DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD, MA 01742

CENAE-R
NAE-2023-01759

22 May 2024

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Approved Jurisdictional Determination in accordance with the "Revised Definition of 'Waters of the United States'"; (88 FR 3004 (January 18, 2023) as amended by the "Revised Definition of 'Waters of the United States'; Conforming" (8 September 2023) ,[1] NAE-2023-01759

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.[2] AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.[3]

On January 18, 2023, the Environmental Protection Agency (EPA) and the Department of the Army ("the agencies") published the "Revised Definition of 'Waters of the United States,'" 88 FR 3004 (January 18, 2023) ("2023 Rule"). On September 8, 2023, the agencies published the "Revised Definition of 'Waters of the United States'; Conforming", which amended the 2023 Rule to conform to the 2023 Supreme Court decision in *Sackett v. EPA*, 598 U.S., 143 S. Ct. 1322 (2023) ("*Sackett*").

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. For the purposes of this AJD, we have relied on Section 10 of the Rivers and Harbors Act of 1899 (RHA),[4] the 2023 Rule as amended, as well as other applicable guidance, relevant case law, and longstanding practice in evaluating jurisdiction.

---

[1] While the Revised Definition of "Waters of the United States"; Conforming had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.
[2] 33 CFR 331.2.
[3] Regulatory Guidance Letter 05-02.
[4] USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

1. SUMMARY OF CONCLUSIONS.

   a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).

      i. Wetland 1 is non-jurisdictional. It is neither a water of the United States nor is it a navigable water of the United States.

2. REFERENCES.

   a. "Revised Definition of 'Waters of the United States,'" 88 FR 3004 (January 18, 2023) ("2023 Rule")

   b. "Revised Definition of 'Waters of the United States'; Conforming" 88 FR 3004 (September 8, 2023))

   c. *Sackett v. EPA*, 598 U.S. _, 143 S. Ct. 1322 (2023)

3. REVIEW AREA.

   The review area is a 0.40 acre forested wetland feature located at 16 Fencourt Avenue in Randolph, Massachusetts (Norfolk County).

   The coordinates at the center of the review area are 42.155697, -71.031492.

   This feature is identified as WETLAND 1 on the attached map named "ANRAD EXHIBIT PLAN 16 Fencourt Ave RANDOLPH, MASSACHUSETTS".

   This wetland feature is in the northwestern corner of the site and is bounded to the north by houses on Boothby Circle and to the west by houses on Truelson Drive.

   There is another wetland feature along the southern boundary of the site but it is not named on the map and is not within the review area. Wetland 1 and this other unnamed wetland feature are separated by uplands.

4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), THE TERRITORIAL SEAS, OR INTERSTATE WATER TO WHICH THE AQUATIC RESOURCE IS CONNECTED.

The nearest TNW is the Weymouth Fore River, which is approximately 5.5 miles away from Wetland 1. The Weymouth Fore River is a TNW and part of the territorial seas as it is subject to the ebb and flow of the tide.

5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, THE TERRITORIAL SEAS, OR INTERSTATE WATER.

   There is no continuous surface connection between Wetland 1 and any other wetlands, streams, or other aquatic features. Therefore there is no flow path from Wetland 1 to a TNW, the territorial seas, or an interstate water.

6. SECTION 10 JURISDICTIONAL WATERS[5]: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10.[6]

   Wetland 1 is not jurisdictional under Section 10 of the Rivers and Harbors Act of 1899.

7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the 2023 Rule as amended, consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the 2023 Rule as amended. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.

   a. Traditional Navigable Waters (TNWs) (a)(1)(i): N/A

[5] 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.
[6] This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

b. The Territorial Seas (a)(1)(ii): N/A

c. Interstate Waters (a)(1)(iii): N/A

d. Impoundments (a)(2): N/A

e. Tributaries (a)(3): N/A

f. Adjacent Wetlands (a)(4): N/A

g. Additional Waters (a)(5): N/A

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

a. Describe aquatic resources and other features within the review area identified in the 2023 Rule as amended as not "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(2) through (5). Include the type of excluded aquatic resource or feature, the size of the aquatic resource or feature within the review area and describe how it was determined to meet one of the exclusions listed in 33 CFR 328.3(b).[7] N/A

b. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the 2023 Rule as amended (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).

Wetland 1 is a 0.40 acre forested wetland in the northwest corner of the 16 Fencourt Avenue parcel. USACE reviewed the wetland determination forms submitted by the environmental consultant to generally confirm the boundaries of Wetland 1. Although Wetland 1 and the surrounding uplands all exhibited hydrophytic vegetation, the upland areas lacked hydric soils and did not exhibit signs of wetland hydrology.

There is another unnamed wetland feature along the southern boundary of the property but it is not within the review area and is separated from Wetland 1 by uplands. The nearest waterbody is Mary Lee Brook which is approximately 475 feet away from Wetland 1.

[7] 88 FR 3004 (January 18, 2023)

USACE reviewed many available sources to check for a continuous surface connection between Wetland 1 and any (a)(1)-(3) water.

The Mass Mapper, an interactive GIS website for Massachusetts, contained many helpful GIS layers that were reviewed to determine if there was a continuous surface connection between Wetland 1 and an (a)(1)-(3) water:

- The Topography Layers GIS layer
- The NWI Wetlands GIS layer
- The 2001, 2005, 2008/2009, 2019, and 2021 Aerial Imagery GIS layers
- The DEP Wetlands Hydrologic Connections GIS layer
- The Elevation and Shaded Relief from Lidar GIS layer

USACE determined that there was no evidence of a surface connection on any of these mapped layers. In order to confirm this information, the USACE PM and EPA staff visited the site on 05/07/24. During the site visit, USACE and EPA confirmed that the 0.40 acre wetland in the review area was separated from the wetland to the south by uplands and that there was no continuous surface connection between the two wetlands. USACE also confirmed that there was no continuous surface connection between the wetland in question and the nearby Mary Lee Brook.

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

   a. Site visit on 05/07/24 attended by USACE PM and EPA staff.

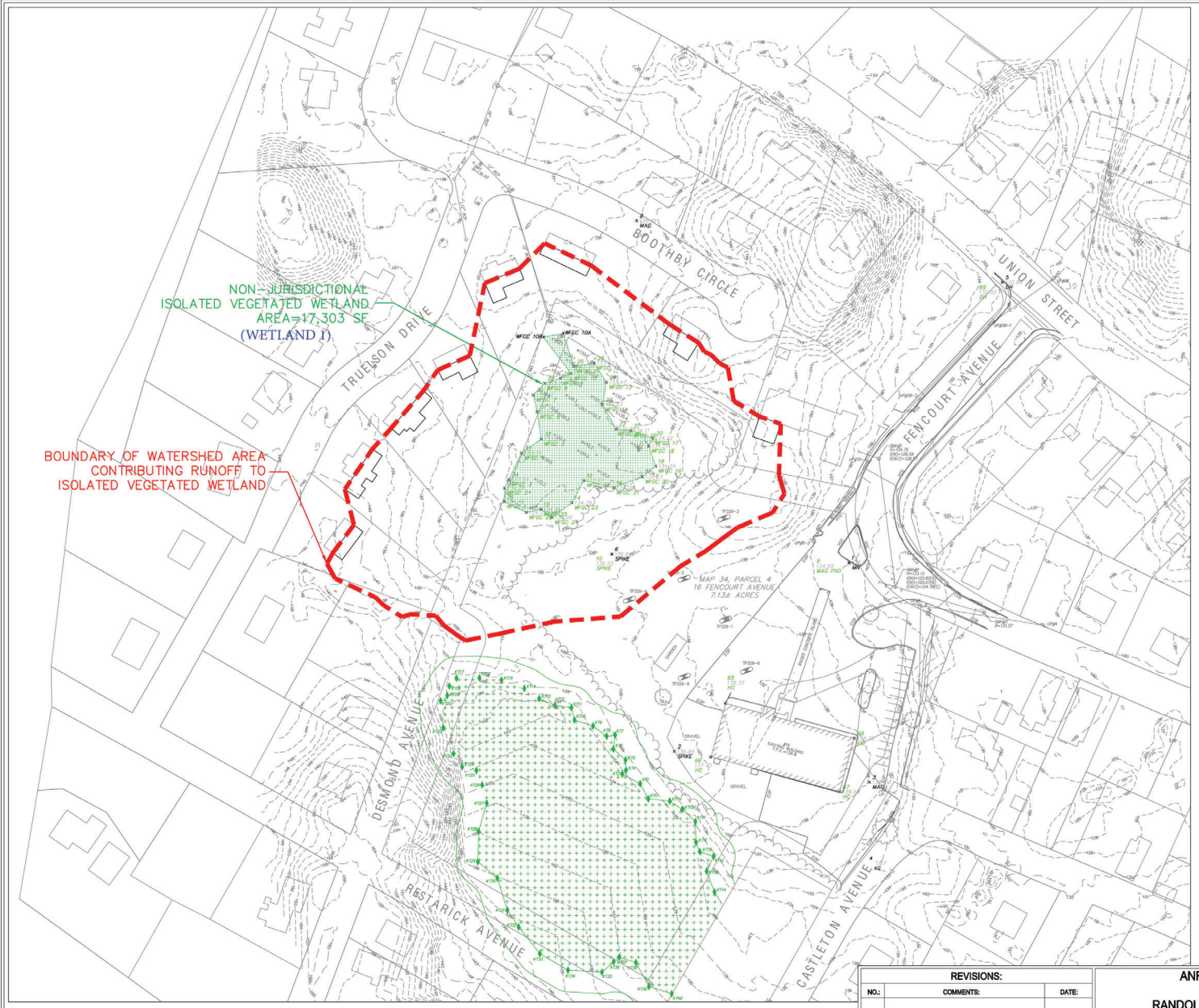
   b. Mass Mapper GIS website: https://maps.massgis.digital.mass.gov/MassMapper/MassMapper.html

   c. Jurisdictional Determination Request document submitted to USACE by Goddard Consulting, LLC

10. OTHER SUPPORTING INFORMATION.

In accordance with the updated December 2023 USACE Tribal consultation policy, USACE coordinated with the Narragansett Indian Tribe, the Wampanoag Tribe of Gayhead (Aquinnah) and the Mashpee Wampanoag Tribe regarding this AJD. USACE asked if the Tribes had any indigenous knowledge of hydrology in the vicinity that would be useful for this AJD process. No response was received from any of the Tribes.

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.



NON-JURISDICTIONAL ISOLATED WETLAND STORAGE VOLUME CALCULATIONS:

SURFACE AREA METHOD

SURFACE AREA = 17,303 SF
AVERAGE DEPTH = 6 INCHES
VOLUME = 17,303 SF x 6 INCHES x 1/12 INCH/FT = 8,652 CF =0.20 AC

WATERSHED AREA METHOD

WATERSHED AREA CONTRIBUTING RUNOFF TO ISOLATED VEGETATED WETLAND = 148,241 SF

ROOF AREA = 5,756 SF CN = 98
WOOD/GRASS AREA = 142, 485 SF CN = 32

USE TYPE III, 24 HRS, 7 INCHES STORM MODEL

TOTAL RUNOFF VOLUME = 0.14 AC
SEE CALCULATION DETAIL IN HYDROCAD REPORT

SURVEY

BASE PLAN IS BASED ON A FIELD SURVEY BY TURNING POINT ENGINEERING.
ISOLATED WETLAND AREA WAS FIELD DELINEATED BY SCOTT GODDARD, PWS IN THE WEEK OF MARCH 14, 2022, THE FLAGS WERE SURVEYED BY OUR FIRM AND AS SHOWN ON THIS PLAN.

50 0 25 50 100
(IN FEET)
1 inch = 50 feet

REVISIONS:		
NO.:	COMMENTS:	DATE:

ANRAD EXHIBIT PLAN
16 Fencourt Ave
RANDOLPH, MASSACHUSETTS

DRAWN BY: JKY
DESIGNED BY: CYM
CHECKED BY: SPH
DATE: 5-5-2022
LATEST REVISION:

HARDY + MAN DESIGN GROUP, PC
CIVIL ENGINEERING & LAND DEVELOPMENT CONSULTING
1285 WASHINGTON STREET
WEYMOUTH, MA
(781) 335-1464

PREPARED FOR:
CONCETPS

SHEET
C-1

Appendix C: Wetland Delineation Forms

- *Wetland Border Report*, Goddard Consulting LLC, 10/12/2022
- Completed Wetland Determination Data Forms

Appendix D: Site Plan

- *Existing Conditions Plan*

Project Location

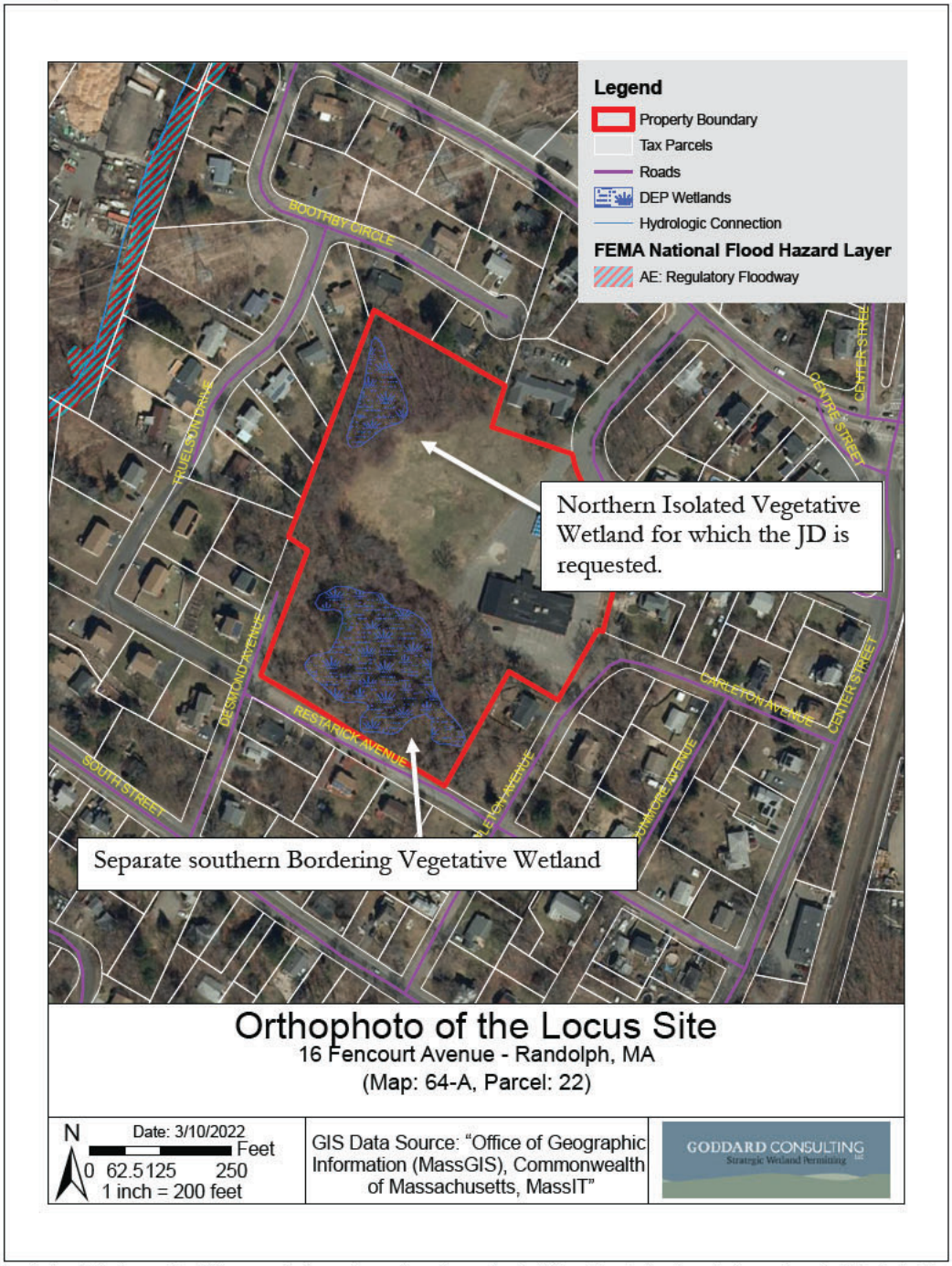


Photo 1. An orthophoto of the locus site. The property boundary where the wetland delineation took place is shown in red. The isolated wetland for which a JD is requested is in the northwestern corner of the site.

Date: 4/25/2023	GC Job Number: 244-2	Site Locus USGS Map	0 500 1,000 Feet
GODDARD CONSULTING Strategic Ecological Consulting			1 in = 1,000 ft
		16 Fencourt Road Randolph, MA	Map: 64, Lot: 22
			Figure 1

Date: 4/25/2023

GC Job Number: 244-2

GODDARD CONSULTING
Strategic Ecological Consulting

Orthophoto & Soils Map

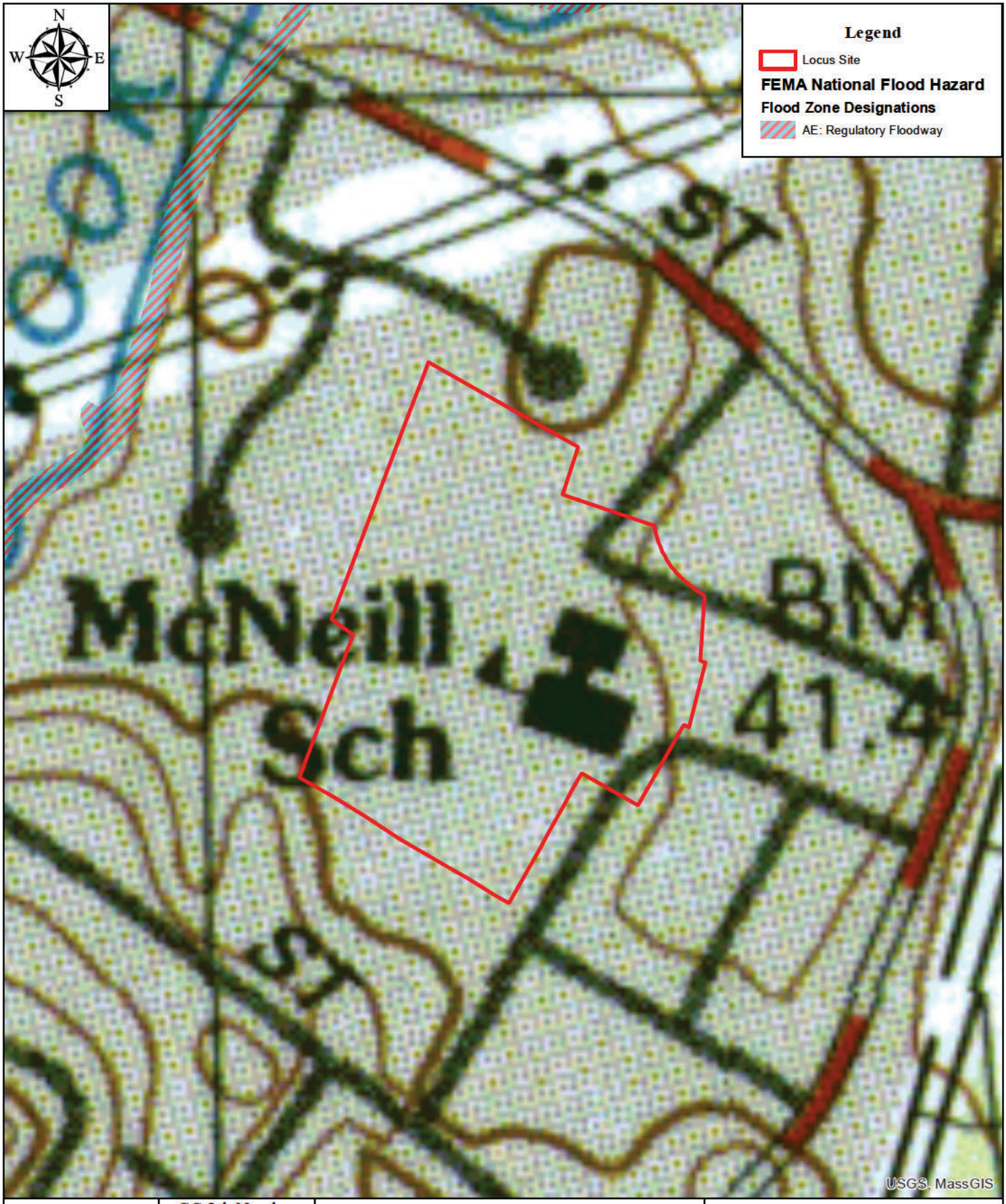
16 Fencourt Road
Randolph, MA

0 50 100 Feet

1 in = 100 ft

Map: 64, Lot: 22

Figure 2



Date: 08/02/2023	GC Job Number: 244-002	FEMA Map	0 100 200 Feet
GODDARD CONSULTING Strategic Ecological Consulting		16 Fencourt Ave Randolph, MA 02368	1 in = 200 ft Map: 64, Lot: 22
			Figure 6

Date: 08/02/2023

GC Job Number: 244-002

GODDARD CONSULTING
Strategic Ecological Consulting

1990 Aerial of Locus Site

16 Fencourt Ave
Randolph, MA 02368

0 50 100 Feet

1 in = 100 ft

Map: 64, Lot: 22

Figure 8a

Date: 08/02/2023

GC Job Number: 244-002

GODDARD CONSULTING
Strategic Ecological Consulting

2001 Aerial of Locus Site

16 Fencourt Ave
Randolph, MA 02368

0 50 100 Feet

1 in = 100 ft

Map: 64, Lot: 22

Figure 8b

Date: 08/02/2023

GC Job Number: 244-002

GODDARD CONSULTING
Strategic Ecological Consulting

2005 Aerial of Locus Site

16 Fencourt Ave
Randolph, MA 02368

0 50 100 Feet

1 in = 100 ft

Map: 64, Lot: 22

Figure 8c

Date: 08/02/2023

GC Job Number: 244-002

GODDARD CONSULTING
Strategic Ecological Consulting

2008 Aerial of Locus Site

16 Fencourt Ave
Randolph, MA 02368

0 50 100 Feet

1 in = 100 ft

Map: 64, Lot: 22

Figure 8d

Date: 08/02/2023

GC Job Number: 244-002

GODDARD CONSULTING
Strategic Ecological Consulting

2011 Aerial of Locus Site

16 Fencourt Ave
Randolph, MA 02368

0 50 100 Feet

1 in = 100 ft

Map: 64, Lot: 22

Figure 8e

Date: 08/02/2023

GC Job Number: 244-002

GODDARD CONSULTING
Strategic Ecological Consulting

2013 Aerial of Locus Site

16 Fencourt Ave
Randolph, MA 02368

0 50 100 Feet

1 in = 100 ft

Map: 64, Lot: 22

Figure 8f

Date: 08/02/2023

GC Job Number: 244-002

GODDARD CONSULTING
Strategic Ecological Consulting

2019 Aerial of Locus Site

16 Fencourt Ave
Randolph, MA 02368

0 50 100 Feet

1 in = 100 ft

Map: 64, Lot: 22

Figure 8g

Date: 08/02/2023

GC Job Number: 244-002

GODDARD CONSULTING
Strategic Ecological Consulting

2021 Aerial of Locus Site

16 Fencourt Ave
Randolph, MA 02368

0 50 100 Feet

1 in = 100 ft

Map: 64, Lot: 22

Figure 8h

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

	Wetland
X	Upland

Project Site: 16 Fencourt Ave City/County: Randolf Date 5/1/23

Applicant/Owner: [redacted] State: MA Sampling Point: GC-16

Investigator(s): [redacted] Section/Township/Range: NA

Landform (hillslope, terrace, etc.): Local Relief (concave, convex, none): convex Slope (%):

Subregion (LRR or MLRA): NA Latitude: Longitude: Datum: NAD 83

Soil Map Unit Name: Udorthents, loamy NWI Classification: PFO1E

Are climatic/hydrologic conditions on site typical for this time of year? Yes X No (explain)

Is vegetation ____ Soil ____ Hydrology ____ Significantly Disturbed? (check if appropriate)

Is vegetation ____ Soil ____ Hydrology ____ Naturally Problematic? (check if appropriate)

Are "Normal Circumstances" present? X Yes ____ No

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

Hydrophytic Vegetation Present?	X	Yes	____	No
Hydric Soil Present?	____	Yes	X	No
Wetland Hydrology Present?	____	Yes	X	No

Is the Sampled Area within a Wetland? ____ Yes X No

Remarks:

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 (B2)
- ____ 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)
- ____ Thin Muck Surface (C7)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Other (Explain in Remarks)

Secondary Indicators (Min. 2 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	X	No	Depth (inches) ____
Water Table Present?	____	Yes	X	No	Depth (inches) ____
Saturation Present? (Includes capillary fringe)	____	Yes	X	No	Depth (inches) ____

Wetland Hydrology Present? ____ Yes X No

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

Remarks:

VEGETATION - *Use scientific names* A-17 4/1/22

Tree Stratum (Plot Size:)	Absolute % Cover	Dominant Species	Indicator Status
1 *Red Maple (Acer rubrum)*	85.5	YES	FAC
2 --	--	--	--
3 --	--	--	--
4 --	--	--	--
5 --	--	--	--
6 --	--	--	--
7 --	--	--	--
	85.5 =	**Total Tree Cover**	

Sapling/Shrub Stratum (Plot Size:)	Absolute % Cover	Dominant Species	Indicator Status
1 --	20.5	YES	--
2 *Glossy False Buckthorn (Frangula alnus)*	20.5	YES	FAC
3 *Northern Spicebush (Lindera benzoin)*	38	YES	FACW
4 *Eastern White Pine (Pinus strobus)*	20.5	NO	FACU
5 *Jet bead (Rhodotypos scandens)*	20.5	NO	#N/A
6 --	--	--	--
7 --	--	--	--
	120 =	**Total Sapling/Shrub Cover**	

Herb Stratum (Plot Size:)	Absolute % Cover	Dominant Species	Indicator Status
1 *False Lily-of-the-Valley (Maianthemum canadense)*	85.5	YES	FACU
2 *Eastern Poison Ivy (Toxicodendron radicans)*	3	NO	#N/A
3 --	--	--	--
4 --	--	--	--
5 --	--	--	--
6 --	--	--	--
7 --	--	--	--
8 --	--	--	--
9 --	--	--	--
10 --	--	--	--
11 --	--	--	--
12 --	--	--	--
	88.5 =	**Total Herb Cover**	

Woody Vine Stratum (Plot Size:)	Absolute % Cover	Dominant Species	Indicator Status
1 *Horsebrier (Smilax rotundifolia)*	38	YES	FAC
2 --	10.5	YES	--
3 --	--	--	--
4 --	--	--	--
	48.5 =	**Total Woody Vine Cover**	

Dominance Test Worksheet:

No. of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total No. of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 80.00 (C)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	38	x 2 =	76	
FAC species	147	x 3 =	441	
FACU species	106	x 4 =	424	
UPL species	0	x 5 =	0	
Column Totals	291 (A)		941	(B)

Prevalence Index = B/A = 3.2

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

_____ Prevalence Index is $\leq$3.0[1]

_____ Morphological Adaptations[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

Indicators of hydric soil & 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. in DBH and greater than 3.28 ft. (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants < 3.28 ft tall

Woody Vines - All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present?

X Yes

_____ No

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

0

SOILS GC-16 Upland

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

Horizon	Depth (in)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
O	0-2"	0	--	--	--	--	--	--	--
A	2-14"+	10YR 3/4	100	--	--	--	--	Gravely FSL	Urban manipulated
--	--	0	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--

[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)		Polyvalue Below Surface (S8)		2cm Muck (A10) (**LRR K, L, MLRA 149B**)
	Histic Epipedon (A2)		**(LRR R, MLRA 149 B)**		Coast Prairie Redox (A16) (**LRR K, L, R**)
	Black Histic (A3)		Thin Dark Surface (S9)		5cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
	Hydrogen Sulfide (A4)		**(LRR R, MLRA 149B)**		Dark Surface (S7) (**LRR K, L**)
	Stratified Layers (A5)		LOAMY Mucky Mineral (F1)		Polyvalue Below Surface (S8) (**LRR K, L**)
	Depleted Below Dark Surface (A11)		(**LRR K, L**)		Thin Dark Surface (S9) (**LRR K, L**)
	Thick Dark Surface(A12)		Loamy Gleyed Matrix (F2)		Iron-Manganese Masses (F12) (**LRR K, L, R**)
	Sandy Mucky Mineral (S1)		Depleted Matrix (F3)		Piedmont Floodplain Soils (F19) (**MLRA 149B**)
	Sandy Gleyed Matrix (S4)		Redox Dark Surface (F6)		Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
	Sandy Redox (S5)		Depleted Dark Surface (F7)		Red Parent Material (**F21**)
	Stripped Matrix (S6)		Redox Depressions (F8)		Very Shallow Dark Surface (**TF12**)
	Dark Surface (S7) (**LRR R, MLRA 149B**)				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 X No

Remarks:

0

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

X Wetland
Upland

Project Site: 16 Fencourt Ave City/County: Randolf Date 5/1/23

Applicant/Owner: [redacted] State: MA Sampling Point: GC-16 0

Investigator(s): [redacted] Section/Township/Range: 0

Landform (hillslope, terrace, etc.): 0 Local Relief (concave, convex, none): convex Slope (%): 0%

Subregion (LRR or MLRA): NA Latitude: 0 Longitude: 0 Datum: NAD 83

Soil Map Unit Name: Udorthents, loamy NWI Classification: PFO1E

Are climatic/hydrologic conditions on site typical for this time of year? Yes X No (explain)

Is vegetation ____ Soil ____ Hydrology ____ Significantly Disturbed? (check if appropriate)

Is vegetation ____ Soil ____ Hydrology ____ Naturally Problematic? (check if appropriate)

Are "Normal Circumstances" present? X Yes ____ No

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

Hydrophytic Vegetation Present?	X	Yes	____	No	Is the Sampled Area within a Wetland? X Yes ____ No
Hydric Soil Present?	X	Yes	____	No	
Wetland Hydrology Present?	X	Yes	____	No	

Remarks:

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 (B2)
- ____ 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)
- ____ Thin Muck Surface (C7)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Other (Explain in Remarks)

Secondary Indicators (Min. 2 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	X	No	Depth (inches)	____
Water Table Present?	____	Yes	X	No	Depth (inches)	____
Saturation Present? (Includes capillary fringe)	X	Yes	____	No	Depth (inches)	2"

Wetland Hydrology Present? X Yes ____ No

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

Remarks:

VEGETATION - *Use scientific names* TP-B 10/1/18

Tree Stratum (Plot Size:)	Absolute % Cover	Dominant Species	Indicator Status
1 *Red Maple (Acer rubrum)*	85.5	YES	FAC
2 --	--	--	--
3 --	--	--	--
4 --	--	--	--
5 --	--	--	--
6 --	--	--	--
7 --	--	--	--
	85.5 =	**Total Tree Cover**	

Sapling/Shrub Stratum (Plot Size:)	Absolute % Cover	Dominant Species	Indicator Status
1 *Northern Spicebush (Lindera benzoin)*	38	YES	FACW
2 --	38	YES	--
3 *Eastern White Pine (Pinus strobus)*	10.5	NO	FACU
4 *Glossy False Buckthorn (Frangula alnus)*	38	YES	FAC
5 --	--	--	--
6 --	--	--	--
7 --	--	--	--
	124.5 =	**Total Sapling/Shrub Cover**	

Herb Stratum (Plot Size:)	Absolute % Cover	Dominant Species	Indicator Status
1 *False Lily-of-the-Valley (Maianthemum canadense)*	85.5	YES	FACU
2 *Eastern Poison Ivy (Toxicodendron radicans)*	38	YES	FAC
3 --	--	--	--
4 --	--	--	--
5 --	--	--	--
6 --	--	--	--
7 --	--	--	--
8 --	--	--	--
9 --	--	--	--
10 --	--	--	--
11 --	--	--	--
12 --	--	--	--
	123.5 =	**Total Herb Cover**	

Woody Vine Stratum (Plot Size: 30')	Absolute % Cover	Dominant Species	Indicator Status
1 *Horsebrier (Smilax rotundifolia)*	38	YES	FAC
2 --	--	--	--
3 --	--	--	--
4 --	--	--	--
	38 =	**Total Woody Vine Cover**	

Dominance Test Worksheet:

No. of Dominant Species That are OBL, FACW, or FAC: 5 (A)

Total No. of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 83.33 (C)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	38	x 2 =	76
FAC species	199.5	x 3 =	598.5
FACU species	96	x 4 =	384
UPL species	0	x 5 =	0
Column Totals	333.5 (A)		1058.5 (B)

Prevalence Index = B/A = **3.2**

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

_____ Prevalence Index is $\leq$3.0[1]

_____ Morphological Adaptations[1]

_____ Problematic Hydrophytic Vegetation[1] (Explain)

Indicators of hydric soil & 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. in DBH and greater than 3.28 ft. (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants < 3.28 ft tall

Woody Vines - All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present?

X Yes

_____ No

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

0

SOILS GC-16 Wetland

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

Horizon	Depth (in)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
O	0-2		--	--	--	--	--	--	
A	2-6	10YR 5/2	--	--	--	--	--	Very FSL	A little gravel
C	6-14+	10YR 4/3	--	10YR 5/8	15	Redox	--	VFSL	A little gravel
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--

[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)		Polyvalue Below Surface (S8)		2cm Muck (A10) (**LRR K, L, MLRA 149B**)
	Histic Epipedon (A2)		**(LRR R, MLRA 149 B)**		Coast Prairie Redox (A16) (**LRR K, L, R**)
	Black Histic (A3)		Thin Dark Surface (S9)		5cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
	Hydrogen Sulfide (A4)		**(LRR R, MLRA 149B)**		Dark Surface (S7) (**LRR K, L**)
	Stratified Layers (A5)		LOAMY Mucky Mineral (F1)		Polyvalue Below Surface (S8) (**LRR K, L**)
	Depleted Below Dark Surface (A11)		(**LRR K, L**)		Thin Dark Surface (S0) (**LRR K, L**)
	Thick Dark Surface(A12)		Loamy Gleyed Matrix (F2)		Iron-Manganese Masses (F12) (**LRR K, L, R**)
	Sandy Mucky Mineral (S1)		Depleted Matrix (F3)		Piedmont Floodplain Soils (F19) (**MLRA 149B**)
	Sandy Gleyed Matrix (S4)		Redox Dark Surface (F6)		Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
	Sandy Redox (S5)		Depleted Dark Surface (F7)		Red Parent Material (**TF2**)
	Stripped Matrix (S6)		Redox Depressions (F8)		Very Shallow Dark Surface (**TF12**)
	Dark Surface (S7) (**LRR R, MLRA 149B**)				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

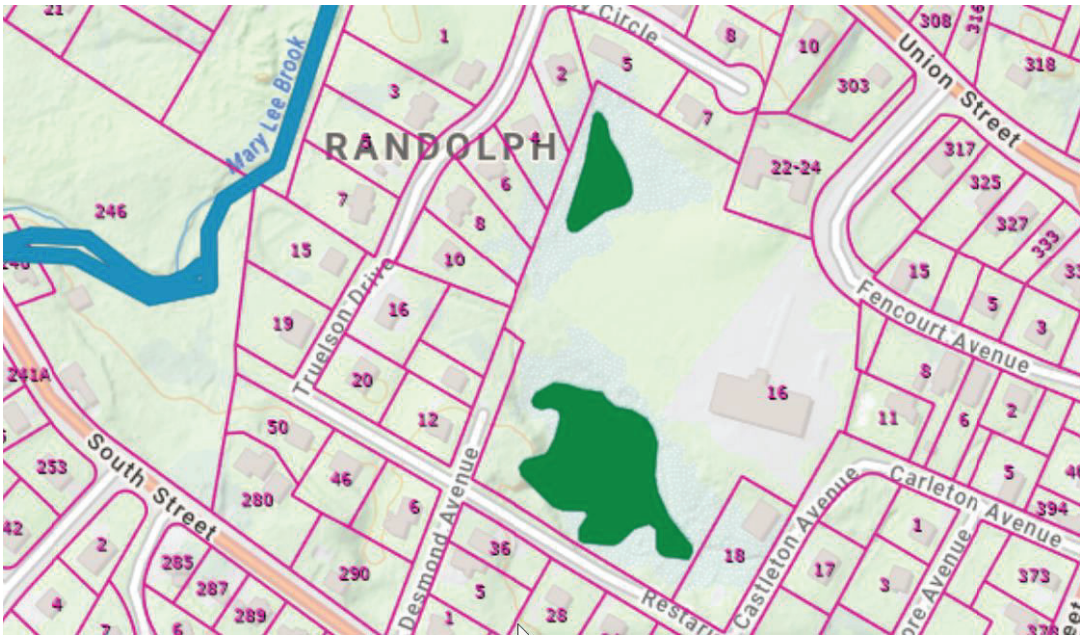
Hydric Soil Present?

_____ Yes X No

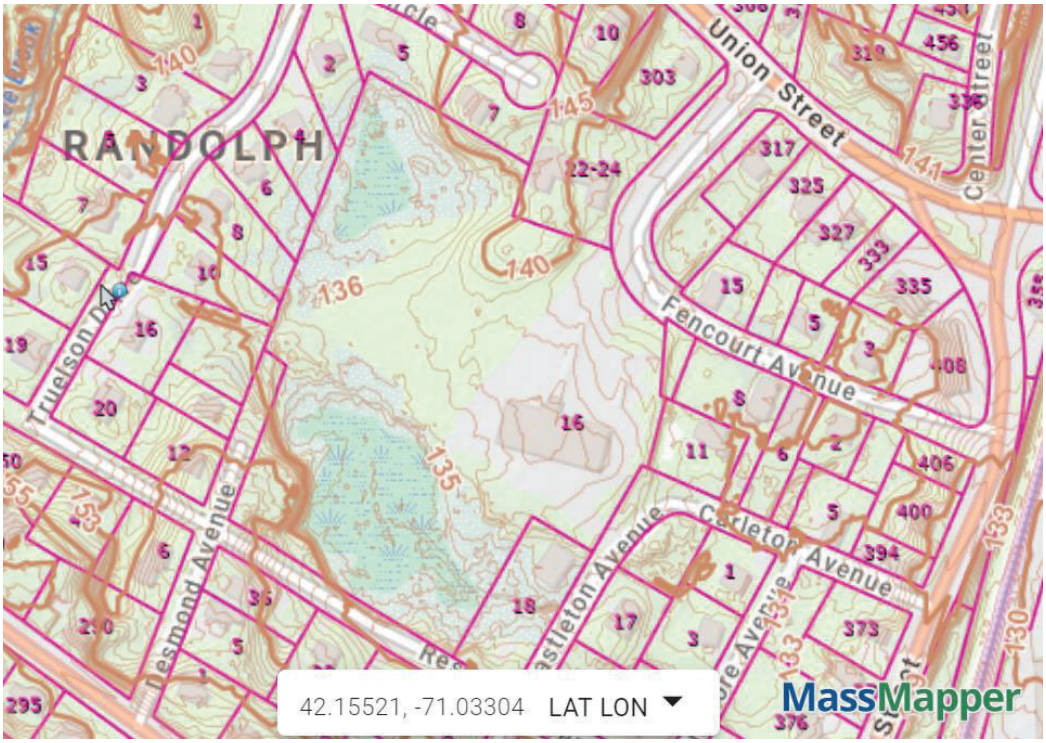
Remarks:

0

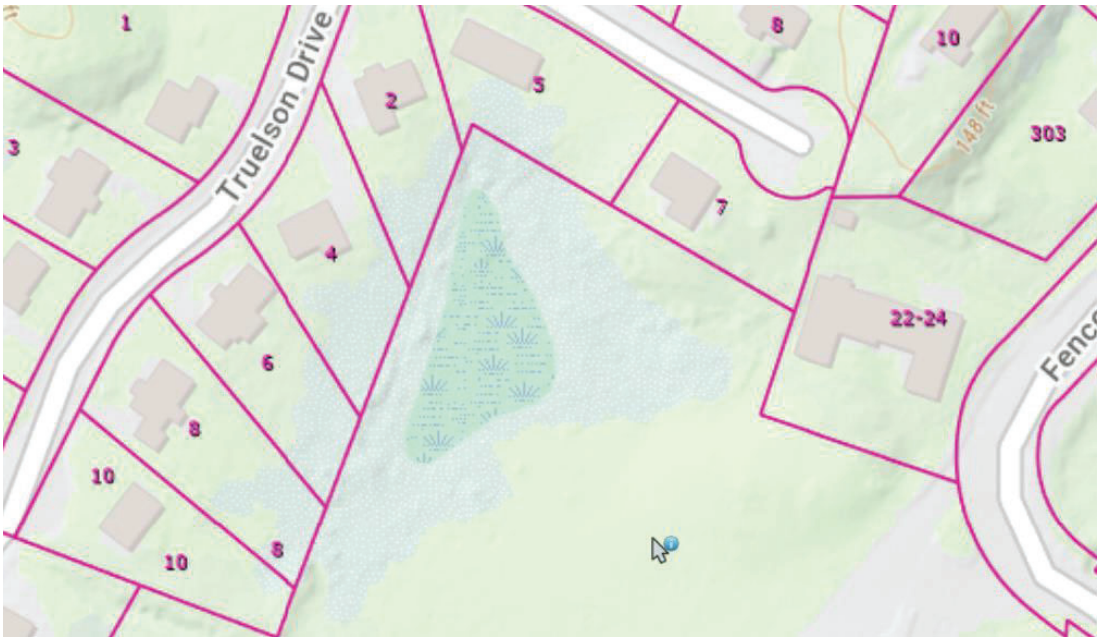
NAE-2023-01759: Mass Mapper GIS Layers



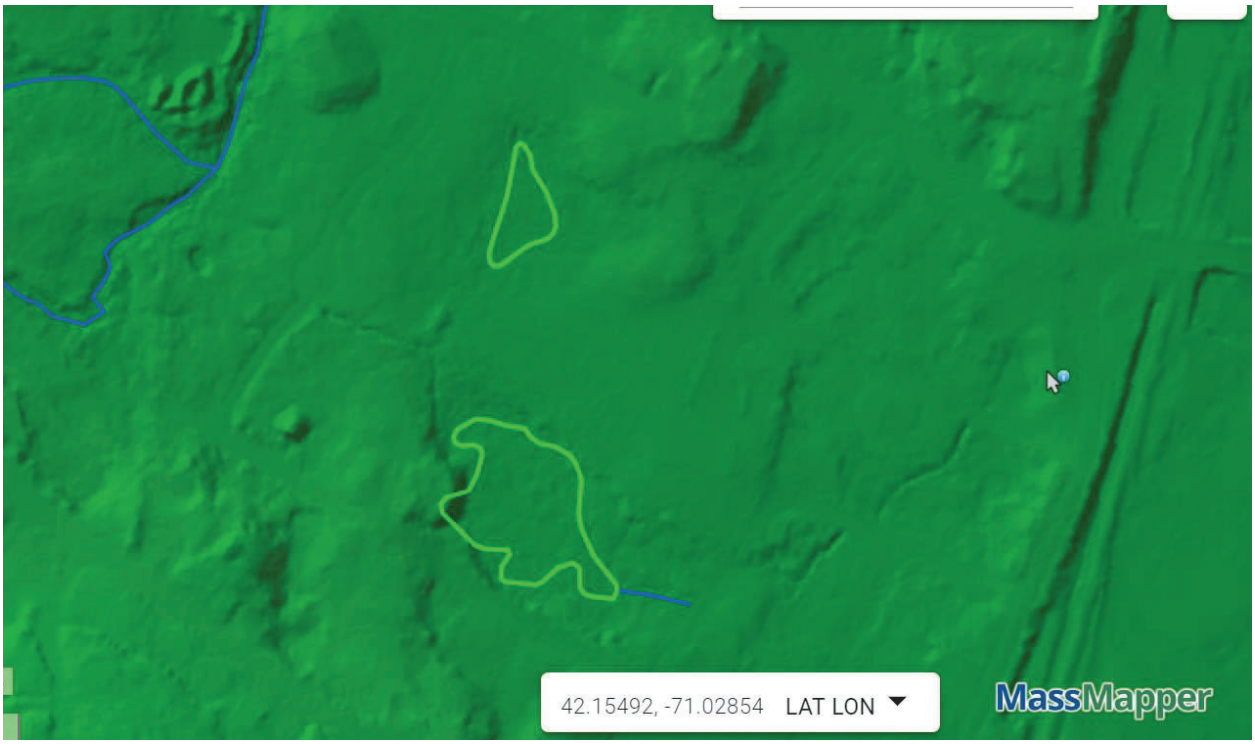
NWI Map Layer: Wetland 1 (north) and unnamed wetland (south)



Topographic Map: 1 foot contours



DEP wetland hydrologic connection layer: no surface water connections



DEP Wetland and Lidar Layers: Wetland 1 (north)