BSC GROUP
Transportation ▪ Energy ▪ Land Development

33 Waldo Street
Worcester, MA 01608

Tel: 508-792-4500
800-288-8123

www.bscgroup.com

February 18, 2020

Reading Conservation Commission
Town Hall
16 Lowell Street
Reading, MA 01887

RE: Notice of Intent
339 Line Geotechnical Soil Borings Project
Reading, Massachusetts
New England Power Company

Dear Members of the Reading Conservation Commission:

BSC Group, Inc. ("BSC") is filing this Notice of Intent ("NOI") on behalf of the New England Power Company d/b/a National Grid ("NEP") for activities associated with exploratory geotechnical soil borings along the 339 Transmission Line Right-of-Way ("ROW") in Reading, Massachusetts ("the Project"). Specifically, geotechnical borings are proposed near existing Structure 95. This NOI is being submitted in accordance with the Massachusetts Wetlands Protection Act (M.G.L. Ch.131, S.40) ("WPA"), its implementing regulations (310 CMR 10.00), and the Town of Reading Wetlands Protection Bylaw and Regulations (the "Reading Bylaw"). The proposed boring is necessary for planning and design of future utility work.

The exploratory borings at Structure 95 are proposed within Bordering Vegetated Wetland ("BVW"). Construction mats or the use of low ground pressure ("LGP") equipment will be required for access through BVWs to conduct soil boring activities at the Structure.

Two (2) soil borings are proposed at Structure 95. Each soil boring is approximate four (4) to six (6) inches in diameter, resulting in approximately 2 square feet of temporary impact from Project activities. Any excess soils resulting from the exploratory boring activities will be backfilled into the same boring location. Existing and historically used access roads within the ROW off Haverhill Street in North Reading and/or Sevinor Road in Lynnfield will be used to access the soil boring location at Structure 95. Since the access to Structure 95 requires crossing BVW, approximately 19,017 square feet of construction mats may be necessary to complete the work. Alternatively, LGP equipment may be used to complete the borings.

Best Management Practices ("BMPs"), including sediment and erosion controls, will be implemented to ensure resource areas are adequately protected and impacts to the surrounding areas are reduced. Upon completion of the Project activities, all temporarily disturbed areas will be restored to pre-existing conditions to the maximum extent practicable.

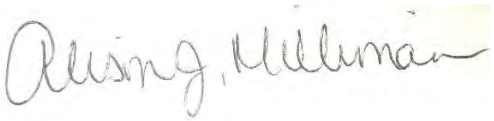
The soil borings are necessary for engineering design and construction planning of future work. NEP does not anticipate any adverse impacts to wetland resource areas. Construction mats associated with utility projects are regulated by the Administrative Consent Order Enforcement Document Number 0000662 between National Grid and the Massachusetts Department of Environmental Protection ("MassDEP"), which provides permit coverage under the 401 Water Quality Certification Program. As such, and as requested by MassDEP,

Engineers
Environmental Scientists
Custom Software Developers
Landscape Architects
Planners
Surveyors

construction mats are not included in the attached WPA Form 3. However, NEP understands construction mats may be regulated under the Reading Bylaw. Therefore, the approximate square footage of temporary impacts is included for reference within the cover letter and narrative.

We respectfully request that this matter be heard at the next scheduled Conservation Commission hearing. A copy of this application has been sent concurrently to the Northeast Regional Office of the Department of Environmental Protection. If you have any questions regarding the enclosed information, please contact me at (401) 742-0487 or Andrew Cole of National Grid at (508) 948-9376. Thank you for your consideration in this matter.

Truly yours,
BSC Group, Inc.



Alison Milliman
Project Manager

cc: Andrew Cole, National Grid
MassDEP Northeast Regional Office

Enclosures:
WPA Form 3 – Notice of Intent, NOI Fee Transmittal Form, and Copy of Filing Fee Checks
Local Wetlands Permit Application Form
Attachment A Detailed Project Narrative
Attachment B USGS Site Locus Map, Environmental Resources Map
Attachment D Wetland Data Sheets
Attachment C Site Photographs
Attachment D Abutters Notification Letter, Certified List of Abutters, Affidavit of Service
Attachment E NEP's Best Management Practices Manual (EG-303)

NEW ENGLAND POWER COMPANY

339 Line
Geotechnical Soil Borings Project
Notice of Intent

Town of Reading
Conservation Commission
February 2020

Prepared for:
New England Power Company d/b/a National Grid
40 Sylvan Road
Waltham, MA 02451

BSC Project No. 89599.12

BSC GROUP

Table of Contents

339 Line
Geotechnical Soil Borings Project
Reading, Massachusetts
Notice of Intent

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
Reading
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):

339 Transmission Line ROW — a. Street Address
Reading — b. City/Town
01867 — c. Zip Code

Latitude and Longitude:
42°33'20.401"N — d. Latitude
71°4'21.821"W — e. Longitude

54 — f. Assessors Map/Plat Number
20 — g. Parcel /Lot Number

2. Applicant:

Andrew — a. First Name
Cole — b. Last Name
National Grid — c. Organization
40 Sylvan Road — d. Street Address
Waltham — e. City/Town
MA — f. State
02451 — g. Zip Code
(508) 948-9376 — h. Phone Number
i. Fax Number
andrew.cole@nationalgrid.com — j. Email Address

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

NEP has easement rights — a. First Name
b. Last Name
c. Organization
d. Street Address
e. City/Town
f. State
g. Zip Code
h. Phone Number
i. Fax Number
j. Email address

4. Representative (if any):

Alison — a. First Name
Milliman — b. Last Name
BSC Group, Inc. — c. Company
33 Waldo Street, — d. Street Address
Worcester — e. City/Town
MA — f. State
01608 — g. Zip Code
(401) 742-0487 — h. Phone Number
i. Fax Number
amilliman@bscgroup.com — j. Email address

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

$500.00 — a. Total Fee Paid
$237.50 — b. State Fee Paid
$262.50 — c. City/Town Fee Paid

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

Reading
City/Town

A. General Information (continued)

6. General Project Description:

NEP is proposing to conduct exploratory soil borings, and access for planning and design purposes, associated with future utility work on the 339 Transmission Line within Bordering Vegetated Wetland (BVW), in Reading, MA.

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

1. ☐ Single Family Home
2. ☐ Residential Subdivision
3. ☐ Commercial/Industrial
4. ☐ Dock/Pier
5. ☒ Utilities
6. ☐ Coastal engineering Structure
7. ☐ Agriculture (e.g., cranberries, forestry)
8. ☐ Transportation
9. ☐ 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)(d) - the construction, reconstruction, operation and maintenance of overhead public utilities.

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:

Middlesex South	
a. County	b. Certificate # (if registered land)
Easement rights	
c. Book	d. Page Number

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

1. ☐ 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.
2. ☒ 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.

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
Reading
City/Town

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.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☒ Bordering Vegetated Wetland	2 (temporary) 1. square feet	2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☐ 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.

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
Reading
City/Town

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.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ 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. ☐ Land Subject to Coastal Storm Flowage	1. square feet	

4. ☐ 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. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings

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
Reading
City/Town

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

1. 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

   August 2017
   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*

      1. ☐ Percentage/acreage of property to be altered:

         (a) within wetland Resource Area _____ percentage/acreage

         (b) outside Resource Area _____ percentage/acreage

      2. ☐ Assessor's Map or right-of-way plan of site

2. ☐ 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 http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/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.

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

Reading
City/Town

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

(c) ☐ MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_fee_schedule.htm). 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, http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_exemptions.htm; 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:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: DMF.EnvReview-South@state.ma.us

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: DMF.EnvReview-North@state.ma.us

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.

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

Reading
City/Town

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.

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

Reading
City/Town

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.

Geotechnical Soil Borings Plan
a. Plan Title

BSC Group, Inc.
b. Prepared By

N/A
c. Signed and Stamped by

2/11/20
d. Final Revision Date

1" = 100'
e. Scale

USGS Site Location Map
f. Additional Plan or Document Title

2/10/20
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:

2288
2. Municipal Check Number

2/12/2020
3. Check date

2281
4. State Check Number

2/11/2020
5. Check date

BSC Companies, Inc.
6. Payor name on check: First Name

7. Payor name on check: Last Name

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:

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Reading
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.

1. Signature of Applicant	2. Date: 2/17/2020
3. Signature of Property Owner (if different)	4. Date
5. Signature of Representative (if any)	6. Date: 02/17/2020

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.

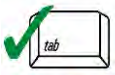
The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI 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:

339 Transmission Line ROW	Reading
a. Street Address	b. City/Town
2281	$237.50
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Andrew		Cole	
a. First Name		b. Last Name	
National Grid			
c. Organization			
40 Sylvan Road			
d. Mailing Address			
Waltham	MA	02451	
e. City/Town	f. State	g. Zip Code	
(508) 948-9376		andrew.cole@nationalgrid.com	
h. Phone Number	i. Fax Number	j. Email Address	

3. Property Owner (if different):

NEP Utility ROW / Easement Right			
a. First Name		b. Last Name	
c. Organization			
d. Mailing Address			
e. City/Town	f. State	g. Zip Code	
h. Phone Number	i. Fax Number	j. Email Address	

B. Fees

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

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.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 2(e)	1	$500.00	$500.00

Step 5/Total Project Fee:

Step 6/Fee Payments:

Total Project Fee:	$500.00 (a. Total Fee from Step 5)
State share of filing Fee:	$237.50 (b. 1/2 Total Fee **less $**12.50)
City/Town share of filling Fee:	$262.50 (c. 1/2 Total Fee **plus** $12.50)

C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

Reading Wetlands Protection Bylaw Fee Calculation Form

Type of Activity	NOI Filing Fee	Calculated Fee
A. Each addition to or accessory use activity Associated with an existing single-family or Multi-family residential dwelling, including but not limited to driveways, sheds, swimming pools, athletic courts, additions to existing houses, grading, and landscaping	$125.00 plus all applicable fees listed in lines F though K	
B. Each new single-family dwelling, including associated driveway, utilities, grading, landscaping, and drainage structures	$600.00 plus all applicable fees listed in lines F though K	
C. Each new multi-family dwelling	$600.00 plus $125.00 per unit located in any Resource Area or Buffer Zone, plus all applicable fees listed in lines F though K	
D. Each subdivision roadway, or other roadway, or driveway (other than for a single-family dwelling), and all associated drainage structures, utilities, grading, curbing, landscaping, and other associated work exclusive of dwellings	$1,000.00 plus $600.00 per house, plus all applicable fees listed in lines F though K	
E. Each commercial, industrial, institutional or other non-residential project	$1,000.00 , plus all applicable fees listed in lines F though K	$1,000
F. Boundary delineation for any Resource Area	$1.25 per linear foot of Resource Area boundary, up to a maximum of $125 for a single-family lot and $1,250 for any other lot.	
G. Temporary and /or permanent alteration of land within the Buffer Zone	$1.25 per square foot of Buffer Zone altered for any temporary or permanent alteration within 25 feet of a Resource Area or any permanent structure within 35 feet of a Resource Area	
H. Work in Floodplain	$1.25 per square foot of Floodplain temporarily or permanently altered outside of any other Resource Area and Buffer Zone	
I. Work in Vernal Pool habitat	$11.00 per square foot of Vernal Pool habitat temporarily or permanently altered.	
J. Work in Freshwater Wetland, Wet Meadow, Bog, Swamp, Marsh, Creek, River, Stream, Pond, Lake, Land Under Waterbody	$11.00 per square foot of Resource Area temporarily or permanently altered	2 SF temporary impact = $22.00
K. Work in Bank	$11.00 per linear foot of Bank temporarily or permanently altered	
	Total Fee Calculated	$ 1,022.00


Town of Reading
Locus Map
Franklin St
Old Cem
Rustic Ln
Childs Dr
Van Norden Rd
Dana Rd
Wakefield St
Reading
Laurel Hill Cem
Aberjona River
Saugus River
Monk Island
Lakeside Office Park
Lake Quannapowitt
Lakeside Cem
Old Cem
Wakefield
Veterans Field
Howard St
Scotland Rd
South St
Washington St
Green St
Woburn St
Industriplex 128
Richardson Pond
USGS, The National Map: National Boundaries Dataset, 3D Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; U.S. Census Bureau - TIGER/Line; Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

Attachment A

339Line
Geotechnical Soil Borings Project
Reading, Massachusetts
Notice of Intent

PROJECT NARRATIVE

BSC GROUP

1.0 INTRODUCTION

BSC Group, Inc. ("BSC") is filing this Notice of Intent ("NOI") on behalf of the New England Power Company d/b/a National Grid ("NEP") for activities associated with exploratory geotechnical soil borings along the 339 Transmission Line Right-of-Way ("ROW") in Reading, Massachusetts ("the Project"). This NOI is being submitted in accordance with the Massachusetts Wetlands Protection Act (M.G.L. Ch.131, S.40) ("WPA") its implementing regulations (310 CMR 10.00), and the Town of Reading Wetlands Protection Bylaw and Regulations (the "Reading Bylaw").

Exploratory soil borings are proposed at one (1) Structure (Structure 95), on the 339 Transmission Line ROW. The structure is located to the west of Sevinor Road in Lynnfield and east of Haverhill Street in North Reading, along the 339 Line ROW. Two (2) exploratory borings are proposed within Bordering Vegetated Wetland ("BVW"). Each boring will be approximately four (4) to six (6) inches in diameter, resulting in approximately 2 square feet of temporary impact. Any excess soils resulting from the exploratory boring activities will be backfilled into the same boring location. Construction mats or the use of low ground pressure ("LGP") equipment will be required for access through BVWs to conduct soil boring activities at this Structure.

The Soil Borings Plan outlines existing and historically used access roads within the ROW off Haverhill Street in North Reading and Sevinor Road in Lynnfield, as shown by the existing access road line (please see **Attachment B**). The access to Structure 95 will require temporary wetland crossings. NEP is proposing a cumulative temporary impact of 19,017 square feet (access and work pads) of construction mats leading up to the boring site that may be necessary to complete the work. Additional Best Management Practices ("BMPs"), including sediment and erosion controls, may be implemented to ensure the protection of the resource areas. Upon completion of the Project activities, all temporarily disturbed areas will be restored to pre-existing conditions to the maximum extent practicable.

This Project qualifies as a Limited Project in accordance with the WPA regulations (310 CMR 10.53(3)(d)), and the Reading Bylaw Section 2I, which allows for the "construction, reconstruction, operation and maintenance of…overhead public utilities…" provided there are no alternatives, best available measures are used to minimize adverse effects during construction, and that vegetation and existing grades are restored.

Due to the nature and purpose of the proposed activities, there are no practicable alternatives to the Project. However, no adverse impacts to wetland resource areas or values protected by the WPA or the Reading Bylaw are anticipated. Construction mats associated with utility projects are regulated by the Administrative Consent Order Enforcement Document Number 0000662 between National Grid and the Massachusetts Department of Environmental Protection ("MassDEP") and provide permit coverage under the 401 Water Quality Certification Program. As such, and as requested by MassDEP, construction mats

are not included in the attached WPA Form 3. However, NEP understands construction mats may be regulated under the Reading Bylaw, and therefore the approximate square footage of temporary impacts is included for reference within the cover letter and narrative.

NEP requests that the placement of construction matting within freshwater wetlands should not be considered a 'temporary alteration' within freshwater wetlands and asks that a waiver of the Notice of Intent Filing Fee Schedule (Section 2.D.J), be granted, specifically for the placement of construction matting. Construction mats are a BMP approved by MassDEP and used by NEP to protect the wetland substrate, root systems/seed banks and existing vegetation. Construction mats will be placed on top of existing vegetation and will be removed upon completion of work.

2.0 EXISTING CONDITIONS

The 339 Line ROW is generally oriented northwest to southeast and is currently used for overhead electric utility transmission operations. Vegetation within the ROW is regularly maintained for compatibility with the facilities. The upland and wetland areas within the ROW predominantly consist of scrub-shrub/herbaceous communities. Dominant land uses adjacent to the ROW primarily include forested land and single-family properties. The proposed Project activities are located within a section of the ROW within the Cedar Swamp wetland complex.

2.1 Resource Area Summary

BSC conducted both a Desktop Analysis (using MassGIS data layers, FEMA Firmette and other available mapping) and wetland field delineations conducted in June of 2019 in accordance with the methodology described in the MassDEP *Handbook on Delineating Bordering Vegetated Wetlands* (Published in March 1995) to confirm wetland boundaries within the ROW.

Existing conditions, wetland resource areas and buffer zones in relation to the proposed activities are shown on the Soils Boring Plan in **Attachment B**. Project activities in Reading are located entirely within BVW. Wetland Data Forms and Representative Photographs are provided in **Attachment C and D** respectively.

RE-W1: This wetland, consisting of scrub/shrub vegetation, is part of the extensive Cedar Swamp wetlands complex in Reading, MA. Within the 339 ROW, the wetland is predominantly shallow marsh, with dominant species including speckled alder (*Alnus incana*), wool grass (*Scirpus cyperinus*), common reed (*Phragmites australis*), cinnamon fern (*Osmundastrum cinnamomeum*), and sphagnum moss (*Sphagnum* sp.).

2.2 Other Resource Areas

No other resource areas were identified within or near the Project area, including; Certified Vernal Pools, Riverfront Area, NHESP Priority / Estimated Habitat, Areas of Critical Environmental Concern ("ACEC"), or Outstanding Resource Waters ("ORW").

3.0 PROJECT ACTIVITIES AND ANTICIPATED IMPACTS

The Project will consist of two (2) exploratory soil borings at one (1) Structure (Structure 95), on the 339 Line. The purpose of the borings is to evaluate subsurface conditions for foundation design associated with the future replacement of the structure. Soil borings are temporary in nature, and at the conclusion of work, the area will be restored to the furthest extent practicable. Existing and historically used access roads within the ROW will serve as the primary means of access to the work areas. A small track-mounted drill rig will be used to perform the soil boring. Each boring hole will be approximately four (4) to six (6) inches in diameter, resulting in a total of approximately 2 square feet of temporary impacts. Erosion and sedimentation controls will be used, as discussed in Section 6.0 of this Narrative, to ensure wetland areas are protected.

4.0 CONFORMANCE WITH PERFORMANCE STANDARDS OF THE WPA

The proposed activities meet the performance standards of the WPA 310 CMR 10.55(4) and 310 CMR 10.58(4). Due to the nature and purpose of the proposed activities, there are no practicable alternatives to the Project. However, no significant adverse impacts to wetland resource areas, or values protected by the WPA and Reading Bylaw, are anticipated. BMPs will be implemented to protect resource areas, and following the completion of work the areas will be restored the pre-existing conditions, as required for Limited Projects by the WPA regulations (310 CMR 10.53(3)(d)), and the Reading Bylaw Section 2I.

5.0 CONFORMANCE WITH PERFORMANCE STANDARDS OF THE READING WETLAND PROTECTION BYLAW AND REGULATIONS

Due to the nature and purpose of the proposed activities, there are no practicable alternatives to the Project. However, no significant adverse impacts to wetland resource areas or values protected by the Reading Bylaw are anticipated. The project will result in approximately 19,017 square feet of *temporary* impacts, and there will be no loss of BVW. BMPs will be implemented to protect resource areas, and following the completion of work, the areas will be restored to pre-construction conditions to the extent practicable (see Section 6.0).

The proposed activities meet the performance standards of the Reading Bylaw to the extent practicable. Requests for waivers and relief from certain stipulations in the Reading Bylaw are described below. Overall, soil boring activities within freshwater wetlands will incur only temporary impacts to wetlands, and as such there will be no net loss of freshwater wetlands (*Section 3.C.2* of the Reading Bylaw).

NEP requests that the placement of construction matting within freshwater wetlands (to access Structure 95), should not be considered a 'temporary alteration' within freshwater wetland. While disturbance from the soil borings (approximately 2 square feet), may be considered a temporary alteration within freshwater wetland, NEP requests a waiver of the Notice of Intent Filing Fee Schedule (*Section 2.D.J*), specifically for the placement of construction matting. Construction mats are a BMP approved and accepted by MassDEP to protect the wetland substrate, root systems/seed banks and existing vegetation. Construction mats will be placed on top of existing vegetation and will be removed upon completion of work.

The Reading Wetland Regulations also state in Section 3 (D.6) - Zone of Natural Vegetation (ZNV), that "Permanent markers shall be installed and maintained in convenient locations along the limits of the ZNV, such as at any corners or along a radius, no more than fifty feet apart". As the proposed activities are within an actively managed utility ROW, NEP respectfully requests that this requirement be waived.

Please note that the site plan provided in **Attachment B** meets the plan and technical data requirements specified in 310 CMR 10.05. These differ slightly from the requirements outlined in the Notice of Intent Submittal Checklist for the Town of Reading; due to the linear nature of the Project and required state/federal review under Sections 401 and 404, plans were submitted at the 1" =100' scale deemed acceptable by state and federal agencies for projects of this nature. Existing contours have not been shown, as proposed activities are temporary, within a very small area (approximately 2 foot of disturbance), and no grading is proposed. Erosion and sediment control features will be deployed within the marked work limits (temporary wetland matting area). Therefore, NEP respectfully requests that the Commission accept the Soil Borings Plan submitted in **Attachment B**.

6.0 PROPOSED MITIGATION TECHNIQUES

NEP has established procedures that are to be followed by all employees performing construction and maintenance activities on distribution ROWs. These procedures, or BMPs, are outlined in National Grid's Environmental Guidance document Access, Maintenance and Construction Best Management Practices (EG-303NE) to ensure that all NEP projects are completed in accordance with all applicable environmental laws and regulations as well as company policies and compliance objectives. Please see **Attachment F** for these BMPs that may be used during the project.

Sediment and Erosion Controls

Erosion and sediment control measures may be installed prior to the commencement of work as necessary. These controls will function to mitigate work-related erosion and sedimentation, and to serve as a physical boundary that delineate work areas and contain construction activities within approved locations. Erosion and sediment control measures may include silt fence, weed free straw bale barriers, straw wattles or similar treatment.

BMPs will be inspected and maintained in working order until all disturbed areas are stabilized. Please refer to **Attachment F** for erosion and sediment control details.

Construction Access

Existing and historically used access routes (when present within the ROW), will be utilized to the greatest extent practicable, as shown on the Geotechnical Soil Borings Plan in **Attachment B**. Access to Structure 95 will be obtained from Sevinor Road in Lynnfield and Haverhill Street in North Reading. Temporary construction mats will be used to provide access. Construction mats are a typical BMP used by NEP to protect the wetland substrate, root systems/seed banks and existing vegetation. Construction mats will be placed on top of existing vegetation and will be removed upon completion of work. If necessary, the wetland area will be restored through seeding and stabilization.

Restoration of Disturbed Areas

Disturbed areas will be returned to pre-construction conditions to the extent practicable. As necessary, disturbed areas will be seeded with an appropriate conservation seed mixture and/or mulched and allowed to re-vegetate.

Erosion and sediment control devices will be removed following stabilization of disturbed areas. Temporary construction mats will be removed following the work. In addition, construction debris and non-biodegradable controls will be removed from the site during restoration.

7.0 CONCLUSION

Although the Project will occur within wetland resource areas, the proposed Project will:

- Minimize disturbance by utilizing an existing disturbed ROW to the greatest extent practicable;
- Result in only minor and temporary impacts to BVW;
- Utilize appropriate BMPs to protect wetland resource areas from sedimentation and soil disturbance during boring activities; and

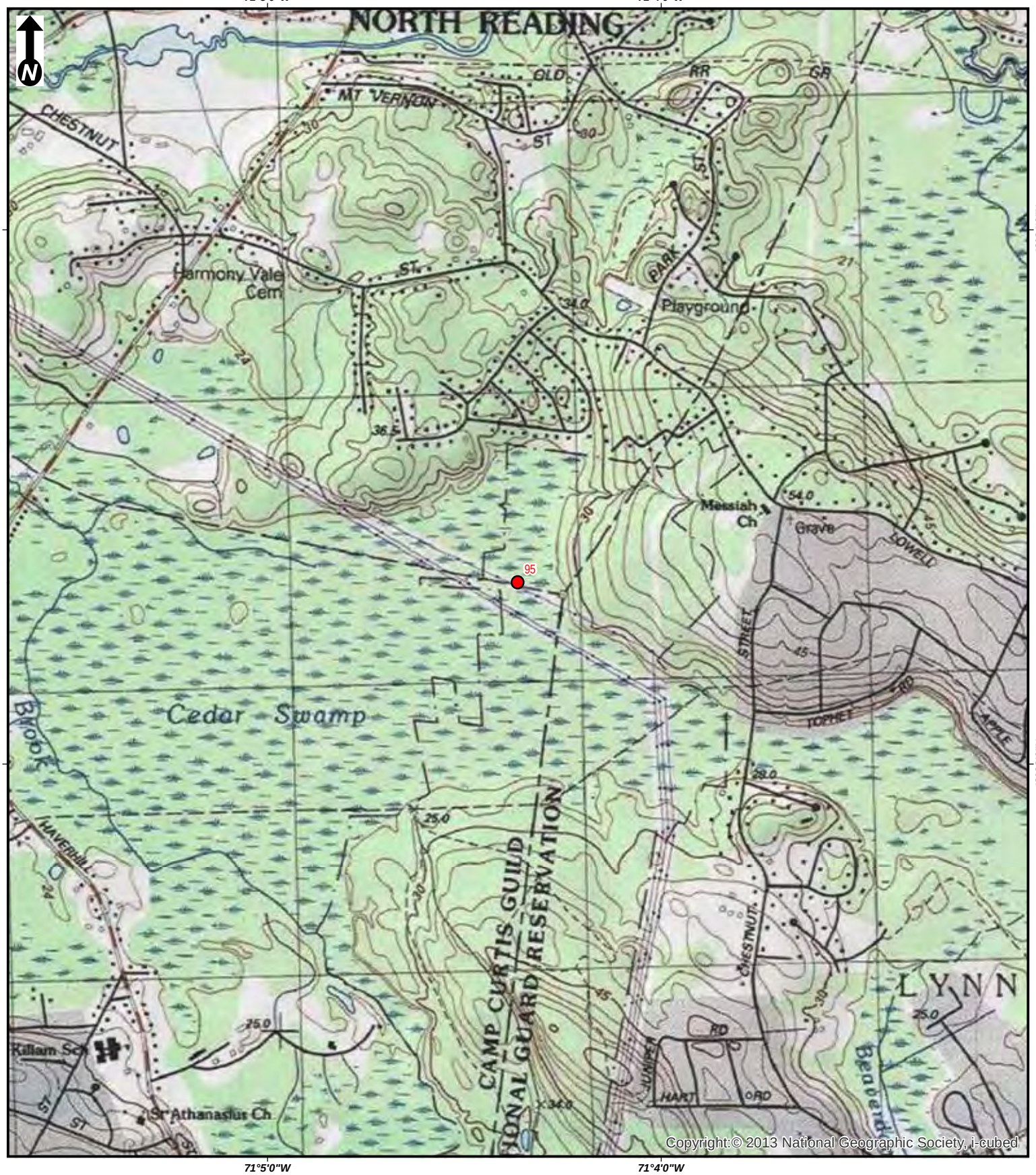
- Qualify as a Limited Project under the WPA provisions for public utilities [310 CMR10.53(3)(d)], and Reading Bylaw Section 2I.

Therefore, NEP requests the Reading Conservation Commission find this proposal adequately protective of the public interests identified in the WPA and the Reading Bylaw and issue an Order of Conditions for temporary matting and soil boring activities associated with this Project.

Attachment B

339 Line
Geotechnical Soil Borings Project
Reading, Massachusetts
Notice of Intent

USGS SITE LOCUS MAP
ENVIRONMENTAL RESOURCES MAP



Scale:
1 inch = 2,000 feet
(page size: 8.5 X 11)
0 1,000 2,000
Feet

LINE 339 SOIL BORINGS PLAN

USGS Site Location Map
Reading, MA

Source: 2013 National Geographic Society, i-cubed

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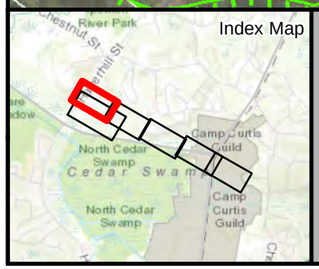

Legend

**Indicates Layers Set to Transparency*

- Soil Boring Location
- Existing Structure
- Overhead Lines
- Existing Access Road
- Alternate
- Field Delineated Intermittent Stream
- Field Delineated Wetland Line
- Field Delineated Wetland*
- MADEP Hydrologic Connections
- MADEP Wetlands*
- 100ft Buffer to Wetlands & Streams
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- 25ft Natural Vegetation Buffer
- FEMA 100yr Floodplain*
- NHESP Restricted Data
- NHESP Priority & Estimated Habitats
- Town Boundary
- National Guard Property*
- Parcel Boundaries
- Potential Vernal Pools
- Fence
- Approx. Gas Line
- Approx. Edge of ROW
- 10ft Contours
- 2ft Contours

1 inch = 100 feet
0 50 100
Feet

339 LINE

Soil Borings Plan

North Reading, MA

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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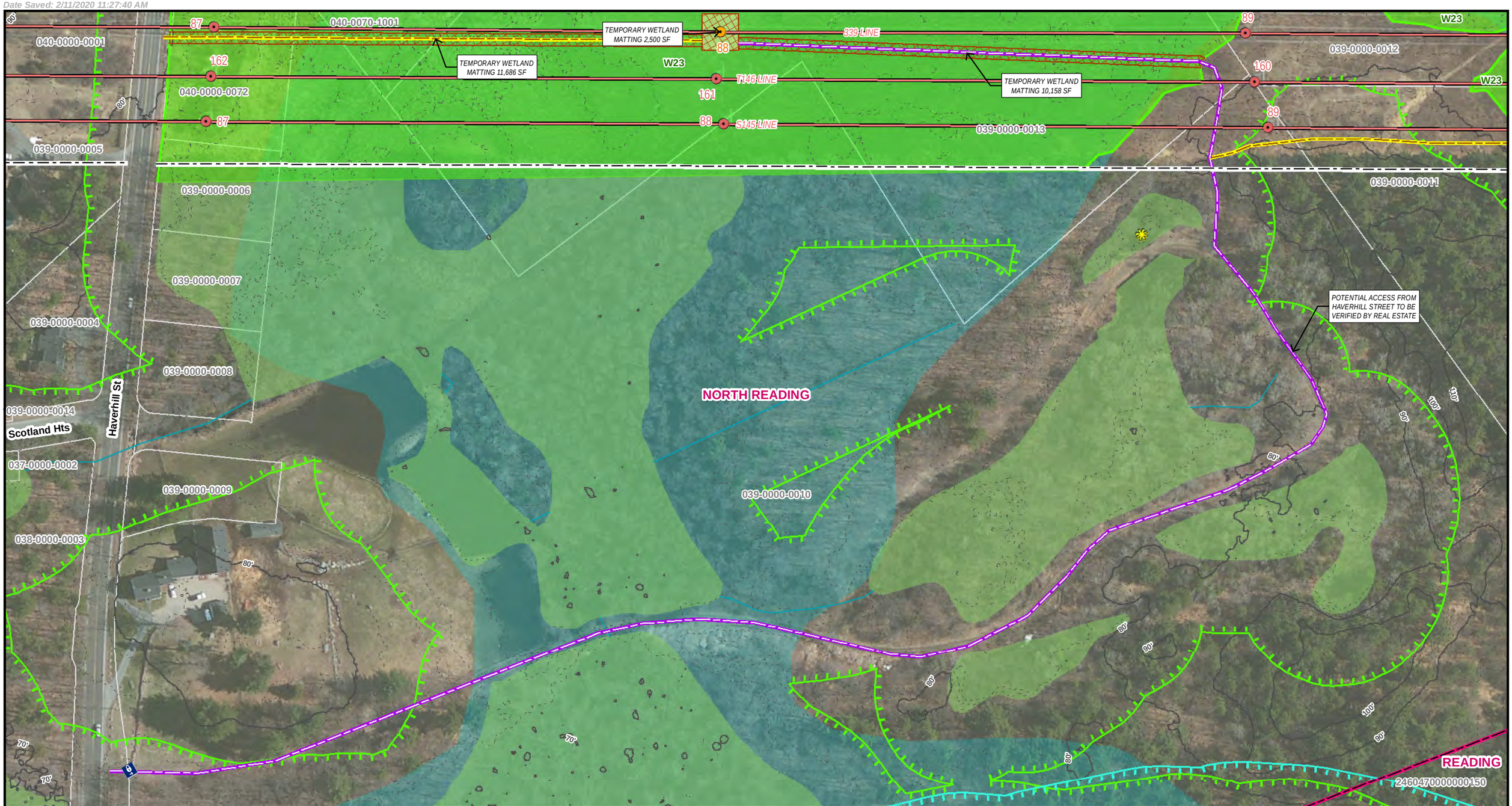

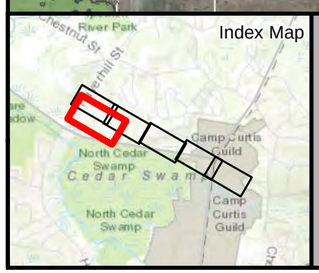

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- Fence
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- Approx. Edge of ROW
- 10ft Contours
- 2ft Contours

1 inch = 125 feet
0 60 120
Feet

339 LINE

Soil Borings Plan

North Reading, MA

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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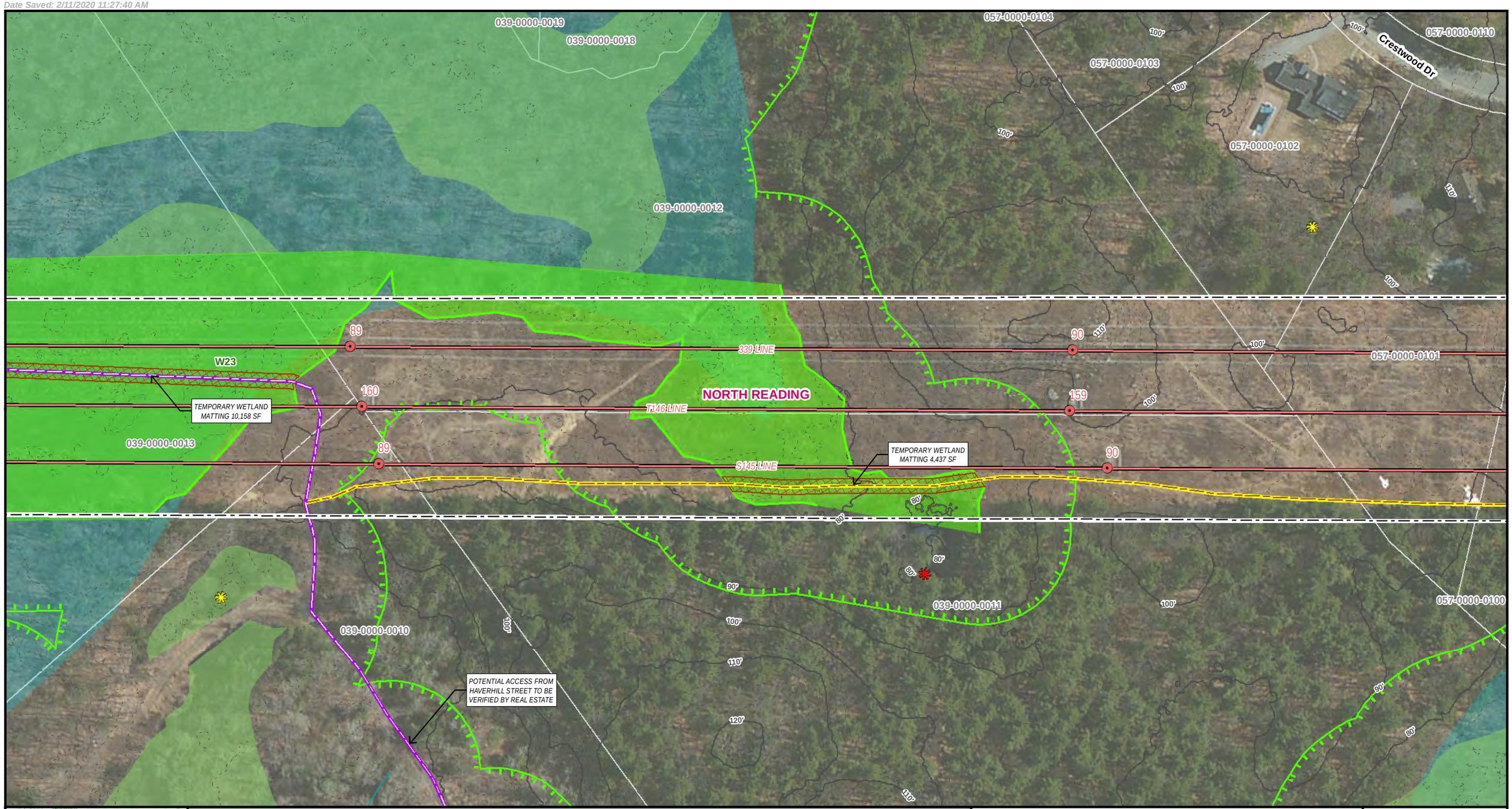

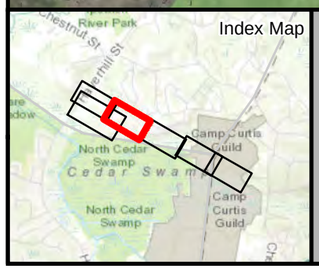

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- 2ft Contours

N

1 inch = 100 feet
0 50 100
Feet

339 LINE

Soil Borings Plan

North Reading, MA

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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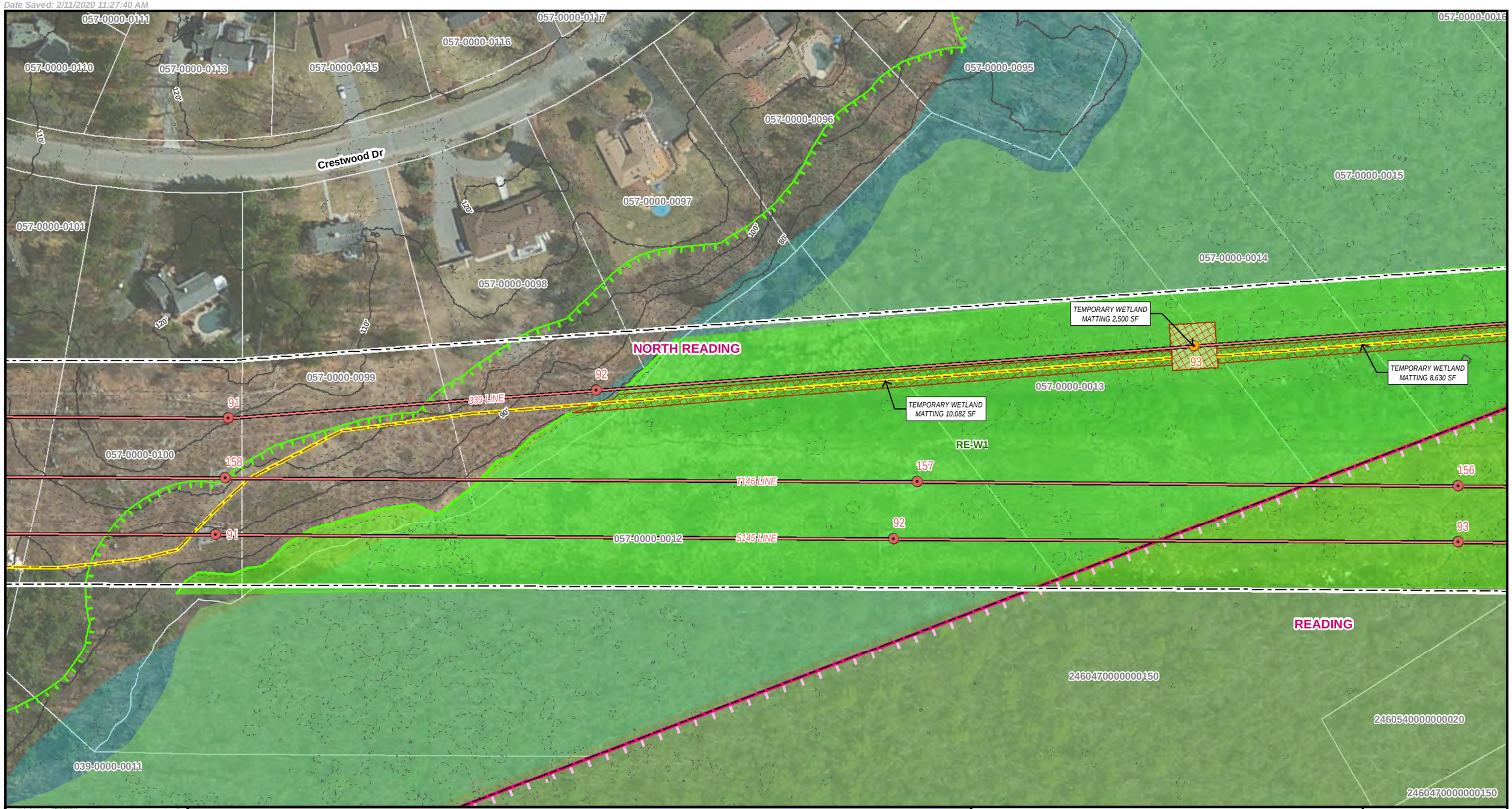

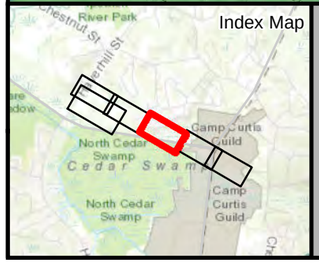

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0 50 100
Feet

339 LINE

Soil Borings Plan

North Reading & Reading, MA
Page 4 of 6

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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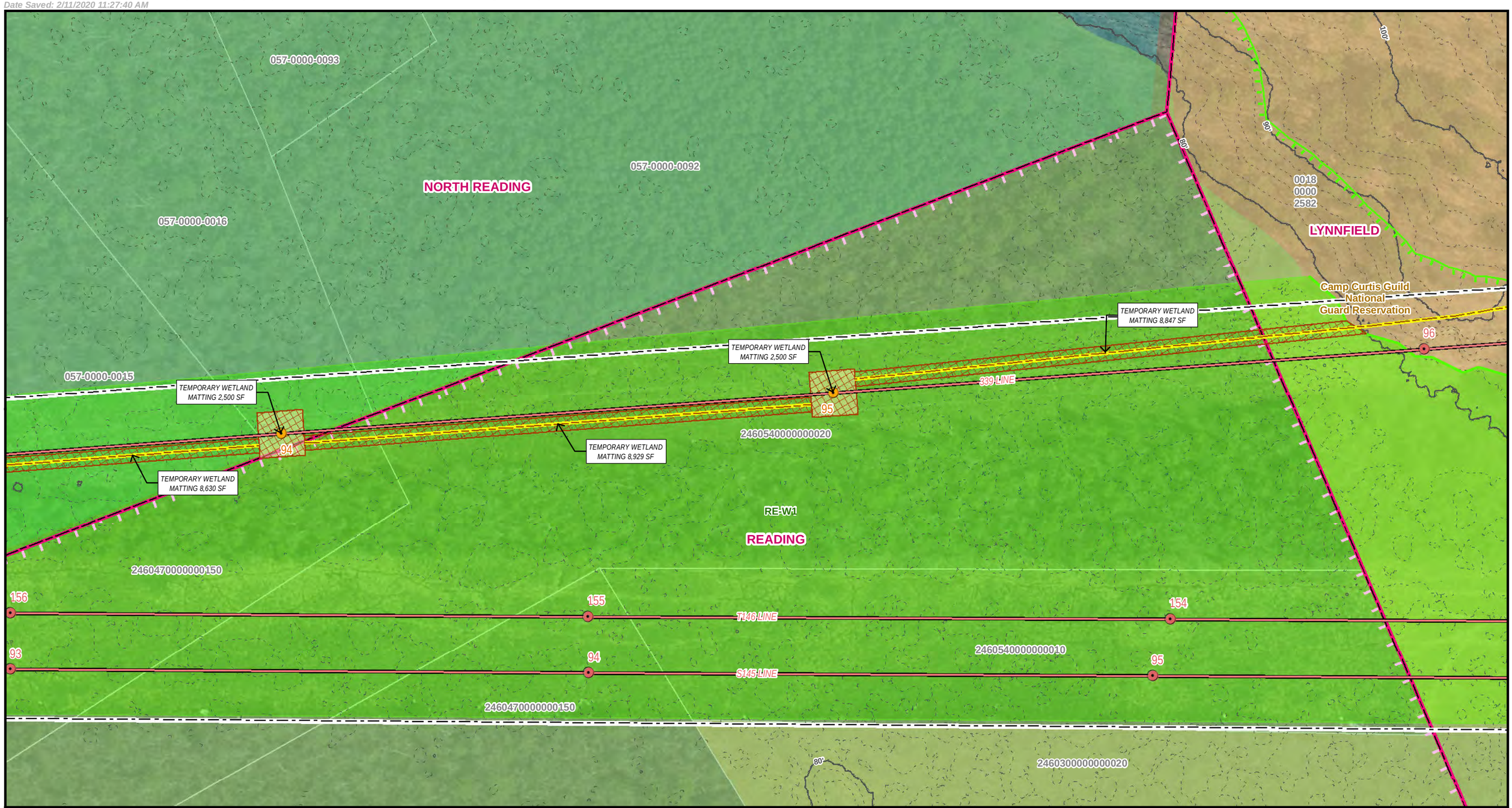

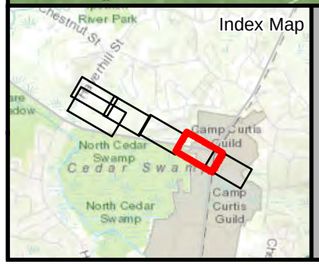

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339 LINE

Soil Borings Plan

North Reading, Reading & Lynnfield, MA
Page 5 of 6

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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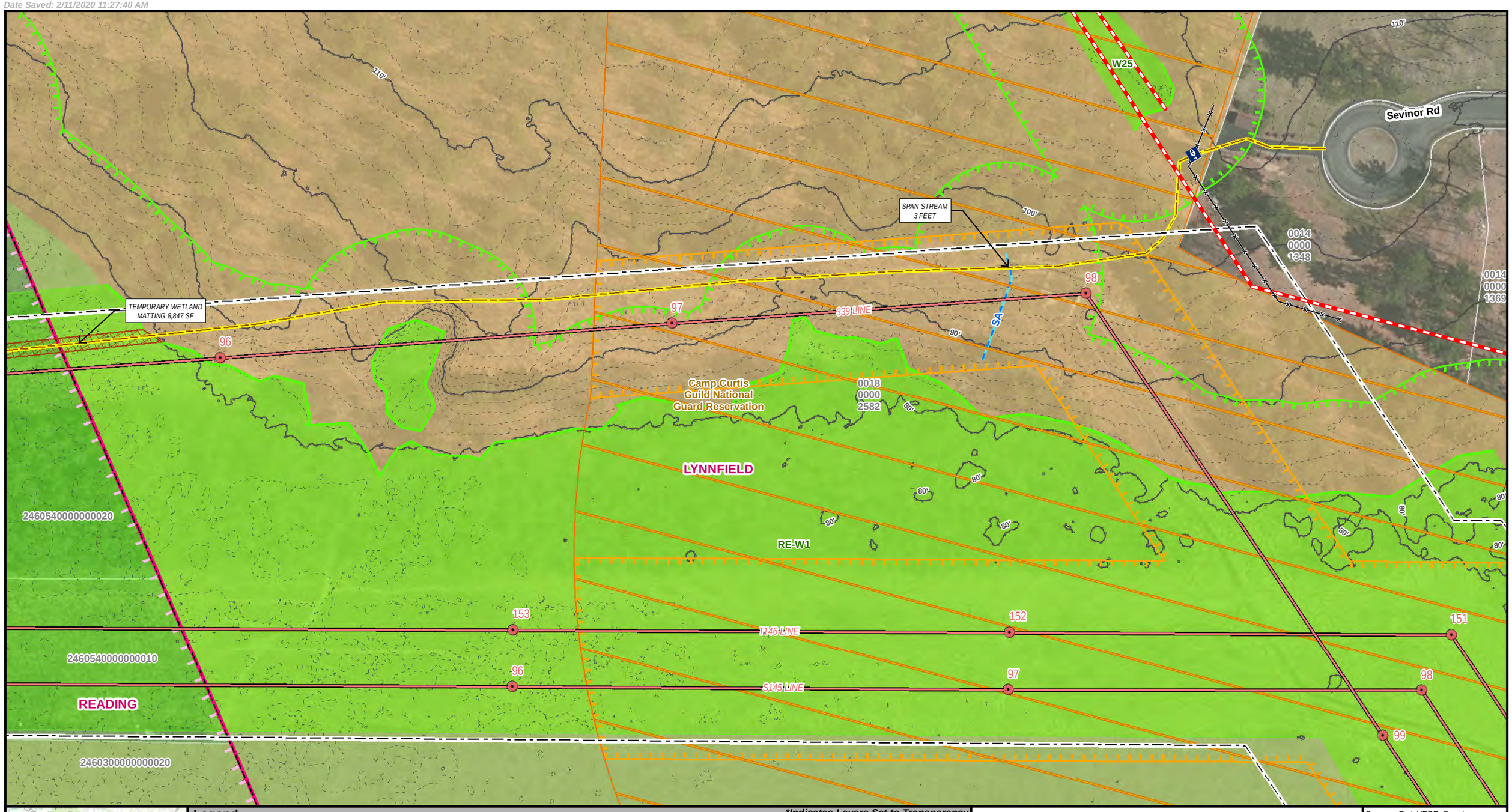
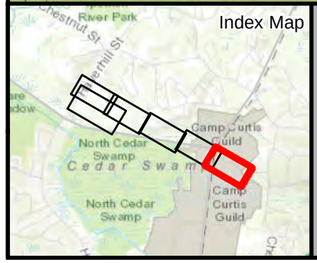


Index Map



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0 50 100
Feet

339 LINE

Soil Borings Plan

North Reading, Reading & Lynnfield, MA

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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Attachment C

339 Line
Geotechnical Soil Borings Project
Reading, Massachusetts
Notice of Intent

WETLAND DATA FORMS

BSC GROUP

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: New England Power Company Prepared by: BSC Group, Inc. Project location: 339 Transmission Line ROW, Reading Access off Lowell St
DEP File #: Structure 95 - Wetland 1 (upland data)

Check all that apply:

- ❑ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ❑ Vegetation and other indicators of hydrology usedto delineateBVW boundary: fill out Sections I and II
- ❑ Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number:		Transect Number:	Date of Delineation:
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees				
Pinus strobus	10	50%	Yes	FACU
Quercus rubra	5	25%	Yes	FACU
Juniperus virginiana	5	25%	Yes	FACU
Total Percent Cover 20				
Shrubs/ Saplings				
Comptonia peregrina	20	57.1%	Yes	NL (not listed)
Quercus rubra	10	28.6%	Yes	FACU
Alnus incana	5	14.3%	No	FACW*
Total Percent Cover 35				
Herbaceous				
Grass Spp.	10	66.7%	Yes	NIS (not identified to species)
Rubus flagellaris	5	33.3%	Yes	FACU
Total Percent Cover 15				
Vines				
Absent				
Total Percent Cover 0				

* *Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to*

physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 0

Number of dominant non-wetland indicator plants: 5

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes (no)

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? (yes) no
title/date: WebSoil Survey/ 2019
map number: 317B
soil type mapped: Scituate fine sandy loam
hydric soil inclusions: Soil is not hydric

Are field observations consistent with soil survey? (yes) no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
B	0-18”	10YR 3/3	none

Remarks:

3. Other:

Conclusion: Is soil hydric? yes (no)

Other Indicators of Hydrology: (check all that apply & describe)

- ❑ Site Inundated: _____
- ❑ Depth to free water in observation hole: _____
- ❑ Depth to soil saturation in observation hole:_____
- ❑ Water marks: _____
- ❑ Drift lines: _____
- ❑ Sediment Deposits: _____
- ❑ Drainage patterns in BVW: _____
- ❑ Oxidized rhizospheres: _____
- ❑ Water-stained leaves: _____
- ❑ Recorded Data (streams, lake, or tidal gauge; aerial photo; other):
  _____
  _____
  _____
- ❑ Other:

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants		No
Wetland hydrology present:		
Hydric soil present		No
Other indicators of hydrology present		No
Sample location is in a BVW		No

Submit this form with the Request for Determination of Applicability or Notice of Intent.

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DEP File #: Structure 95 - Wetland 1 (wetland data)

Check all that apply:

- ❑ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ❑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ❑ Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number:		Transect Number:	Date of Delineation:
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees				
Absent				
Total Percent Cover 0				
Shrubs/ Saplings				
Alnus incana	15	100.0%	Yes	FACW*
Total Percent Cover 15				
Herbaceous				
Scirpus cyperinus	15	30%	Yes	OBL*
Osmundastrum cinnamomeum	15	30%	Yes	FACW*
Phragmites australis	10	20%	Yes	FACW*
Carex typhina	5	10%	No	OBL*
Sphagnum	5	10%	No	NL (not listed)*
Total Percent Cover 50				
Vines				
Absent				
Total Percent Cover 0				

* *Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.*

Vegetation conclusion:

Number of dominant wetland indicator plants: 4

Number of dominant non-wetland indicator plants: 0

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? (yes) no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? (yes) no
title/date: WebSoil Survey/ 2019
map number: 52A
soil type mapped: Freetown muck
hydric soil inclusions: Soil is hydric

Are field observations consistent with soil survey? (yes) no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-9”	10YR 2/1	Concentrations 5YR 4/6 Depletions 2.5Y 5/3
B	9-20”	GLY1 5/5GY	Concentrations 10YR 6/8

Remarks: soils saturated at surface

3. Other:

Conclusion: Is soil hydric? (yes) no

Other Indicators of Hydrology: (check all that apply & describe)

- (❑) Site Inundated: __Standing water present_____
- ❑ Depth to free water in observation hole: 0.5”
- (❑) Depth to soil saturation in observation hole:_0”_____
- ❑ Water marks: _____
- ❑ Drift lines: _____
- ❑ Sediment Deposits: _____
- ❑ Drainage patterns in BVW: _____
- ❑ Oxidized rhizospheres: _____
- (❑) Water-stained leaves: _____
- ❑ Recorded Data (streams, lake, or tidal gauge; aerial photo; other):
- (❑) Other: Micro topographic relief

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	Yes	
Wetland hydrology present:		
Hydric soil present	Yes	
Other indicators of hydrology present	Yes	
Sample location is in a BVW	Yes	

Submit this form with the Request for Determination of Applicability or Notice of Intent.

Attachment D

339 Line
Geotechnical Soil Borings Project
Reading, Massachusetts
Notice of Intent

SITE PHOTOGRAPHS

BSC GROUP

Photo 1: View of Structure 95 on the 339 Transmission Line ROW located within BVW. *Facing northwest.*

Photo 2: View of the intermittent stream across the existing access road along 339 Transmission Line ROW. *Facing northwest.*

Attachment E

339 Line
Geotechnical Soil Borings Project
Reading, Massachusetts
Notice of Intent

ABUTTERS NOTIFICATION LETTER
CERTIFIED LIST OF ABUTTERS
AFFIDAVIT OF SERVICE

BSC GROUP

Notification to Abutters Under the Massachusetts Wetlands Protection Act And the Reading Wetlands Bylaw

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, you are hereby notified of the following:

A. The name of the applicant is New England Power Company (NEP)

B. The applicant has filed a Notice of Intent with the Reading Conservation Commission of the Town of Reading seeking permission to remove, fill, dredge or alter an area subject to protection under the wetlands protection act (General Laws Chapter 131, Section 40)

C. The address of the lot where the activity is proposed is 339 Transmission Line ROW, Map/lot: 54_2.

D. The activity consist of
The applicant is proposing to conduct exploratory soil borings at Structure 95 on the 339 transmission line, for planning and design purposes associated with future utility maintenance. Activities will be ~~located~~ within Bordering Vegetated Wetland (BVW)

E. Copies of the filing may be examined at the Conservation Commission office, Town Hall, between the hours of 7 am and 5:30 pm, M-Thursday, Friday's Closed.

For more information, Call: (781) 942 -6616

F. Copies of the Notice of Intent may be obtained from _____by Calling _____during the hours_____

G. Information regarding the date, time, and place of the public hearing may be obtained from the Conservation Commission Office by calling **781-942-6616** during the hours listed above

NOTE: Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in the Reading Daily Times Chronicle.

NOTE: Notice of the public hearing, including its date, time, and place, will be posted in the City or Town Hall not less than forty-eight (48) hours in advance.

NOTE: You also may contact the Reading Conservation Commission, (781) 942-9016, or the Department of Environmental Protection,(DEP) Regional Office for more information about this application or the Wetlands Protection Act.To contact DEP call the Northeast Regional Office at (978)694-3200

TOWN OF READING
16 LOWELL STREET
READING, MA 01867-2693

BOARD OF ASSESSORS
TEL.: 781-942-9027
FAX: 781-942-9037

ABUTTERS LIST

CERTIFICATION

FOR BOARD OF ASSESSORS

VICTOR P. SANTANIELLO, CHIEF APPRAISER

PHILIP CANNIFF, ASSISTANT APPRAISER

DATE: 1/26/2020

TOWN OF READING
16 LOWELL STREET
READING, MA 01867-2693

BOARD OF ASSESSORS
TEL.: 781-942-9027
FAX: 781-942-9037

March 5, 2019

To whom it may concern;

In an effort to streamline our business practices and desire to decrease turnaround time for taxpayers and other municipal departments, please be advised that effective this date, we the Board of Assessors for the Town of Reading Hereby delegate to the Town Appraiser of the Assessing Department signatory authority of all certified abutter's lists as compiled by the department.

Sincerely,

Reading Board of Assessors

Robert N. Marshall

Michael E. Golden

Brendan Zarechian

Patriot Properties

Reading

01/28/2020

1:54:19PM

Abutters List

Filter Used: DataProperty.AccountNumber in (8415,6027,8414,8069)

339 Transmission Line Abutters list

Abutters List

ParcelID	Location	Owner	Co-Owner	Mailing Address	City	State	Zip
030.0-0000-0002.0	HAVERHILL ST	COMM OF MASS CAMPCURTIS GU		25 HAVERHILL ST	READING	MA	01867
047.0-0000-0015.0	HAVERHILL ST	TOWN OF READING	CONS.	16 LOWELL STREET	READING	MA	01867
054.0-0000-0001.0	CEDAR SWAMP	NEW ENGLAND POWER CO	PROPERTY TAX DEPT	40 SYLVAN RD	WALTHAM	MA	02451
054.0-0000-0002.0	CEDAR SWAMP	COMM OF MASS CAMPCURTIS GU		CEDAR SWAMP	READING	MA	01867

End of Report

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act, M.G.L., c.131, s.40 and Reading General Bylaws, Section 7.1

(To be submitted to the Conservation Commission when filing a Notice of Intent or Abbreviated Notice of Resource Area Delineation or Request for Determination of Applicability)

I, Alison Milliman, BSC Group, Inc. (Name), hereby certify under the pains and penalties of perjury that on 1/18/20 or at least 7 days before the date of the hearing (Date), I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws, c.131, s.40, and the **DEP Guide to Abutter Notification** dated April 8, 1994, and Reading General Bylaws, Section 7.1 in connection with the following matter:

(Check the applicable form.)

X Notice of Intent

_____ Abbreviated Notice of Resource Area Delineation

_____ Request for Determination of Applicability

filed under M.G.L., c.131, s.40 and R.G.B., s.7.1 by New England Power Company (Applicant) with the Town of Reading Conservation Commission on _____ (Date) for property located at 339 Transmission Line ROW (Location).

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

Alison J. Milliman

Alison Milliman

Name

1/17/2020

Date

Attachment F

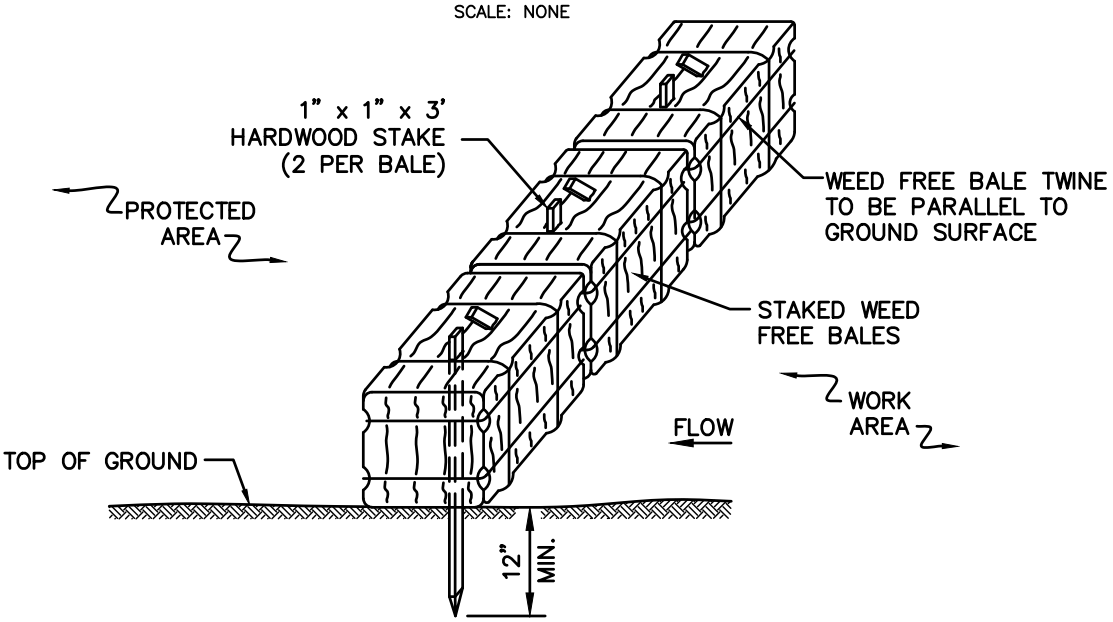
339 Line
Geotechnical Soil Borings Project
Reading, Massachusetts
Notice of Intent

NATIONAL GRID'S BEST MANAGEMENT PRACTICES

BSC GROUP

BMP DETAIL

SCALE: NONE



NOTES:

1. THE GROUND SHALL BE PREPARED TO PROVIDE COMPLETE CONTACT WITH THE BALES.

BMP PICTURE

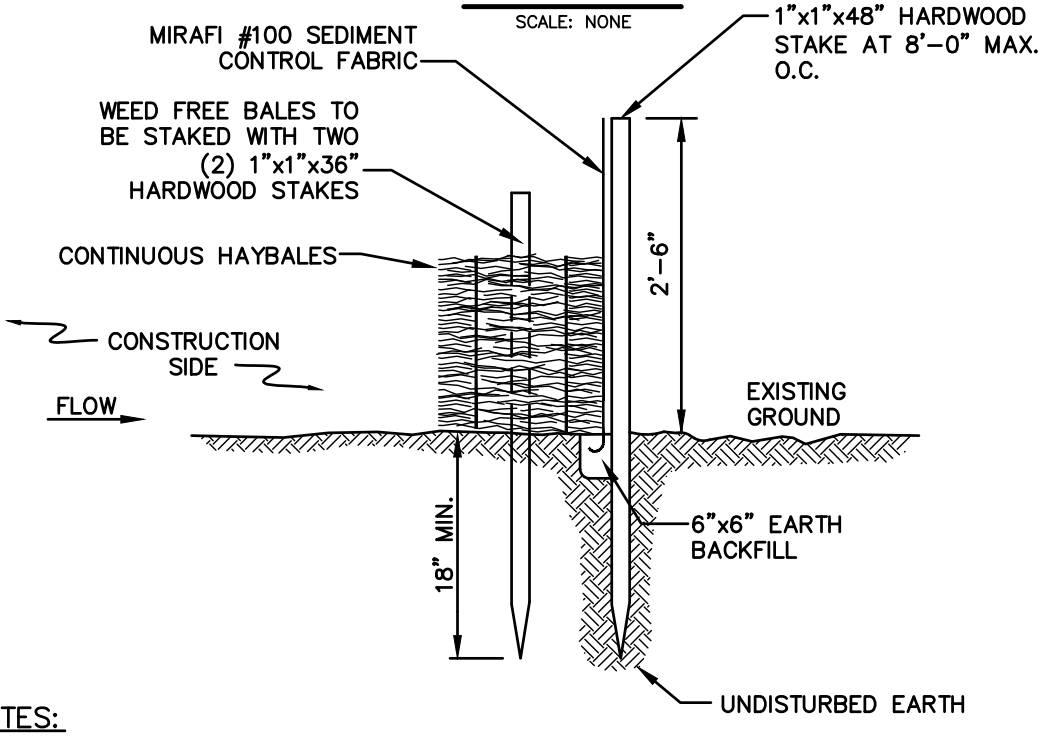
APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES
PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

SEC-1
WEED FREE BALE BARRIER

File: BALE_BARRIER.DWG

BMP DETAIL

SCALE: NONE



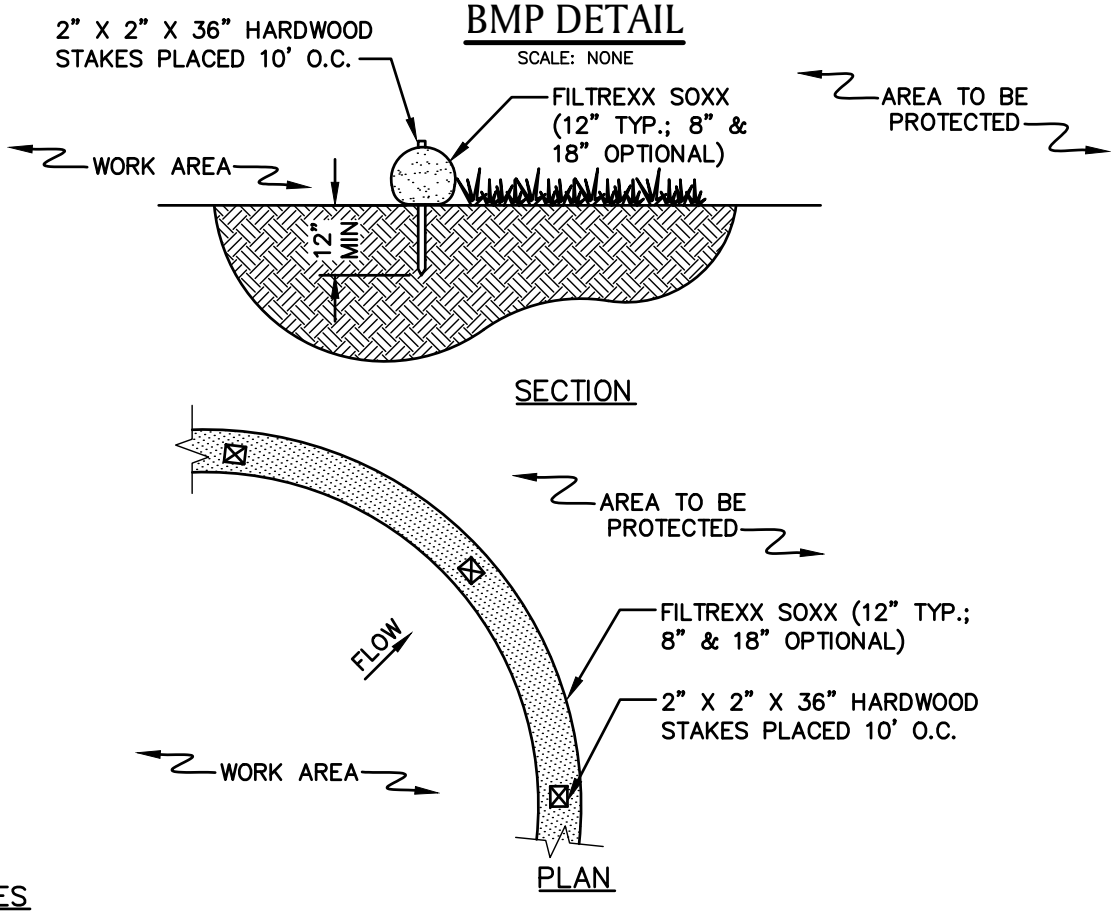
NOTES:

1. BALES SHALL BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. BALES SHALL BE SECURELY ANCHORED IN PLACE BY TWO (2) 1"X1"X36" HARDWOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
3. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
4. BALES SHALL BE REMOVED AND REPLACED WHEN THEY BECOME FILLED WITH SEDIMENT AND BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
5. BALES SHALL BE REMOVED WHEN THE EMBANKMENTS STABILIZE.
6. BALES TO BE TWINE BOUND.

BMP PICTURE

BMP DETAIL

SCALE: NONE



NOTES

1. PRODUCT TO BE FILTREXX SILT SOXX OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
3. FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS.
4. MESH CONTAINMENT MATERIAL SHOULD BE KNITTED PHOTODEGRADABLE OR BIODEGRADABLE MATERIAL, WITH OPENING SIZES BETWEEN 1/8" – 3/8".
5. COMPOST MEDIA SHOULD HAVE PARTICLE SIZE WHERE 99% < 2", 50% > 1/2".
6. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE

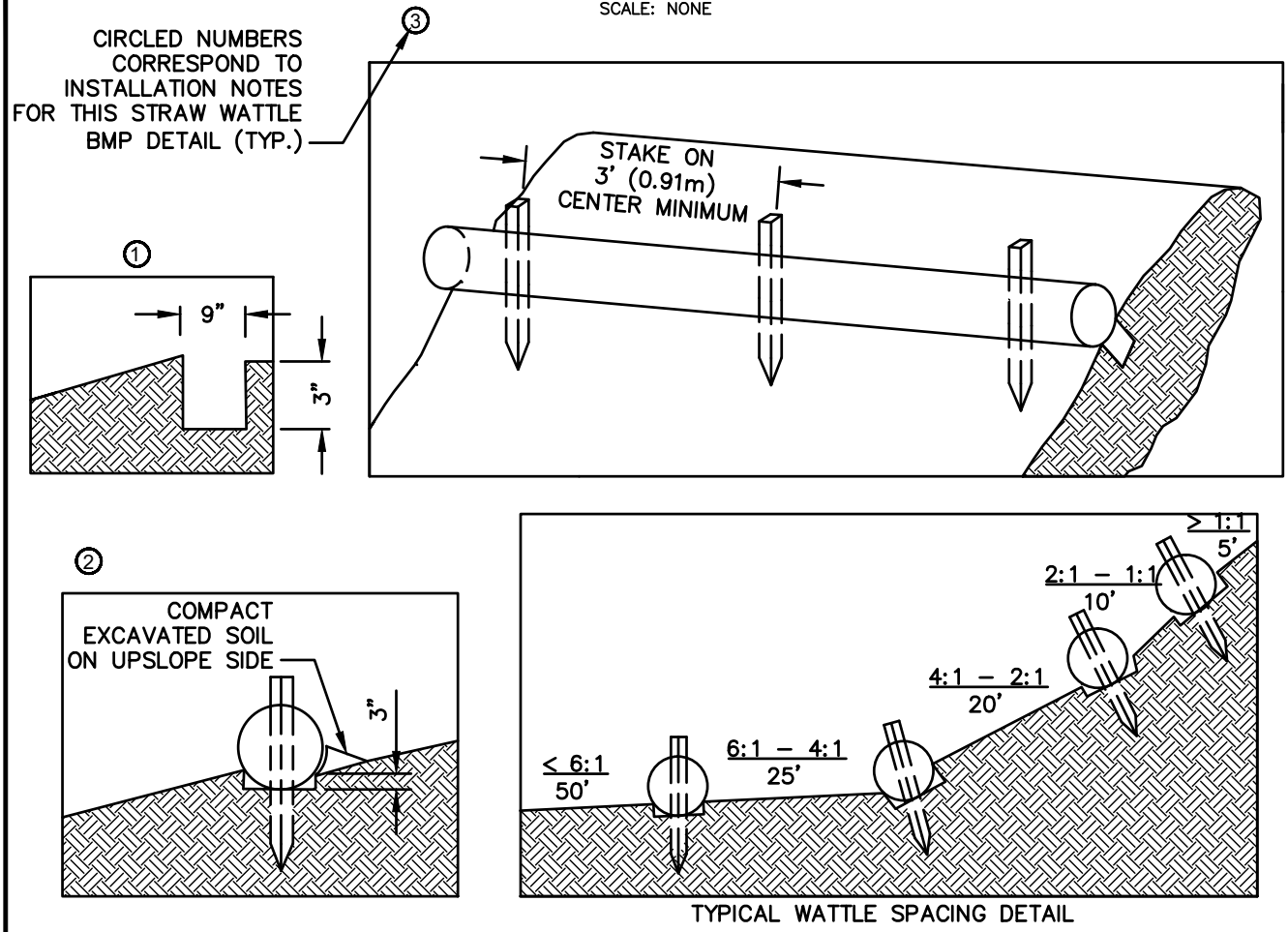
*** PICTURE AND DETAIL PROVIDED BY FILTREXX LAND IMPROVEMENT SYSTEMS**
APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES
PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

SEC-4
SILT SOXX *

File: SiltSOXX.dwg

BMP DETAIL

SCALE: NONE



TYPICAL WATTLE SPACING DETAIL

NOTES:

1. PRODUCT TO BE TENSAR NORTH AMERICAN GREEN STRAW WATTLE OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT. COORDINATE SPACING AND LOCATION WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.
3. MINIMUM 12" DIAMETER WATTLES SHOULD BE USED FOR HIGHLY DISTURBED AREAS (I.E., HEAVILY USED ACCESS ROAD WITH ADJACENT WETLAND) AND MINIMUM 9–10" WATTLES SHOULD BE USED FOR LESS DISTURBED SOILS.

INSTALLATION NOTES:

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2–3" DEEP X 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UPSLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 18–24" HARDWOOD STAKES EVERY 3–4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2–3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.

*** DETAIL AND PICTURE PROVIDED BY TENSAR NORTH AMERICAN GREEN**

SEC-5
STRAW WATTLE * (1 OF 2)

File: Straw_Wattle.dwg

BMP PICTURE

STRAW WATTLE – SHALLOW SLOPE (≤4:1)
(ALTERNATE STAKING)

ALTERNATE STAKING INSTALLATION NOTES:

1. ON SHALLOW SLOPES (≤4:1), STRAW WATTLE MAY BE SECURED WITH 18–24" HARDWOOD STAKES DRIVEN AGAINST THE SIDES OF THE WATTLE INSTEAD OF THROUGH. STAKES SHALL ALTERNATE SIDES, AND BE SPACED 3–4' MAX.
2. TWINE SHALL BE TIED FROM STAKE TO STAKE, CRISS–CROSSING THE STRAW WATTLE. TIE TWINE TO STAKES BELOW THE HEIGHT OF THE WATTLE.

BMP

Definition

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface.

Purpose

The primary purpose is to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch is also used alone for temporary stabilization in non-growing months.

Conditions Where Practice Applies

On soils subject to erosion and on new seedings and shrub plantings. Mulch is useful on soils with low infiltration rates by retarding runoff.

Criteria

Site preparation prior to mulching requires the installation of necessary erosion control or water management practices and drainage systems.

Slope, grade and smooth the site to fit needs of selected mulch products.

Remove all undesirable stones and other debris to meet the needs of the anticipated land use and maintenance required.

Apply mulch after soil amendments and planting is accomplished or simultaneously if hydroseeding is used.

Select appropriate mulch material and application rate or material needs. Determine local availability.

Select appropriate mulch anchoring material.

NOTE: The best combination for grass/legume establishment is straw (cereal grain) mulch applied at 2 ton/ acre (90 lbs./1000sq.ft.) and anchored with wood fiber mulch (hydromulch) at 500 – 750 lbs./acre (11 – 17 lbs./1000 sq. ft.). The wood fiber mulch must be applied through a hydroseeder immediately after mulching.

NOTE:

1. PICTURE DEPICTS STRAW MULCH APPLICATION (FROM MULCH SPREADER) ON STEEP SLOPE WITH AN IMPROVED DRAINAGE SWALE.
2. COORDINATE MULCH MATERIALS AND RATES WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

* BMP INFORMATION FROM "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AUGUST, 2005)." INFORMATION OBTAINED VIA WEBSITE: http://www.dec.ny.gov/chemical/29066.html

SEC-9
MULCH MATERIALS, RATES AND USES (FROM NY) *

File: Mulch_Materials.dwg

UPLAND ROW RESTORATION MIX – GENERAL

Species Composition Options:

- Andropogon gerardii; Niagra Big Bluestem
- Schizachyrium scoparium; Little Bluestem
- Elymus Canadensis; Canada Wild Rye
- Elymus virginicus; Virginia Wildrye
- Lolium multiflorum; Annual Ryegrass
- Sorghastrum nutans; Indiangrass
- Chamaecrista fasciculate; Partridge Pea
- Desmodium canadense; Showy Tick Trefoil
- Helioposis helianthoides; Ox–Eye Sunflower
- Panicum virgatum; Switchgrass
- Rudbeckia hirta; Black Eyed Susan
- Poa palustris; Fowl Bluegrass
- Agrostis perennans; Upland Bentgrass
- Agrostis alba; Redtop
- Festuca rubra; Red Fescue
- Lotus corniculatus; Birds–Foot Trefoil
- Chrysanthemum leucanthem; Ox–Eye Daisy
- Aster novae–angliae; New England Aster

Example Seed Mixes:

1. Native Upland wildlife forage and Cover Meadow Mix – Ernst Conservation Seeds (ERNMX–123)
2. Eastern Ecotype Native Grass Mix– Ernst Conservation Seeds (ERNMX–177)
3. New England Native Warm Season Grass Mix – New England Wetland Plants, Inc.
4. New England Logging Road Mix – New England Wetland Plants, Inc.
5. Northeast Upland Wildflower/Restoration Erosion Mix – Southern Tier Consulting (STCMX–2)

UPLAND ROW RESTORATION MIX – DRY/ROCKY SITES

Species Composition Options:

- Festuca rubra; Red Fescue
- Schizachyrium scoparium; Little Bluestem
- Elymus Canadensis; Canada Wild Rye
- Bouteloua gracillis; Blue Grama
- Lolium multiflorum; Annual Ryegrass
- Lolium perenne; Perennial Ryegrass
- Agrostics scabra; Rough Bentgrass
- Agrostis perennans; Upland Bentgrass
- Sorghastrum nutans; Indiangrass

Example Seed Mixes:

1. New England Erosion Control/ Restoration Mix for Dry Sites – New England Wetland Plants, Inc.
2. Ernst Conservation Seeds and similar companies can create a custom seed mix matching the composition above (with site specific additions if necessary).

WETLAND ROW RESTORATION MIX

Species Composition Options:

- Agrostis stolonifera; Creeping Bentgrass
- Poa trivialis; Rough Bluegrass
- Alopecurus arundinaceus; Creeping Meadow Foxtail
- Lolium multiflorum; Annual Ryegrass
- Festuca rubra; Creeping Red Fescue
- Elymus virginicus; Virginia Wildrye
- Schizachyrium scoparium; Little Bluestem
- Andropogon gerardii; Niagra Big Bluestem
- Carex vulpinoidea; Fox sedge
- Panicum virgatum; Switchgrass
- Agrostis scabra; Rough Bentgrass
- Aster novae–angliae; New England Aster
- Eupatorium perfoliatum; Boneset
- Euthamia graminifolia; Grass Leaved Goldenrod
- Scirpus atrovirens; Green Bulrush
- Verbene hastate; Blue Vervain
- Juncus effusus; Soft Rush
- Scirpus cyperinus; Wool Grass
- Panicum clandestinum; Deertongue

Example Seed Mixes

1. New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites – New England Wetland Plants, Inc.
2. Northeast Wetland Grass Seed Mix – Southern Tier Consulting (STCMX–7)
3. Ernst Conservation Seeds and similar companies can create a custom seed mix matching the composition above (with site specific additions if necessary).

GERNERAL NOTES:

1. Seed mixes described herein are intended to cover a variety of typical new england landscapes. However, site specific seed mixes will need to be evaluated in coastal or mountainous regions.
2. Seed mixes described herein are intended for general ROW restoration. Site specific wetland seed mixes may be required by local, state and/or federal regulators for certain impacts to wetlands.
3. All seed mixes are to be approved by National Grid Environmental Scientist prior to construction and must conform with all project permits.
4. Seedbed preparation and maintenance as well as temporary erosion and sediment controls are crucial to the establishment of newly seeded areas. Coordinate with National Grid Environmental Scientist on seed bed preparation and maintenance as well as temporary erosion and sediment controls prior to construction.

BMP PICTURE

NOTE:

1. PICTURE SHOWS VIEW OF ACCESS WAY STABILIZATION ADJACENT TO A WETLAND.
2. COORDINATE STABILIZATION DESIGN AND PRODUCT WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP

Definition

The control of dust resulting from land-disturbing activities.

Purpose

To prevent surface and air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and traffic safety problems.

Conditions Where Practice Applies

On construction roads, access points, and other disturbed areas subject to surface dust movement and dust blowing where off-site damage may occur if dust is not controlled.

Design Criteria

Construction operations should be scheduled to minimize the amount of area disturbed at one time. Buffer areas of vegetation should be left where practical. Temporary or permanent stabilization measures shall be installed. No specific design criteria is given; see construction specifications below for common methods of dust control.

Water quality must be considered when materials are selected for dust control. Where there is a potential for the material to wash off to a stream, ingredient information must be provided to the local permitting authority.

Construction Specifications

A. Non-driving Areas – These areas use products and materials applied or placed on soil surfaces to prevent airborne migration of soil particles.

Vegetative Cover – For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control (see Section 3).

Mulch (including gravel mulch) – Mulch offers a fast effective means of controlling dust. This can also include rolled erosion control blankets.

Spray adhesives – These are products generally composed of polymers in a liquid or solid form that are mixed with water to form an emulsion that is sprayed on the soil surface with typical hydroseeding equipment. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations for the specific soils on the site. In no case should the application of these adhesives be made on wet soils or if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators and others working with the material.

B. Driving Areas – These areas utilize water, polymer emulsions, and barriers to prevent dust movement from the traffic surface into the air.

Sprinkling – The site may be sprayed with water until the surface is wet. This is especially effective on haul roads and access routes.

Polymer Additives – These polymers are mixed with water and applied to the driving surface by a water truck with a gravity feed drip bar, spray bar or automated distributor truck. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations. Incorporation of the emulsion into the soil will be done to the appropriate depth based on expected traffic. Compaction after incorporation will be by vibratory roller to a minimum of 95%. The prepared surface shall be moist and no application of the polymer will be made if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators working with the material.

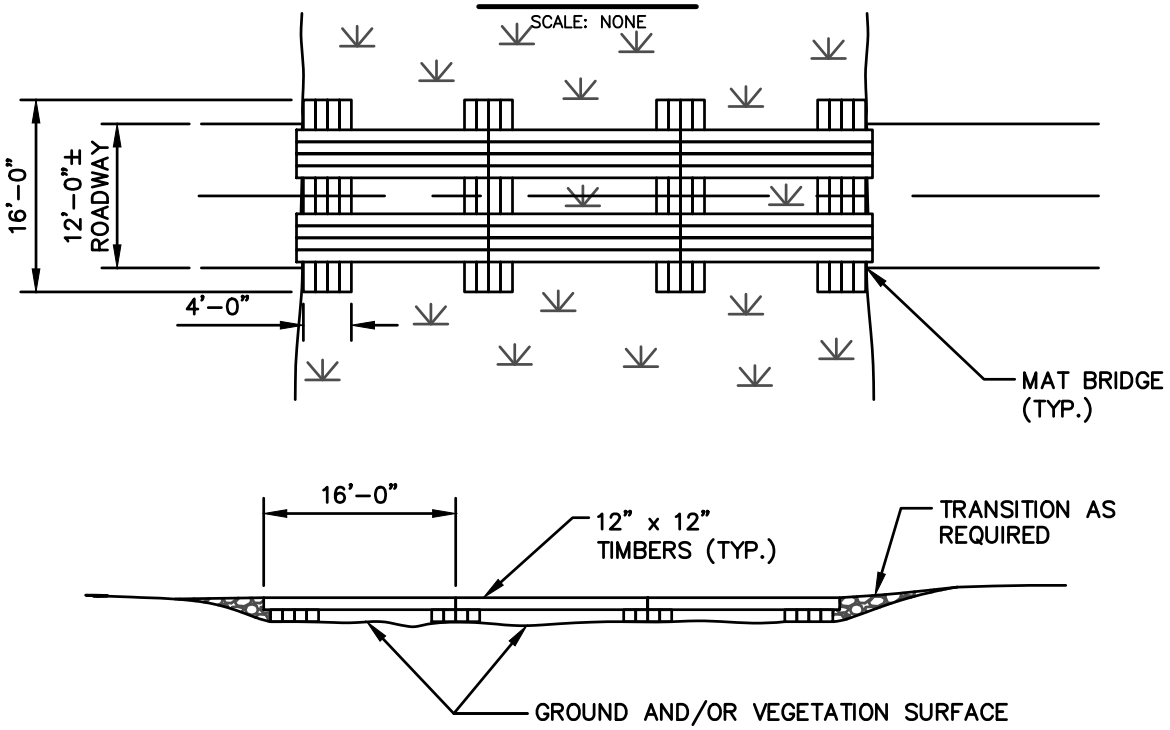
Barriers – Woven geotextiles can be placed on the driving surface to effectively reduce dust throw and particle migration on haul roads. Stone can also be used for construction roads for effective dust control.

Windbreak – A silt fence or similar barrier can control air currents at intervals equal to ten times the barrier height. Preserve existing wind barrier vegetation as much as practical.

* BMP INFORMATION FROM "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AUGUST, 2005)." INFORMATION OBTAINED VIA WEBSITE: http://www.dec.ny.gov/chemical/29066.html

BMP DETAIL

SCALE: NONE



NOTES:

1. IF MATS ARE INSTALLED IN A WETLAND AREA, INSTALL EROSION CONTROLS TO CONTAIN MATERIAL UTILIZED IN THE MAT TRANSITIONS.

BMP PICTURE

BMP PICTURE - SINGLE SPAN

SCALE: NONE

NOTES:

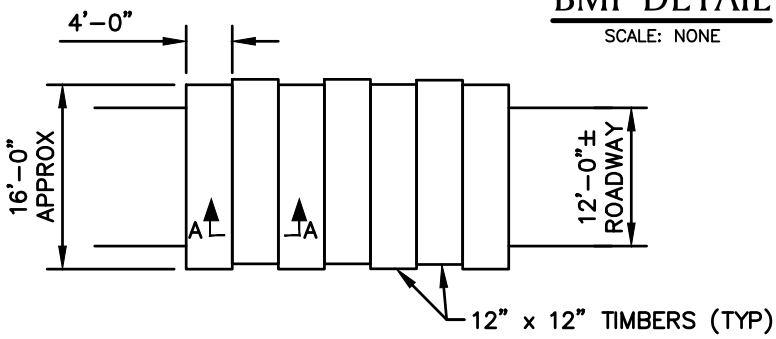
1. WHERE STREAM WIDTH ALLOWS, INSTALL CONSTRUCTION MATS TO SPAN THE WATERCOURSE IN ITS ENTIRETY WITHOUT STRINGER PLACEMENT IN THE WATER OR ANY RESTRICTION OF STREAM FLOW.

2. INSTALLATION OF THE CONSTRUCTION MAT BRIDGE SHALL NOT DAMAGE THE STREAM BED AND BANKS. WHERE POSSIBLE, FOOTERS SHALL BE PLACED PARALLEL TO THE TOP OF THE STREAM BANKS, WITH ACCESS MATTING PLACED ACROSS THE TOP OF THE STRINGERS DISTRIBUTING THE WEIGHT OF THE CONSTRUCTION EQUIPMENT.

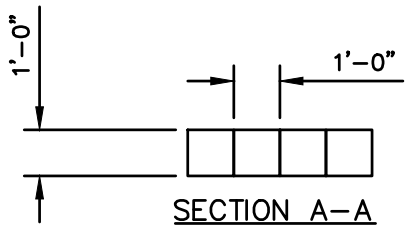
3. AT STREAM CROSSINGS THAT CANNOT BE SPANNED BY A SINGLE SECTION OF CONSTRUCTION MATTING, AND WHERE PERMITS ALLOW, STRINGERS SHALL BE PLACED ATOP THE STREAM BED PARALLEL TO THE FLOW OF WATER.

BMP DETAIL

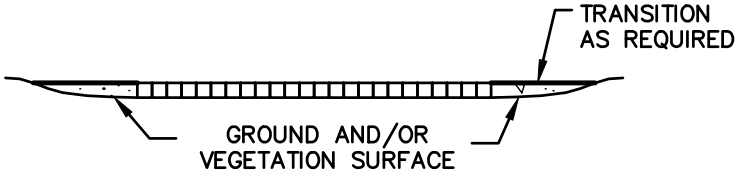
SCALE: NONE



TYPICAL PLAN VIEW



SECTION A–A
TYPICAL MAT SECTION
BOLTED TOGETHER



TYPICAL SECTION VIEW

NOTES:

1. TO BE INSTALLED IF NECESSARY TO PREVENT RUTTING, TO ACCESS STRUCTURES.
2. THIS DETAIL SHOWS TYPICAL DIMENSIONS. SOME CONTRACTOR'S CONSTRUCTION MATS ARE DIMENSIONALLY DIFFERENT FROM WHAT IS SHOWN HERE.
3. DEPENDENT ON SITE CONDITIONS, MULTIPLE LAYERS OF CONSTRUCTION MATS MAY BE INSTALLED.

BMP PICTURE

CM-3
CONSTRUCTION MAT LAYOUT
(WITH TRANSITION)

APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES
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File: Swamp_Mat_Layout.dwg