



**NORSE ENVIRONMENTAL SERVICES, INC.**

*2100 Lakeview Avenue Unit 3A*

*Dracut MA 01826*

*TEL. (978) 649-9932*

*Website: [www.norseenvironmental.com](http://www.norseenvironmental.com)*

**ABBREVIATED NOTICE OF RESOURCE  
AREA DELINEATION**

**FOR**

**935 HAVERHILL STREET**

**ASSESSORS MAP 4 BLOCK 31**

**ROWLEY, MA**

**APPLICANT: 935 HAVERHILL LLC**

**FEBRUARY 2024**

**PROJECT:** 935 HAVERHILL STREET - ROWLEY

**APPLICANT:** 935 HAVERHILL LLC

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**Massachusetts Department of Environmental Protection**  
 Bureau of Resource Protection - Wetlands  
**WPA Form 4A – Abbreviated Notice of**  
**Resource Area Delineation**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

\_\_\_\_\_  
 MassDEP File Number

\_\_\_\_\_  
 Document Transaction Number

Rowley  
 City/Town

## A. General Information

1. Project Location (**Note:** electronic filers will click on button for GIS locator):

935 Haverhill Street	Rowley	01969
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:	42.70810	-70.95271
	d. Latitude	e. Longitude
Map 4	Block 31	
f. Assessors Map/Plat Number	g. Parcel /Lot Number	

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



2. Applicant:

Robert	Nixon
a. First Name	b. Last Name
935 Haverhill LLC	
c. Organization	
357 North Street	
d. Mailing Address	
Georgetown	MA
e. City/Town	f. State
978-302-5644	01833
h. Phone Number	g. Zip Code
	rob.bitterroot60@yahoo.com
i. Fax Number	j. Email Address

3. Property owner (if different from applicant):

Edward T	Moore
a. First Name	b. Last Name
935 Haverhill LLC	
c. Organization	
8 Doaks Lane	
d. Mailing Address	
Marblehead	MA
e. City/Town	f. State
781-639-1113	01945
h. Phone Number	g. Zip Code
i. Fax Number	j. Email Address

Check if more than one owner (attach additional sheet with names and contact information)

**Note:** Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

4. Representative (if any):

Maureen	Herald
a. Contact Person First Name	b. Contact Person Last Name
Norse Environmental Services, Inc.	
c. Organization	
2100 Lakeview Avenue, Unit 3A	
d. Mailing Address	
Dracut	MA
e. City/Town	f. State
978-649-9932	01826
h. Phone Number	g. Zip Code
	maureen@norseenv.com
i. Fax Number	j. Email Address

5. Total WPA Fee Paid (from attached ANRAD Wetland Fee Transmittal Form):

\$2,000.00	\$987.50	\$1,012.50
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid

Fees will be calculated for online users.



**Massachusetts Department of Environmental Protection**  
 Bureau of Resource Protection - Wetlands  
**WPA Form 4A – Abbreviated Notice of  
 Resource Area Delineation**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

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\_\_\_\_\_  
Rowley  
City/Town

**B. Area(s) Delineated**

1. Bordering Vegetated Wetland (BVW) 6,263 Linear Feet  
Linear Feet of Boundary Delineated

2. Check all methods used to delineate the Bordering Vegetated Wetland (BVW) boundary:

- a.  MassDEP BVW Field Data Form (attached)
- b.  Other Methods for Determining the BVW boundary (attach documentation):
  - 1.  50% or more wetland indicator plants
  - 2.  Saturated/inundated conditions exist
  - 3.  Groundwater indicators
  - 4.  Direct observation
  - 5.  Hydric soil indicators
  - 6.  Credible evidence of conditions prior to disturbance

3. Indicate any other resource area boundaries that are delineated:

<u>Bank</u>	<u>2,782 Linear Feet</u>
a. Resource Area	b. Linear Feet Delineated
_____	_____
c. Resource Area	d. Linear Feet Delineated

**C. Additional Information**

Applicants must include the following plans with this Abbreviated Notice of Resource Area Delineation. See instructions for details. **Online Users:** Attach the Document Transaction Number (provided on your receipt page) for any of the following information you submit to the Department.

- 1.  ANRAD (Delineation Plans only)
- 2.  USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
- 3.  Plans identifying the boundaries of the Bordering Vegetated Wetlands (BVW) (and/or other resource areas, if applicable).
- 4.  List the titles and final revision dates for all plans and other materials submitted with this Abbreviated Notice of Resource Area Delineation.



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 Bureau of Resource Protection - Wetlands  
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 Resource Area Delineation**  
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Provided by MassDEP:

\_\_\_\_\_  
MassDEP File Number

\_\_\_\_\_  
Document Transaction Number

\_\_\_\_\_  
Rowley  
City/Town

**D. Fees**

The fees for work proposed under each Abbreviated Notice of Resource Area Delineation must be calculated and submitted to the Conservation Commission and the Department (see Instructions and Wetland Fee Transmittal Form).

- 1.  Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to the attached Wetland Fee Transmittal Form) to confirm fee payment:

Commonwealth of MA Check #1790	2/26/24
2. Municipal Check Number	3. Check date
Town of Rowley Check #1791	2/26/24
4. State Check Number	5. Check date
Robert	Nixon
6. Payor name on check: First Name	7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

**WPA Form 4A – Abbreviated Notice of  
Resource Area Delineation**  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number \_\_\_\_\_

Document Transaction Number \_\_\_\_\_

Rowley  
City/Town

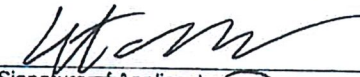

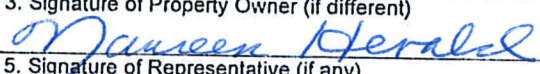
**E. Signatures**

I certify under the penalties of perjury that the foregoing Abbreviated Notice of Resource Area Delineation and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

I hereby grant permission, to the Agent or member of the Conservation Commission and the Department of Environmental Protection, to enter and inspect the area subject to this Notice at reasonable hours to evaluate the wetland resource boundaries subject to this Notice, and to require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.

I acknowledge that failure to comply with these certification requirements is grounds for the Conservation Commission or the Department to take enforcement action.

  
 1. Signature of Applicant \_\_\_\_\_  
  
 3. Signature of Property Owner (if different) \_\_\_\_\_  
  
 5. Signature of Representative (if any) \_\_\_\_\_

2-26-24  
 2. Date \_\_\_\_\_  
 2/26/2024  
 4. Date \_\_\_\_\_  
 2-24-24  
 6. Date \_\_\_\_\_

**For Conservation Commission:**

Two copies of the completed Abbreviated Notice of Resource Area Delineation (Form 4A), including supporting plans and documents; two copies of the ANRAD Wetland Fee Transmittal Form; and the city/town fee payment must be sent to the Conservation Commission by certified mail or hand delivery.

**For MassDEP:**

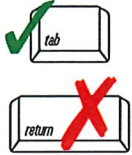
One copy of the completed Abbreviated Notice of Resource Area Delineation (Form 4A), including supporting plans and documents; one copy of the ANRAD Wetland Fee Transmittal Form; and a copy of the state fee payment must be sent to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery. (E-filers may submit these electronically.)

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



**Massachusetts Department of Environmental Protection**  
 Bureau of Resource Protection - Wetlands  
**ANRAD Wetland Fee Transmittal Form**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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



**A. Applicant Information**

1. Location of Project:

<u>935 Haverhill Street</u>	<u>Rowley</u>
a. Street Address	b. City/Town
<u>\$987.50</u>	<u>Check #1790</u>
c. Fee amount	d. Check number

2. Applicant:

<u>Robert</u>	<u>Nixon</u>	<u>935 Haverhill LLC</u>
a. First Name	b. Last Name	c. Company
<u>357 North Street</u>		
d. Mailing Address		
<u>Georgetown</u>	<u>MA</u>	<u>01833</u>
e. City/Town	f. State	g. Zip Code
<u>978-302-5644</u>		
h. Phone Number		

3. Property Owner (if different):

<u>Edward T</u>	<u>Moore</u>	<u>935 Haverhill LLC</u>
a. First Name	b. Last Name	c. Company
<u>8 Doaks Lane</u>		
d. Mailing Address		
<u>Marblehead</u>	<u>MA</u>	<u>01945</u>
e. City/Town	f. State	g. Zip Code
<u>781-639-1113</u>		
h. Phone Number		

**B. Fees**

The fee is calculated as follows for each Resource Area Delineation included in the ANRAD (check applicable project type). The maximum fee for each ANRAD, regardless of the number of Resource Area Delineations, is \$200 activities associated with a single-family house and \$2,000 for any other activity.

Bordering Vegetated Wetland Delineation Fee:

1. <input type="checkbox"/>	single family house project	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
		a. feet of BVW	x \$2.00 =		b. Fee for BVW
2. <input checked="" type="checkbox"/>	all other projects	<u>6263 ft.</u>	<u>\$12,526.00</u>	<u>                    </u>	<u>                    </u>
		a. feet of BVW	x \$2.00 =		b. Fee for BVW

Other Resource Area (e.g., bank, riverfront area, etc.):

3. <input type="checkbox"/>	single family house project	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
		a. linear feet	x \$2.00 =		b. Fee
4. <input checked="" type="checkbox"/>	all other projects	<u>2,782 l.f.</u>	<u>\$5,564.00</u>	<u>                    </u>	<u>                    </u>
		a. linear feet	x \$2.00 =		b. Fee

Total Fee for all Resource Areas:	<u>\$2,000.00</u>
	Fee
State share of filing fee:	<u>\$987.50</u>
	5. 1/2 of total fee less \$12.50
City/Town share of filing fee:	<u>\$1,012.50</u>
	6. 1/2 of total fee plus \$12.50



**Massachusetts Department of Environmental Protection**  
Bureau of Resource Protection - Wetlands  
**ANRAD Wetland Fee Transmittal Form**  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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**C. Submittal Requirements**

- a.) Send a copy of this form, with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts, to:

Department of Environmental Protection  
Box 4062  
Boston, MA 02211

- b.) **To the Conservation Commission:** Send the Abbreviated Notice of Resource Area Delineation; a **copy** of this form; and the city/town fee payment.
- c.) **To DEP Regional Office:** Send one copy of the Abbreviated Notice of Resource Area Delineation (and any additional documentation required as part of a Simplified Review Buffer Zone Project); a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)



**Notification to Abutters Under the  
Massachusetts Wetlands Protection Act and  
The Town of Rowley Wetlands Protection Bylaw**

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40 and the Town of Rowley Wetlands Protection Bylaw, you are hereby notified of the following:

**A.** The name of the applicant is 935 Haverhill LLC  
(name & address)

**B:** The applicant has filed a(n) Abbreviated Notice of Resource Area Delineation with the Rowley  
(permit type)

Conservation Commission seeking to:

Description of Project: to verify resource areas on site.

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in accordance with the Wetlands Protection Act (Mass.General Laws, Chapter 131, section 40) and the Town of Rowley Wetlands Protection Bylaw.

**C.** The address of the lot where the activity is proposed is 935 Haverhill Street  
Map 4, ~~Parcel~~ Block 31, ~~xxx~~

**D.** Copies of the application may be examined or obtained at the Rowley Conservation Commission office, Rowley Town Hall Annex, 39 Central Street, Rowley between the hours of 9:00 AM to 12:30 PM on Monday to Thursday. For more information please call 978 948-2330.

**E.** Copies of the application may also be examined or obtained from either the applicant, or the applicant's representative, by calling this telephone number 978-649-9932 \* between the hours of 8:00 AM and 6:00 PM on the following days of the week: M T W Th F/till 12:00 PM

\*Circle One: This is the applicant, representative, or other (specify): Norse Environmental Services, Inc.  
(name & address)

2100 Lakeview Avenue, Unit 3 - Dracut, MA 01826

**F.** Information regarding the date, time, and place of the public hearing may be obtained from the Rowley Conservation Commission by calling this number 978 948-2330.

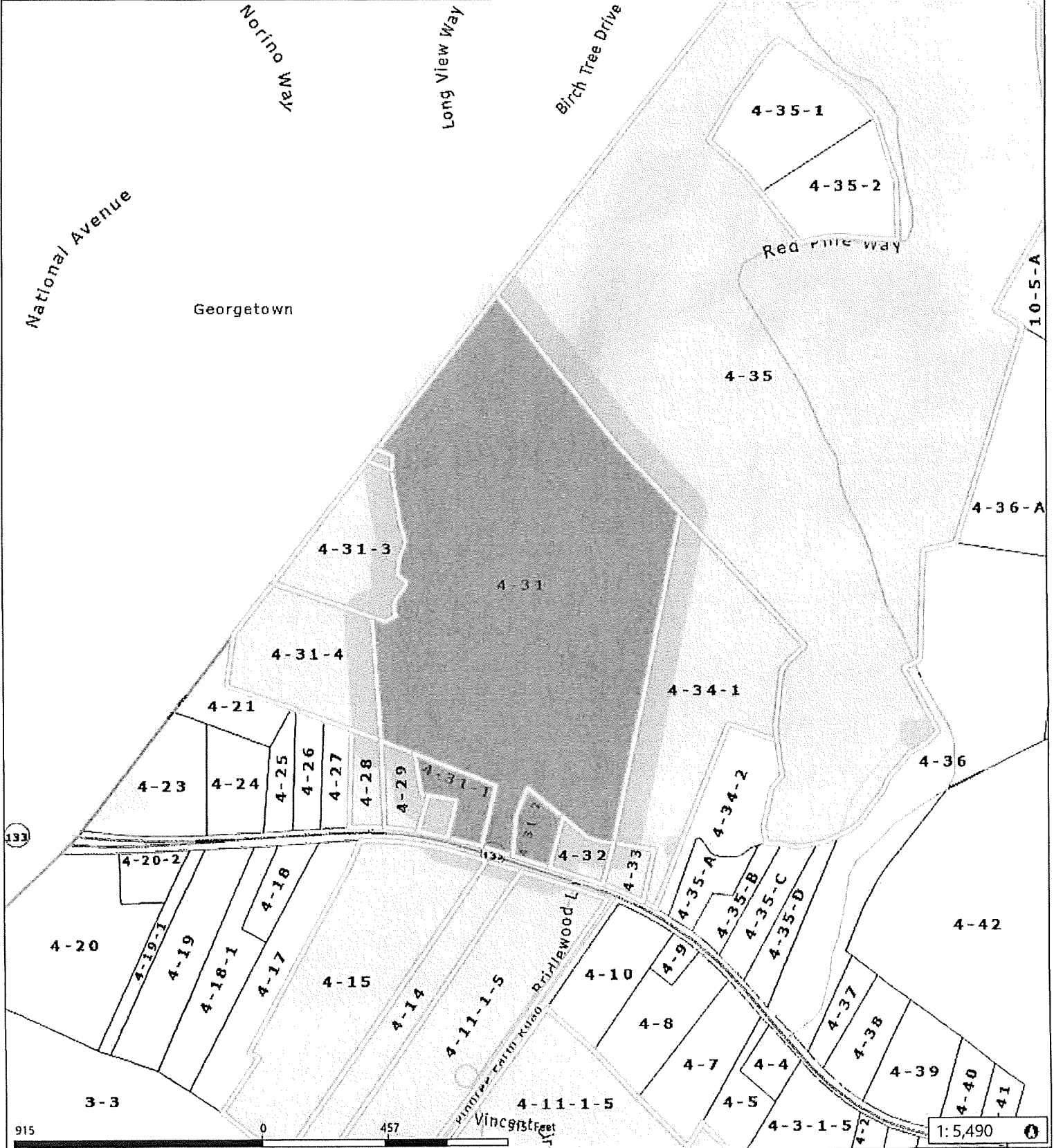
**Note:** Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in the Newburyport Daily News.

**Note:** Notice of the public hearing, including its date, time, and place, will be posted in the Town Hall 139 Main Street, Rowley, MA not less than forty-eight (48) hours in advance.

**Note:** You also may contact your local Conservation Commission or the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call: **Northeast Regional Office 978 694-3200** or write **DEP NERO 205B Lowell Street, Wilmington, MA 01887**

# Town of Rowley

02/12/2024



Data Sources: Produced by Merrimack Valley Planning Commission (MVPC) using data provided by the Town of Rowley & MassGIS/MassGIS.  
MVPC AND THE TOWN OF ROWLEY MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF THESE DATA. THE TOWN OF ROWLEY AND MVPC DOES NOT ASSUME ANY LIABILITY ASSOCIATED WITH THE USE OR MISUSE OF THIS INFORMATION



- |                     |                       |            |                         |            |         |
|---------------------|-----------------------|------------|-------------------------|------------|---------|
| Municipal Boundary  | Roads                 | Interstate | Major Road              | Local Road | Parcels |
| Building Footprints | Hydrographic Features | Streams    | Building Footprint Shad |            |         |

CERTIFIED ABUTTERS' LIST

Parcel ID	Location	Owner Name/Address
004-031	935 HAVERHILL ST	935 HAVERHILL LLC 8 DOAKS LN MARBLEHEAD, MA 01945
----- A B U T T E R S -----		
004-011-01	1 VITO COURT	TRS PELLETIER FAMILY TRUST PELLETIER JOHN R ET AL TRUSTEES 1 VITO COURT ROWLEY, MA 01969
004-011-01-5	VITO VINCENT MASTER CARD	TRS PINGREE FARM TRUST CONDOS BRIDLEWOOD LN ROWLEY, MA 01969
004-011-02	3 VITO COURT	TRS GUSTAFSON FAMILY IRREV TRS GUSTAFSON AMANDA TRUSTEE 3 VITO COURT ROWLEY, MA 01969
004-011-03	5 VITO COURT	TRS REID FAMILY TRUST REID DANIEL THOMAS ET AL TRUSTEE 5 VITO COURT ROWLEY, MA 01969
004-011-04	7 VITO COURT	LOVASCO THOMAS J LOVASCO LISA M 7 VITO COURT ROWLEY, MA 01969
004-011-05	9 VITO COURT	TRS THE LOIS TANKEL IRREVOC TRS TANKEL AARON P ET AL TRUSTEES 9 VITO COURT ROWLEY, MA 01969
004-011-06	11 VITO COURT	TRS ZUCHOWSKI REALTY TRUST ZUCHOWSKI ELLEN TRUSTEE 11 VITO COURT ROWLEY, MA 01969
004-011-07	13 VITO COURT	SHEEHAN THOMAS J SHEEHAN KATHERINE M 13 VITO COURT ROWLEY, MA 01969
004-011-08	15 VITO COURT	TRS THE RUTH ANN STELLATELLA FT STELLATELLA RUTH A TRUSTEE 15 VITO COURT ROWLEY, MA 01969

CERTIFIED ABUTTERS' LIST

Parcel ID	Location	Owner Name/Address
004-031	935 HAVERHILL ST	935 HAVERHILL LLC 8 DOAKS LN MARBLEHEAD, MA 01945
----- A B U T T E R S -----		
004-011-09	17 VITO COURT	TRS SCOTT KARPINSKI 2018 TRUST KARPINSKI PHILIP K ET AL TRUSTEE 17 VITO COURT ROWLEY, MA 01969
004-011-10	2 VINCENT CIR	TRS SVENSON REALTY TRUST SVENSON CARL A ET AL TRUSTEES 2 VINCENT CIR ROWLEY, MA 01969
004-011-11	4 VINCENT CIR	HOBSON KAREN M 4 VINCENT CIR ROWLEY, MA 01969
004-011-12	6 VINCENT CIR	GROSSMAN JAMES GROSSMAN SUSAN 6 VINCENT CIR ROWLEY, MA 01969
004-011-13	8 VINCENT CIR	MITCHELL WILLIAM B MITCHELL ELIZABETH C 8 VINCENT CIR ROWLEY, MA 01969
004-011-14	10 VINCENT CIR	KING GERTRUDE ELIZABETH 33 PLANTATION WAY ALLENTOWN, NJ 08501-1870
004-011-15	12 VINCENT CIR	GIRARD JOSEPH P KRONOFF GIRARD JILL A 12 VINCENT CIR ROWLEY, MA 01969
004-011-16	14 VINCENT CIR	TRS MARILYN J BURNETT LIVING TRS BURNETT MARILYN J ET AL TRUSTEES 14 VINCENT CIR ROWLEY, MA 01969
004-011-17	16 VINCENT CIR	TRS BUTERA FAMILY IRREVOCABLE TR BUTERA DOMINIC I JR TRUSTEE 16 VINCENT CIR UNIT 17 ROWLEY, MA 01969

Parcel ID	Location	Owner Name/Address
004-031	935 HAVERHILL ST	935 HAVERHILL LLC 8 DOAKS LN MARBLEHEAD, MA 01945
-----		
A B U T T E R S		
=====		
004-011-18	18 VINCENT CIR	TRS 18 VINCENT CIRCLE UNIT 18 RE ZYWUSKO DAVID EDMUND ET AL TRUST 18 VINCENT CIR ROWLEY, MA 01969
004-011-19	20 VINCENT CIR	HALLIDAY DANIEL HALLIDAY ANDREA 20 VINCENT CIR ROWLEY, MA 01969
004-011-20	22 VINCENT CIR	ROX DAVID ROX MARGOT 22 VINCENT CIR ROWLEY, MA 01969
004-011-21	24 VINCENT CIR	D'AGOSTA ANTHONY E D'AGOSTA CAROL A 24 VINCENT CIR ROWLEY, MA 01969
004-011-22	26 VINCENT CIR	CATALANO JOHN J CATALANO ANN I 26 VINCENT CIR ROWLEY, MA 01969
004-011-23	28 VINCENT CIR	TRS JOAN-ELIZABETH CUNHA 2017 RE CUNHA JOAN-ELIZABETH TRUSTEE 28 VINCENT CIR ROWLEY, MA 01969
004-014	938 HAVERHILL ST	FULKERSON WILLIAM G FULKERSON CLAIRE C 938 HAVERHILL ST ROWLEY, MA 01969
004-015	944 HAVERHILL ST	TRS 944 HAVERHILL ST REALTY NOMI CASSENTI LAWRENCE W TRUSTEE 944 HAVERHILL ST ROWLEY, MA 01969
004-022	OFF HAVERHILL ST	400 EAST MAIN STREET LLC 400 E MAIN ST GEORGETOWN, MA 01833-2512

CERTIFIED ABUTTERS' LIST

Parcel ID	Location	Owner Name/Address
004-031	935 HAVERHILL ST	935 HAVERHILL LLC 8 DOAKS LN MARBLEHEAD, MA 01945
-----		
A B U T T E R S		
=====		
004-028	959 HAVERHILL ST	KING ROBERT E KING SHIRLEY M 959 HAVERHILL ST ROWLEY, MA 01969
004-029	953 HAVERHILL ST	TRS PISCITELLI FAMILY REVOC TRS PISCITELLI CHRISTOPHER ET AL TRS 953 HAVERHILL ST ROWLEY, MA 01969
004-030	949 HAVERHILL ST	SCOTTI ALDINA 949 HAVERHILL ST ROWLEY, MA 01969
004-031-01	941 HAVERHILL ST	935 HAVERHILL LLC 8 DOAKS LN MARBLEHEAD, MA 01945
004-031-02	933 HAVERHILL ST	935 HAVERHILL LLC 8 DOAKS LN MARBLEHEAD, MA 01945
004-031-03	OFF HAVERHILL ST	TRS LUCIA HERRICK REALTY TRUST LUCIA CYNTHIA H ET AL TRUSTEES 16 MILL RD ROWLEY, MA 01969
004-031-04	OFF HAVERHILL ST	TRS LUCIA HERRICK REALTY TRUST LUCIA CYNTHIA H ET AL TRUSTEES 16 MILL RD ROWLEY, MA 01969
004-032	929 HAVERHILL ST	WHITE BRYNN WHITE NATHANIEL 929 HAVERHILL ST ROWLEY, MA 01969
004-033	921 HAVERHILL ST	KELLY MATTHEW 921 HAVERHILL ST ROWLEY, MA 01969
004-034-01	915 HAVERHILL ST	KEYES RUSSELL W KEYES EDNA M 915 HAVERHILL ST ROWLEY, MA 01969

Date: 02/12/2024  
txaabut

Town of Rowley

CERTIFIED ABUTTERS' LIST

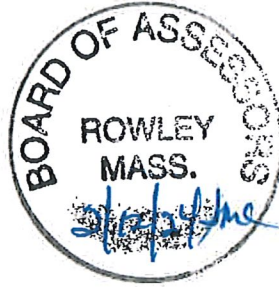
Page 5

Parcel ID	Location	Owner Name/Address
004-031	935 HAVERHILL ST	935 HAVERHILL LLC 8 DOAKS LN MARBLEHEAD, MA 01945

-----  
A B U T T E R S  
-----

004-035	LONG HILL RD	TRS TOMPKINS DESJARDINS TRUST TOMPKINS BRUCE E ET AL TRUSTEES 74 LONG HILL RD ROWLEY, MA 01969
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38 parcels listed.



*Sean McFadden*  
Principal Assessor

TOWN OF GEORGETOWN  
 ABUTTER LIST

GEORGETOWN PARCELS WITHIN 100' FEET OF 935 HAVERHILL STREET, ROWLEY  
 PREPARED FOR ROWLEY CONSERVATION COMMISSION

PARCEL ID	PARCEL ADDRESS	OWNER 1	OWNER 2	MAILING ADDRESS	CITY/TOWN	STATE	ZIP CODE
14-7C	E MAIN ST	LUCIA/HERRICK REALTY TRUST	CYNTHIA LUCIA, TRUSTEE	16 MILL ST	ROWLEY	MA	01969
14-8	23 NATIONAL AV	ARG NIGTNMA001 LLC	C/O AR GLOBAL INVESTMENTS LLC	23 NATIONAL AV	GEORGETOWN	MA	01833
15-51W	16R LONG VIEW WY	KEILTY JOHN R TRUSTEE	LONGVIEW REALTY TRUST	40 LOWELL ST	PEABODY	MA	01960
15-52E	10 BIRCH TREE DR	JALBERT, MANDY L TR	JALBERT, JOSEPH A TR	10 BIRCH TREE DR	GEORGETOWN	MA	01833
15-52F	1 BEECHWOOD DR	COOPER CRAIG		1 BEECHWOOD DR	GEORGETOWN	MA	01833

Town of Georgetown  
 ASSESSORS OFFICE  
 CERTIFIED COPY  
 Georgetown, MA 01833



FEBRUARY 14, 2024



**AFFIDAVIT OF SERVICE**

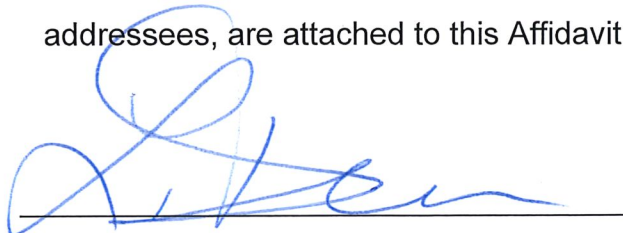
Under the Massachusetts Wetlands Protection Act

(To be submitted to the Massachusetts Department of Environmental Protection and the Conservation Commission when filing a Notice of Intent)

I, Liz Deneu, hereby certify to the best of my knowledge, under the pains and penalties of perjury that on February 26, 2024 I gave notification to the abutters in compliance with the second paragraph of Massachusetts General Law Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

An Abbreviated Notice of Resource Area Delineation filed under the Massachusetts Wetlands Protection Act by 935 Haverhill LLC with the Rowley Conservation Commission on February 26, 2024 for property located at 935 Haverhill Street (Map 4 Block 31).

The form of the notification, and a list of the abutters to whom it was given and their addressees, are attached to this Affidavit of Service.

  
Name

2-26-24  
Date



**NORSE ENVIRONMENTAL SERVICES, INC.**

2100 Lakeview Avenue Unit 3A

Dracut MA 01826

TEL. (978) 649-9932

Website: [www.norseenvironmental.com](http://www.norseenvironmental.com)

# **Abbreviated Notice of Resource Area Delineation Report**

For

935 Haverhill Street  
Rowley, MA

**Prepared For**

935 Haverhill LLC  
357 North Street  
Georgetown, MA 01833

**Prepared By**

Norse Environmental Services, Inc.  
2100 Lakeview Avenue, Unit 3A  
Dracut, MA 01826

February 2024

## Narrative

The applicant is filing an Abbreviated Notice of Resource Area Delineation to verify the resource areas at 935 Haverhill Street in Rowley, MA. The resource areas include bordering vegetated wetlands and Bank of Muddy Brook.

### Existing Conditions

The parcel consists of 35.75 +/- acres of land located on the northerly side of Haverhill Street in Rowley. The property abuts the Town of Georgetown to the west and single-family dwellings to the south and east. An existing single-family dwelling, deck, walkway, driveway, shed, storage unit, gravel access way, stockpile, gardens, lawn, ornamental shrubs and trees are located on the lot. The remainder of the site is wooded with typical New England Species.

Norse Environmental Services, Inc. flagged the bordering vegetated wetlands and Bank of Muddy Brook in September 2021, May, June, July and December of 2022. The A, B, D, E and F-series wetlands are red maple swamps. The RFA – RFD series delineate the Bank of Maple Brook.

The A-series wetland consists of red maple (*Acer rubrum*), white pine (*Pinus strobus*), and gray birch (*Betula populifolia*) in the overstory. The understory consists of highbush blueberry (*Vaccinium corymbosum*), glossy buckthorn (*Rhamnus frangula*), winterberry (*Ilex verticallata*) white pine and hornbeam (*Carpinus caroliniana*). The herbaceous layer consists of cinnamon fern (*Osmunda cinnamomea*), sensitive fern (*Onoclea sensibilis*), partridgeberry (*Mitchella repens*) and Canada mayflower (*Maianthemum canadense*).

The B-series consists of red maple, white pine, and oaks (*Quercus* sp.) in the overstory. The understory consists of highbush blueberry, glossy buckthorn, and winterberry. The herbaceous layer consists of cinnamon fern, sensitive fern, jewelweed (*Impatiens capensis*), poison ivy (*Toxicodendron radicans*) and skunk cabbage (*Symplocarpus foetidus*).

The D and E-series consists of red maple, white pine, oaks, and ash (*Fraxinus americana*) in the overstory. The understory consists of glossy buckthorn, highbush blueberry, buttonbush (*Cephalanthus occidentalis*) and winterberry. The herbaceous layer consists of sensitive fern, cinnamon fern, royal fern (*Osmunda regalis*), jewelweed, skunk cabbage and poison ivy.

The F-series consists of red maple, white, pine, white oak in the overstory. The understory consists of glossy buckthorn and highbush blueberry. The herbaceous layer consists of cinnamon fern, sensitive fern, skunk cabbage and dewberry (*Rubus* sp.)

The USGS Topographic Map shows Muddy Brook, a perennial stream, traversing through the westerly and southerly portion of the site. The stream flows from west to east and through a 48" RCP beneath the driveway. The Bank is well defined and follows a

distinct topographic break in slope. The Banks are flagged in the field with blue ribbon and aluminum tags labeled as the RFA – RFD series.

The site is not located in Bordering Land Subject to Flooding or the 100-year floodplain. The site is not located within the NHESP mapping of Estimated and/or Priority Habitat. In addition, there are no certified or potential vernal pools located on or near the property (see enclosed maps).

## **Soils**

The Web Soil Survey maps the site as Deerfield, Swansea, Windsor, Charlton-Rock outcrop Hollis complex, Whitman, Paxton, Pipestone and Merrimac series. The Deerfield Soil consists of nearly level gently sloping, deep (5+ ft.), moderately well drained soils on glacial outwash plains, terraces and deltas. They formed in sands. Deerfield soils have loamy fine sand to sand surface soil and subsoil with a rapid permeability, over a loamy sand to coarse sand substrata with rapid permeability. They have a seasonal high-water table at 18 to 36 inches. Major limitations are related to wetness.

The Swansea Soil consist of nearly level, deep (5+ ft.), very poorly drained organic soils in depressions and low flat areas of upland and glacial outwash plains and terraces. They formed in 16 to 51 inches of black, highly decomposed organic material (muck) with moderate or moderately rapid permeability, over sandy mineral material with very rapid permeability. They have a water table that is at or near the surface most of the year. Major limitations are related to wetness and low strength.

The Windsor Soil consist of nearly level to very steep, deep (5+ ft.), excessively drained soils on glacial outwash plains, terraces, deltas and escarpments. They formed in sandy glacial outwash. Windsor soils have a very friable or loose loamy sand or loamy fine sand surface soil, very friable or loose loamy fine sand to sand subsoil over a very friable or loose sand or fine sand substratum to a depth of 60 inches or more. They have rapid permeability. Major limitations are related to droughtiness and slope.

The Charlton-Rock outcrop-Hollis complex consists of well drained, deep Charlton soils, exposed bedrock, and somewhat excessively drained, shallow Hollis soils on ridges and hills. Slopes are complex and 50 to 400 feet long. The surface is covered by stones 1 to 3 feet in diameter and areas of Rock outcrop that are 30 to 100 feet apart. The areas consist of approximately 60 percent Charlton soil, 15 percent Rock outcrop, 10 percent Hollis soils, and 15 percent other soils. The soils and exposed bedrock in this unit are so intermingled that it was not practical to map them separately. Permeability is moderate or moderately rapid in the Charlton and Hollis soils.

The Whitman Soil consists of nearly level, deep (5+ ft.), very poorly drained soils in depressions and drainageways of uplands. They formed in compact glacial till. Whitman soils have friable and loam or fine sandy loam surface soil and subsoil with moderate or moderately rapid permeability over a firm sandy loam, fine sandy loam or loam substratum (hardpan) at 10 to 30 inches which has slow or very slow permeability. They

have a perched high-water table at or near the surface most of the year. Whitman soils have a very stony or extremely stony surface, except where stones have been removed, and have stones below the surface. Major limitations are related to wetness, slow permeability and stoniness.

The Paxton Soil consists of gently sloping to very steep, deep (5+ ft.), well drained soils on drumlins. They formed in compact glacial till. Paxton soils have friable fine sandy loam surface soil and subsoil with moderate permeability over a firm or very firm fine sandy loam substratum (hardpan) at 15 to 38 inches which has slow or very slow permeability. Paxton soils have a very stony or extremely stony surface, except where stones have been removed, and have stones below the surface. Major limitations are related to slow permeability in the substratum, slope and stoniness.

The Pipestone Soil consists of very deep, somewhat poorly drained soils on sandy outwash plains, lake plains, beach ridges and water-worked tilled plains. The soils formed in sandy glacial outwash. Slopes range from 0 to 8 percent. The water table fluctuates from near the surface during prolonged wet periods to depths greater than 4 ft in dry seasons. Depth to the top of seasonal high-water table ranges from (0.5 to 1.5 ft) between October and June in normal years. Potential for surface runoff is negligible or very low. Permeability is rapid.

The Merrimac Soil consists of nearly level to steep, deep (5+ ft.), somewhat excessively drained soils on glacial outwash plains, terraces and kames. They formed in water-sorted, sandy glacial material. Merrimack soils have friable fine sandy loam and sandy loam surface soil and subsoil with moderately rapid permeability over a loose stratified sand and gravel substrata at 18 to 30 inches with rapid permeability. They have few limitations for most uses.

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: 935 Haverhill Street City/County: Rowley/Essex Sampling Date: 5/17/22  
 Applicant/Owner: Rob Nixon State: MA Sampling Point: SP-1  
 Investigator(s): Norse Environmental Services, Inc. Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R Lat: 42.70810 Long: -70.95271 Datum: NAD83  
 Soil Map Unit Name: Whitman NWI classification: PFO1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (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 _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8) _____	<u>Secondary Indicators (minimum of two required)</u> _____ 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)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: SP-1

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: _____)					
1. <u><i>Acer rubrum</i></u>	60	Yes	FAC	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40.0%</u> (A/B)	
2. <u><i>Betula populifolia</i></u>	10	No	FAC		
3. <u><i>Pinus strobus</i></u>	20	Yes	FACU		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
	90	=Total Cover		<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
<b>Sapling/Shrub Stratum</b> (Plot size: _____)					
1. <u><i>Pinus strobus</i></u>	15	Yes	FACU		
2. <u><i>Carpinus caroliniana</i></u>	40	Yes	FAC		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
	55	=Total Cover			
<b>Herb Stratum</b> (Plot size: _____)					
1. <u><i>Maianthemum canadense</i></u>	60	Yes	FACU	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is $\leq 3.0^1$ <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u><i>Mitchella repens</i></u>	10	No	FACU		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
	70	=Total Cover			
<b>Woody Vine Stratum</b> (Plot size: _____)					
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
	_____	=Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>	

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





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: 935 Haverhill Street City/County: Rowley/Essex Sampling Date: 5/17/22  
 Applicant/Owner: Rob Nixon State: MA Sampling Point: SP-2  
 Investigator(s): Norse Environmental Services, Inc. Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR R Lat: 42.70810 Long: -70.95271 Datum: NAD83  
 Soil Map Unit Name: Whitman NWI classification: PFO1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (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 _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: SP-2

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: _____)				<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. <u><i>Acer rubrum</i></u>	60	Yes	FAC	
2. <u><i>Betula populifolia</i></u>	10	No	FAC	
3. <u><i>Pinus strobus</i></u>	20	Yes	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
	90 =Total Cover			
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. <u><i>Carpinus caroliniana</i></u>	20	Yes	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	20 =Total Cover			
<b>Herb Stratum</b> (Plot size: _____)				
1. <u><i>Maianthemum canadense</i></u>	70	Yes	FACU	
2. <u><i>Mitchella repens</i></u>	15	No	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	85 =Total Cover			
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
	_____ =Total Cover			
<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>				

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



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: 935 Haverhill Street City/County: Rowley/Essex Sampling Date: 5/17/22  
 Applicant/Owner: Rob Nixon State: MA Sampling Point: SP-3  
 Investigator(s): Norse Environmental Services, Inc. Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR R Lat: 42.70810 Long: -70.95271 Datum: NAD83  
 Soil Map Unit Name: Swansea NWI classification: PFO1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) <u>X</u> Water-Stained Leaves (B9) _____ High Water Table (A2)                      _____ Aquatic Fauna (B13) <u>X</u> Saturation (A3)    _____ Marl Deposits (B15) _____ Water Marks (B1)                                      _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2)                                      _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3)                                      _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4)                                      _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5)                                      _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7)                      _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ 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)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: 935 Haverhill Street City/County: Rowley/Essex Sampling Date: 5/17/22  
 Applicant/Owner: Rob Nixon State: MA Sampling Point: SP-4  
 Investigator(s): Norse Environmental Services, Inc. Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR R Lat: 42.70810 Long: -70.95271 Datum: NAD83  
 Soil Map Unit Name: Swansea NWI classification: PFO1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1)                      _____ Water-Stained Leaves (B9) _____ High Water Table (A2)                      _____ Aquatic Fauna (B13) _____ Saturation (A3)                                      _____ Marl Deposits (B15) _____ Water Marks (B1)                                      _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2)                      _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3)                                      _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4)                                      _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5)                                      _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7)                      _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ 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)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:





**SOIL**

Sampling Point: SP-4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 2/2							
12-20	10YR 3/3							No redox

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

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> MLRA 149B	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Chroma Sands (S11) (LRR K, L)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Marl (F10) (LRR K, L)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Dark Surface (S7)			

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b>		Hydric Soil Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: _____		
Depth (inches): _____		

**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](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: 935 Haverhill Street City/County: Rowley/Essex Sampling Date: 6/4/22  
 Applicant/Owner: Rob Nixon State: MA Sampling Point: SP-5  
 Investigator(s): Norse Environmental Services, Inc. Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR R Lat: 42.70810 Long: -70.95271 Datum: NAD83  
 Soil Map Unit Name: Swansea NWI classification: PFO1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) _____ Surface Water (A1) <u>X</u> Water-Stained Leaves (B9) _____ High Water Table (A2)                      _____ Aquatic Fauna (B13) <u>X</u> Saturation (A3)                                      _____ Marl Deposits (B15) _____ Water Marks (B1)                              _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2)                      _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3)                              _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4)                              _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5)                              _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7)                      _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)                      _____	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)
---	--

<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
--	--

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

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: SP-5

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: _____)				
1. <u><i>Acer rubrum</i></u>	40	Yes	FAC	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71.4%</u> (A/B)  <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u><i>Pinus strobus</i></u>	20	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	60	=Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. <u><i>Vaccinium corymbosum</i></u>	20	Yes	FACW	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Ilex verticillata</i></u>	15	Yes	FACW	
3. <u><i>Rhamnus cathartica</i></u>	10	Yes	FAC	
4. _____				
5. _____				
6. _____				
7. _____				
	45	=Total Cover		
<b>Herb Stratum</b> (Plot size: _____)				
1. <u><i>Osmundastrum cinnamomeum</i></u>	10	Yes	FACW	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. <u><i>Onoclea sensibilis</i></u>	10	Yes	FACW	
3. <u><i>Impatiens capensis</i></u>	5	No	FACW	
4. <u><i>Symplocarpus foetidus</i></u>	5	No	OBL	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	30	=Total Cover		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. _____				
3. _____				
4. _____				
		=Total Cover		

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

**SOIL**

Sampling Point: SP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 2/2							
12-20	10YR 3/2		7.5yr 5/6	10	C	M		Prominent redox concentrations

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

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> High Chroma Sands (S11) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Marl (F10) (LRR K, L)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Dark Surface (S7)			

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b>	<b>Hydric Soil Present?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Type: _____			
Depth (inches): _____			

**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](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: 935 Haverhill Street City/County: Rowley/Essex Sampling Date: 6/4/22  
 Applicant/Owner: Rob Nixon State: MA Sampling Point: SP-6  
 Investigator(s): Norse Environmental Services, Inc. Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR R Lat: 42.70810 Long: -70.95271 Datum: NAD83  
 Soil Map Unit Name: Swansea NWI classification: PFO1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	--

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

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: SP-6

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: _____)				
1. <u><i>Acer rubrum</i></u>	30	Yes	FAC	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>85.7%</u> (A/B)  <b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u><i>Pinus strobus</i></u>	20	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	50	=Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. <u><i>Vaccinium corymbosum</i></u>	20	Yes	FACW	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Ilex verticillata</i></u>	10	Yes	FACW	
3. <u><i>Rhamnus cathartica</i></u>	5	No	FAC	
4. _____				
5. _____				
6. _____				
7. _____				
	35	=Total Cover		
<b>Herb Stratum</b> (Plot size: _____)				
1. <u><i>Osmundastrum cinnamomeum</i></u>	10	Yes	FACW	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. <u><i>Onoclea sensibilis</i></u>	10	Yes	FACW	
3. <u><i>Impatiens capensis</i></u>	5	Yes	FACW	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	25	=Total Cover		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____				
3. _____				
4. _____				
		=Total Cover		

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

**SOIL**

Sampling Point: SP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 2/2							
12-20	10YR 4/4							

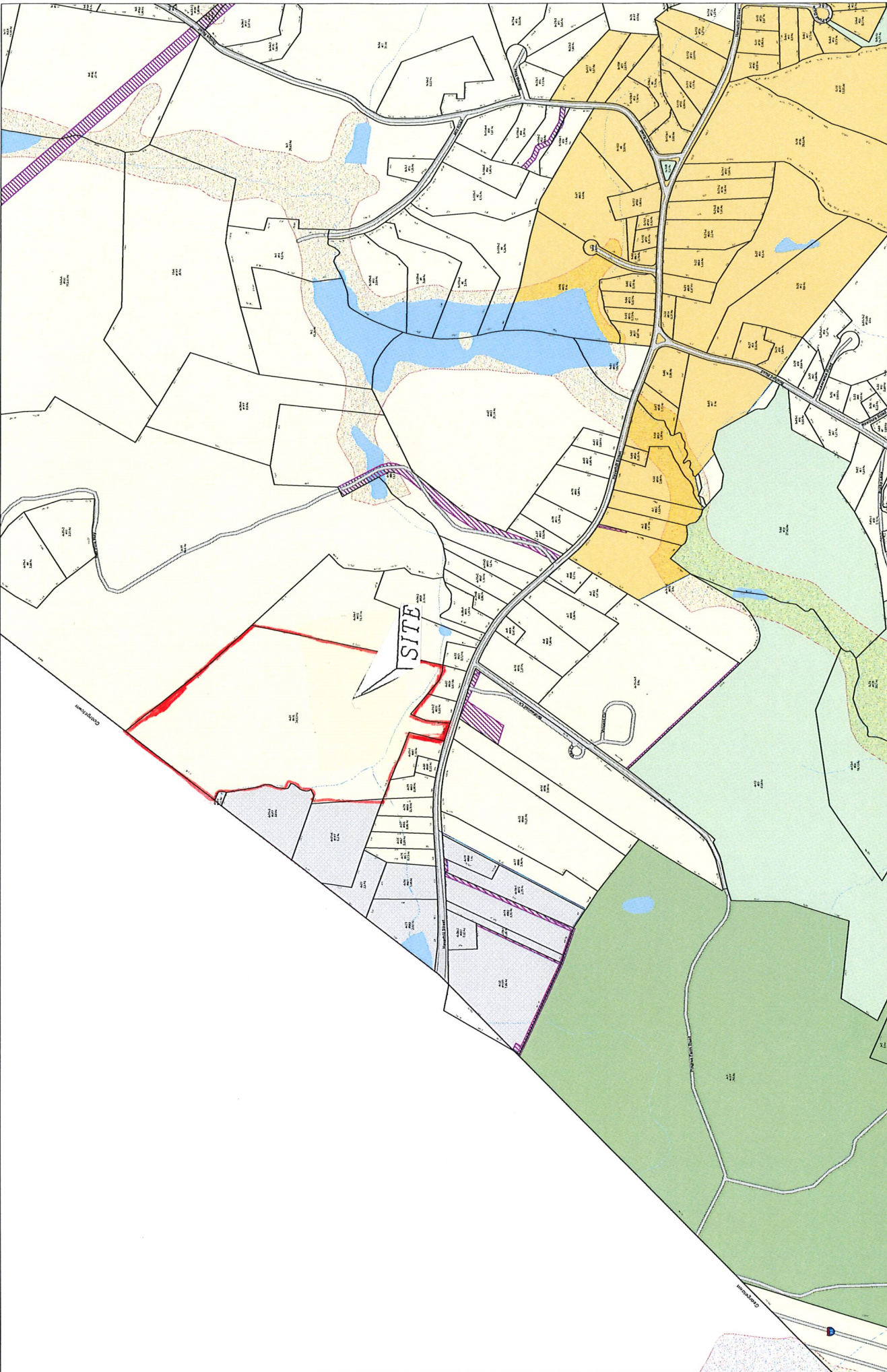
<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

- |  |  |  |
|--|--|--|
| <b>Hydric Soil Indicators:</b>                             |  | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>          |
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) | <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)       |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)       | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)     |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> High Chroma Sands (S11) (LRR K, L)              | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)             | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)     |
| <input type="checkbox"/> Stratified Layers (A5)            | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                        | <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)           |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                            | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)   |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)                         | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7)                      | <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)                          | <input type="checkbox"/> Red Parent Material (F21)                   |
| <input type="checkbox"/> Sandy Redox (S5)                  | <input type="checkbox"/> Marl (F10) (LRR K, L)                           | <input type="checkbox"/> Very Shallow Dark Surface (TF12)            |
| <input type="checkbox"/> Stripped Matrix (S6)              |  | <input type="checkbox"/> Other (Explain in Remarks)                  |
| <input type="checkbox"/> Dark Surface (S7)                 |  |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b>	
Type: _____	
Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

**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](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

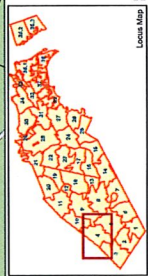
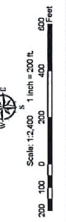


# Map 4

- Legend**
- Property Parcels
  - Town Boundary
  - Road
  - Open Water
  - Internal
  - County
  - Municipal
  - Conservation Restriction
  - Highway Features
  - Streams
  - Zoning
  - Coastal Conservation District
  - Shoreland Protection District
  - Residential District
  - Business/Light Industrial District
  - General District
  - Special District



## Town of Rowley Property Parcel Maps



**Merrimack Valley Planning Commission**

**NOTES**

This map was prepared by the Merrimack Valley Planning Commission. It is intended for informational purposes only. The Commission is not responsible for any errors or omissions. The Commission is not a professional engineering or architectural firm. The Commission is not a public utility. The Commission is not a government agency. The Commission is not a political organization. The Commission is not a religious organization. The Commission is not a labor organization. The Commission is not a trade organization. The Commission is not a professional association. The Commission is not a business organization. The Commission is not a non-profit organization. The Commission is not a for-profit organization. The Commission is not a partnership. The Commission is not a corporation. The Commission is not a trust. The Commission is not a partnership. The Commission is not a corporation. The Commission is not a trust.

Map Creation Date: August 14, 2023  
Map Revision Date: 17 January 2023  
LOCAL MAP



GEORGETOWN  
(Page 95)

# ROWLEY

Georgetown-Rowley  
State Forest

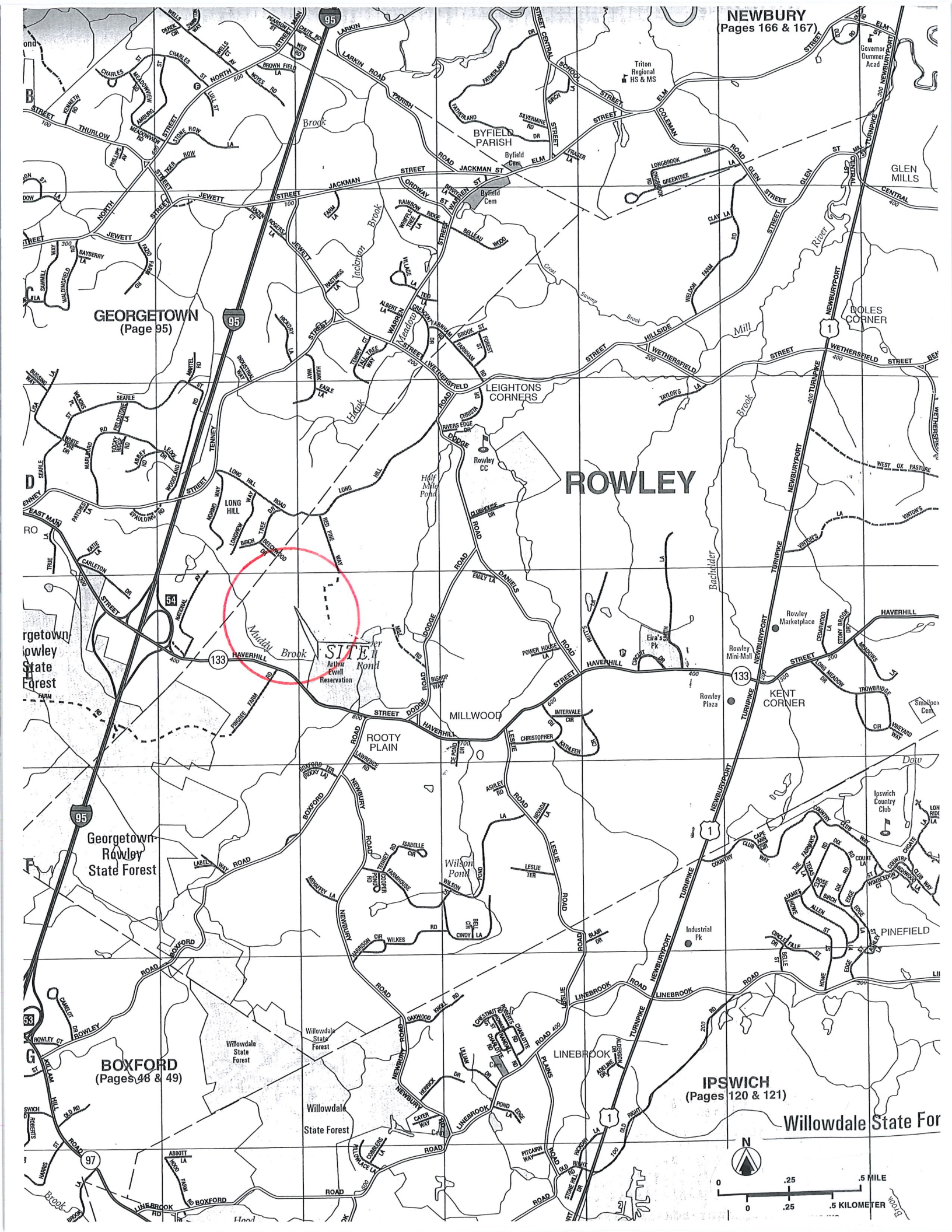
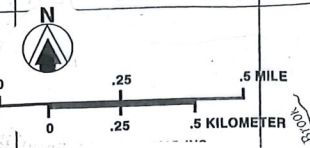
BOXFORD  
(Pages 48 & 49)

IPSWICH  
(Pages 120 & 121)

Willowdale State For



**SITE**  
Arthur  
Ewell  
Reservation



# USGS Topographic Quadrangle Maps

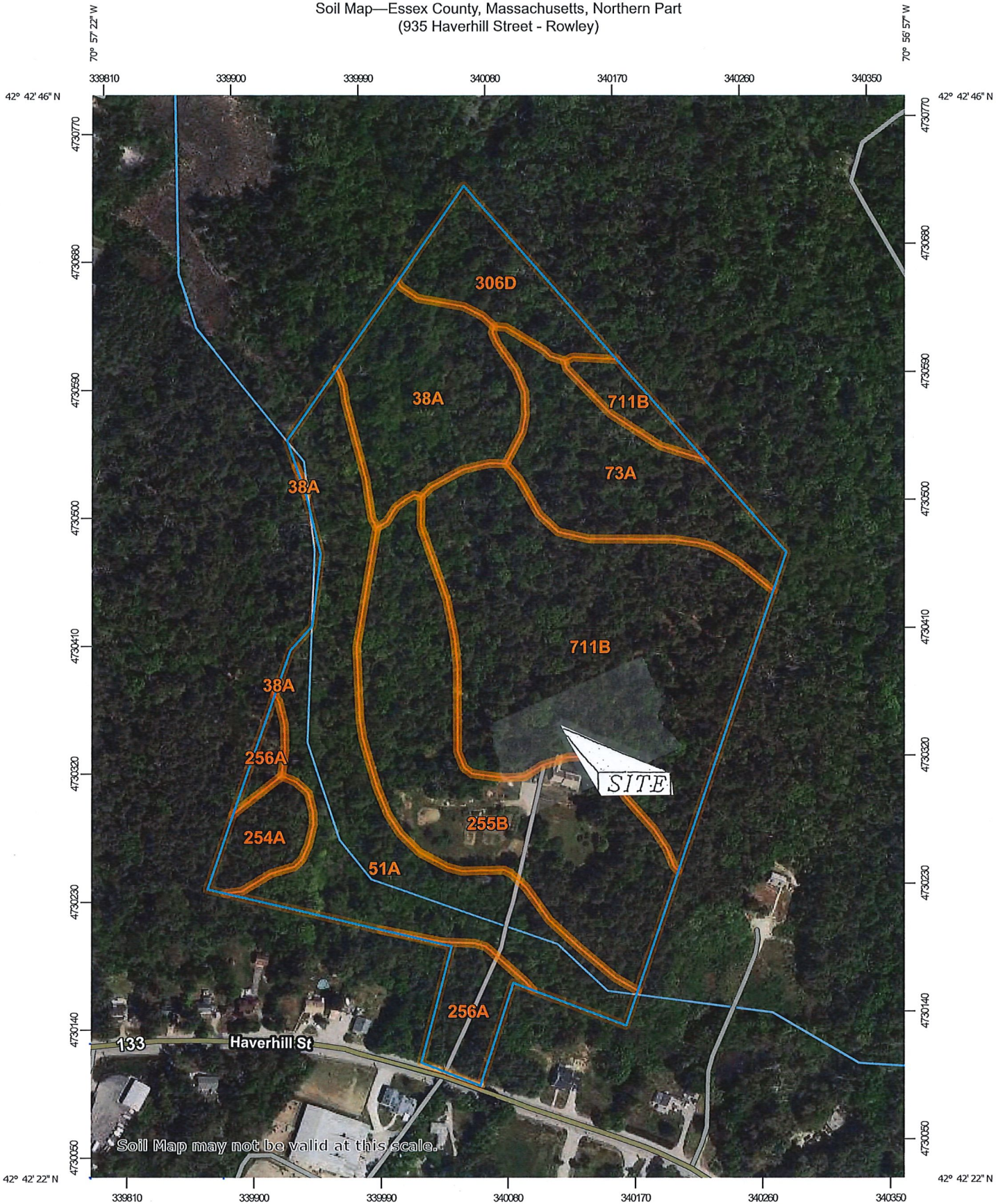
No legend



USGS 1:25,000 Topographic Maps for Massachusetts. Scanned map images published as a tile service by MassGIS at ArcGIS Online.

0.2mi

Soil Map—Essex County, Massachusetts, Northern Part  
(935 Haverhill Street - Rowley)









































Map Scale: 1:3,710 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 19N WGS84



## MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Soils	 Stony Spot
 Soil Map Unit Polygons	 Very Stony Spot
 Soil Map Unit Lines	 Wet Spot
 Soil Map Unit Points	 Other
 Special Point Features	 Special Line Features
 Blowout	<b>Water Features</b>
 Borrow Pit	 Streams and Canals
 Clay Spot	<b>Transportation</b>
 Closed Depression	 Rails
 Gravel Pit	 Interstate Highways
 Gravelly Spot	 US Routes
 Landfill	 Major Roads
 Lava Flow	 Local Roads
 Marsh or swamp	<b>Background</b>
 Mine or Quarry	 Aerial Photography
 Miscellaneous Water	
 Perennial Water	
 Rock Outcrop	
 Saline Spot	
 Sandy Spot	
 Severely Eroded Spot	
 Sinkhole	
 Slide or Slip	
 Sodic Spot	

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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: Essex County, Massachusetts, Northern Part  
Survey Area Data: Version 19, Sep 10, 2023

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

Date(s) aerial images were photographed: May 22, 2022—Jun 5, 2022

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
38A	Pipestone loamy sand, 0 to 3 percent slopes	3.6	9.9%
51A	Swansea muck, 0 to 1 percent slopes	7.0	19.5%
73A	Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony	3.6	10.0%
254A	Merrimac fine sandy loam, 0 to 3 percent slopes	0.9	2.6%
255B	Windsor loamy sand, 3 to 8 percent slopes	7.1	19.9%
256A	Deerfield loamy fine sand, 0 to 3 percent slopes	1.4	3.8%
306D	Paxton fine sandy loam, 15 to 25 percent slopes, very stony	1.9	5.2%
711B	Charlton-Rock outcrop-Hollis complex, 3 to 8 percent slopes	10.4	29.1%
<b>Totals for Area of Interest</b>		<b>35.9</b>	<b>100.0%</b>

# National Flood Hazard Layer FIRMette



70°57'27"W 42°42'44"N

TOWN OF GEORGETOWN  
250081

AREA OF MINIMAL FLOOD HAZARD  
Zone X

TOWN OF ROWLEY  
250101

SITE

25009C02.54F  
eff. 7/3/2012

0.2 PCT ANNUAL CHANCE FLOOD HAZARD  
Zone X

Zone A



70°56'49"W 42°42'18"N

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE)  
*Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with draining areas of less than one square mile *Zone B*

Future Conditions 1% Annual Chance Flood Hazard *Zone X*

Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*

Area with Flood Risk due to Levee *Zone D*

**OTHER AREAS OF FLOOD HAZARD**

NO SCREEN

Area of Minimal Flood Hazard *Zone X*

Effective LOMRs

Area of Undetermined Flood Hazard *Zone D*

**GENERAL STRUCTURES**

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

Cross Sections with 1% Annual Chance Water Surface Elevation

Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

**OTHER FEATURES**

Digital Data Available

No Digital Data Available

Unmapped

**MAP PANELS**



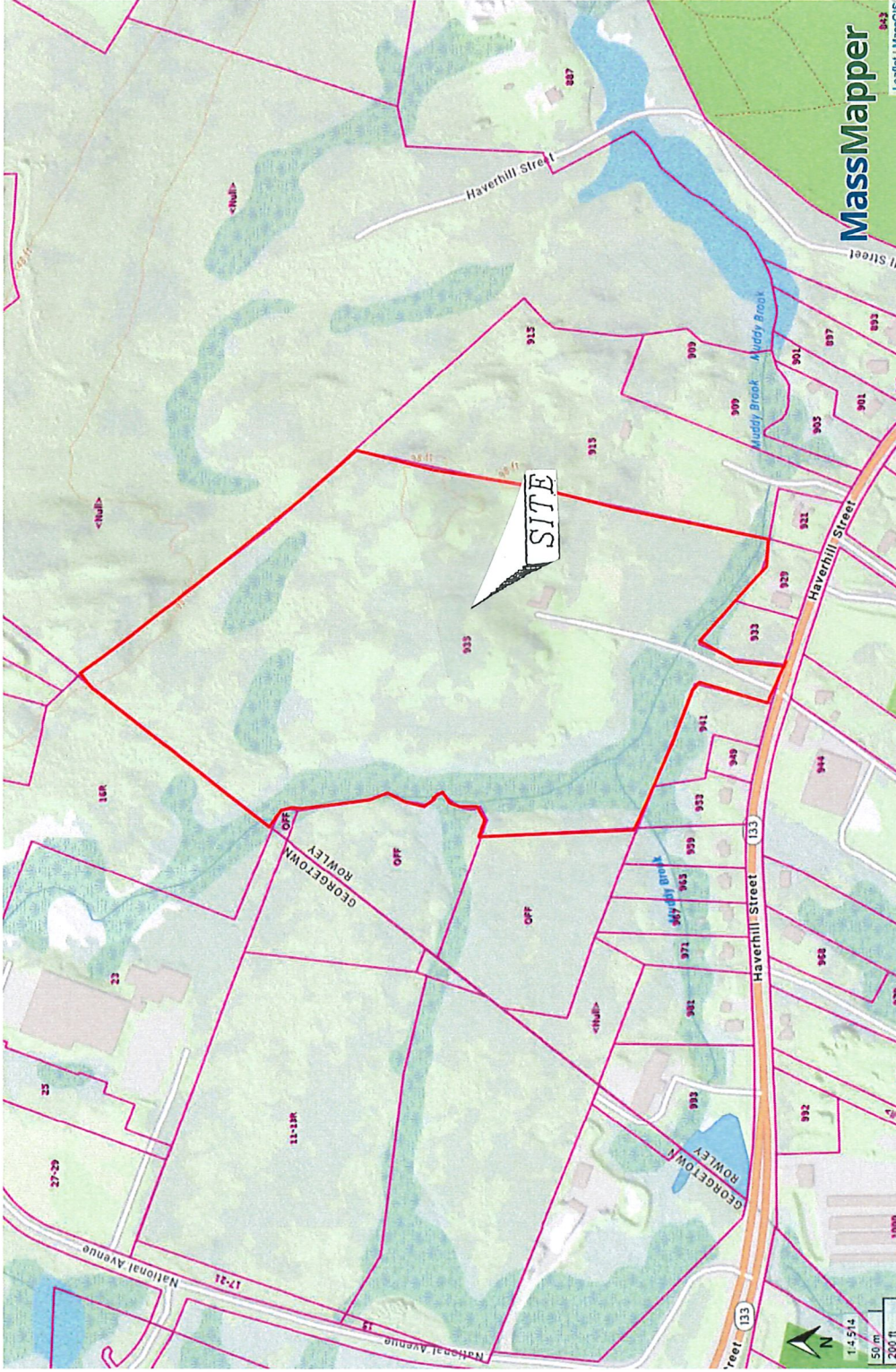
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/12/2024 at 3:31 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

# 935 Haverhill Street - Rowley



Potential Vernal Pools



NHESP Priority Habitats of Rare Species:



NHESP Estimated Habitats of Rare Wildlife



NHESP Certified Vernal Pools



Property Tax Parcels