



NORSE ENVIRONMENTAL SERVICES, INC.

92 Middlesex Road, Unit 4

Tyngsboro, MA 01879

TEL. (978) 649-9932 • FAX (978) 649-7582

Website: www.norseenvironmental.com

NOTICE OF INTENT

FOR

**OSPREY LANDING
ROADWAY & DRAINAGE**

510 NEWBURYPORT TURNPIKE - ROUTE 1

ASSESSORS MAP 19 BLOCK 8 LOT 4A

ROWLEY, MA

APPLICANT: BITTERROOT LLC

OCTOBER 2022

**PROJECT: OSPREY LANDING – ROUTE 1
ROADWAY & DRAINAGE**

APPLICANT: BITTERROOT LLC

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Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

 MassDEP File Number

 Document Transaction Number
 Rowley
 City/Town

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



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

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

510 Newburyport Turnpike - Route 1
 a. Street Address
 Rowley
 b. City/Town
 01969
 c. Zip Code
 Latitude and Longitude:
 42.72950
 d. Latitude
 -70.90338
 e. Longitude
 Map 19
 f. Assessors Map/Plat Number
 Parcel 8 Lot 4A
 g. Parcel /Lot Number

2. Applicant:

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

3. Property owner (required if different from applicant): Check if more than one owner

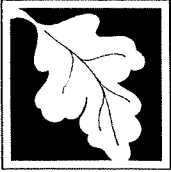
Edward
 a. First Name
 Moore, Trustee
 b. Last Name
 Trs 510 Newburyport Realty Trust
 c. Organization
 8 Doaks Lane
 d. Street Address
 Marblehead
 e. City/Town
 MA
 f. State
 01945
 g. Zip Code
 781-639-1113
 h. Phone Number
 i. Fax Number
 j. Email address

4. Representative (if any):

Maureen
 a. First Name
 Herald
 b. Last Name
 Norse Environmental Services, Inc
 c. Company
 92 Middlesex Road - Unit 4
 d. Street Address
 Tyngsboro
 e. City/Town
 MA
 f. State
 01879
 g. Zip Code
 978-649-9932
 h. Phone Number
 i. Fax Number
 mail@norseenv.com
 j. Email address

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

\$2,500.00
 a. Total Fee Paid
 \$1,237.50
 b. State Fee Paid
 \$1,262.50
 c. City/Town Fee Paid



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A. General Information (continued)

6. General Project Description:

The applicant is proposing a limited project roadway crossing, wetland alteration, wetland replication, retaining walls, drainage, cut and clear trees, grading and associated utilities.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- | | |
|---|--|
| 1. <input type="checkbox"/> Single Family Home | 2. <input checked="" type="checkbox"/> Residential Subdivision |
| 3. <input type="checkbox"/> Commercial/Industrial | 4. <input type="checkbox"/> Dock/Pier |
| 5. <input type="checkbox"/> Utilities | 6. <input type="checkbox"/> Coastal engineering Structure |
| 7. <input type="checkbox"/> Agriculture (e.g., cranberries, forestry) | 8. <input type="checkbox"/> Transportation |
| 9. <input type="checkbox"/> Other | |

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. Yes No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

310 CMR 10.53(3)(e) "The construction and maintenance of a new roadway.. of minimal legal..."

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Essex South Registry of Deeds

a. County

22248

c. Book

b. Certificate # (if registered land)

517

d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

- Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
- Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input checked="" type="checkbox"/> Bordering Vegetated Wetland	3151 s.f. (755 s.f. temp. alt) 1. square feet	6449 s.f. 2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. <input type="checkbox"/> Riverfront Area	1. Name of Waterway (if available) - specify coastal or inland	

2. Width of Riverfront Area (check one):

- 25 ft. - Designated Densely Developed Areas only
- 100 ft. - New agricultural projects only
- 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: _____ square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet _____ b. square feet within 100 ft. _____ c. square feet between 100 ft. and 200 ft. _____

5. Has an alternatives analysis been done and is it attached to this NOI? Yes No

6. Was the lot where the activity is proposed created prior to August 1, 1996? Yes No

3. Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Note: for coastal riverfront areas, please complete **Section B.2.f.** above.



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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	_____	
	1. square feet	

	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	_____	_____
	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	_____	_____
	1. square feet	2. cubic yards dune nourishment
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	_____	
	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	_____	
	1. square feet	
h. <input type="checkbox"/> Salt Marshes	_____	_____
	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	_____	
	1. square feet	

	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	_____	
	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	

	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	_____	
	1. square feet	
4. <input type="checkbox"/> Restoration/Enhancement	If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.	
	_____	_____
	a. square feet of BVW	b. square feet of Salt Marsh
5. <input type="checkbox"/> Project Involves Stream Crossings		
	_____	_____
	a. number of new stream crossings	b. number of replacement stream crossings



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C. Other Applicable Standards and Requirements

- This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

- Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

- a. Yes No **If yes, include proof of mailing or hand delivery of NOI to:**

Natural Heritage and Endangered Species Program
 Division of Fisheries and Wildlife
 1 Rabbit Hill Road
 Westborough, MA 01581

2022
 b. Date of map

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); OR complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

- c. Submit Supplemental Information for Endangered Species Review*

- Percentage/acreage of property to be altered:

(a) within wetland Resource Area _____ percentage/acreage

(b) outside Resource Area _____ percentage/acreage

- Assessor's Map or right-of-way plan of site

- Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

(a) Project description (including description of impacts outside of wetland resource area & buffer zone)

(b) Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <https://www.mass.gov/endangered-species-act-mesa-regulatory-review>).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



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C. Other Applicable Standards and Requirements (cont'd)

- (c) MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).

Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

Projects altering 10 or more acres of land, also submit:

- (d) Vegetation cover type map of site

- (e) Project plans showing Priority & Estimated Habitat boundaries

- (f) OR Check One of the Following

1. Project is exempt from MESA review.
 Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, <https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat>; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. Separate MESA review ongoing.

a. NHESP Tracking #

b. Date submitted to NHESP

3. Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

- a. Not applicable – project is in inland resource area only b. Yes No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Cohasset to Rhode Island border, and the Cape & Islands:

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
 Southeast Marine Fisheries Station
 Attn: Environmental Reviewer
 836 South Rodney French Blvd.
 New Bedford, MA 02744
 Email: dmf.envreview-south@mass.gov

Division of Marine Fisheries -
 North Shore Office
 Attn: Environmental Reviewer
 30 Emerson Avenue
 Gloucester, MA 01930
 Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

- c. Is this an aquaculture project? d. Yes No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).



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C. Other Applicable Standards and Requirements (cont'd)

Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
- a. Yes No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
- b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
- a. Yes No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
- a. Yes No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
- a. Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
 2. A portion of the site constitutes redevelopment
 3. Proprietary BMPs are included in the Stormwater Management System.
- b. No. Check why the project is exempt:
1. Single-family house
 2. Emergency road repair
 3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

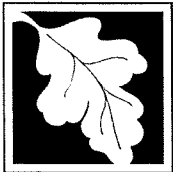
D. Additional Information

- This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). 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. 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.)
2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



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D. Additional Information (cont'd)

3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. List the titles and dates for all plans and other materials submitted with this NOI.

Definitive Subdivision - Osprey Landing - 510 Newburyport Turnpike - Route 1, Rowley, MA

a. Plan Title

ASB design group LLC

b. Prepared By

9-26-22

d. Final Revision Date

Summary Letter - NOI - Roadway

f. Additional Plan or Document Title

Thad D. Berry

c. Signed and Stamped by

1'=20'

e. Scale

9-27-22

g. Date

5. If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. Attach NOI Wetland Fee Transmittal Form

9. Attach Stormwater Report, if needed.

E. Fees

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 pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

Town of Rowley - Check No. 860

2. Municipal Check Number

Commonwealth of MA - Check No. 861

4. State Check Number

Robert

6. Payor name on check: First Name

10-11-22

3. Check date

10-11-22

5. Check date

Nixon

7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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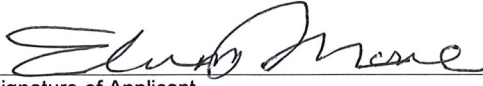

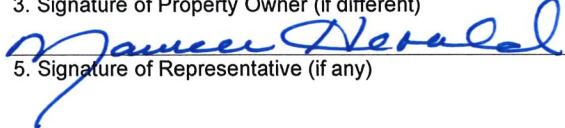
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:	
MassDEP File Number	
Document Transaction Number	
Rowley	
City/Town	

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent 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 by Certificate of Mailing or 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.

	<u>10/8/22</u>
1. Signature of Applicant	2. Date
	<u>10/9/22</u>
3. Signature of Property Owner (if different)	4. Date
	<u>10-11-22</u>
5. Signature of Representative (if any)	6. Date

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

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.



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 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:

510 Newburyport Turnpike - Route 1

a. Street Address

Check No. 860

c. Check number

Rowley

b. City/Town

\$1,237.50

d. Fee amount

2. Applicant Mailing Address:

Robert

a. First Name

Bitterroot LLC

c. Organization

357 North Street

d. Mailing Address

Georgetown

e. City/Town

978-302-5644

h. Phone Number

i. Fax Number

MA

f. State

01833

g. Zip Code

rob.bitterroot60@yahoo.com

j. Email Address

3. Property Owner (if different):

Edward

a. First Name

510 Newburyport Realty Trust

c. Organization

8 Doaks Lane

d. Mailing Address

Marblehead

e. City/Town

781-639-1113

h. Phone Number

i. Fax Number

Moore, Trustee

b. Last Name

MA

f. State

01945

g. Zip Code

j. Email Address

B. Fees

Fee should be calculated using the following process & worksheet. **Please see Instructions before filling out worksheet.**

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

**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 Bitterroot LLC

(name & address)

B: The applicant has filed a(n) Notice of Intent with the Rowley
(permit type)

Conservation Commission seeking to:

Description of Project: proposing a limited project roadway crossing, wetland alteration, wetland

replication, retaining walls, drainage, cut and clear trees, grading and associated utilities for a (6)-lot
subdivision known as Osprey Landing.

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 510 Newburyport Turnpike - Route 1
Map 19, Parcel 8, Lot 4A.

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 am and 6 pm on the following days of the week: M T W Th / F till noon.

*Circle One: This is the applicant representative or other (specify): _____
(name & address)

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.

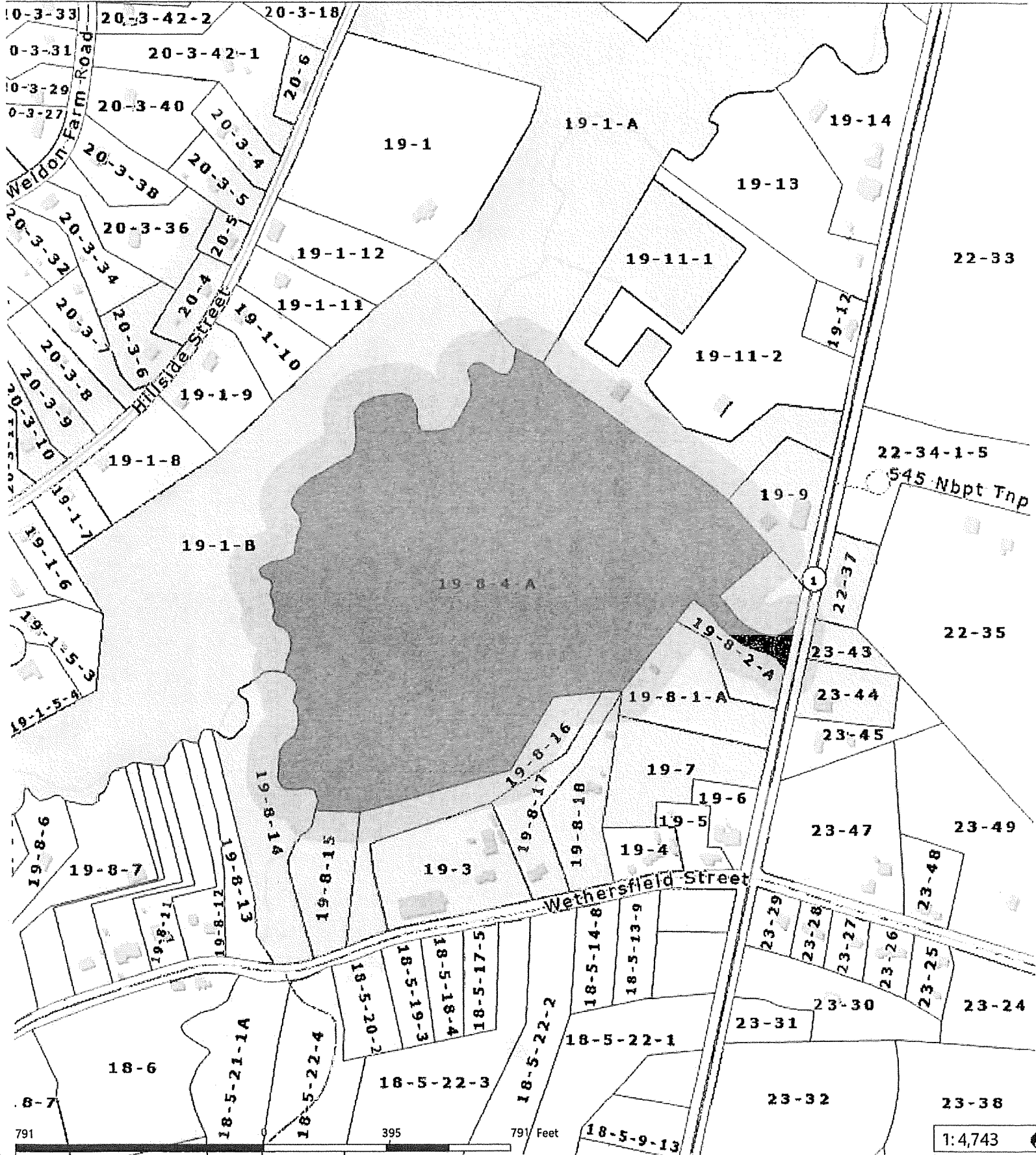
Note: Notice of the public hearing, including its date, time, and place, will be published at least five (5)
days in advance in the Newburyport Daily News.

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.

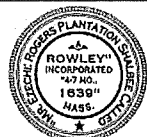
Note: You also may contact your local Conservation Commission or the nearest Department of
Environmental Protection Regional Office for more information about this application or the Wetlands
Protection Act. To contact DEP, call: **Northeast Regional Office 978 694-3200** or write **DEP NERO
205B Lowell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

Town of Rowley

05/27/202



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
Parcels

Parcel Dimensions
Building Footprints

Roads
Hydrographic Features

Legend

Interstate
Major Road

Local Road

CERTIFIED ABUTTERS' LIST

Parcel ID	Location	Owner Name/Address
019-008-04-A	510 NEWBURYPORT TNPK	TRS 510 NEWBURYPORT REALTY TRUST MOORE EDWARD T TRUSTEE 8 DOAKS LN MARBLEHEAD, MA 01945

A B U T T E R S

019-001-A	HILLSIDE ST	TOWN OF ROWLEY CONSERVATION COMMISSION PO BOX 24 ROWLEY, MA 01969
019-001-B	HILLSIDE ST	TOWN OF ROWLEY CONSERVATION COMMISSION PO BOX 24 ROWLEY, MA 01969
019-003	331 WETHERSFIELD ST	ARTHURS ALEXANDRA 331 WETHERSFIELD ST ROWLEY, MA 01969
019-007	502 NEWBURYPORT TNPK	CIDER MILL HOLDINGS LLC 41 RAILROAD AVE ROWLEY, MA 01969
019-008-01-A	504 NEWBURYPORT TNPK	BELL VERNON J III PO BOX 93 ROWLEY, MA 01969
019-008-02-A	506 NEWBURYPORT TNPK	BELL VERNON J III PO BOX 93 ROWLEY, MA 01969
019-008-03-A	516 NEWBURYPORT TNPK	TOWN OF ROWLEY TAX TAKING PO BOX 347 ROWLEY, MA 01969
019-008-14	355 WETHERSFIELD ST	TOWN OF ROWLEY CONSERVATION COMMISSION PO BOX 24 ROWLEY, MA 01969
019-008-15	351 WETHERSFIELD ST	TOWN OF ROWLEY CONSERVATION COMMISSION PO BOX 24 ROWLEY, MA 01969

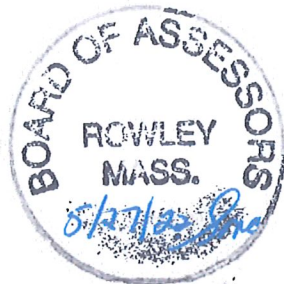
CERTIFIED ABUTTERS' LIST

Parcel ID	Location	Owner Name/Address
019-008-04-A	510 NEWBURYPORT TNPK	TRS 510 NEWBURYPORT REALTY TRUST MOORE EDWARD T TRUSTEE 8 DOAKS LN MARBLEHEAD, MA 01945

A B U T T E R S

019-008-16	347 WETHERSFIELD ST	TOWN OF ROWLEY TAX TAKING PO BOX 347 ROWLEY, MA 01969
019-008-17	325 WETHERSFIELD ST	BARAIOLO DOMINIC BARAIOLO JENNIFER 325 WETHERSFIELD ST ROWLEY, MA 01969
019-008-18	321 WETHERSFIELD ST	TRS SULLIVAN 2019 TRUST SULLIVAN NEIL F ET AL TRUSTEES 321 WETHERSFIELD ST ROWLEY, MA 01969
019-009	524 NEWBURYPORT TNPK	524 NEWBURYPORT TURNPIKE LLC 22 WHITMAN AVE MELROSE, MA 02176-5620
019-011-01	536 NEWBURYPORT TNPK	JOHNSON COURTNEY AMBER 536 NEWBURYPORT TNPK ROWLEY, MA 01969
022-037	515 NEWBURYPORT TNPK	TRS N & C REALTY TRUST LAGONAKIS NONDAS ET AL TRUSTEES 9 BRIDGE ST SALEM, MA 01970
023-043	511 NEWBURYPORT TNPK	N & C REALTY CORP C/O NONDAS LAGONAKIS 9 BRIDGE ST SALEM, MA 01970
023-044	501 NEWBURYPORT TNPK	WILLIAMS DONALD L 497 NEWBURYPORT TNPK ROWLEY, MA 01969

17 parcels listed



Sean W Mc Fadden
Principal Assessor

RA

AFFIDAVIT OF SERVICE

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

I, Maureen Herald, hereby certify to the best of my knowledge, under the pains and penalties of perjury that on October 11, 2022, 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:

A Notice of Intent was filed under the Massachusetts Wetlands Protection Act by Bitterroot LLC with the Rowley Conservation Commission on October 11, 2022 for property located at 510 Newburyport Turnpike - Route 1 - Osprey Landing
Map 19 Block 8 Lot 4A,

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.

Maureen Herald
Name

10-11-22
Date



NORSE ENVIRONMENTAL SERVICES, INC.

92 Middlesex Road, Unit 4

Tyngsboro, MA 01879

TEL. (978) 649-9932 • FAX (978) 649-7582

Website: www.norseenvironmental.com

Notice of Intent Report

For
Osprey Landing
Roadway & Drainage

510 Newburyport Turnpike – Route 1
Rowley, MA

Prepared For

Bitterroot LLC
357 North Street
Georgetown, MA 01833

Prepared By

Norse Environmental Services, Inc.
92 Middlesex Road, Unit 4
Tyngsboro, MA 01879

October 2022

Narrative

The applicant is proposing a limited project roadway crossing, wetland alteration, wetland replication, retaining walls, drainage, cut and clear trees, grading and associated utilities for the Osprey Landing Subdivision. The subdivision consists of (6) single family dwellings serviced by municipal water and private subsurface sewage disposal systems. The individual house lots within the 100 ft. buffer zone shall be filed separately with the Rowley Conservation Commission.

Existing Conditions

The lot consists of 33.4 +/- acres of land located on the westerly side of on Newburyport Turnpike, Route 1 in Rowley, MA. The parcel is wooded with typical New England species.

The resource areas on site include Bordering Vegetated Wetlands, 200 ft. Riverfront Area of Mill River and Bordering Land Subject to Flooding or 100-year Flood Plain. No work is proposed within the Riverfront Area or Bordering Land Subject to Flooding.

The Rowley Conservation Commission issued an Order of Resource Area Delineation (ORAD), DEP File No. 063-701, verifying and approving the resource areas on 12/3/2020. Please see the attached Order of Resource Area Delineation.

The site is not located within the Estimated/Priority Habitat as designated by the Natural Heritage & Endangered Species Program. There are no certified or potential vernal pools located on the property.

Soils

The Web Soil Survey Essex County maps the site as Montauk and Charlton-Rock outcrop-Hollis complex. Montauk series consists of nearly level to steep, deep (5+ft.) well drained soils on drumlins or rounded and elongated hills. They formed in compact glacial till. Montauk soils have friable fine sandy loam surface soil and subsoil that have moderate to moderately rapid permeability over firm loamy coarse sand to sandy loam substratum (hardpan) at 18 to 36 inches with moderately slow or slow permeability. Montauk 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, stoniness and slope.

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 soils, 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.

Proposed Work

The applicant is proposing a limited project roadway crossing, wetland alteration, wetland replication, retaining walls, drainage, cut and clear trees, grading and associated utilities for the Osprey Landing Subdivision. The applicant is proposing to alter 3151 s.f. and 755 s.f. temporary of bordering vegetated wetland and replicate 6449 s.f. Please see the attached Wetland Replication Report.

Rowley Zoning Requirements

The Town of Rowley zones the site as the Outlying District. The Outlying District is intended as an area of low-density residence, recreation, conservation, agriculture and similar uses compatible with a rural area. The Outlying District requires 60,000 s.f. lots 150 ft. of frontage, 50 ft. front yard and 15 ft. side and rear yard setbacks.

The Rowley Planning Board requires a 55 ft. street right of way, 26 ft. of roadway pavement, 4 ft. wide sidewalks and sloped granite curbing. The applicant is proposing a Low Impact Design and requesting waivers to reduce the roadway width from 26 ft. to 24 ft., eliminate the sidewalks and granite curbing. The Low Impact Design incorporates country drainage to minimize site disturbance, clearing and overall infrastructure. In addition, the project proposes (2) open space parcels (A & B) totaling 20.05 acres to be conveyed to the Town of Rowley. These parcels abut land owned by the Town of Rowley.

310 CMR 10.53 Limited Project

The roadway crossing shall be considered a limited project as defined in 310 CMR 10.53(3) which states, “Notwithstanding the provisions of 310 CMR 10.54 through 10.58 and 10.60, the issuing authority may issue an Order of Conditions and impose such conditions as will contribute to the interests identified in M.G.L.c.131, & 40 permitting the following limited projects. In the exercise of this discretion the issuing authority shall consider the magnitude of the alteration and the significance of the project site to the interests identified in M.G.L.c.131 & 40, the availability of reasonable alternatives to the proposed activity, the extent to which adverse impacts are minimized, and the extent to which mitigation measures, including replication or restoration, are provided to contribute to the protection of the interests identified in M.G.L.c.131 & 40.”

310 CMR 10.53(3)(e) states, “The construction and maintenance of a new roadway or driveway of minimum legal and practical width acceptable to the planning board, where reasonable alternative means of access from a public way to an upland area of the same owner is unavailable. Such roadway or driveway shall be constructed in a manner, which does not restrict the flow of water. Reasonable alternative means of access may include any previously or currently available alternatives such as realignment or reconfiguration

of the project to conform to 310 CMR 10.54 to 310 CMR 10.58 or to otherwise minimize adverse impacts on resource areas. The applicant shall design the roadway or driveway according to the minimum length and width acceptable to the Planning Board and shall present reasonable alternative means of access to the Board. The applicant shall provide replication of the bordering vegetated wetlands to the extent practicable.”

Per the limited project requirements please see the alternative analysis below:

The 33.4-acre lot is accessed through a narrow right of way off Newburyport Turnpike – Route 1. The right of way varies in width from 65 ft. at the entrance and narrows to 26 ft. The location of the right of way determines the roadway entrance and location.

I. Alternative Analysis

The first alternative is to comply with Rowley’s Planning Board requirements of a 55 ft. street right of way easement, 26 ft. of roadway pavement, 4 ft wide sidewalks and slope granite curbing. This will substantially increase the impact to the resource areas including bordering vegetated wetland and buffer zone. This is an undesirable alternative for the obvious reasons and hopefully the Planning Board will grant the above waivers.

II. Alternative Analysis

The second alternative is to relocate the roadway crossing to the east of the proposed crossing location. This is not a desirable alternative as this will result in additional wetland filling and impact to the buffer zone.

III. Alternative Analysis

The third alternative is to relocate the roadway crossing to the west of the proposed crossing location. This is not a desirable alternative because the roadway design would mirror an “S” curve to access the upland portion of the lot. This is a dangerous roadway design that cannot meet the minimum roadway radius under the town standards. Regardless, this alternative will result in increase impact to the resource areas and buffer zone.

IV. Alternative Analysis

The fourth alternative is to provide another means of access from a public way or lot. There is no adjacent or upland parcel with access to a public way. The Mill River is located north of the parcel and town land surrounds the entire lot except along the easterly property line. Two different private landowners border the parcel along the easterly property line. There is no alternative means of access, with less impact to the resource areas.

Preferred Alternative

The preferred alternative is the one proposed in this Notice of Intent filing. The applicant is proposing 3151 s.f. of wetland alteration and 755 s.f. temporary and 6449 s.f. wetland replication. This is slightly more than 2:1 wetland replication.

The applicant is proposing a Low Impact Design and requesting waivers to reduce the roadway width from 26 ft. to 24 ft., eliminate the sidewalks and granite curbing. The Low Impact Design incorporates country drainage to minimize site disturbance, clearing and overall infrastructure. In addition, the project proposes (2) open space parcels (A&B) totaling 20.05 acres to be conveyed to the Town of Rowley. These parcels abut land owned by the Town of Rowley.

Rowley Wetlands Protection Bylaw

No Cut / No Disturbance Zone shall be determined by a vote of the Commission and shall consist of an area, extending typically 25 – 50 feet from a resource area as specified in Section III(A) of this Bylaw, (but in no case extending beyond the 100 foot buffer zone), in which virtually no activities or work, other than non-motorized passage, are permitted. This determination will be made in order to protect the interests and values enumerated in Section I of the Bylaw. Among other site-specific conditions set by the Commission, no vegetation may be disturbed. The no disturbance zone shall remain unchanged from its natural, vegetated state. No Cut / No Disturbance zones exist only when ordered by a vote by the Commission on an application.

The project complies with the No Cut/No Disturbance to the maximum extent practicable. The roadway entrance, limited project roadway crossing, retaining walls, utilities, drainage and wetland replication are proposed within 25 ft. of the resource area. I am requesting the Conservation Commission to waive the 25 ft. No Cut for the above-mentioned areas.



SO.ESSEX #728 Bk:39266 Pg:577
12/07/2020 04:08 PM ORDR RAD Pg 1/5
eRecorded



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 4B – Order of Resource Area
Delineation

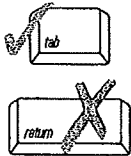
Provided by MassDEP:
63-0701
MassDEP File Number

eDEP Transaction Number
Rowley
City/Town

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

A. General Information

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



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

From: Rowley Conservation Commission
1. Conservation Commission

2. This Issuance is for (check one):

- a. Order of Resource Area Delineation
- b. Amended Order of Resource Area Delineation

3. Applicant:

Robert Nixon
a. First Name b. Last Name

Bitterroot LLC
c. Organization

357 North St
d. Mailing Address

Georgetown MA 01833
e. City/Town f. State g. Zip Code

4. Property Owner (if different from applicant):

Edward Moore, Trustee
a. First Name b. Last Name

510 Newburyport Realty Trust
c. Organization

8 Koaks Ln
d. Mailing Address

Marblehead MA 01945
e. City/Town f. State g. Zip Code

5. Project Location:

510 Newburyport Turnpike Rowley 01969
a. Street Address b. City/Town c. Zip Code

Map 19 Parcel 8, Lot 4A
d. Assessors Map/Plat Number e. Parcel/Lot Number

Latitude and Longitude (in degrees, minutes, seconds):

	d	m	s	d	m	s
	f. Latitude			g. Longitude		

6. Dates:

<u>9/21/2020</u>	<u>12/2/2020</u>	<u>12/3/2020</u>
a. Date ANRAD filed	b. Date Public Hearing Closed	c. Date of Issuance



THIS COPY HAS ELECTRONIC SIGNATURES AND MUST BE RECORDED AT THE ESSEX COUNTY REGISTRY OF DEEDS.

80



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:
63-0701
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Rowley
City/Town

**WPA Form 4B – Order of Resource Area
Delineation**

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

A. General Information (cont.)

7. Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

<u>510 Newburyport Turnpike Wetland Delineation Plan ASB Design Group</u>	<u>11/30/2020</u>
a. Title	b. Date
_____	_____
c. Title	d. Date

B. Order of Delineation

1. The Conservation Commission has determined the following (check whichever is applicable):

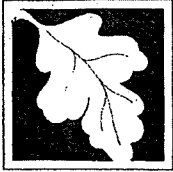
- a. **Accurate:** The boundaries described on the referenced plan(s) above and in the Abbreviated Notice of Resource Area Delineation are accurately drawn for the following resource area(s):
1. **Bordering Vegetated Wetlands** *BVW Flags #1A - #48A, #50A-81A, + #1C - #3C*
 2. **Other resource area(s), specifically:** *Mean Annual High Water #1B - #10B Depicted 100' Buffer Zone to BVW and BLSF and 200' Riverfront*
- a. Note: there may be other resource areas present on the property that the RCC was not asked to verify. Therefore, the RCC reserves the right to review any future proposal for work to determine if there are resource areas or portions thereof that may trigger RCC jurisdiction

- b. **Modified:** The boundaries described on the plan(s) referenced above, as modified by the Conservation Commission from the plans contained in the Abbreviated Notice of Resource Area Delineation, are accurately drawn from the following resource area(s):

1. **Bordering Vegetated Wetlands**
 2. **Other resource area(s), specifically:**
- a. _____

- c. **Inaccurate:** The boundaries described on the referenced plan(s) and in the Abbreviated Notice of Resource Area Delineation were found to be inaccurate and cannot be confirmed for the following resource area(s):

1. **Bordering Vegetated Wetlands**
 2. **Other resource area(s), specifically:**
- _____
- _____



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

Provided by MassDEP:
 63-0701
 MassDEP File Number

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 Rowley
 City/Town

B. Order of Delineation (cont.)

3. The boundaries were determined to be inaccurate because:

C. Findings

This Order of Resource Area Delineation determines that the boundaries of those resource areas noted above, have been delineated and approved by the Commission and are binding as to all decisions rendered pursuant to the Massachusetts Wetlands Protection Act (M.G.L. c.131, § 40) and its regulations (310 CMR 10.00). This Order does not, however, determine the boundaries of any resource area or Buffer Zone to any resource area not specifically noted above, regardless of whether such boundaries are contained on the plans attached to this Order or to the Abbreviated Notice of Resource Area Delineation.

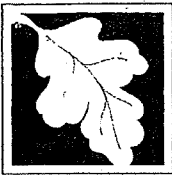
This Order must be signed by a majority of the Conservation Commission. The Order must be sent by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate DEP Regional Office (see <https://www.mass.gov/service-details/massdep-regional-offices-by-community>).

D. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate DEP Regional Office to issue a Superseding Order of Resource Area Delineation. When requested to issue a Superseding Order of Resource Area Delineation, the Department's review is limited to the objections to the resource area delineation(s) stated in the appeal request. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order of Resource Area Delineation will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order or Determination, or providing written information to the Department prior to issuance of a Superseding Order or Determination.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act, (M.G.L. c. 131, § 40) and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal bylaw or ordinance, and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**WPA Form 4B – Order of Resource Area
Delineation**

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

Provided by MassDEP:
63-0701
MassDEP File Number
eDEP Transaction Number
Rowley
City/Town

E. Signatures

12/3/2020
Date of Issuance
7
1. Number of Signers

Please indicate the number of members who will sign this form.

*The names typed below represent the intent to sign the foregoing document electronically.
Signatures are made in accordance with MGL c. 110G and pursuant to the Commission's electronic signature authorization vote on October 27, 2020 and recorded on October 30, 2020 in Book 39120 and Page 588 at the Essex South Registry of Deeds.

Signatures

Signature of Conservation Commission Member	/s/ Daniel R. Shinnick, Chairman Printed Name
Signature of Conservation Commission Member	/s/ Samuel D. Streiff, Vice Chair Printed Name
Signature of Conservation Commission Member	/s/ Robert W. Garner Printed Name
Signature of Conservation Commission Member	/s/ Jennifer A. Haag Printed Name
Signature of Conservation Commission Member	/s/ Howard R. Terrien Printed Name
Signature of Conservation Commission Member	/s/ Howard J. Vogel Printed Name
Signature of Conservation Commission Member	/s/ Ann S. Witzig Printed Name
Signature of Conservation Commission Member	Printed Name

This Order is valid for three years from the date of issuance.

If this Order constitutes an Amended Order of Resource Area Delineation, this Order does not extend the issuance date of the original Final Order, which expires on _____ unless extended in writing by the issuing authority.

This Order is issued to the applicant and the property owner (if different) as follows:

2. By hand delivery on _____
12/3/2020
a. Date

3. By certified mail, return receipt requested on _____
a. Date



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**WPA Form 4B – Order of Resource Area
Delineation**

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

Provided by MassDEP:

63-0701
MassDEP File Number

eDEP Transaction Number

City/Town

Recording Information

Prior to commencement of work, this Order of Resource Area Delineation must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Resource Area Delineation. The recording information on this page shall be submitted to the Conservation Commission listed below.

Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Town of Rowley
Conservation Commission

Please be advised that the Order of Resource Area Delineation for the Project at:

510 Newburyport Turnpike
Project Location

63-0701
MassDEP File Number

Has been recorded at the Registry of Deeds of:

County

Book

Page

For:

Property Owner

and has been noted in the chain of title of the affected property in:

Book

Page

In accordance with the Order of Resource Area Delineation issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant



NORSE ENVIRONMENTAL SERVICES, INC.

92 Middlesex Road, Unit 4

Tyngsboro, MA 01879

TEL. (978) 649-9932 • FAX (978) 649-7582

Website: www.norseenvironmental.com

Wetland Replication Report

For

**Osprey Landing
Roadway & Drainage
510 Newburyport Turnpike – Route 1
Rowley, MA**

Prepared For

Bitterroot LLC
357 North Street
Georgetown, MA 01833

Prepared By

Norse Environmental Services, Inc.
92 Middlesex Road, Unit 4
Tyngsboro, Ma 01879

October 2022

Narrative

Projects that impact bordering vegetated wetlands (BVW) require replication under 310 CMR 10.55(4)(b). The performance standards for BVW impacts include the requirement of wetland replication in the event that a BVW is destroyed or otherwise impaired. The general conditions governing the replication of up to 5000 square feet of BVW set forth in 310 CMR 10.55(4)(b) is summarized as follows:

- Surface area must be equal to the lost area;
- The replication area must have similar ground water and surface elevation as the lost area;
- The replication area must have a similar location relative to the bank as the lost area;
- The replication area must have an unrestricted hydraulic connection to the same water body or waterway as the lost area;
- The location of the replication area must be in the same general area as the lost wetland;
- The replication area must have at least 75% cover of native wetland plants within two growing seasons, and there must be temporary stabilization of exposed soil to avoid erosion.

Evaluation of Existing Conditions and Functions

The wetland regulations presume that Bordering Vegetated Wetland's serve the following public interests identified in the WPA: public or private water supply, ground water supply, flood control, storm damage prevention, prevention of pollution, fisheries, and wildlife habitat (land containing shellfish pertains to coastal wetlands only).

Bordering Vegetated Wetland

The applicant is proposing a limited project roadway crossing, wetland alteration, wetland replication, retaining walls, cut and clear trees, grading and associated utilities for the Osprey Landing Subdivision. The applicant is proposing to alter 3151 s.f. of bordering vegetated wetland and 755 s.f. of temporary disturbance, between wetland flags 11.5A-13.5A and 30.5A-32.5A for the roadway crossing. The applicant shall replicate 6449 s.f. or slightly more than 2:1 ratio.

The A-Series wetland is a red maple swamp bordering consisting of red maple (*Acer rubrum*), swamp white oak (*Quercus bicolor*) and white pine (*Pinus strobus*) in the overstory. The understory consists of glossy buckthorn (*Rhamnus frangula*), highbush blueberry (*Vaccinium corymbosum*) and winterberry (*Ilex verticillata*). The herbaceous layer consists of cinnamon fern (*Osmunda cinnamomea*) and sensitive fern (*Onoclea sensibilis*).

Replication Site Selection

The wetland replication area selected is proposed near the lost wetland area or along the easterly property line. The applicant is proposing to replicate 6449 s.f. between wetland flags 16.5A-26A. The replication area shall readily take because it's located adjacent to the main wetland area, and this will aid in revegetation by opportunistic native species.

Hydrology, Soils, and Vegetation

The hydrology at the replication site is critical in controlling the plant community that develops, and many of the ecological functions of the site. There will be unrestricted hydraulic connections between the replicated wetland and groundwater. The replication area will be excavated to the groundwater elevation.

Replication Area Characteristics	Existing	Proposed
Estimated Seasonal High-Water Table	varies 5-6 ft.	At grade
Duration of seasonal saturation	dry	year round
Expected seasonal inundation	dry	year round

These conditions were determined on site by deep holes within the proposed wetland replication area and visual examination of the surrounding wetland.

Soils

An important factor in the success of a replication area is the proper use of soils either translocated (i.e. the relocation and reuse of hydric soils from the impacted resource area to the proposed replication area) from the impacted wetland or soil amendments brought from off-site. The development of hydric soils provides substrate for wetland plants, which in turn supports wildlife habitat. Hydric soil acts as a matrix to treat groundwater, adsorbs and absorbs pollutants, and supports vegetation that slows floodwaters.

Soil Translocation

Soil translocation is the preferred methodology for obtaining replication soils. Wetland soils from the altered areas shall be used for replication purposes. Since this will be insufficient for complete coverage, composted leaf litter shall be mixed with soil as an amendment. A wetland scientist prior to the use and installation will inspect the soil. Prior to placement of hydric soils in the replication area, the replication area shall be excavated to appropriate subgrade elevations. Soil taken from areas where the invasive species are present should always be avoided. Competent soil scientists shall inspect the excavated area prior to the soil translocation.

Soil Amendments

Composted leaf litter shall be mixed with topsoil as an amendment. The objective is to obtain approximately 50% organic material/topsoil. After the soil is managed for proper consistency

(e.g. loose to friable), the soil consistency shall be tested. If the proper consistency has not been achieved, further efforts should be undertaken to achieve proper consistency. Surveying of subgrades and finished elevations shall be conducted frequently during construction.

To supplement organic material, it is recommended that coarse woody debris (e.g. logs) be scattered on the replication area in between plantings to add structure and a long-term source of decaying organic material, to cover at least five percent of the area.

Soils to be used at the mitigation site shall be used immediately if possible and stockpiled for as little time as possible. While stockpiled, the soils shall be kept wet and not be allowed to dry out. Contamination of these soils shall be prevented. The soils shall be transported in vehicles that have been washed so that no exotic/invasive seeds from other sites get mixed in with them.

Vegetation

In accordance with 310 CMR 10.55, at least 75% of the surface of the replacement area must be re-established with indigenous wetland plant species within two growing seasons. In order to accomplish this, the hydrology and soils conditions must be appropriate for each type of wetland vegetation (i.e. emergent, shrub, forested etc.) that is proposed in the replication area.

Planting Requirements

A qualified professional, with training in wetland science, shall oversee planting procedures. Wetland plants from the existing wetland should be removed in plugs or culms and protected against desiccation. Trees and shrubs shall be root pruned prior to transplanting. Plants shall be planted within one day of removal from existing wetland or as soon as possible and properly protected (e.g. burlap), watered and handled. Trees shall be 30 ft. on center and shrubs shall be planted 15-20 feet on center. A minimum of (5) different shrubs shall be planted. Tree and shrub densities shall be used to determine the total number of specimens within a given area; however, the wetland professional should be responsible for establishing the plantings in a naturalistic manner (i.e. clumping, mini-communities, leaving mud flats, etc.).

Common Name	Latin Name	Regional Indicator
Trees:		
Red Maple	<i>Acer rubrum</i>	Fac
American Elm	<i>Ulmus americana</i>	Fac
Swamp White Oak	<i>Quercus bicolor</i>	FacW+
Shrubs:		
Arrow-wood	<i>Viburnum dentatum</i>	FacW-
Swamp Azalea	<i>Rhododendron viscosum</i>	Obl
Silky Dogwood	<i>Cornus amomum</i>	FacW
Spicebush	<i>Lindera benzoin</i>	FacW-
High bush blueberry	<i>Vaccinium corymbosum</i>	FacW
Common Winterberry	<i>Ilex verticillata</i>	FacW+
Common Elderberry	<i>Sambucus canadensis</i>	FacW-

These are all perennial species that should adapt to the conditions on site and provide a good basic wetland community. These species were chosen because they are native to the area and shall readily take.

In addition, a New England Wetmix shall be applied to the wetland replication area to initiate growth. The wetland seed mix contains a wide variety of native seeds that are suitable for most wetland replication sites that are not permeability inundated. All species are suitable to moist disturbed ground as found in most wet meadows, scrub shrub, or forested wetland restoration areas. The wetland seed mix can be purchased from New England Wetland Plants, Inc. in Amherst, Ma (413) 548-8000 www.newp.com.

The remaining buffer zone shall be seeded with a New England Showy Wildflower mix provided by New England Wetland Plants, Inc. in Amherst, Ma (413) 548-8000 www.newp.com. The wildlife mix will encourage local pollinators such as bees, butterflies and other insects.

Invasive Species

If the following invasive species are found growing in replication areas, measures should be taken to eliminate them as soon as possible by hand weeding. Soils from existing wetlands containing these species shall never be used in replication areas.

- Purple Loosestrife (*Lythrum salicaria*);
- Phragmites (*Phragmites australis*);
- Buckthorn, (*Rhamnus Frangula alnus*);
- Honeysuckles (*Lonicera spp.*);
- Garlic Mustard (*Alliaria petiolata*);
- Japanese Knotweed (*Polygonum cuspidatum* or *Fallopia Japonica*);
- Japanese Stilt Grass (*Microstegium vimineum*);
- Reed Canary Grass (*Phalaris arundinacea*);
- Bittersweet nightshade (*Celastrus Orbiculatus*);
- Black Swallow-wort (*Cynanchum nigrum*);
- Pale Swallow-wort (*Cynanchum rossicum*).

Trucks that have previously been on other sites shall be washed prior to introduction to the replication site so that mud/dirt with exotic/invasive seeds are not inadvertently brought to the replication site.

Timing of Plantings

All planting shall occur at the beginning or end of the growing season. Shrubs and trees, however, may be planted up to November 15th or first hard frost.

Within two growing seasons, a viable plant community of indigenous species should be present; this includes some or all of the following red maple, arrow-wood, high bush blueberry, dogwood, rushes, sedges and other species. In case of vegetation mortality, the Commission shall be informed of plantings of nursery stock.

Wildlife Habitat

Wetland resource areas provide important food, shelter, migratory and over-wintering areas, and breeding areas for many birds, mammals, amphibians, and reptiles. Wetland characteristics that provide wildlife habitat include hydrologic regime, plant and soil composition and structure, topography and water chemistry.

Woody vegetation of varying heights adds structural diversity, and this is important for wildlife. While it is not immediately feasible to replicate a mature forested swamp complete with large trees and standing snags, replication projects shall incorporate shrubs and saplings so that woody components will develop over time, as well as emergent areas and hummocks. It is also beneficial to provide water at varying depths, times and duration.

Erosion Control

Erosion controls shall be placed along the boundary of the wetland replication area. Upon completion of the replication area, installation of the compostable filter sock between the replication area and the adjacent upland shall be provided to prevent silt from entering the replication area. Prior to permanent establishment of vegetation in the replication area, soils shall be temporarily stabilized to prevent impacts from erosion by mulching and seeding with a wetland seed mixture until re-establishment of wetland vegetation occurs. Hydro seeding is a valuable erosion control measure and may discourage colonization by invasive species.

All embankment slopes adjacent to wetland replication areas shall have slopes no greater than 2H: 1V unless stabilized by structural means. Bioengineering stabilization methods are recommended for slope stabilization.

Organic soils and wetland vegetation shall not be placed in the replication area until the wetland scientist has verified that the final excavated grade. This shall allow the finished grade of the replication area to meet the design specifications.

Following excavation work, final grading and landscaping shall be completed as soon as possible to minimize erosion. All exposed soil shall be stabilized using seed-free mulch or other appropriate erosion control measures if seasonal conditions result in a delay in planting. If the site is excavated to the subgrade in the fall and a delay is inevitable, consideration should be given to stabilizing the site for winter and conducting final grading in the spring. Use of hydro seeding has been found to stabilize a site quickly and may possibly hinder growth of invasive species. Erosion control measures such as compostable filter sock shall be removed as soon as the site is stable to allow for proper hydrologic conditions.

Monitoring Requirements

Monitoring is critical in wetland replication efforts due to the complex issues that can arise when trying to replace the specific ecological conditions of wetlands. Monitoring to ensure that the project is built according to the design specifications will ensure that the most common cause of failure is avoided. A project monitor (preferably a qualified professional with training in

wetland science) with a minimum 5 years of experience in the construction of wetland replication areas and general construction practices shall be on-site to monitor the excavation, grading, and planting of the replication area (at the end of the first growing season, a professional with less than 5 years' experience in wetland replication construction may conduct the monitoring if supervised by a professional with at least 5 years' experience. The project supervisor or monitor shall be present during the most important tasks in replication construction including:

1. Before excavation or erosion control installation work begins to inspect site flagging;
2. During excavation of the altered area if vegetation is to be translocated to the replication area to ensure survival of the plantings;
3. Before soil translocation or addition into the replication area to inspect excavated elevations and likely post-construction ground water elevations for the replication area;
4. After each stage of grading work is completed to inspect finished elevations;
5. During planting and seeding and after the first month of the growing season to inspect propagation techniques;
6. After one growing season to observe vegetation development and regulatory compliance;
7. After two growing seasons to determine vegetation development and regulatory compliance
8. After subsequent growing seasons, if a greater than 2-year monitoring program is required.

A monitoring report shall be submitted in the late spring and at the end of each of the first two growing seasons. Monitoring shall be required until regulatory compliance goals are met. Should the replication area appear to be unlikely meet the 75% reestablishment standard (note that the 75% revegetation may include volunteer hydrophytic species as well as replacement plantings and seeding) than additional plants may need to be planted. Monitoring for invasive species shall be conducted and any invasive handpicked before becoming widespread and established. The final monitoring report shall be accompanied by an as-built plan. The final monitoring report shall indicate the conditions at the replication site (including stabilization of embankments) and describe in detail how the functions of the impacted wetland have been replaced by the development of the replication site.

1. An as-built plan stamped by a R.L.S. or P.E. shall be submitted that documents the construction of the replication area. The size of the replication area shall be documented as consistent with the size proposed.
2. A site visit shall be conducted prior to issuing a Certificate of Compliance. The replication area shall be compared with the design plans and the Order of Conditions to ensure that it has been constructed as proposed and wetland interests have been replicated.
3. At least 75% of the surface area of the replication site shall be reestablished with indigenous wetland species within two growing seasons. A qualified wetland professional shall certify to the plant species composition of the area and compliance with this condition. The qualified

wetland professional shall also certify that the plants proposed in the planting plan are those that were planted, in the correct number, and spacing of the plantings. The Order of Conditions may be extended if it is about to expire but the replication area has not fully established itself through two growing seasons. Each different layer of wetland vegetation (forested, shrub, herbaceous etc.) shall be checked to ensure that it is surviving as designed and that the hydrology is appropriate.

4. Vegetation shall be checked to ensure that no invasive species are colonized in the replication area. If so, measures should be taken to eliminate the invasive species.
5. All surrounding buffer zone areas shall be stabilized. Inspections shall be conducted of the erosion control devices and those devices shall be removed once the site is stabilized. A Certificate of Compliance shall not be issued until all erosion controls are removed and any soils disturbed by their removal stabilized.

If the developer or landscaper performing work has any questions, please contact Norse Environmental Services Inc.

- Legend**
- Property Features
 - Shadows
 - Streams
 - Zoning
 - Competition District
 - Office/Professional District
 - Community District
 - Business Light Industrial District
 - Industrial District
 - Neighborhood District
 - Residential District
 - Municipal
 - Competition Restriction
 - Other Features
 - Highway Right-of-Way
 - Other Highway Right-of-Way
 - Other Right-of-Way
 - Other Property
 - Other
 - Water
 - Other



Town of Rowley
Property Parcel Maps



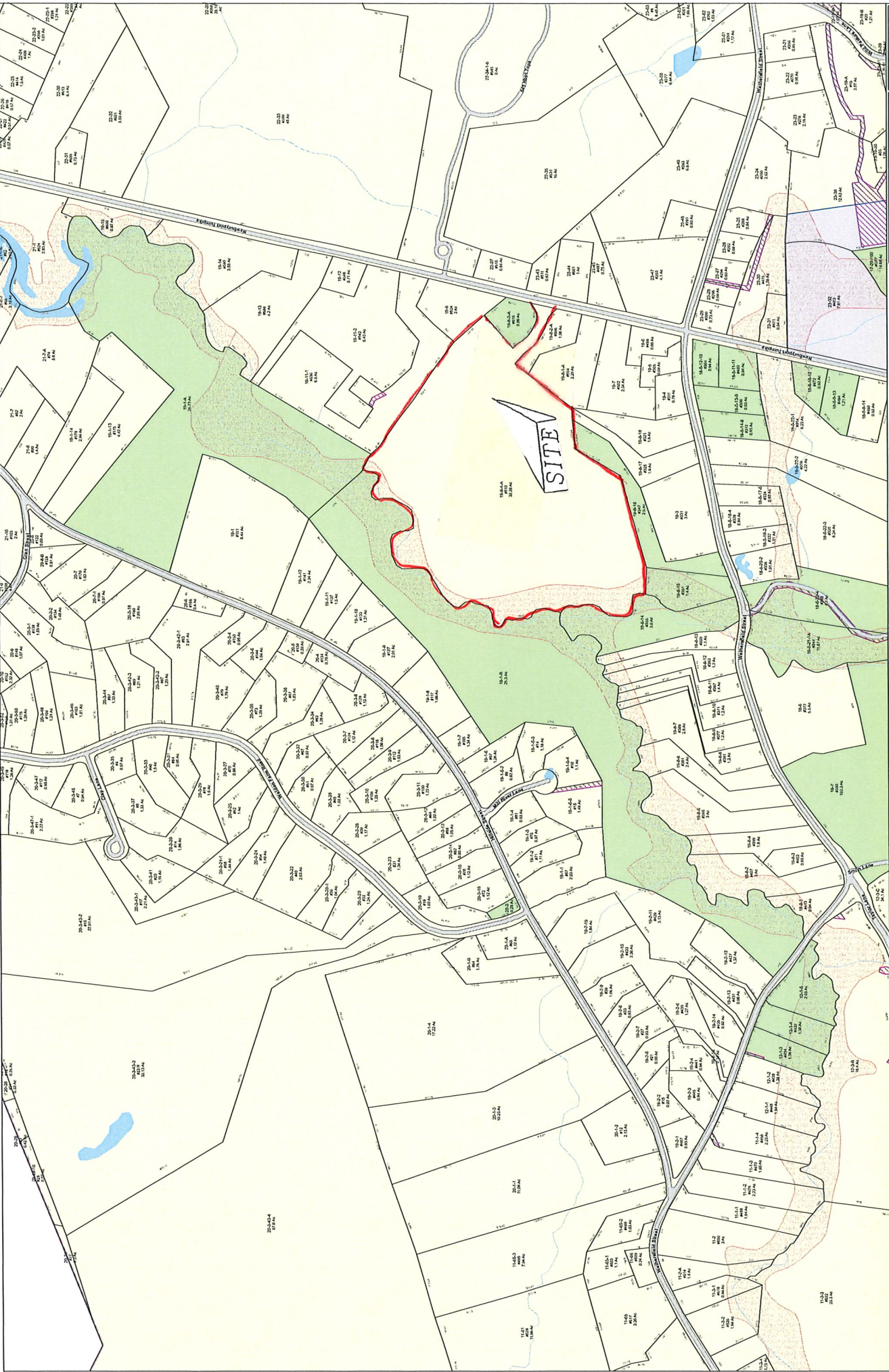
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0 100 200 300 400 feet

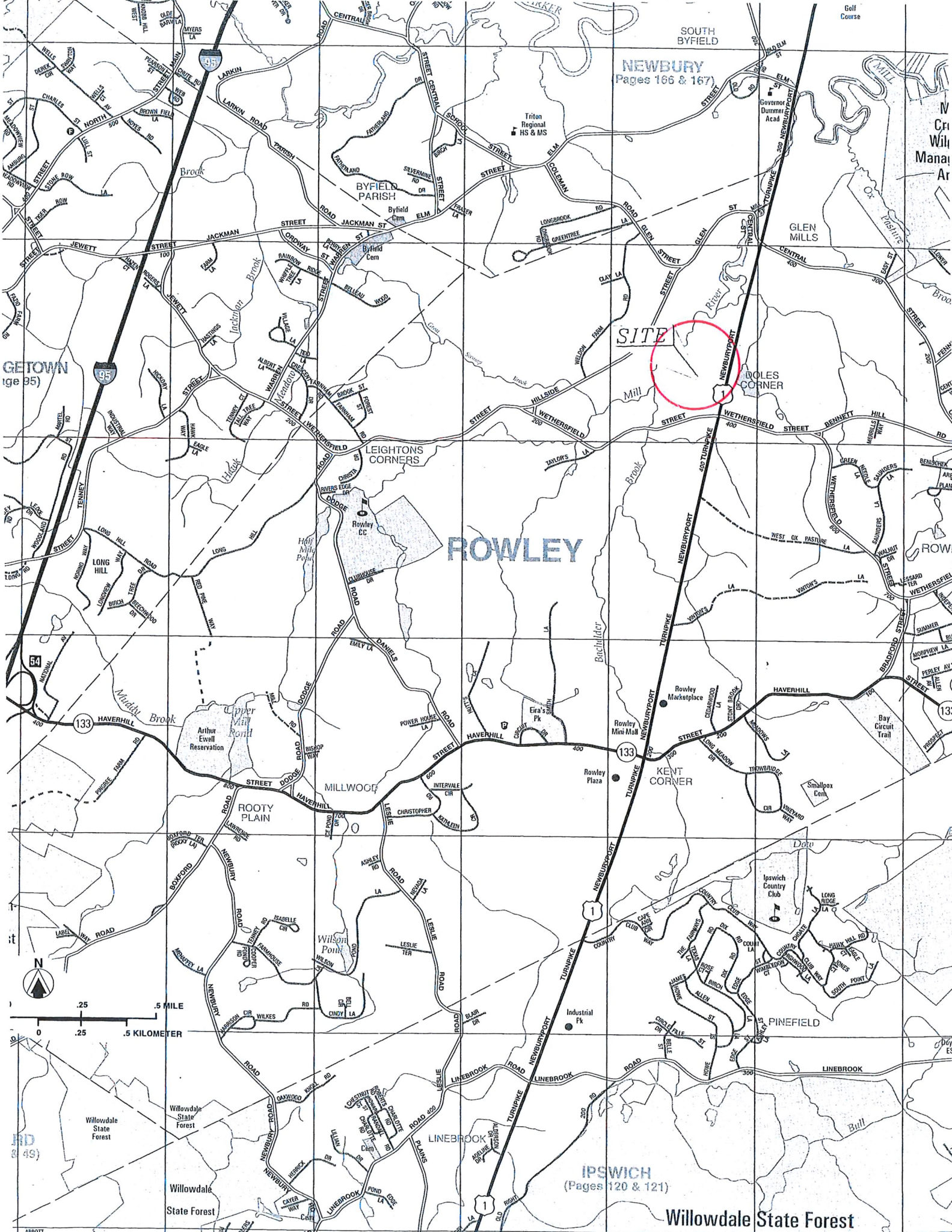


Merrimack Valley Planning Commission

Map Created Date: August 14, 2023
Map (Township) Date: February 1, 2023
LOCAL MAP

NOTES:
This map was prepared for the Town of Rowley by Merrimack Valley Planning Commission. The map is based on the most current information available to the Commission as of the date of preparation. The Commission is not responsible for the accuracy or completeness of the information shown on this map. The Commission is not a surveying or engineering firm and does not provide such services. The Commission is not responsible for the accuracy or completeness of the information shown on this map. The Commission is not a surveying or engineering firm and does not provide such services.





NEWBURY
Pages 166 & 167

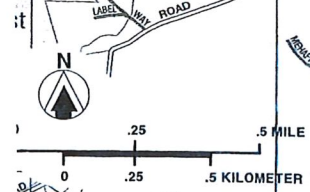
ROWLEY

IPSWICH
(Pages 120 & 121)

SITE

GETOWN
(Page 95)

Willowdale State Forest

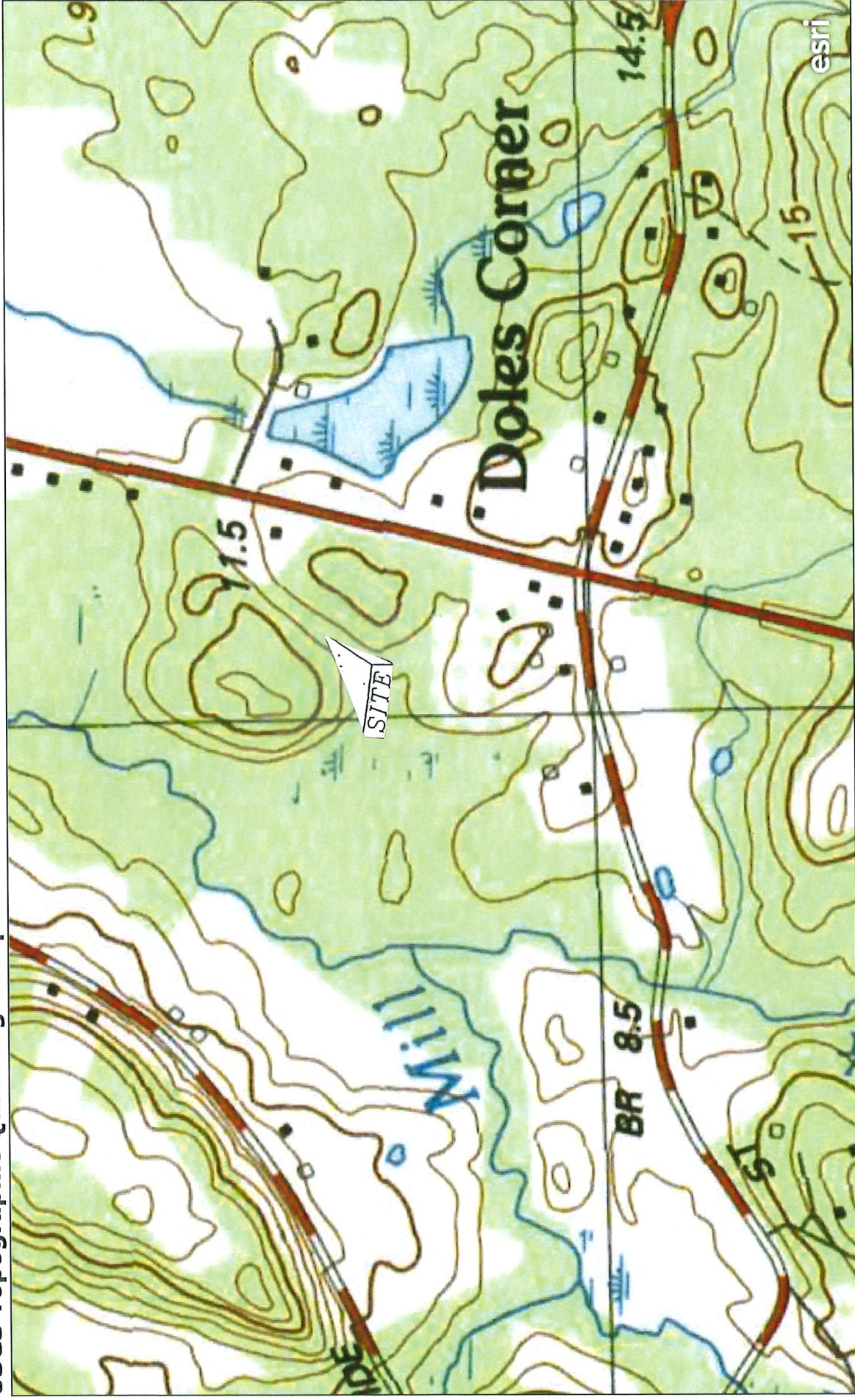


Willowdale State Forest

Willowdale State Forest

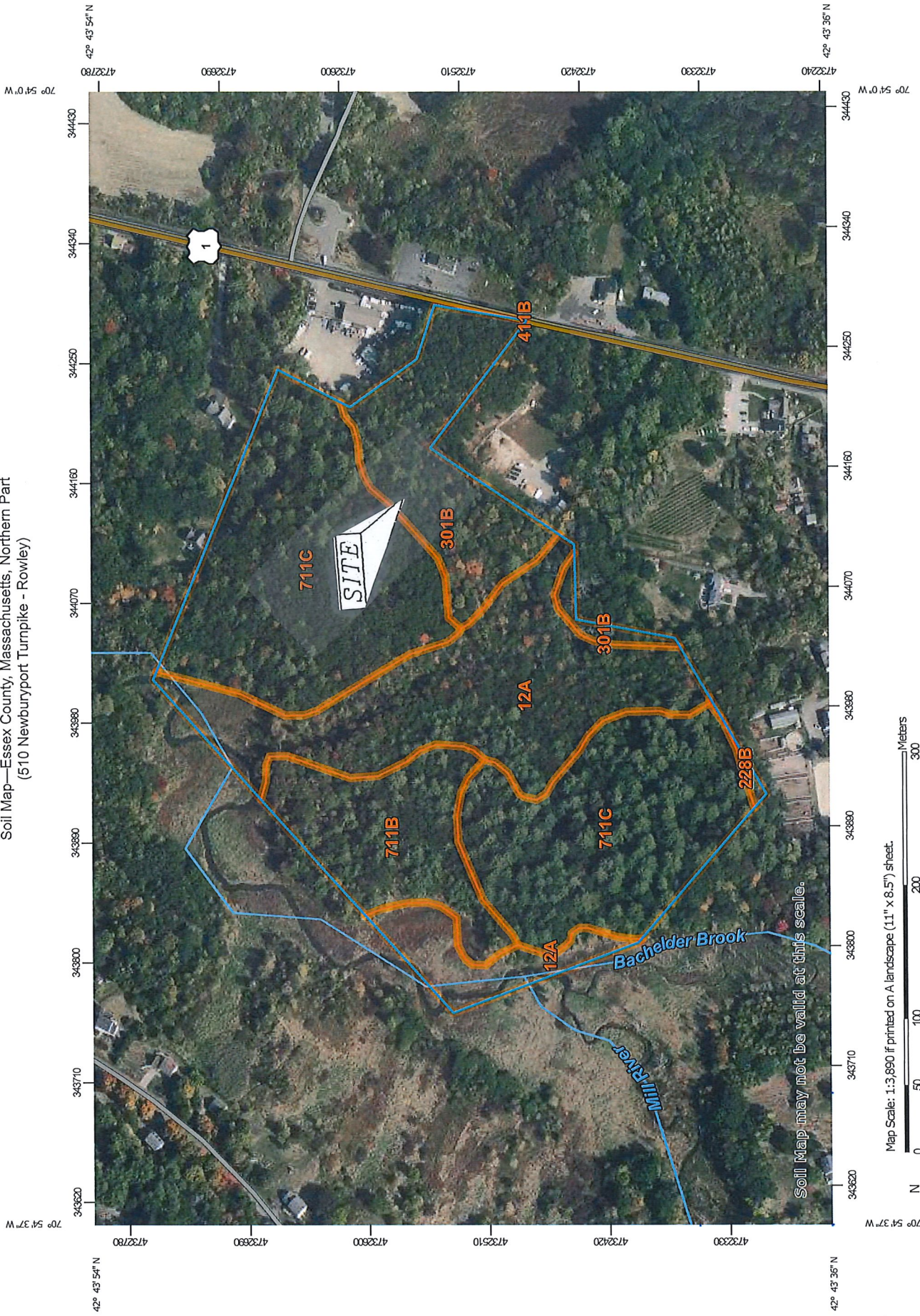
ABBOTT

USGS Topographic Quadrangle Maps



USGS 1:25,000 Topographic Maps for Massachusetts

Soil Map—Essex County, Massachusetts, Northern Part
(510 Newburyport Turnpike - Rowley)







































Soil Map may not be valid at this scale.

Map Scale: 1:3,890 if printed on A landscape (11" x 8.5") sheet.



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

MAP LEGEND

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

MAP INFORMATION

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

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 17, Sep 2, 2021

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

Date(s) aerial images were photographed: May 22, 2020—Sep 25, 2020

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

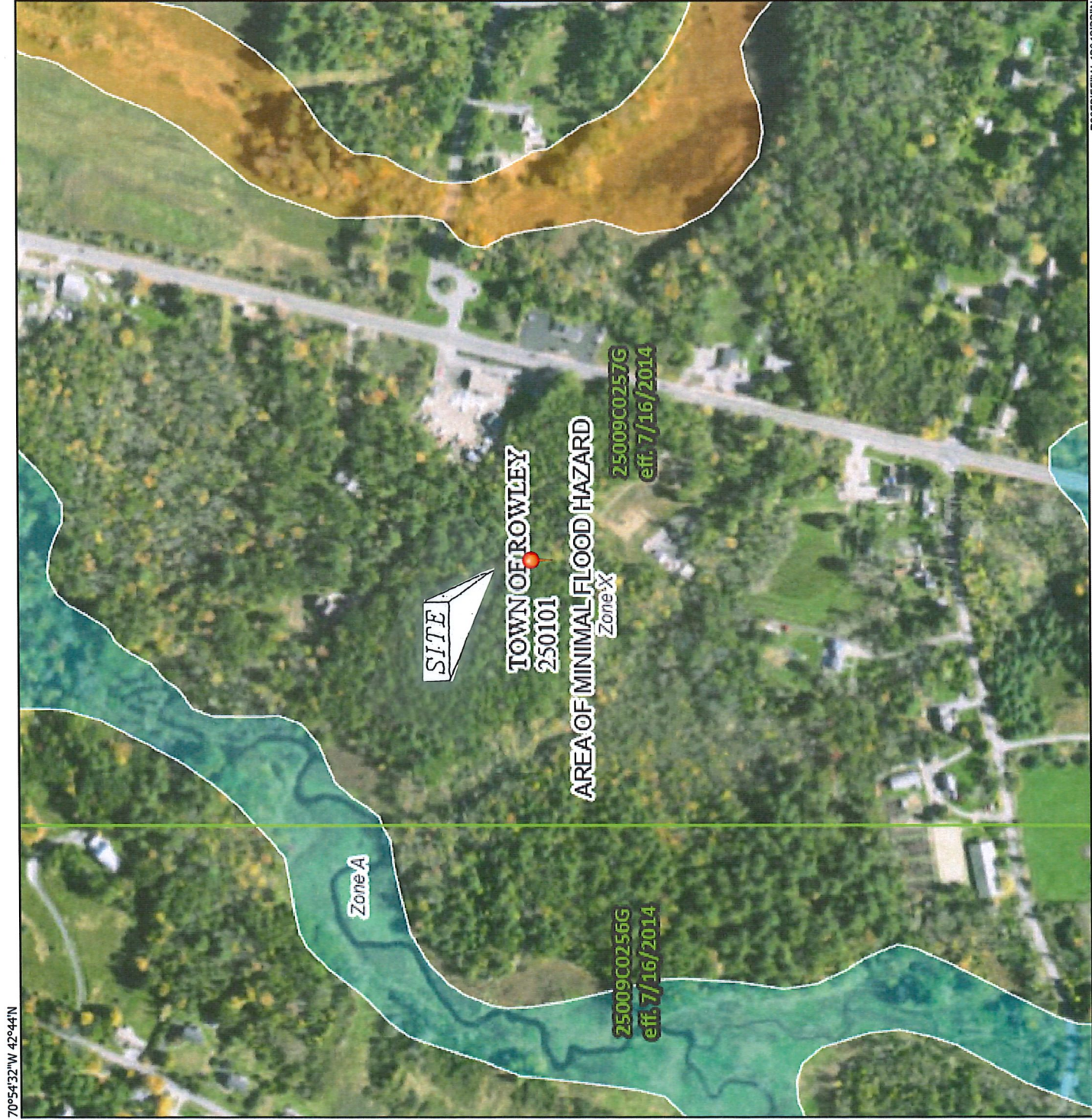
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12A	Maybid silt loam, 0 to 3 percent slopes	9.0	27.9%
228B	Buxton silt loam, 3 to 8 percent slopes	0.1	0.3%
301B	Montauk fine sandy loam, 0 to 8 percent slopes, very stony	4.4	13.7%
411B	Sutton fine sandy loam, 0 to 8 percent slopes, very stony	0.0	0.0%
711B	Charlton-Rock outcrop-Hollis complex, 3 to 8 percent slopes	3.8	11.9%
711C	Charlton-Rock outcrop-Hollis complex, 8 to 15 percent slopes	14.8	46.2%
Totals for Area of Interest		32.0	100.0%

National Flood Hazard Layer FIRMette



70°54'32"W 42°54'41"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

OTHER AREAS OF FLOOD HAZARD

- 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 X*.
- 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

- NO SCREEN
- Area of Minimal Flood Hazard *Zone X*
- Effective LOMRS
- Area of Undetermined Flood Hazard *Zone D*
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

GENERAL STRUCTURES

- 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

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 5/26/2022 at 1:33 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.

510 Newburyport Turnpike - Rowley



Potential Vernal Pools



NHESP Priority Habitats of Rare Species



NHESP Estimated Habitats of Rare Wildlife



NHESP Certified Vernal Pools



Property Tax Parcels