief.

Due to drought conditions reported for the Connecticut River Valley Region since May, hydrologic conditions are not typical for this time of year. According to the Massachsuetts Department of Conservation and Recreation (DCR), the Connecticut River Valley Region experienced the following drought statuses: Level 1 – Mild Drought (May 2022), Level 2 -Significant Drought (June and July 2022), and Level 3 – Critical Drought (August 2022).

Vegetation observed within BVW 1 mowed area includes: sensitive fern, swamp dewberry (*Rubus hispidis*; FACW), and sedges and grasses. Hydrology indicators include drainage patterns, saturation visible on aerial imagery (World Imagery; updated July 1, 2020), and FAC-neutral test. Soils exhibited a redox dark surface (F6) hydric soil indicator.

The Natural Resource Conservation Service (NRCS) mapped the BVW 1 area as Metacomet fine sandy loam. The mapped soil texture is generally consistent with field observations, but soils observed do not align with the mapped hydric soil rating of 'no'. Detailed information of these soil series mapped within the Site Parcel is included within the NRCS Custom Soil Resource Report in *Attachment E*.

BVW 3
BVW 3 is best described as a seasonally flooded/saturated PEM and PFO. BVW 3 is located south of BVW 1 and extends off the Subject Parcel to the west. BVW 3 is generally located at the toe of slope within a depression. The eastern portion of BVW 3 is a sparsely vegetated convex surface. Vegetation observed within BVW 3 includes: rice cut grass (*Leersia oryzoides,* OBL), American bugleweed (*Lycopus americanus*; OBL), white meadowsweet (*Spiraea alba*; FACW), red maple (*Acer rubrum*, FAC) saplings and trees, unidentified grasses, marsh fern (*Thelypteris palustris*, FACW), and cinnamon fern (*Osmunda cinnamomea*, FACW). Soils exhibited a sandy redox (F5) hydric soil indicator. The NRCS mapped the BVW 3 area as Pilsbury fine sandy loam. Soils observed align with the mapped hydric soil rating of 'yes'.

Isolated Vegetated Wetlands (IVW): Regulatory Framework

Isolated wetlands are defined under the Shutesbury Wetland Regulations Section III.E as *"any area of one thousand square feet or more which meets all standards for vegetated wetlands under state law or regulations, except for the "bordering" requirement.*"

Isolated wetlands are not regulated or protected resource areas under the MAWPA and are therefore only regulated under the local bylaw and regulations. Two IVW's were identified within the Subject Parcel.

IVW: Resource Area Description

IVW 2
IVW 2 is best described as a seasonally saturated PFO wetland located along the eastern border of the Subject Parcel. Within the Subject Parcel, IVW is approximately 1,385 square feet (sf) in area with vegetation including: green ash (*Fraxinus pennsylvanica*; FACW), winterberry (*Ilex vertixillata*; FACW), silky dogwood (*Cornus amomum*; FACW), sensitive fern, Oriental bittersweet (*Celastrus orbiculatus*; UPL), and Virginia creeper (*Parthenocissus quinquefolia*; FACU). IVW 2 soils were sandy and exhibited a sandy redox (S5) hydric soil indicator. Soils observed within IVW 2 do not align with the mapped hydric soil rating of 'no'.

Although the only hydrology indicator includes FAC-neutral test, this wetland contained hydrophytic vegetation and hydric soils, and is therefore considered a wetland according to the MassDEP Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act (March 1995) and Shutesbury Wetland Regulations.

IVW 4
IVW 4 is best described as a seasonally saturated/flooded PEM wetland located along approximately 142 linear feet of the access route to the former radio tower location. IVW 4 is approximately 8 feet wide with an area of 1,136 sf. This IVW was likely manmade due to compaction from vehicle traffic of upland areas over time. The access road ruts are 0.5 to 1 foot lower elevation than directly adjacent upland areas. IVW 4 likely collects and holds water due to its geomorphic position. No standing water was observed at the time of delineation. Vegetation observed within IVW 4 includes: cranberry (*Vaccinium oxycoccos*; OBL), red maple saplings, white meadowsweet, mountain laurel (*Kalmia latifolia*; FACU), grey birch saplings (*Betula populifolia*), and sedges (*Rhynchospora spp.)*. Soils within the tire track areas were compacted. The interior of the road was more densely vegetated and included soils with a sandy redox (S5) hydric soil indicator. Soils observed within IVW 4 do not align with the mapped hydric soil rating of 'no'.

Buffer Zone

Buffer Zone is defined in 310 CMR 10.04 as "*that area of land extending 100 feet horizontally outward from the boundary of any area specified in 310 CMR 10.02(1)(a)*." Buffer Zone is considered an area subject to protection under the MAWPA, but is not regulated as a resource area under the MAWPA.

Unlike the MAWPA, the Shutesbury Wetlands Bylaw considers the 100-foot Buffer Zone a separate jurisdictional resource area. In addition, this bylaw extends the 100-foot Buffer Zone to isolated wetlands. The following wetland resource areas identified during the August 5 and 26, 2022 delineation have an associated 100-foot Buffer Zone per the MAWPA and/or the Shutesbury Wetlands Bylaw as indicated in the parenthesis:

- Bordering Vegetated Wetlands (MAWPA and Shutesbury Wetlands Bylaw)
- Isolated Vegetated Wetlands (Shutesbury Wetlands Bylaw only)

The 100-foot Buffer Zone within the Subject Parcel consists of forested areas and the regularly maintained lawn area within the northern portion of the parcel. The forested areas are vegetated with a combination of deciduous and coniferous trees including red maple, American beech (*Fagus grandifolia*, FAU), white pine (*Pinus st*robus; FAU) eastern hemlock (*Tsuga canadensis*, FACU), and gray birch. Portions of the upland forest consist of a denser understory of mountain laurel and other portions have a more open understory. Additional vegetation observed includes sheep laurel (*Kalmia angustifolia*; FAC), cinnamon fern, lowbush blueberry (*Vaccinium angustifolium*; FACU), and eastern teaberry (*Gaultheria procumbens*; FACU).

Additional Site Information

1.1 Southern Portion of Parcel

Approximately 150 feet from the southern boundary of the parcel, a shift in vegetation to >50% hydrophytic vegetation was observed. The understory was dominated by cinnamon fern with a canopy of red maple. Additional vegetation observed includes more upland species: American witch hazel (*Hamamelis virginiana*; FACU), eastern hemlock, American beech, eastern teaberry, and lowbush blueberry.

No wetlands are mapped by MassDEP at this location. The area gently slopes towards the southern parcel boundary, with no distinct breaks in slope. No indicators of hydrology, except FAC-neutral test, a secondary indicator which is based on vegetation, were observed. A minimum of two secondary indicators are required for wetland hydrology to be present. Multiple soil test holes were advanced to determine the presence or absence of hydric soil. The soils were sandy with a color of 10YR 3/1 and 10YR 3/2. Sand particles were unmasked from organic matter when observed without a hand lens. Redoximorphic concentrations were not observed in all test holes. When redox concentrations were observed, they were less than 2% of the soil matrix. Based on the soil assessments, this area does not

meet the criteria for a hydric soil indicator. This area was not delineated as a wetland based on the absence of hydric soils and wetland hydrology.

1.2 Access Route

A t least two segments of the access route to the demolished radio tower were dominated by cranberry and sedges (*Rhynchospora spp).* The segments of the access road dominated by cranberries were generally in open areas with minimal shade. Directly adjacent areas were generally dominated by upland shrubs and trees including: mountain laurel, lowbush blueberry, and white pine. Soil test holes were advanced within the access route and consisted of compact sandy soils with matrix colors of 10YR 3/3, 2.5Y 5/4, 10YR 4/3, and 10YR 4/6. Redoximorphic concentrations were observed. No indicators of hydrology, except FAC-neutral test were observed. These isolated areas of hydrophytic vegetation within the access route were not delineated as wetlands based on the absence of hydric soils and wetland hydrology.

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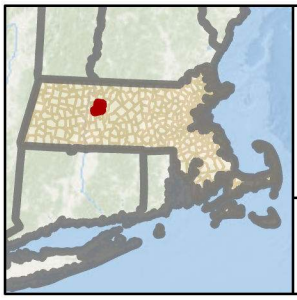
Attachment A
Figures



Subject Parcel

0 1,000 2,000 Feet

N

Topographic Map
66 Leverett Road
Shutesbury, Massachusetts
September 2022

Disclaimer: This map is not the product of a Professional Land Survey. It was created by Fuss & O'Neill, Inc. for general reference, informational, planning and guidance use, and is not a legally authoritative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. Fuss & O'Neill, Inc. makes no warrantee, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.

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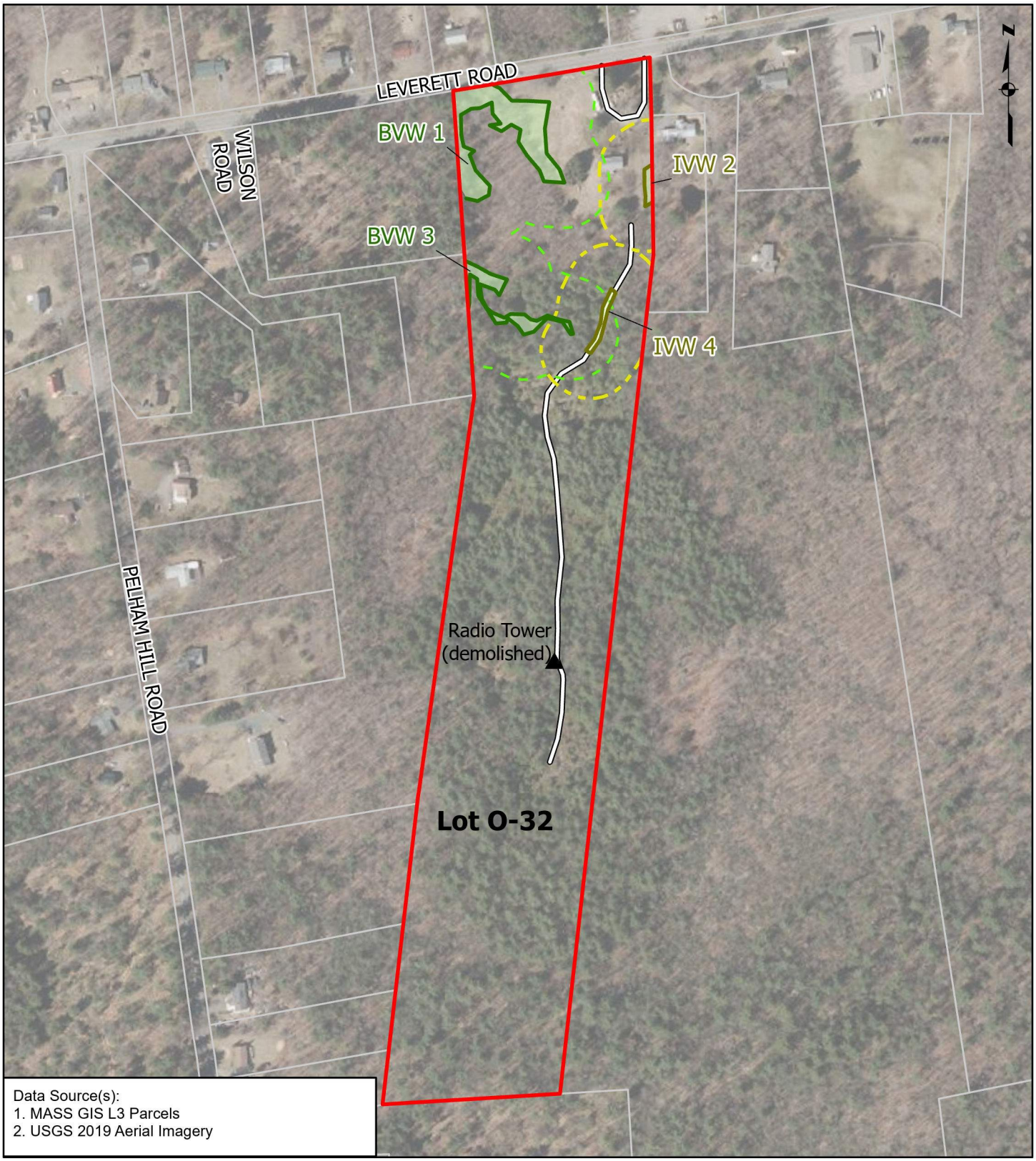
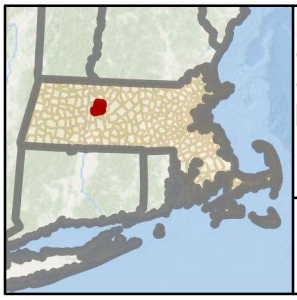
Figure 1

Folder: K:\P2009\1032\A22\MXD\Shutesbury Wetlands Maps\ Project: Shutesbury Wetlands Maps Layout: 1-USGS Map: Main Data Frame Map Frame
Date Exported: 9/29/2022 5:57 PM User: ADoroski Date Saved: 9/29/2022 5:56 PM



Data Source(s):
1. MASS GIS L3 Parcels
2. USGS 2019 Aerial Imagery



Subject Parcel
BVW Boundary
IVW Boundary
BVW Area
Access
Parcel Boundary
100-ft Buffer Zone (MAWPA & Local)
100-ft Buffer Zone (Local only)

0 75 150 300 Feet

Wetland Delineation conducted by Fuss & O'Neill on August 5 and 16, 2022.

Disclaimer: This map is not the product of a Professional Land Survey. It was created by Fuss & O'Neill, Inc. for general reference, informational, planning and guidance use, and is not a legally authoritative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. Fuss & O'Neill, Inc. makes no warrantee, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.

Wetland Delineation Overview

66 Leverett Road
Shutesbury, Massachusetts

September 2022

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Figure 2

Folder: K:\P2009\1032\A22\MXD\Shutesbury Wetlands Maps\ Project: Shutesbury Wetlands Maps Layout: 2-WetlandSketch Map: Main Data Frame Map Frame
Date Exported: 9/29/2022 6:29 PM User: ADoroski Date Saved: 9/29/2022 6:28 PM

LEVERETT ROAD

1A-133
1A-132
1A-130
1A-110
1A-112
1A-128
1A-114
1A-118
1A-108
1A-116
BVW 1
1A-106
1A-120
1A-126
2A-100
1A-104
1A-124
2A-101
1A-122
2A-102
IVW 2
1A-102
1A-100
2A-104
2A-105
3A-118
3A-116
3B-102
BVW 3
Lot O-32
4A-109
4A-100
3A-114
IVW 4
3A-109
3A-106
3A-102
4A-108
3B-100
3B-105
4A-102
3A-100
3B-113
3B-109
4A-105
4A-104

Data Source(s):
1. MASS GIS L3 Parcels
2. USGS 2019 Aerial Imagery

Subject Parcel
BVW Boundary
IVW Boundary
Wetland Area
Wetland Flag
Access
Parcel Boundary

0 13 25 50 Feet

N

Disclaimer: This map is not the product of a Professional Land Survey. It was created by Fuss & O'Neill, Inc. for general reference, informational, planning and guidance use, and is not a legally authoritative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. Fuss & O'Neill, Inc. makes no warrantee, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.

Wetland Delineation conducted by Fuss & O'Neill on August 5 and 16, 2022.

Wetland Flag Locations
66 Leverett Road
Shutesbury, Massachusetts
September 2022

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Figure 3

Folder: K:\P2009\1032\A22\MXD\Shutesbury Wetlands Maps\ Project: Shutesbury Wetlands Maps Layout: 3-WetlandFlags_11x17 Map: Main Data Frame Map Frame
Date Exported: 9/30/2022 10:13 AM User: ADoroski Date Saved: 9/30/2022 10:10 AM

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Attachment B
Site Photographs

Photo 1: Overview of northern portion of the Subject Parcel, facing BVW 1 (view west, 8/16/22).

Photo 2: View of sensitive fern growing within the mowed portion of BVW 1 near flag 1A-129 (view south, 8/16/22).

Photo 3: View of the forested portion of BVW 1 near flag 1A-112 (view west, 8/5/22).

Photo 4: View of redox concentrations (yellow arrows) visible in BVW 1 soils (8/5/22).

Photo 5: View of BVW 3 near flag 3B-110 (view north, 8/16/22)

Photo 6: View of the sandy redox hydric soil in BVW 3.

Photo 7: View of IVW 2 near flag 2A-101 (view southeast, 8/5/22).

Photo 8: View of IVW 4 within the access route near flag 4A-100 (view south, 8/16/22).

Photo 9: View of IVW 4A soils (8/16/22).

Photo 10: Representative view of the access route to the former radio tower location (view south, 8/5/22).

Photo 11: View of the former radio tower location (view west, 8/5/22).

Photo 12: Representative view of upland forest within 100 feet of the former radio tower location (view west, 8/16/22).

Photo 13: View of an upland access route segment dominated by cranberries 42.416153, -72.416153 (8/5/22).

Photo 14: View of upland soils in an access route segment dominated by cranberries, 42.416153, -72.416153 (8/5/22)

Photo 15: Representative view of upland forest approximately 300 feet from the southern parcel boundary (view eat, 8/16/22).

Photo 16: View from the southern parcel boundary (view north, 8/16/22).

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Attachment C
Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 66 Leverett Road City/County: Shutesbury Sampling Date: 8/5/2022

Applicant/Owner: Town of Shutesbury State: MA Sampling Point: 1A-129

Investigator(s): April Doroski, PWS, CPSS, Fuss & O'Neill Section, Township, Range:

Landform (hillside, terrace, etc.): hillside Local relief (concave, convex, none): none Slope (%): 3-8

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.451036 Long: -72.416368 Datum: NAD83

Soil Map Unit Name: 368B - Metacomet fine sandy loam and 368A - Metacomet fine sandy loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:	BVW 1

Remarks: (Explain alternative procedures here or in a separate report.)
Due to drought conditions reported for the Connecticut River Valley Region since May, hydrologic conditions are not typical for this time of year. According to the Massachsuetts Department of Conservation and Recreation (DCR) the Connecticut River Valley Region experienced drought conditions starting in May 2022 and continuing through August 2022.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The plot was taken within the disturbed (mowed) portion of the wetland, south of the vegetated swale. Portions of the wetland are forested. Hydrology observed within the forested portion includes water stained leaves.

VEGETATION – Use scientific names of plants. Sampling Point: 1A-129

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Onoclea sensibilis*	20	Yes	FACW
2. *Rubus hispidus*	5	No	FACW
3. *Sedges spp.*	5	No	
4. *Grass spp.*	60	Yes	
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90 =Total Cover		
Woody Vine Stratum (Plot size: 5)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	25 (A)		50 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

X Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Area of wetland plot is problematic due to regular mowing. Identification of grass species is not possible. Sensitive fern observed in pockets. Vegetation observed within the forested portion of the wetland consisted of cinnamon fern, sensitive fern, grey birch, winterberry, and red maple.

SOIL Sampling Point: 1A-129

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/2	90	7.5YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
7-10	10YR 4/3	93	10YR 3/6	7	C	M	Loamy/Clayey	Distinct redox concentrations
10-16	2.5Y 5/3	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NA

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx).
Soil was moistened prior to coloring.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 66 Leverett Road City/County: Shutesbury Sampling Date: 8/5/2022

Applicant/Owner: Town of Shutesbury State: MA Sampling Point: 3B-110

Investigator(s): April Doroski, PWS, CPSS, Fuss & O'Neill Section, Township, Range:

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): convex Slope (%): 3-8

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.449704 Long: -72.416383 Datum: NAD83

Soil Map Unit Name: 75B - Pillsbury fine sandy loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:	BVW 3

Remarks: (Explain alternative procedures here or in a separate report.)
Due to drought conditions reported for the Connecticut River Valley Region since May, hydrologic conditions are not typical for this time of year. According to the Massachsuetts Department of Conservation and Recreation (DCR) the Connecticut River Valley Region experienced drought conditions starting in May 2022 and continuing through August 2022.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- X Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The plot was taken within a sparsely vegetated area which could be a potential vernal pool. No egg masses were observed at the time of delineation. Portions of this BVW are forested.

VEGETATION – Use scientific names of plants. Sampling Point: 3B-110

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.	5	Yes	
2.			
3.			
4.			
5.			
6.			
7.			
	5	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Leersia oryzoides*	20	Yes	OBL
2. *Grass spp.*	20	Yes	
3. *Lycopus americanus*	5	No	OBL
4. *Spiraea alba*	5	No	FACW
5. *Acer rubrum*	2	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	52	=Total Cover	
Woody Vine Stratum (Plot size: 5)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	5	x 2 =	10
FAC species	2	x 3 =	6
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	32 (A)		41 (B)

Prevalence Index = B/A = 1.28

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** __

Remarks: (Include photo numbers here or on a separate sheet.)
Additional vegetation observed outsite of the plot includes marsh fern, sedges, red maple, and cinnamon fern.

SOIL Sampling Point: 3B-110

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	2.5Y 4/2	99	10YR 5/8	1	C	M	Sandy	Prominent redox concentrations
4-10	5Y 5/2	97	2.5Y 5/6	3	C	M	Sandy	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NA

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx).
Soil was moist.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 66 Leverett Road City/County: Shutesbury Sampling Date: 8/5/2022

Applicant/Owner: Town of Shutesbury State: MA Sampling Point: 2A-101

Investigator(s): April Doroski, PWS, CPSS, Fuss & O'Neill Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): none Slope (%): 3-8

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.450612 Long: -72.415453 Datum: NAD83

Soil Map Unit Name: 368B - Metacomet fine sandy loam, 3 to 8 percent slopes NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: IVW 2

Remarks: (Explain alternative procedures here or in a separate report.)
Due to drought conditions reported for the Connecticut River Valley Region since May, hydrologic conditions are not typical for this time of year. According to the Massachsuetts Department of Conservation and Recreation (DCR) the Connecticut River Valley Region experienced drought conditions starting in May 2022 and continuing through August 2022.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland is isloated.

VEGETATION – Use scientific names of plants. Sampling Point: 2A-101

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	80	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	80	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Ilex verticillata*	10	Yes	FACW
2. *Cornus amomum*	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	15	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Onoclea sensibilis*	80	Yes	FACW
2. *Fraxinus pennsylvanica*	1	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	81	=Total Cover	
Woody Vine Stratum (Plot size: 5)			
1. *Celastrus orbiculatus*	5	Yes	UPL
2. *Parthenocissus quinquefolia*	5	Yes	FACU
3.			
4.			
	10	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	176	x 2 =	352
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	5	x 5 =	25
Column Totals:	186 (A)		397 (B)

Prevalence Index = B/A = 2.13

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point: 2A-101

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/1	100					Sandy	
5-12	10YR 3/2	98	10YR 3/4	2	C	M	Sandy	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NA

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx).
Soil was moistened for coloring.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 66 Leverett Road City/County: Shutesbury Sampling Date: 8/16/22

Applicant/Owner: Town of Shutesbury State: MA Sampling Point: 4A-100

Investigator(s): April Doroski, PWS, CPSS, Fuss & O'Neill Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): convex Slope (%): 0-3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.449935 Long: -72.415713 Datum: NAD83

Soil Map Unit Name: 368A - Metacomet fine sandy loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	**Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:	IVW 4

Remarks: (Explain alternative procedures here or in a separate report.)
Due to drought conditions reported for the Connecticut River Valley Region since May, hydrologic conditions are not typical for this time of year. According to the Massachsuetts Department of Conservation and Recreation (DCR) the Connecticut River Valley Region experienced drought conditions starting in May 2022 and continuing through August 2022.
Wetland is located within a low point within the access route. The boundary of the wetland is defined by the location of the ruts. Soils are compacted, especially within the sparsely vegetated tire track areas. Vegetation is more abundant within the center of the access road. Observations support this wetland was likely created from manmade disturbace creating a low point for water to collect.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____ No X	Depth (inches):	
Water Table Present?	Yes ____ No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ____ No X	Depth (inches):	

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Pockets of sphagum moss observed. Wetland is located within the existing access road and is isolated.

VEGETATION – Use scientific names of plants. Sampling Point: 4A-100

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Vaccinium oxycoccos*	50	Yes	OBL
2. *Grass spp.*	10	No	
3. *Acer rubrum*	5	No	FAC
4. *Spiraea alba*	5	No	FACW
5. *Unkown herbaceous*	5	No	
6. *Kalmia latifolia*	2	No	FACU
7. *Betula populifolia*	2	No	FAC
8.			
9.			
10.			
11.			
12.			
	79	=Total Cover	
Woody Vine Stratum (Plot size: 5)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	5	x 2 =	10
FAC species	7	x 3 =	21
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	64 (A)		89 (B)

Prevalence Index = B/A = 1.39

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point: 4A-100

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 5/4	100					Sandy	
5-12	10YR 5/2	90	2.5Y 5/6	10	C	M	Sandy	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
X Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
___ High Chroma Sands (S11) (**LRR K, L)**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NA

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)
Soils were moistened for coloring.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 66 Leverett Road City/County: Shutesbury Sampling Date: 8/5/22

Applicant/Owner: Town of Shutesbury State: MA Sampling Point: UPL 1-2

Investigator(s): April Dorosk, PWS, CPSS, Fuss & O'Neill Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Slope (%): 0-3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.451046 Long: -72.416130 Datum: NAD83

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:	UPL 1-2	

Remarks: (Explain alternative procedures here or in a separate report.)
Due to drought conditions reported for the Connecticut River Valley Region since May, hydrologic conditions are not typical for this time of year. According to the Massachsuetts Department of Conservation and Recreation (DCR) the Connecticut River Valley Region experienced drought conditions starting in May 2022 and continuing through August 2022. Plot is located in regularly mowed area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: UPL 1-2

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Galium aparine*	5	No	FACU
2. *Asclepias syriaca*	2	No	UPL
3. *Rubus hispidus*	1	No	FACW
4. *Other mowed herbaceous and grasses*	82	Yes	
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90	=Total Cover	
Woody Vine Stratum (Plot size: 5)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	1	x 2 =	2
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	2	x 5 =	10
Column Totals:	8 (A)		32 (B)
Prevalence Index = B/A =			4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UPL 1-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100					Loamy/Clayey	
8-12	10YR 6/3	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 66 Leverett Road City/County: Shutesbury Sampling Date: 8/16/22

Applicant/Owner: Town of Shutesbury State: MA Sampling Point: UPL 3-4

Investigator(s): April Dorosk, PWS, CPSS, Fuss & O'Neill Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Slope (%): 0-3

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 42.449892 Long: -72.415961 Datum: NAD83

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	**Yes** ____	**No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:	UPL 3-4	

Remarks: (Explain alternative procedures here or in a separate report.)
Due to drought conditions reported for the Connecticut River Valley Region since May, hydrologic conditions are not typical for this time of year. According to the Massachsuetts Department of Conservation and Recreation (DCR) the Connecticut River Valley Region experienced drought conditions starting in May 2022 and continuing through August 2022. Plot is located in upland forest between the access route IVW 4 and BVW 3.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	
Water Table Present?	Yes ____	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: UPL 3-4

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus strobus*	40	Yes	FACU
2. *Fagus grandifolia*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	50	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Kalmia latifolia*	40	Yes	FACU
2. *Pinus strobus*	5	No	FACU
3. *Vaccinium angustifolium*	5	No	FACU
4.			
5.			
6.			
7.			
	50	=Total Cover	
Herb Stratum (Plot size: 5)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size: 5)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UPL 3-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR 2/1	100					Loamy/Clayey	1-2 inches leaf litter/duff atop soil
1-7	10YR 3/3	100					Sandy	
7-12	2.5Y 5/4	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NA

Depth (inches): ___

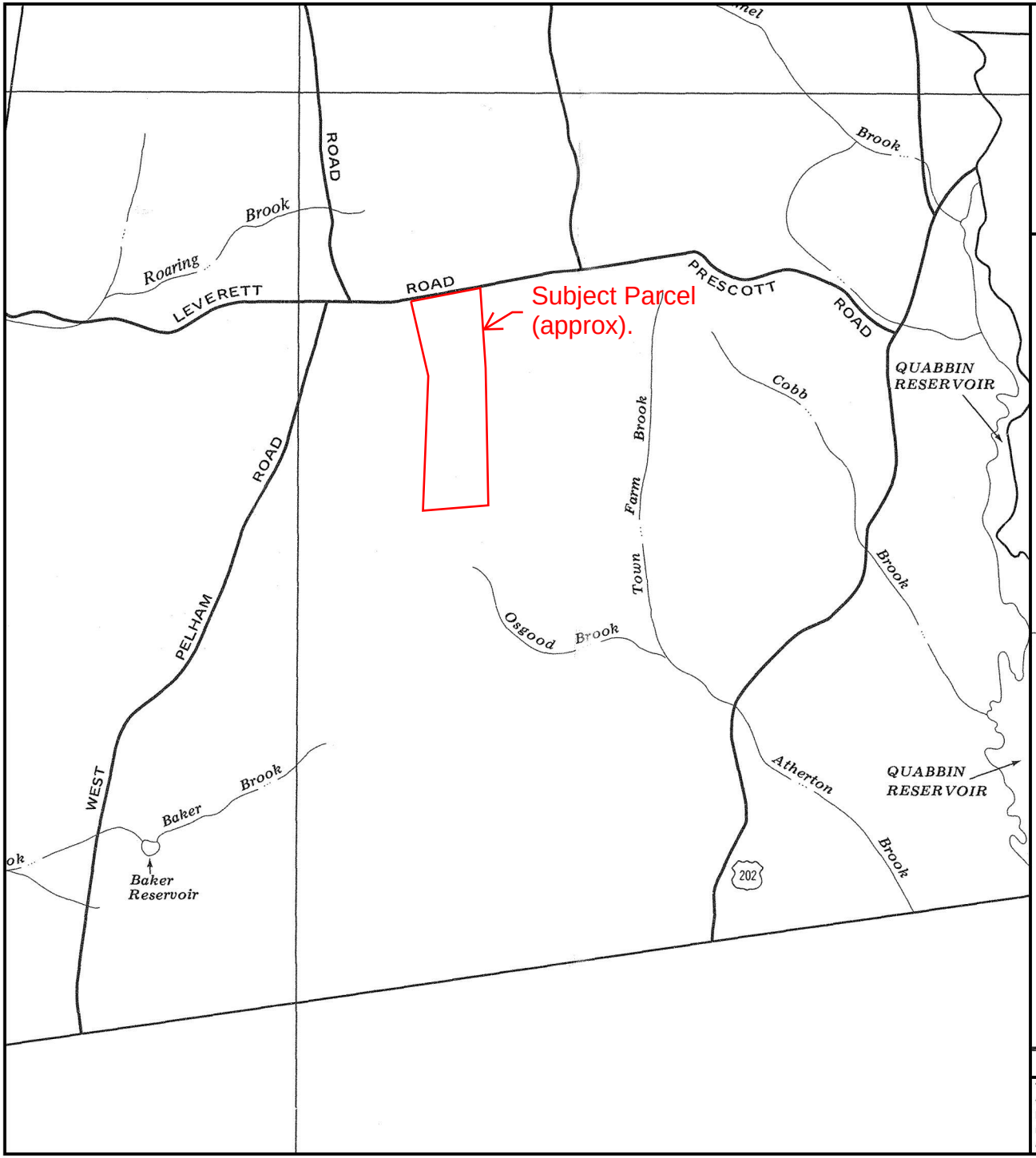
Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

FUSS & O'NEILL

Attachment D
FEMA Information



NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

TOWN OF
SHUTESBURY,
MASSACHUSETTS
FRANKLIN COUNTY

MAP INDEX

PANELS PRINTED: 5, 10, 15

COMMUNITY-PANEL NUMBERS
250128 0001-0020

EFFECTIVE DATE:
JUNE 18, 1980

U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION

FUSS & O'NEILL

Attachment E
NRCS Custom Soil Resource Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Franklin County, Massachusetts

66 Leverett Road

August 30, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:4,160 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

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

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County, Massachusetts
Survey Area Data: Version 16, Sep 2, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 15, 2020—Oct 31, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
75B	Pillsbury fine sandy loam, 0 to 8 percent slopes, very stony	2.2	10.8%
348C	Henniker sandy loam, 8 to 15 percent slopes	1.5	7.4%
368A	Metacomet fine sandy loam, 0 to 3 percent slopes	14.5	70.6%
368B	Metacomet fine sandy loam, 3 to 8 percent slopes	2.0	9.9%
444B	Chichester fine sandy loam, 3 to 8 percent slopes	0.3	1.3%
Totals for Area of Interest		**20.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Franklin County, Massachusetts

75B—Pillsbury fine sandy loam, 0 to 8 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2ty6x
Elevation: 360 to 2,070 feet
Mean annual precipitation: 31 to 95 inches
Mean annual air temperature: 27 to 52 degrees F
Frost-free period: 90 to 140 days
Farmland classification: Not prime farmland

Map Unit Composition

Pillsbury, very stony, and similar soils: 79 percent
Minor components: 21 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pillsbury, Very Stony

Setting

Landform: Mountains, hills
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Mountainbase, base slope, interfluve
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loamy lodgment till derived from gneiss and/or loamy lodgment till derived from mica schist and/or loamy lodgment till derived from granite

Typical profile

Oe - 0 to 1 inches: mucky peat
A - 1 to 6 inches: fine sandy loam
Bg1 - 6 to 13 inches: cobbly fine sandy loam
Bg2 - 13 to 23 inches: cobbly fine sandy loam
Cd - 23 to 65 inches: cobbly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.1 percent
Depth to restrictive feature: 21 to 43 inches to densic material
Drainage class: Poorly 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 0 to 12 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 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: F144BY305ME - Wet Loamy Flat
Hydric soil rating: Yes

Minor Components

Peru, very stony

Percent of map unit: 9 percent
Landform: Mountains, hills
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Mountainbase, interfluve, base slope
Microfeatures of landform position: Rises, rises
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Peacham, very stony

Percent of map unit: 5 percent
Landform: Hills, mountains
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Mountainbase, interfluve, base slope
Microfeatures of landform position: Closed depressions, closed depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Wonsqueak

Percent of map unit: 4 percent
Landform: Hills, mountains
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Mountainbase, base slope, interfluve
Microfeatures of landform position: Closed depressions, closed depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Lyman, very stony

Percent of map unit: 3 percent
Landform: Mountains, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Mountainbase, interfluve, base slope
Microfeatures of landform position: Rises, rises
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

348C—Henniker sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9cdv
Elevation: 920 to 1,280 feet
Mean annual precipitation: 39 to 53 inches
Mean annual air temperature: 34 to 56 degrees F
Frost-free period: 140 to 174 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Henniker and similar soils: 83 percent
Minor components: 17 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Henniker

Setting

Landform: Drumlins, ground moraines
Landform position (two-dimensional): Backslope, toeslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex, linear
Parent material: Loamy till underlain by sandy lodgment till derived from gneiss

Typical profile

Oi - 0 to 0 inches: slightly decomposed plant material
Oe - 0 to 1 inches: moderately decomposed plant material
Ap - 1 to 8 inches: sandy loam
Bw1 - 8 to 15 inches: sandy loam
Bw2 - 15 to 24 inches: sandy loam
BC - 24 to 29 inches: cobbly sandy loam
Cd1 - 29 to 39 inches: loamy sand
Cd2 - 39 to 45 inches: loamy sand
Cd3 - 45 to 65 inches: loamy sand

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: 18 to 36 inches to densic material
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 13 to 31 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)
Hydric soil rating: No

Minor Components

Metacomet

Percent of map unit: 10 percent
Landform: Drumlins, ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex

Hydric soil rating: No

Chichester

Percent of map unit: 5 percent
Landform: Ground moraines, valley sides
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Concave, linear
Across-slope shape: Convex, linear
Hydric soil rating: No

Pillsbury

Percent of map unit: 2 percent
Landform: Drumlins, ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

368A—Metacomet fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9cck
Elevation: 970 to 1,250 feet
Mean annual precipitation: 39 to 53 inches
Mean annual air temperature: 34 to 56 degrees F
Frost-free period: 140 to 174 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Metacomet and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Metacomet

Setting

Landform: Drumlins, ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Loamy till underlain by sandy lodgment till derived from gneiss

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
Oe - 2 to 2 inches: moderately decomposed plant material
A - 2 to 5 inches: fine sandy loam
E - 5 to 6 inches: fine sandy loam
Bw1 - 6 to 13 inches: fine sandy loam

Bw2 - 13 to 18 inches: fine sandy loam
Bw3 - 18 to 27 inches: sandy loam
C - 27 to 32 inches: stony loamy sand
Cd1 - 32 to 48 inches: loamy sand
Cd2 - 48 to 65 inches: sandy loam

Properties and qualities

Slope: 0 to 3 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: 20 to 37 inches to densic material
Drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 16 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)
Hydric soil rating: No

Minor Components

Pillsbury

Percent of map unit: 5 percent
Landform: Ground moraines, drumlins
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

368B—Metacomet fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9ccj
Elevation: 960 to 1,260 feet
Mean annual precipitation: 39 to 53 inches
Mean annual air temperature: 34 to 56 degrees F
Frost-free period: 140 to 174 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Metacomet and similar soils: 85 percent
Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Metacomet

Setting

Landform: Drumlins, ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Loamy till underlain by sandy lodgment till derived from gneiss

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
Oe - 2 to 2 inches: moderately decomposed plant material
A - 2 to 5 inches: fine sandy loam
E - 5 to 6 inches: fine sandy loam
Bw1 - 6 to 13 inches: fine sandy loam
Bw2 - 13 to 18 inches: fine sandy loam
Bw3 - 18 to 27 inches: sandy loam
C - 27 to 32 inches: stony loamy sand
Cd1 - 32 to 48 inches: loamy sand
Cd2 - 48 to 65 inches: sandy loam

Properties and qualities

Slope: 3 to 8 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: 20 to 37 inches to densic material
Drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 16 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B/D
Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)
Hydric soil rating: No

Minor Components

Pillsbury

Percent of map unit: 10 percent
Landform: Drumlins, ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Henniker

Percent of map unit: 5 percent

Landform: Drumlins, ground moraines
Landform position (two-dimensional): Backslope, toeslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex, linear
Hydric soil rating: No

444B—Chichester fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9cfm
Elevation: 940 to 1,400 feet
Mean annual precipitation: 39 to 53 inches
Mean annual air temperature: 34 to 56 degrees F
Frost-free period: 140 to 174 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Chichester and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chichester

Setting

Landform: Ground moraines, valley sides
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Concave, linear
Across-slope shape: Convex, linear
Parent material: Loamy over sandy supraglacial meltout till derived from gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: fine sandy loam
Ap - 3 to 7 inches: fine sandy loam
Bw1 - 7 to 10 inches: fine sandy loam
Bw2 - 10 to 20 inches: fine sandy loam
C1 - 20 to 28 inches: gravelly loamy coarse sand
C2 - 28 to 35 inches: sand
C3 - 35 to 44 inches: stony sand
C4 - 44 to 65 inches: stony sand

Properties and qualities

Slope: 3 to 8 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Ecological site: F144BY505ME - Loamy over Sandy
Hydric soil rating: No

Minor Components

Henniker

Percent of map unit: 10 percent
Landform: Drumlins, ground moraines
Landform position (two-dimensional): Backslope, toeslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Millsite

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

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FUSS & O'NEILL

Attachment D
Abutters Information

TOWN OF SHUTESBURY CERTIFIED 100' ABUTTERS LIST FOR TOWN OF SHUTESBURY/ANTONELLIS, 66 LEVERETT RD, MAP O PARCEL 32

MAP	LOT	OWNER	CO-OWNER	MAILING ADDRESS	TOWN	ST	ZIP	LOCATION
O	32	TOWN OF SHUTESBURY		PO BOX 276	SHUTESBURY	MA	01072	LEVERETT RD
H	8	HASBROUCK CHRISTOPHER J		75 LEVERETT RD	SHUTESBURY	MA	01072	73-75 LEVERETT RD
H	10	WATKINS LEE MARK	LYONS-WATKINS SUSAN	P O BOX 325	SHUTESBURY	MA	01072	63 LEVERETT RD
H	11	TOWN OF SHUTESBURY	HIGHWAY DEPARTMENT	P O BOX 276	SHUTESBURY	MA	01072	59 LEVERETT RD
H	71	OLANYK KELLY P		81 LEVERETT RD	SHUTESBURY	MA	01072	81 LEVERETT RD
O	23	BROWN DAVID		577 MONTAGUE RD	SHUTESBURY	MA	01072	PELHAM HILL RD
O	26	HOPKINS KENNETH H	NABUUMA EDITH	54 PELHAM HILL RD	SHUTESBURY	MA	01072	54 PELHAM HILL RD
O	27	RULE ROBERT E	RULE MARLENE L	88 PELHAM HILL RD	SHUTESBURY	MA	01072	88 PELHAM HILL RD
O	28	COVINO DONNA M		84 PELHAM HILL RD	SHUTESBURY	MA	01072	84 PELHAM HILL RD
O	30	TORRES ARTHUR I	TORRES REBECCA E	11 WILSON RD	SHUTESBURY	MA	01072	3 & 5 WILSON RD
O	31	KING-FRANKLIN ROBIN MARIE		94 LEVERETT RD	SHUTESBURY	MA	01072	94 LEVERETT RD
O	33	MCCAHON DAVID J	MCCAHON CYNTHIA D	922 UNIVERSITY BAY D	MADISON	WI	53705	LEVERETT RD
O	34	DIHLMANN,NANCY		62 LEVERETT RD	SHUTESBURY	MA	01072	62 LEVERETT RD
O	56	BOWEN ROBERT L	VALENTINE RORY N	50 LEVERETT RD	SHUTESBURY	MA	01072	50 LEVERETT RD
O	79	JACOBSEN PHILLIP H	JEAN STEPHEN & SANDRA	78 PELHAM HILL RD	SHUTESBURY	MA	01072	78 PELHAM HILL RD
O	83	UNIVERSITY OF MASSACHUSETTS	UNIVERSITY OF MASSACHUSETTS ADMI	181 PRESIDENTS DR	AMHERST	MA	01003	PELHAM HILL RD

FOR: MARY ANNE ANTONELLIS, LIBRARY DIRECTOR
TOWN OF SHUTESBURY
P O BOX 276
SHUTESBURY MA 01072
413.259.1213
LIBRARY.DIRECTOR@SHUTESBURY.ORG

Respectfully submitted,

Leslie Bracebridge, Assessors' Clerk for
SHUTESBURY BOARD OF ASSESSORS
9/30/2022

220930 OVERVIEW MAP LOT O-32 TOWN OF SHUTESBURY ANTONELLIS

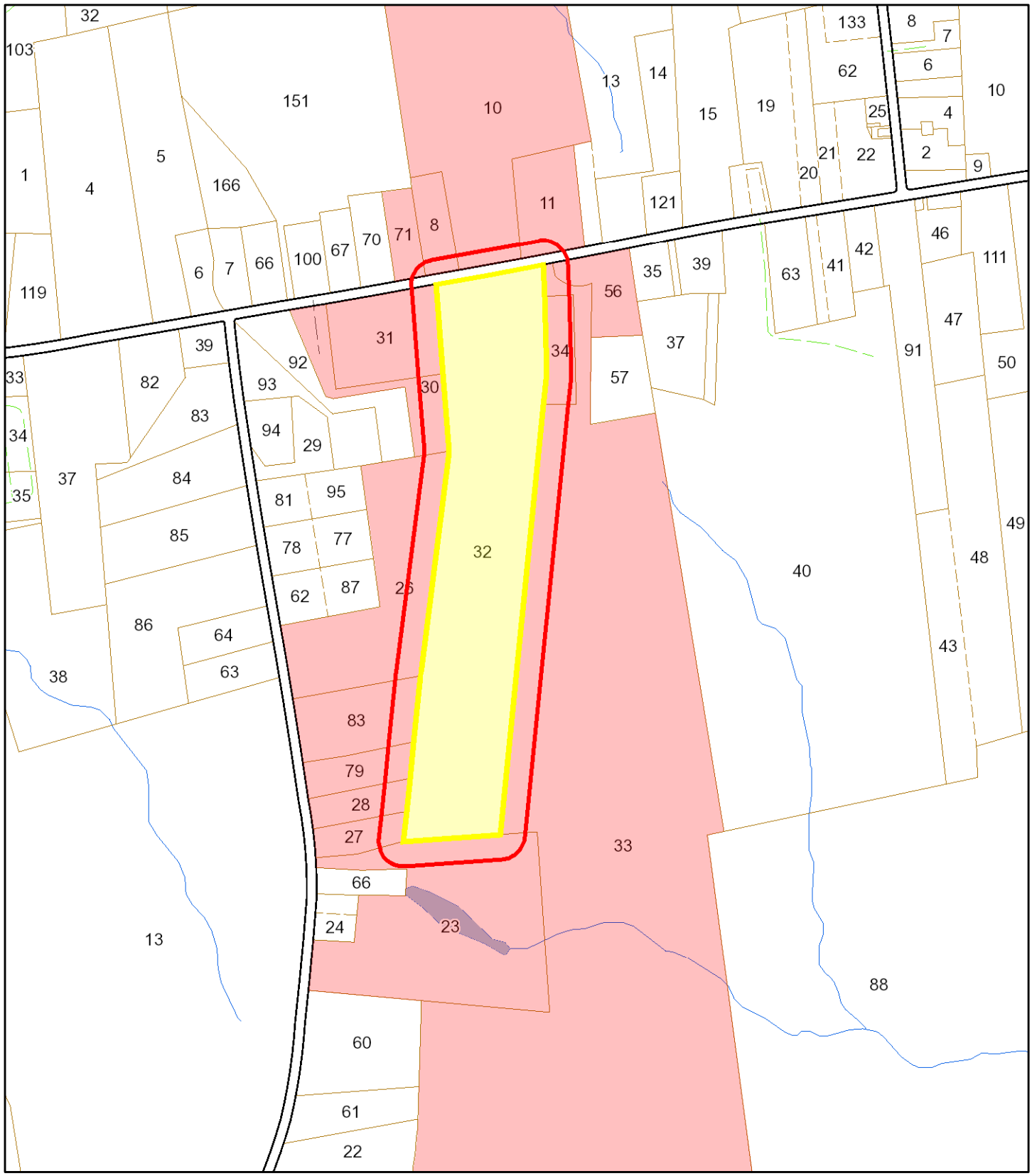
Shutesbury, MA

1 inch = 555 Feet

0 555 1110 1665

September 30, 2022

www.cai-tech.com



Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

NOTIFICATION TO ABUTTERS

In accordance the Wetlands Protection Act and Shutesbury General Wetlands Protection Bylaw and regulations, you are hereby notified of a public meeting on the matter described below.

A. A Request for Determination has been filed with the Shutesbury Conservation Commission seeking permission to remove, fill, dredge or alter an area subject to protection under M.G.L. Ch. 131 §40 and the Shutesbury Wetlands Protection Bylaw. An Abbreviated Notice of Resource Area Delineation is also being filed with the Shutesbury Conservation Commission for the same property.

B. The name of the applicant is: **Town of Shutesbury**

C. The address of the land where the activity is proposed: **66 Leverett Road, Shutesbury (Parcel ID: O-32)**

D. The work proposed is: **to conduct subsurface environmental investigations in two areas.**

E. Copies of the Request for Determination and Abbreviated Notice of Resource Area Delineation may be examined at: Shutesbury Town Hall, Tuesday and Thursday 10am – 1pm.

F. Copies of the Request for Determination and Abbreviated Notice of Resource Area Delineation may be obtained from Shutesbury Conservation Commission, Tuesday and Thursday 10am – 1pm.

G. The Public Meeting for this Request for Determination of Applicability will be held **Thursday, October 13, 2022 at 7:00 pm** via Zoom.

Public Participation will be via Virtual Means Only: This meeting of the Shutesbury Conservation Commission will be conducted via remote participation. Instructions for participating in the virtual Public Hearing will be listed on the meeting agenda posted on the Town calendar at least 48 hours in advance of the meeting. The Public Meeting may be rescheduled due to unforeseen circumstances. Remote access information will be published on the Shutesbury meeting calendar: https://www.shutesbury.org/calendars. Click on the agenda for the meeting you wish to attend.

H. Notice of the public meeting, including date, time, and place will be published at least five business days in advance in the ***Daily Hampshire Gazette***.

For more information, contact the Shutesbury Conservation Commission (concom@shutesbury.org or 413-259-3792) or the Massachusetts Department of Environmental Protection (MassDEP) Western Region Office at (413-784-1100).