

EVERSOURCE ENERGY

367 Line – 2020 Structure Replacement Project

NHDES Alteration of Terrain Permit

**Greenville & Mason, NH
April 2020**

Prepared for:

Eversource Energy
13 Legends Drive
Hooksett, NH 03106

BSC Project No. 89582.34



33 Waldo Street
Worcester, MA 01608

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

www.bscgroup.com

May 13, 2020

Ridgely Mauck, P.E.
Program Supervisor – Permitting
NHDES Land Resources Management
Alteration of Terrain Bureau
29 Hazen Drive; PO BOX 95
Concord, NH 03302-0095

**RE: Alteration of Terrain Permit
367 Line – 2020 Structure Replacement Project
Greenville & Mason, NH**

Dear Mr. Mauck,

On behalf of the Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource), BSC Group is please to submit this Alteration of Terrain Permit (AOT) in accordance with the Terrain Alteration Law (RSA 485-A17) and Administrative Rules (Env-Wq 1500 Alteration of Terrain) for the 367 Line 2020 Structure Replacement Project located in Greenville and Mason, NH. A permit from New Hampshire Department of Environmental Services (NHDES) Alteration of Terrain Bureau is required because the project with result in a disturbance of greater than 100,000 square feet of contiguous area.

The proposed project includes the replacement of seven (7) existing transmission line structures, in-kind, along the existing 367 Transmission Line right-of-way (ROW). The proposed work includes the reclamation of existing utility access roads (refreshing with stone and widening) and the construction of new access roads segments and workpads. The majority of proposed access and workpad construction coincides with existing disturbed surfaces from historic utility access and work surfaces. Workpads are proposed to be restored following construction (leaving a 30 by 50 -foot gravel area for future maintenance work) and all new or upgraded access roads are to remain in place for future maintenance and emergency repair work. All work is proposed within the existing, cleared transmission line ROW.

Enclosed, please find: NHDES-W-01-003 Form, copy of AOT Check, copy of proof of delivery to municipalities, project narrative, project figures, and other supporting documents. A request to waive the following information is provided in Attachment F: soil maps, hydraulic analysis, engineering plans, and long-term maintenance/operation plans.

- Engineers
- Environmental Scientists
- Custom Software Developers
- Landscape Architects
- Planners
- Surveyors



Please do not hesitate to contact our office with any inquiries you may have (617-896-4511).

Very truly yours,

BSC Group, Inc.

A handwritten signature in blue ink, reading "Marleigh Sullivan".

Marleigh Sullivan
Ecological Scientist

cc: Jeremy Fennell, Eversource Energy,
Town of Greenville
Town of Mason

Note rare species information is redacted in copies to municipalities.

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ALTERATION OF TERRAIN PERMIT APPLICATION



Water Division/ Alteration of Terrain Bureau/ Land Resources Management
Check the Status of your Application: www.des.nh.gov/onestop

RSA/ Rule: RSA 485-A:17, Env-Wq 1500

Administrative Use Only	Administrative Use Only	Administrative Use Only	File Number:
			Check No.
			Amount:
			Initials:

1. APPLICANT INFORMATION (INTENDED PERMIT HOLDER)

Applicant Name: Eversource Energy		Contact Name: Jeremy Fennell	
Email: jeremy.fennell@eversource.com		Daytime Telephone: 603-634-3396	
Mailing Address: 13 Legends Drive			
Town/City: Hooksett		State: NH	Zip Code: 03106

2. APPLICANT'S AGENT INFORMATION If none, check here:

Business Name: BSC Group, Inc.		Contact Name: Marleigh Sullivan	
Email: msullivan@bscgroup.com		Daytime Telephone: 617-896-4511	
Address: 33 Waldo Street			
Town/City: Worcester		State: MA	Zip Code: 01608

3. PROPERTY OWNER INFORMATION (IF DIFFERENT FROM APPLICANT)

Applicant Name: Eversource has easement rights.		Contact Name:	
Email:		Daytime Telephone:	
Mailing Address:			
Town/City:		State:	Zip Code:

4. PROPERTY OWNER'S AGENT INFORMATION If none, check here:

Business Name:		Contact Name:	
Email:		Daytime Telephone:	
Address:			
Town/City:		State:	Zip Code:

5. CONSULTANT INFORMATION If none, check here:

Engineering Firm: BSC Group, Inc.		Contact Name: Marleigh Sullivan	
Email: msullivan@bscgroup.com		Daytime Telephone: 617-896-4511	
Address: 33 Waldo Street			
Town/City: Worcester		State: MA	Zip Code: 01608

6. PROJECT TYPE			
<input type="checkbox"/> Excavation Only	<input type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Golf Course
<input type="checkbox"/> Agricultural	<input type="checkbox"/> Land Conversion	<input checked="" type="checkbox"/> Other: Utilities	
<input type="checkbox"/> School			
<input type="checkbox"/> Municipal			
7. PROJECT LOCATION INFORMATION			
Project Name: 367 Line Structure Replacement Project			
Street/Road Address: Existing 367 Line (see attached mapping)			
Town/City: Greenville and Mason		County: Hillsborough	
Tax Map: Various	Block: Various	Lot Number: Various	Unit: Various
Location Coordinates: 42.785604°, -71.78700		<input checked="" type="checkbox"/> Latitude/Longitude	<input type="checkbox"/> UTM
<input type="checkbox"/> State Plane			
Post-development, will the proposed project withdraw from or directly discharge to any of the following? If yes, identify the purpose.			
1. Stream or Wetland Purpose: n/a	<input type="checkbox"/> Yes	<input type="checkbox"/> Withdrawal	<input type="checkbox"/> Discharge
	<input checked="" type="checkbox"/> No		
2. Man-made pond created by impounding a stream or wetland Purpose: n/a	<input type="checkbox"/> Yes	<input type="checkbox"/> Withdrawal	<input type="checkbox"/> Discharge
	<input checked="" type="checkbox"/> No		
3. Unlined pond dug into the water table Purpose: n/a	<input type="checkbox"/> Yes	<input type="checkbox"/> Withdrawal	<input type="checkbox"/> Discharge
	<input checked="" type="checkbox"/> No		
Post-development, will the proposed project discharge to:			
• A surface water impaired for phosphorus and/or nitrogen? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen			
• A Class A surface water or Outstanding Resource Water? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen			
• A lake or pond not covered previously? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond			
Is the project a High Load area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, specify the type of high load land use or activity: _____			
Is the project within a Water Supply Intake Protection Area (WSIPA)?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the project within a Groundwater Protection Area (GPA)?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the well setbacks identified in Env-Wq 1508.02 be met?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Note: Guidance document titled " Using NHDES's OneStop WebGIS to Locate Protection Areas " is available online. For more details on the restrictions in these areas, read Chapter 3.1 in Volume 2 of the NH Stormwater Manual.			
Is any part of the property within the 100-year floodplain? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cut volume: _____ cubic feet within the 100-year floodplain Fill volume: _____ cubic feet within the 100-year floodplain			
<input type="checkbox"/> Project IS within ¼ mile of a designated river		Name of River: _____	
<input checked="" type="checkbox"/> Project is NOT within ¼ mile of a designated river			
<input type="checkbox"/> Project IS within a Coastal/Great Bay Region community - include info required by Env-Wq 1503.08(l) if applicable			
<input checked="" type="checkbox"/> Project is NOT within a Coastal/Great Bay Region community			
8. BRIEF PROJECT DESCRIPTION (PLEASE DO NOT REPLY "SEE ATTACHED")			
Eversource Energy is proposing to complete maintenance work on the 367 Transmission Line in Greenville and Mason, New Hampshire. Eversource Energy is proposing to complete maintenance work associated with the replacement of twenty four (24) utility structures in-kind. The maintenance work requires temporary wetland impact to PEM and PSS wetlands.			
9. IF APPLICABLE, DESCRIBE ANY WORK STARTED PRIOR TO RECEIVING PERMIT			
n/a			

10. ADDITIONAL REQUIRED INFORMATION

A. Date a copy of the application was sent to the municipality as required by Env-Wq 1503.05(e)¹: 5/14/2020.
(Attach proof of delivery)

B. Date a copy of the application was sent to the local river advisory committee if required by Env-Wq 1503.05(e)²: / /.
(Attach proof of delivery) N/A

C. Type of plan required: Land Conversion Detailed Development Excavation, Grading & Reclamation Steep Slope

D. Additional plans required: Stormwater Drainage & Hydrologic Soil Groups Source Control Chloride Management

E. Total area of disturbance: 129,044 square feet

F. Additional impervious cover as a result of the project: 0 square feet (use the "-" symbol to indicate a net reduction in impervious coverage).
Total final impervious cover: 0 square feet

G. Total undisturbed cover: 0 square feet

H. Number of lots proposed: 0

I. Total length of roadway: 0 linear feet

J. Name(s) of receiving water(s): 0

K. Identify all other NHDES permits required for the project, and for each indicate whether an application has been filed and is pending, or if the required approval has been issued provide the permit number, registration date, or approval letter number, as applicable.

Type of Approval	Application Filed?	Status	
		Pending	If Issued:
1. Water Supply Approval	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/>	Permit number:
2. Wetlands Permit	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>	Permit number:
3. Shoreland Permit	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/>	Permit number:
4. UIC Registration	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/>	Registration date:
5. Large/Small Community Well Approval	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/>	Approval letter date:
6. Large Groundwater Withdrawal Permit	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/>	Permit number:
7. Other:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	Permit number:

L. List all species identified by the Natural Heritage Bureau as threatened or endangered or of concern: Blandings turtle, spotted turtle, northern black racer, eastern hognose snake

M. Using NHDES's Web GIS OneStop program (www2.des.state.nh.us/gis/onestop/), with the Surface Water Impairment layer turned on, list the impairments identified for each receiving water. If no pollutants are listed, enter "N/A." Chloride (structure 240/241)

N. Did the applicant/applicant's agent have a pre-application meeting with AOT staff? Yes No
If yes, name of staff member: Ridgley Mauk over the phone and email (April 2020)

O. Will blasting of bedrock be required? Yes No If yes, estimated quantity of blast rock: _____ cubic yards
If yes, standard blasting BMP notes must be placed on the plans, available at:
<http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/wd-10-12.pdf>
NOTE: If greater than 5,000 cubic yards of blast rock will be generated, a groundwater monitoring program must be developed and submitted to NHDES. Contact AOT staff for additional detail.

¹ Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the governing body of each municipality in which the project is proposed.

² Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the Local River Advisory Committee, if the project is within ¼ mile of a designated river.

11. CHECK ALL APPLICATION ATTACHMENTS THAT APPLY (SUBMIT WITH APPLICATION IN ORDER LISTED)

LOOSE:

- Signed application form: des.nh.gov/organization/divisions/water/aot/index.htm (with attached proof(s) of delivery)
- Check for the application fee: des.nh.gov/organization/divisions/water/aot/fees.htm
- Color copy of a USGS map with the property boundaries outlined (1" = 2,000' scale)
- If Applicant is not the property owner, proof that the applicant will have a legal right to undertake the project on the property if a permit is issued to the applicant. **N/A**

BIND IN A REPORT IN THE FOLLOWING ORDER:

- Copy of the signed application form & application checklist (des.nh.gov/organization/divisions/water/aot/index.htm)
- Copy of the check
- Copy of the USGS map with the property boundaries outlined (1" = 2,000' scale)
- Narrative of the project with a summary table of the peak discharge rate for the off-site discharge points
- Web GIS printout with the "Surface Water Impairments" layer turned on - <http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx>
- Web GIS printouts with the AOT screening layers turned on - <http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx>
- NHB letter using DataCheck Tool - www.nhdfi.org/about-forests-and-lands/bureaus/natural-heritage-bureau/
- The Web Soil Survey Map with project's watershed outlined - websoilsurvey.nrcs.usda.gov
- Aerial photograph (1" = 2,000' scale with the site boundaries outlined)
- Photographs representative of the site
- Groundwater Recharge Volume calculations (one worksheet for each permit application): des.nh.gov/organization/divisions/water/aot/documents/bmp_worksh.xls
- BMP worksheets (one worksheet for each treatment system): des.nh.gov/organization/divisions/water/aot/documents/bmp_worksh.xls
- Drainage analysis, stamped by a professional engineer (see Application Checklist for details)
- Riprap apron or other energy dissipation or stability calculations
- Site Specific Soil Survey report, stamped and with a certification note prepared by the soil scientist that the survey was done in accordance with the Site Specific Soil Mapping standards, *Site-Specific Soil Mapping Standards for NH & VT, SSSNNE Special Publication No. 3*.
- Infiltration Feasibility Report (example online) [Env-Wq 1503.08(f)(3)]
- Registration and Notification Form for Storm Water Infiltration to Groundwater (UIC Registration-for underground systems only, including drywells and trenches): http://des.nh.gov/organization/divisions/water/dwgb/dwspp/gw_discharge
- Inspection and maintenance manual with, if applicable, long term maintenance agreements [Env-Wq 1503.08(g)]
- Source control plan

PLANS:

- One set of design plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for details)
- Pre & post-development color coded soil plans on 11" x 17" (see Application Checklist for details)
- Pre & post-development drainage area plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for details)

100-YEAR FLOODPLAIN REPORT:

- All information required in Env-Wq 1503.09, submitted as a separate report.

ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE

- See Checklist for Details

- REVIEW APPLICATION FOR COMPLETENESS & CONFIRM INFORMATION LISTED ON THE APPLICATION IS INCLUDED WITH SUBMITTAL.

12. REQUIRED SIGNATURES


JF By initialing here, I acknowledge that I am required by Env-Wq 1503.20(e) to submit a copy of all approved documents to the department in PDF format on a CD within one week after permit approval.

By signing below, I certify that:

- The information contained in or otherwise submitted with this application is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the application, revoke any permit that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and
- I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.

APPLICANT

APPLICANT'S AGENT:

Signature: 

Date: 5/13/20

Name (print or type): Jeremy Fennell

Title: Licensing & Permitting Specialist

PROPERTY OWNER

PROPERTY OWNER'S AGENT:

Signature: n/a Eversource has easement rights

Date: _____

Name (print or type): _____

Title: _____

ATTACHMENT A: ALTERATION OF TERRAIN PERMIT APPLICATION CHECKLIST

Check the box to indicate the item has been provided or provide an explanation why the item does not apply.

DESIGN PLANS

- Plans printed on 34 - 36" by 22 - 24" white paper 11X17 Plans
- PE stamp
- Wetland delineation
- Temporary erosion control measures
- Treatment for all stormwater runoff from impervious surfaces such as roadways (including gravel roadways), parking areas, and non-residential roof runoff. Guidance on treatment BMPs can be found in Volume 2, Chapter 4 of the NH Stormwater Management Manual.
- Pre-existing 2-foot contours
- Proposed 2-foot contours
- Drainage easements protecting the drainage/treatment structures
- Compliance with the Wetlands Bureau, RSA 482- A <http://des.nh.gov/organization/divisions/water/wetlands/index.htm>. Note that artificial detention in wetlands is not allowed.
- Compliance with the Comprehensive Shoreland Protection Act, RSA 483-B. <http://des.nh.gov/organization/divisions/water/wetlands/cspa>
- Benches. Benching is needed if you have more than 20 feet change in elevation on a 2:1 slope, 30 feet change in elevation on a 3:1 slope, 40 feet change in elevation on a 4:1 slope.
- Check to see if any proposed ponds need state Dam permits.
<http://des.nh.gov/organization/divisions/water/dam/documents/damdef.pdf>

DETAILS Details not checked are not applicable

- Typical roadway x-section
- Detention basin with inverts noted on the outlet structure
- Stone berm level spreader
- Outlet protection – riprap aprons
- A general installation detail for an erosion control blanket
- Silt fences or mulch berm
- Storm drain inlet protection. Note that since hay bales must be embedded 4 inches into the ground, they are not to be used on hard surfaces such as pavement.
- Hay bale barriers
- Stone check dams
- Gravel construction exit
- Temporary sediment trap
- The treatment BMP's proposed
- Any innovative BMP's proposed

CONSTRUCTION SEQUENCE/EROSION CONTROL

- Note that the project is to be managed in a manner that meets the requirements and intent of RSA 430:53 and Chapter Agr 3800 relative to invasive species.
- Note that perimeter controls shall be installed prior to earth moving operations.
- Note that temporary water diversion (swales, basins, etc) must be used as necessary until areas are stabilized.
- Note that ponds and swales shall be installed early on in the construction sequence (before rough grading the site).
- Note that all ditches and swales shall be stabilized prior to directing runoff to them.
- Note that all roadways and parking lots shall be stabilized within 72 hours of achieving finished grade.
- Note that all cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade
- Note that all erosion controls shall be inspected weekly AND after every half-inch of rainfall.
- Note the limits on the open area allowed, see Env-Wq 1505.02 for detailed information.

Example note: The smallest practical area shall be disturbed during construction, but in no case shall exceed 5 acres at any one time before disturbed areas are stabilized.

- Note the definition of the word "stable"

Example note: An area shall be considered stable if one of the following has occurred:

Base course gravels have been installed in areas to be paved.

A minimum of 85 percent vegetated growth has been established.

A minimum of 3 inches of non-erosive material such stone or riprap has been installed.

Or, erosion control blankets have been properly installed.

- Note the limit of time an area may be exposed

Example note: All areas shall be stabilized within 45 days of initial disturbance.

- Provide temporary and permanent seeding specifications. (Reed canary grass is listed in the Green Book; however, this is a problematic species according to the Wetlands Bureau and therefore should not be specified)

- Provide winter construction notes that meet or exceed our standards. **No work anticipated in winter**

Standard Winter Notes:

All proposed vegetated areas that do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting, elsewhere. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melt events.

All ditches or swales which do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions.

After October 15, incomplete road or parking surfaces, where work has stopped for the winter season, shall be protected with a minimum of 3 inches of crushed gravel per NHDOT item 304.3.

- Note at the end of the construction sequence that "Lot disturbance, other than that shown on the approved plans, shall not commence until after the roadway has the base course to design elevation and the associated drainage is complete and stable." – This note is applicable to single/duplex family subdivisions, when lot development is not part of the permit.

DRAINAGE ANALYSES **N/A**

Please double-side 8 1/2" x 11" sheets where possible but, do not reduce the text such that more than one page fits on one side.

- PE stamp

Rainfall amount obtained from the Northeast Regional Climate Center- <http://precip.eas.cornell.edu/>. Include extreme precipitation table as obtained from the above referenced website.

Drainage analyses, in the following order:

Pre-development analysis: Drainage diagram.

Pre-development analysis: Area Listing and Soil Listing.

Pre-development analysis: Node listing 1-year (if applicable), 2-year, 10-year and 50-year.

Pre-development analysis: Full summary of the 10-year storm.

Post-development analysis: Drainage diagram.

Post-development analysis: Area Listing and Soil Listing.

Post-development analysis: Node listing for the 2-year, 10-year and 50-year.

Post-development analysis: Full summary of the 10-year storm.

Review the Area Listing and Soil Listing reports

Hydrologic soil groups (HSG) match the HSGs on the soil maps provided.

There is the same or less HSG A soil area after development (check for each HSG).

There is the same or less "woods" cover in the post-development.

Undeveloped land was assumed to be in "good" condition.

The amount of impervious cover in the analyses is correct.

Note: A good check is to subtract the total impervious area used in the pre analysis from the total impervious area used in the post-analysis. For residential projects without demolition occurring, a good check is to take this change in impervious area, subtract out the roadway and divide the remaining by the number of houses/units proposed. Do these numbers make sense?

Check the storage input used to model the ponds.

Check to see if the artificial berms pass the 50-year storm, i.e., make sure the constructed berms on ponds are not overtopped.

Check the outlet structure proposed and make sure it matches that modeled.

Check to see if the total areas in the pre and post analyses are same.

Confirm the correct NRCS storm type was modeled (Coos, Carroll & Grafton counties are Type II, all others Type III).

PRE- AND POST-DEVELOPMENT DRAINAGE AREA PLANS **N/A**

Plans printed on 34 - 36" by 22 - 24" on white paper.

Submit these plans separate from the soil plans.

A north arrow.

A scale.

Labeled subcatchments, reaches and ponds.

Tc lines.

A clear delineation of the subcatchment boundaries.

Roadway station numbers.

Culverts and other conveyance structures.

PRE AND POST-DEVELOPMENT COLOR-CODED SOIL PLANS **N/A**

11" x 17" sheets suitable, as long as it is readable.

Submit these plans separate from the drainage area plans.

- A north arrow.
- A scale.
- Name of the soil scientist who performed the survey and date the soil survey took place.
- 2-foot contours (5-foot contours if application is for a gravel pit) as well as other surveyed features.
- Delineation of the soil boundaries and wetland boundaries.
- Delineation of the subcatchment boundaries.
- Soil series symbols (e.g., 26).
- A key or legend which identifies each soil series symbol and its associated soil series name (e.g., 26 = Windsor).
- The hydrologic soil group color coding (A = Green, B = yellow, C= orange, D=red, Water=blue, & Impervious = gray).

Please note that excavation projects (e.g., gravel pits) have similar requirements to that above, however the following are common exceptions/additions:

- Drainage report is not needed if site does not have off-site flow.
- 5 foot contours allowed rather than 2 foot.
- No PE stamp needed on the plans.
- Add a note to the plans that the applicant must submit to the Department of Environmental Services a written update of the project and revised plans documenting the project status every five years from the date of the Alteration of Terrain permit.
- Add reclamation notes.

See NRCS publication titled: *Vegetating New Hampshire Sand and Gravel Pits* for a good resource, it is posted online at: <http://des.nh.gov/organization/divisions/water/aot/categories/publications>.

ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE **N/A**

- If project will discharge stormwater to a surface water impaired for phosphorus and/or nitrogen, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.
- If project will discharge stormwater to a Class A surface water or Outstanding Resource Water, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.
- If project will discharge stormwater to a lake or pond not covered previously, include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond.
- If project is within a Coastal/Great Bay Region community, include info required by Env-Wq 1503.08(l) if applicable.

BSC COMPANIES, INC.

803 SUMMER STREET
BOSTON, MA 02127



Boston, MA 02110
easternbank.com
1-800-EASTERN

33025

Check No. 33025



53-179/113

VOID

Three Thousand One Hundred Twenty Five and 00/100 Dollars

DATE

AMOUNT

4/27/2020

\$3,125.00

PAY
TO THE
ORDER
OF

Treasurer, State of NH
29 Hazen Drive
PO Box 95
Concord, NH 03302-0095

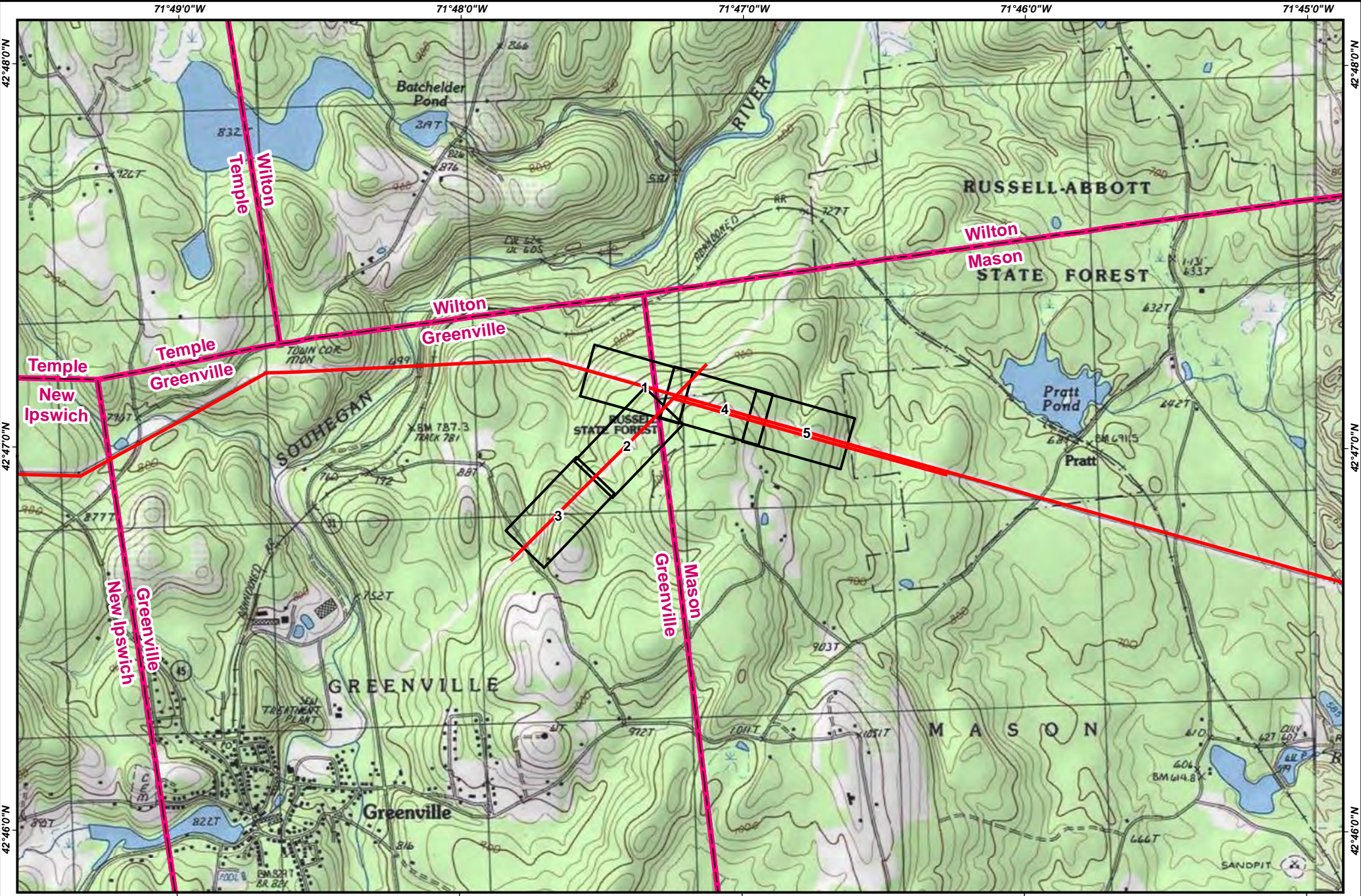
NO SIGNATURES REQUIRED OVER \$2,500



Jan [Signature]
NOT VALID AFTER 180 DAYS
AUTHORIZED SIGNATURE

⑈033025⑈ ⑆011301798⑆ 0600659304⑈

Security features. Details on back.



Scale:
 1 inch = 2,000 feet
 0 1,000 2,000
 Feet



- Overhead Line
- Map Pages
- Town Boundary

367 LINE STRUCTURE REPLACEMENT PROJECT

USGS Site Location Map
 Greenville & Mason, NH
 Page 1 of 1

Source: Copyright ©
 2013 National Geographic Society, i-cubed
EVERSOURCE
 BSC GROUP

Placeholder for municipality delivery
proof

Attachment A

367 Line - 2020 Structure Replacement Project
Greenville & Mason, NH
NHDES Alteration of Terrain Permit

PROJECT NARRATIVE

1.0 INTRODUCTION

BSC Group, Inc. (BSC) is filing this Alteration of Terrain Permit Application on behalf of the Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource) in accordance with the Terrain Alteration Law (RSA 485-A17) and the Administrative Rules (Env-Wq 1500) for the 367 Line 2020 Structure Replacement Project. The proposed work is located in Greenville and Mason, NH with access from Adams Hill Road through the existing 3155 Line (electric distribution line) for seven (7) existing structures to be replaced *in-kind* within the existing 367 Line right-of-way (ROW). The proposed utility maintenance work is necessary to allow Eversource to continue to provide safe and reliable electric service to the region. Should the existing structure fail, resulting damage would cause line failure and potentially electrical outages to the public. The Project has avoided and minimized impacts to the extent practicable.

Eversource routinely assesses their existing utility infrastructure to identify structures in need of repair (e.g. damage from woodpeckers, natural degradation, rotting, splitting, etc.). Overall, for the 2020 calendar year, Eversource identified a total of twenty (20) structures in need of replacement along the entire 367 Transmission Line from Fitzwilliam Substation (in Fitzwilliam, NH) to Amherst Substation (in Amherst, NH). All individual sites (contiguous impact areas) were assessed based on the criteria necessary to trigger an Alteration of Terrain Permit. Access and work areas associated with seven (7) structures accessed from Adams Hill Road in Greenville (Structures 240-246) presented the only contiguous area of disturbance that would trigger a permit under Terrain Alteration Law and implementing regulations. As such, the subject of this permit application only discusses Structures 240-246 and associated access and work surfaces (the “Project”).

In total, the Project area subject to an Alteration of Terrain Permit will result in a total of approximately 151,567 square feet of temporary and permanent impacts. This estimate includes approximately 9,678 square feet of temporary construction matting and approximately 14,845 square feet of existing access roads only require minor improvements. Temporary matting and existing roads that only require a skim coat of gravel to refresh the existing roads do not count towards the impact threshold of 100,000 square feet of contiguous impacts; however, these areas do not create discontinuity to the impacts areas assessed. Segments of existing access roads determined to have sufficient existing base material and would only need a refresh of approximately 1-3 inches of processed gravel. Only an approximate 136,722 square feet of impacts involve gravel application for new surfaces, >3” of gravel application over existing access roads, or road widening.

2.0 EXISTING CONDITIONS

The proposed Project is located within the maintained 367 Line ROW in Greenville and Mason, NH. Access will be attained via an existing distribution line ROW (3155 Line) starting at Adams Hill Road in Greenville continuing to the existing 367 Line ROW in Mason and Greenville. Structures 245 and 246 and the majority of the distribution line access are located in Greenville. Structures 240-244 and a portion of the distribution line access are located in Mason.

2.1 PROJECT SETTING

Existing access roads vary in conditions from new to historic (10-14 feet compacted mixed stone and native soil material) suitable for ATVs or track-mounted equipment without further improvement. Approximately 20% of all existing access roads were determined to be suitable for use “as-is” or with minimal improvement (up to 3” of a top-dressing of stone). The remainder of existing access roads would require additional repair and are comprised of a higher proportion of dirt and have, in some instances, revegetated.

The distribution line ROW (3155 Line) is approximately 100 feet in width and the existing 367 Line ROW is approximately 150 feet in width. The Project area traverses across hilly terrain, often with exposed boulders or bedrock. Elevations range from approximately 760 feet (at Adams Hill Road) to 1,020 feet (near Structure 240). Soils are primarily Lyman-Tunbridge Rock Outcrop Complex and Marlow fine sandy loam with smaller areas of Mondanock fine sandy loam and Lyme fine sandy loam. The surrounding environment is mostly forested, with active timberland and low-density residential properties.

Upland areas within the ROW generally consist of shrubs and herbaceous vegetation including sweet fern (*Comptonia peregrina*), gloss buckthorn (*Frangula alnus*), red maple saplings (*Acer rubrum*), grey birch saplings (*Betula populifolia*), common juniper (*Juniperus communis*), wood fern (*Dyopteris spp.*), little bluestem (*Schizachryium scoparium*), and mosses (such as haircap moss). Vegetated wetlands typically consist of palustrine scrub-shrub or emergent vegetation (PSS/PEM) and are seasonally flooded or saturated. Common wetland vegetation includes sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmunda cinnamomea*), red maple saplings (*Acer rubrum*), meadowsweet/steepleshub (*Spiraea spp.*), and various sedges and rushes.

2.2 WETLAND RESOURCE AREAS

Wetland resource areas were delineated in the summer of 2018 by Tighe and Bond. Eleven (11) wetlands were identified within the ROW. One ephemeral channel and two intermittent streams are present within the Project area, all of which will be spanned by temporary construction matting. No Prime Wetlands or Priority Resource Areas (with the exception of potential rare species habitat) are present within the Project area.

2.3 FEMA 100-YEAR FLOODPLAIN AND SHORELAND PROTECTION

Per FEMA Flood Insurance Rate Map (FIRM) Numbers 33011C0443D, 33011C0441D, and 22011C0442D, the Project is not located within any FEMA 100-Year Floodplain (see attached FEMA Firmettes in Attachment B). Further, no protected shoreland is present within the Project ROW. A Designated River Corridor for the Souhegan River is outside of the Project area, to the west of Structure 246. As such, a copy of this application does not need to be submitted to a Local River Management Advisory Committee.

2.4 AOT SCREENING LAYERS

AOT screening layers were reviewed on the NHDES OneStop Mapper. Refer to Attachment B for associated figures. The Project coincides with the following AOT screening layer resource area:

- Watershed with Chloride Impairments in 2016 (*Structures 240 and 241*). [AUID: NHIMP700040402-02]

No other layer of the AOT screening layers are present within the Project area. Resource areas not present include:

- Outstanding Resource Waters
- Class A Watersheds or Class A Surface Waters
- Watershed impaired for nitrogen or phosphorus
- Lake or ¼ mile buffer of a lake
- Coastal and Great Bay
- Waters Supply Intake Protection Area (WSIP)
- Groundwater Protection Area (GPA) such as Groundwater Classification Areas GA1/GA2, or Wellhead Protection Areas
- ¼ mile of a Designated River

2.5 RARE SPECIES

A Data Check was submitted to the NH Natural Heritage Bureau (NHB) for Mason and Greenville on 2/12/20 (NHB20-0465 and NHB20-0464, respectively). Responses were received on 2/26 for both municipalities. No species were identified for portions of the Project area in Greenville. Various reptiles were identified as located near the Project areas in Mason and coordination with NH Fish and Game (NHF&G) was conducted. The Project will comply with all proposed Best Management Practice (BMPs) requested by NHF&G. Species-specific information will be provided to the contractors prior to the start of construction and will be reviewed and available each morning at safety tailboard meetings. This includes photos, identification information, and contact information if species are observed. In the event a species is encountered, the contractors will stop work and report the findings to Eversource and NHF&G. A copy of the NHB responses and correspondence between NHB and NHF&G are included Attachment C (*redacted in municipal copies*).

3.0 PROJECT DESCRIPTION

3.1 STRUCTURE REPLACEMENT

A total of twenty (20) structures will be replaced as part of the overall 367 Line 2020 Structure Replacement Project. Subject of this permit application, only seven (7) structures are proposed for replacement, *in-kind*. Impact areas from structure replacements will be within the footprint of proposed gravel workpads.

Structure replacements will consist of drilling holes up to four feet in diameter, installation of a steel casing (metal culvert) into each hole approximately 15 to 20 feet below the ground surface. The new poles will be placed into the permanent casing and backfilled with clean fill material. Once new poles are installed, old poles and associated components will be removed of and disposed of offsite. Poles will be removed from the ground surface, or cut below the ground surface, the hole backfilled with drilling spoils, smoothed to an even grade and stabilized.

Concrete block anchors will be installed in uplands by excavating trenches to a sufficient depth, installing the anchors, and backfilling the trenches. Within wetlands, if substrate and/or geology is unsuitable for helical anchors, block anchors will be installed. Hydric soils would be segregated and replaced to maintain hydric soil profile.

Any remaining spoils generated from drilling activities and anchor installation, and not used as backfill, will be spread within upland areas at least 100 feet away from wetland areas and stabilized (seeded with a conservation seed mix and mulched with straw).

3.2 ACCESS

In early 2020, constructability reviews were conducted to identify construction access and work surfaces necessary to perform the proposed work. Use of existing access roads or previously disturbed access routes will be used where feasible; however, in some circumstances, new access road segments are proposed where access did not exist or to avoid restrictive features. For example, low distribution lines collocated within the same 367 Transmission Line ROW that would present safety issues for the type of equipment required to perform the work. Road construction and improvements will provide a safe and stable access route to perform future maintenance and emergency repair work and to allow Eversource to continue to provide safe and reliable electric service to the region.

Access to the structures will be attained via Adams Hill Road in Greenville, through the existing 3155 electric distribution line ROW and within the existing 367 Line ROW. Wetland crossings will be constructed with temporary construction matting (e.g. timber matting) and all streams will be spanned the full width of bank. Existing access roads will be refreshed with stone (1-3”) and widened (where necessary). New roads or existing roads without a sufficient stable base would involve excavation of surface soils and the placement of a minimum of 6” crushed stone. All new and improved access roads will be constructed to be 12 feet wide and will remain upon the completion of work.

3.3 WORKPAD CONSTRUCTION

Workpads are proposed to be approximately 100 feet by 100 feet, but were reduced or shifted in some circumstances to reduce impacts to wetlands or reduce overall grading necessary.

Workpads will be constructed of either gravel or temporary construction matting depending on site conditions, such as site topography, in order to provide a safe and level surface for construction. Gravel workpads will be constructed with a gravel base of clean riprap (or equivalent) and top dressed with 1.5-3-inch diameter stone. Areas disturbed adjacent to the gravel workpads will be stabilized with straw mulch and seed. Topsoil may be separated during workpad construction for use in workpad restoration at the completion of work. Soil stockpiles will be stabilized and/or surrounded by perimeter controls until re-used for workpad restoration or spread within uplands within the ROW during the restoration phase of the Project.

Upon the completion of construction, workpads will be restored leaving approximately a 30 by 50-foot gravel surface at each structure to allow for future maintenance and emergency repairs of the electric transmission line. The workpad areas outside of this footprint will be restored to the extent practicable and stabilized with straw and seed.

3.4 CONSTRUCTION SEQUENCE

Eversource will commence work as soon as possible, following the acquisition of Project permits. The work is proposed to start in late spring or early summer 2020. The following is a description of the anticipated construction sequence for the proposed work:

- Re-flag wetland in advance of work

- Mow access and work areas
- Install sediment and erosion controls
- Construct temporary and permanent access and workpads
- Conduct structure replacements
- Stabilize exposed soils within the ROW
- Remove temporary construction matting
- Remove non-biodegradable components of sediment and controls, following site stabilization

4.0 BEST MANAGEMENT PRACTICES

Work will be conducted in accordance with New Hampshire Department of Natural and Cultural Resources Best Management Practices Manual Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire (Utility BMP Manual, March 2019).

Sediment and erosion controls such as silt fencing, straw wattles, and/or straw bales will be installed in advance of earth disturbing activities and indicated on the mapping provided in Attachment D. Sediment and erosion controls will be inspected daily and will be maintained until the completion of construction and permanent stabilization. The location and alignment of sediment and erosion controls may be field adjusted as long as controls provide protection equal to or greater than what is depicted on project mapping. Sediment and erosion controls will be amended as necessary to prevent a sediment discharge to a wetland resource area and to prevent site erosion. Any areas of disturbed soil will be stabilized with mulch following the completion of work.

Water bars will be installed concurrent with road construction and road upgrades, particularly in areas of steep slope. Water bars will be constructed in such a way that water will be directed towards stable surfaces (e.g. vegetated surfaces). No equipment or material will be stored within wetland resource areas. No equipment or vehicles will be parked overnight on temporary matting within a wetland.

Once Project work is complete, all disturbed areas will be restored and stabilized. Areas of exposed soils will be seeded and/or mulched, as necessary.

5.0 REGULATORY COMPLIANCE

This section summarizes Project compliance with pertinent local, state, and Federal regulations.

5.1 ALTERATION OF TERRAIN

5.1.1. Jurisdiction

The Project area is subject to jurisdiction under the Alteration of Terrain Permit in accordance with the Terrain Alteration Law (RSA 485-A17) and the Administrative Rules (Env-Wq 1500). Work areas along the existing 367 Line were assessed independently for each geographically distinct work area (e.g. accessed

from different public roadways). The proposed Project (Structures 240-246) was the only portion of work subject to review and is considered an activity that would significantly alter the characteristics of the terrain as per Env-W1 1502.58:

“Earth moving activities that result in a temporary or permanent disturbance of:

- (1) An area that:*
 - a. Is more than 2,500 square feet in size;*
 - b. Is within 50 feet of any surface water¹;*
 - c. Is sloped such that runoff is in the direction of the surface water; and,*
 - d. Is subject to runoff over 50 feet or more of land having a grade of 25% or greater when measured at 2-foot intervals; or,*
- (2) An area that, over a 10 year period, cumulatively exceeds 100,000 square feet or contiguous area...”*

Work is not located within protected shoreland and is not subject to the cumulative threshold of 50,000 square feet of contiguous area.

5.1.2. Impacts subject to AOT

In total, the Project area subject to an Alteration of Terrain Permit will result in a total of approximately 153,567 square feet of temporary and permanent impacts. This estimate includes approximately 9,678 square feet of temporary construction matting and approximately 14,845 square feet of existing access roads that will only require minor improvements. Temporary matting and existing roads that only require a skim coat of gravel to refresh the existing roads do not count towards the impact threshold of 100,000 square feet of contiguous impacts; however, these areas are still areas of contiguous temporary impact. Segments of existing access roads determined to have sufficient existing base material and would only need a refresh of approximately 1-3 inches of processed gravel. Only an approximate 129,044 square feet of impacts involve gravel application for new surfaces, >3” of gravel application over existing access roads, or road widening.

Approximately 129, 044 square feet of impacts along the 367 Line are subject to Alteration of Terrain Laws and Rules (refer to Table 5-1). No work is proposed within protected shoreland.

¹ Surface waters of the state is defined in RSA 485- A:2, XIV as perennial and seasonal streams, lakes, ponds, and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state marches, watercourses, and other bodies of water, natural or artificial. Surface waters of the state includes surface waters and wetland (not including seasonally saturated or other seasonal wetlands not periodically flooded).

Table 5-1: Summary of Proposed Access Road and Workpad Impacts (Structures 240-246)*

	Temporary Construction Matting (Upland and Wetland)	Minor Upgrades* (Upland)	New Gravel Surfaces & Major Upgrades** (Upland)	Totals
Total Impact Area (s.f.)	9,678	14,845	129,044	153,567
Impact Area Subject to AOT Law/Rules (per Env. 1502,58) (s.f.)	0	0	129,044	129,044

**Existing access roads footprint requiring only minimal improvements such as filling of ruts, dips, divots, or on 1-3" or fresh stone without excavation of existing soils.*

***This includes existing access and workpads requiring excavation prior to gravel application, existing surfaces requiring >3" of gravel application, and new gravel surfaces (e.g. new roads, new workpads, or road widening).*

5.1.3. Excavation, Grading, and Reclamation Plan

Per Env-Wq 1503.11 (b), an excavation, grading and reclamation plan (as specified in Env-Wq 1504.03), for any project that only includes these activities. Please refer to the figures in Attachment D. No blasting of bedrock is proposed. Refer to Attachment F for waiver requests.

5.1.4. Chloride Management Plan

For work within a watershed impaired for chloride (Env-Wq 1503.11 (g)), in the vicinity of replacements structures 240 and 241, the following is required: a chloride management plan to minimize the discharge of chloride to surface the surface water and implement the plan if a permit is issued for the project. All work will be conducted between spring and fall of 2020. As such, no application of chloride is proposed as no de-icing will be necessary.

5.1.5. Waiver request Stormwater drainage report; drainage area plan; hydrologic soil group plans (Env-wq 15.09)

A waiver (per Env-Wq 1509.02) is being requested from the requirements to prepare a Stormwater Drainage Report, Drainage Area Plans and Hydrologic Soil Group Plans because no new impervious areas are proposed (except the replacement poles of the transmission line structures). Therefore, stormwater treatment practices are not proposed. We do not anticipate the proposed structure replacement activities to significantly alter the drainage characteristics of the project area. The full waiver request is provided in Attachment F.

5.2 OTHER REQUIRED PERMITS

In addition to the Alteration of Terrain Permit, the following table summarizes other anticipated permits for the Proposed work associated with Structures 240-246.

Table 5-2: Summary of Anticipated Permits (Structures 240-246)

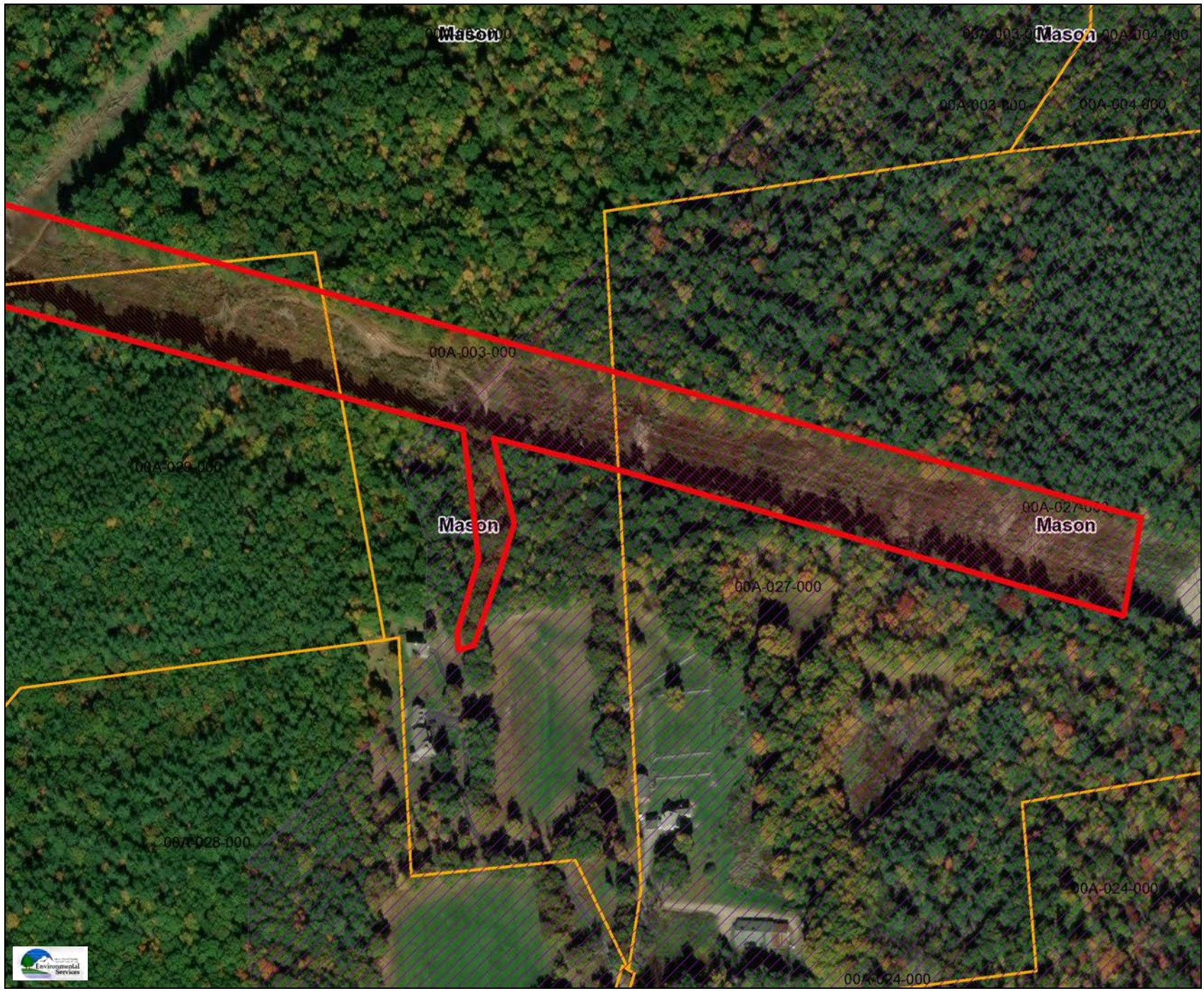
Agency	Permit
Local	
Town of Greenville	NHDES Utility SPN
Town of Mason	NHDES Utility SPN
State	
NHDES	NHDES Utility SPN
NHB / NHF&G	NHB Data Check and project review
NH Division of Historical Resources (DHR)	Request for Project Review
NH Public Utilities Commission (PUC)	License to Construct and Maintain Electric Lines Over and Across Public Lands
Federal	
USEPA	NPDES Construction General Permit, Notice of Intent and Stormwater Pollution Prevention Plan (SWPPP)

Attachment B


















367 Line - 2020 Structure Replacement Project
Greenville & Mason, NH
NHDES Alteration of Terrain Permit

SURFACE WATER IMPAIRMENTS LAYER MAPS
AOT SCREENING LAYER MAPS
FLOODPLAIN MAPS

367 Line



Legend

-  Coastal and Great Bay Regional Communities
-  Designated Rivers Quarter Mil Buffer
-  Public Water Supply Wells
-  Groundwater Classification / GA1
-  Groundwater Classification / GA2
-  Water Supply Intake Protect Areas
-  Wellhead Protection Areas
-  Class A Lakes with a Quarter Mil Buffer
-  Class A - All Features
-  All Lakes, with a Quarter Mil Buffer
-  Outstanding Resource Water Watersheds
-  Surface Waters with Impairment 2016 with Quarter Mile Buffer
-  Watersheds with Chloride Impairments 2016
-  Parcels - polygons
-  State
-  County
-  Town Boundaries

Map Scale

1: 3,247

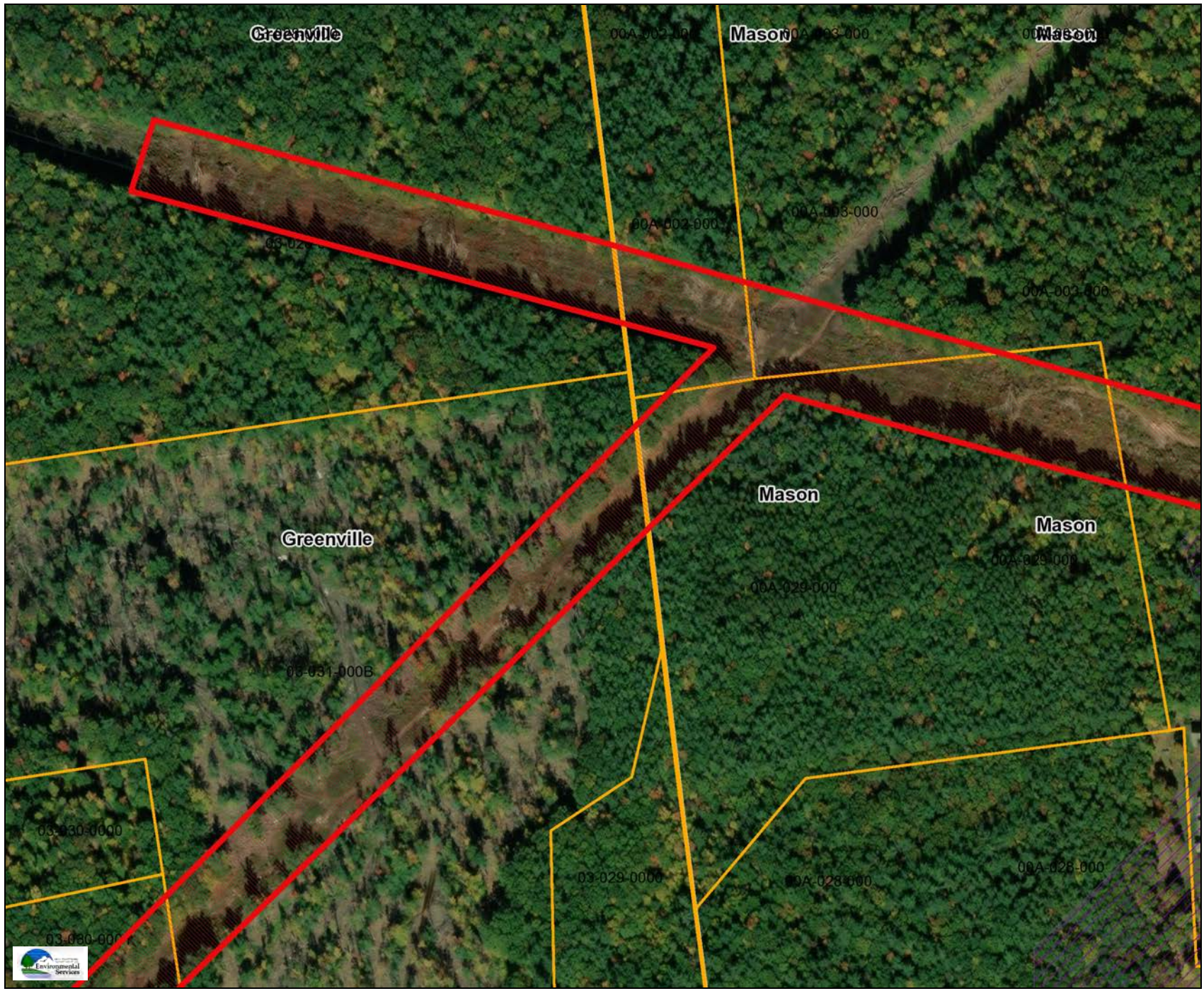


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Map Generated: 2/25/2020

Notes

367 Line



Legend

- Coastal and Great Bay Regional Communities
- Designated Rivers Quarter Mile Buffer
- Public Water Supply Wells
- Groundwater Classification / GA1
- Groundwater Classification / GA2
- Water Supply Intake Protect Areas
- Wellhead Protection Areas
- Class A Lakes with a Quarter Buffer
- Class A - All Features
- All Lakes, with a Quarter Mile Buffer
- Outstanding Resource Water Watersheds
- Surface Waters with Impairment 2016 with Quarter Mile Buffer
- Watersheds with Chloride Impairments 2016
- Parcels - polygons
- State
- County
- Town Boundaries

Map Scale
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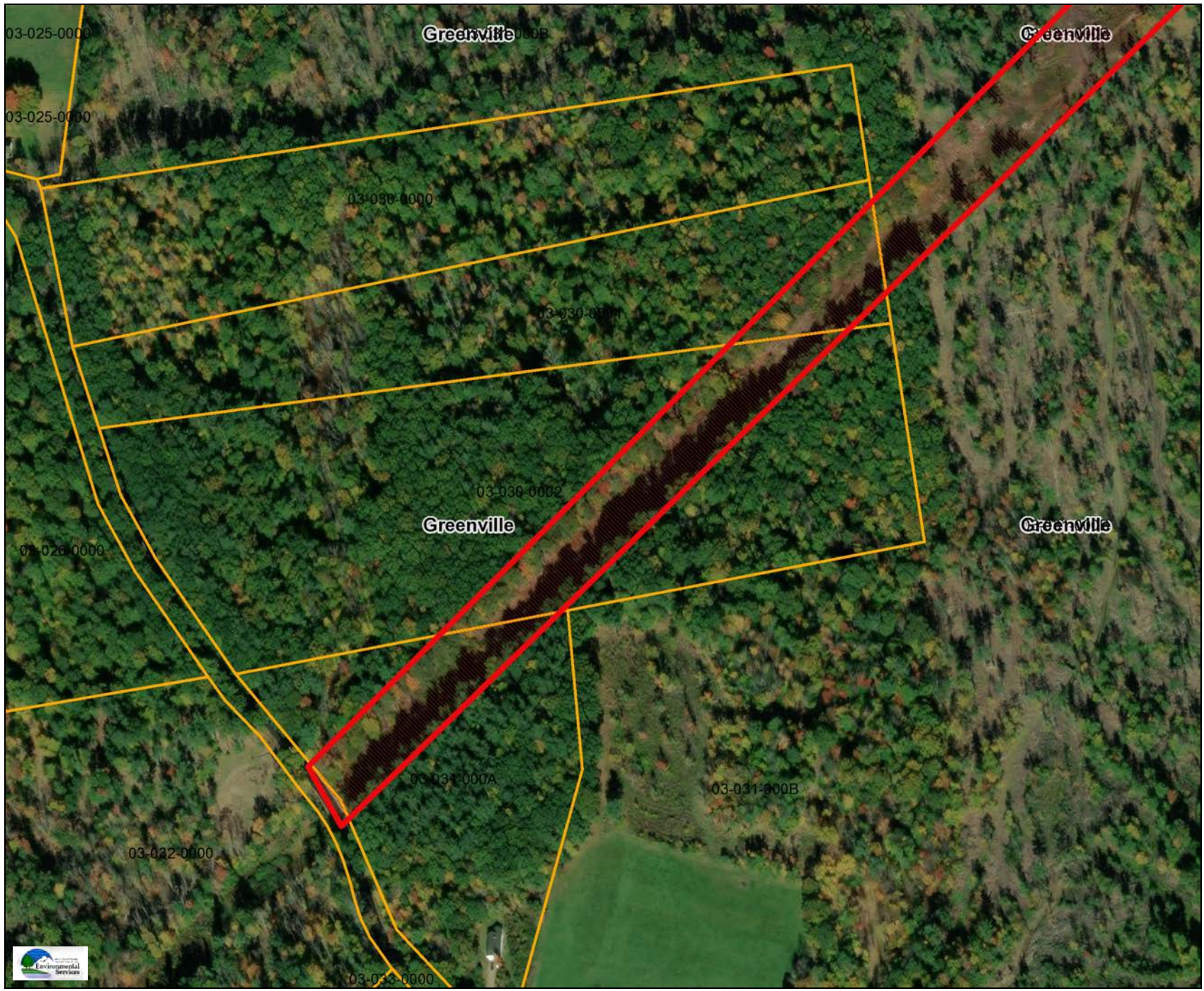
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Notes



367 Line




Legend

-  Coastal and Great Bay Regional Communities
-  Designated Rivers Quarter Mil Buffer
-  Public Water Supply Wells
-  Groundwater Classification / GA1
-  Groundwater Classification / GA2
-  Water Supply Intake Protection Areas
-  Wellhead Protection Areas
-  Class A Lakes with a Quarter Mil Buffer
-  Class A - All Features
-  All Lakes, with a Quarter Mil Buffer
-  Outstanding Resource Water Watersheds
-  Surface Waters with Impairment 2016 with Quarter Mile Buffer
-  Watersheds with Chloride Impairments 2016
-  Parcels - polygons
-  State
-  County
-  Town Boundaries

Map Scale
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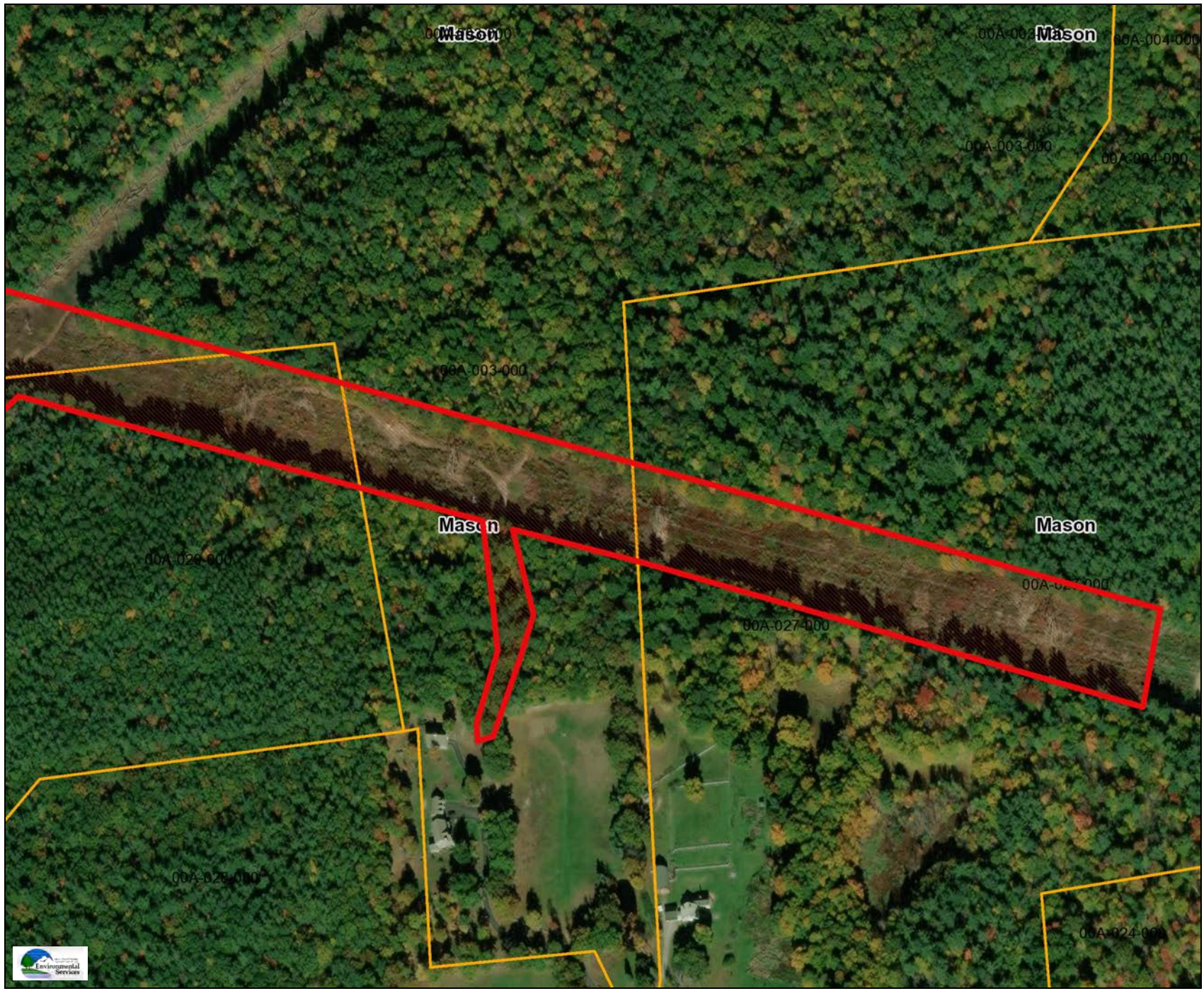
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Notes



367 Line



Legend

- Surface Waters with Impairment 2016 with Quarter Mile Buffer
- Parcels - polygons
- State
- County
- Town Boundaries

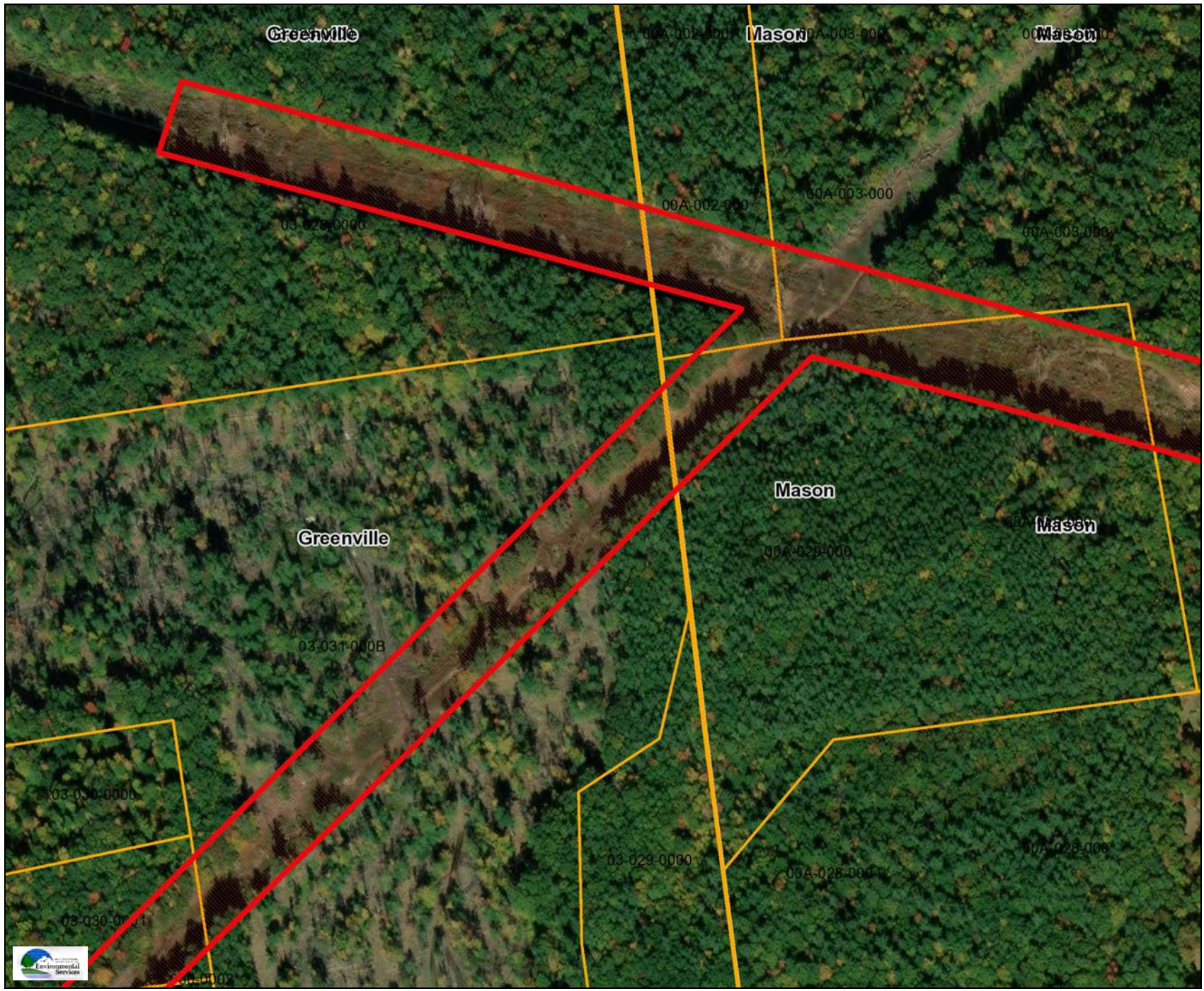
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

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Map Generated: 2/25/2020

Notes

367 Line



Legend

-  Surface Waters with Impairn 2016 with Quarter Mile Buffer
-  Parcels - polygons
-  State
-  County
-  Town Boundaries

Map Scale
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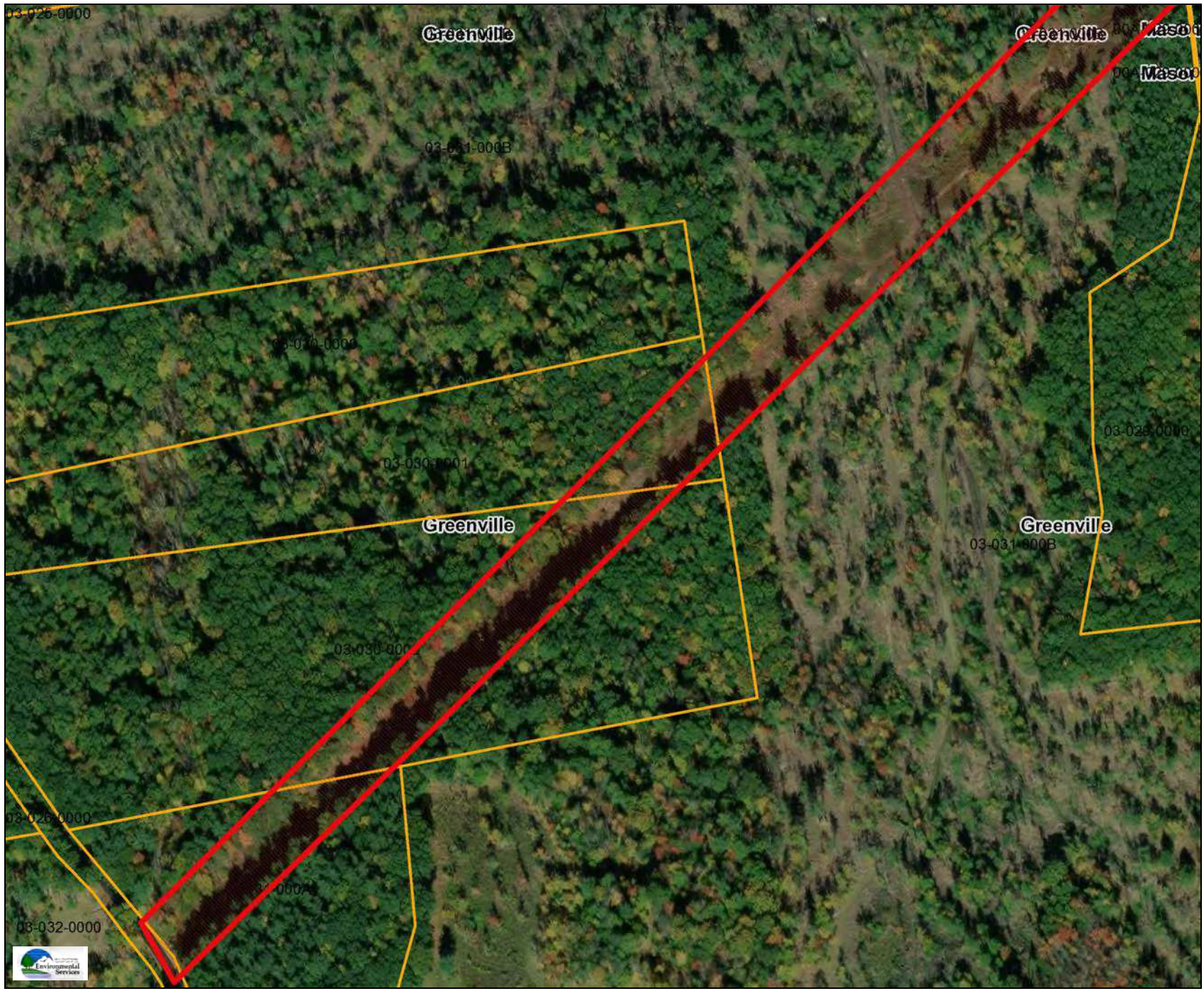
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Notes

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367 Line



- ### Legend
- Surface Waters with Impairn 2016 with Quarter Mile Buffe
 - Parcels - polygons
 - State
 - County
 - Town Boundaries

Map Scale
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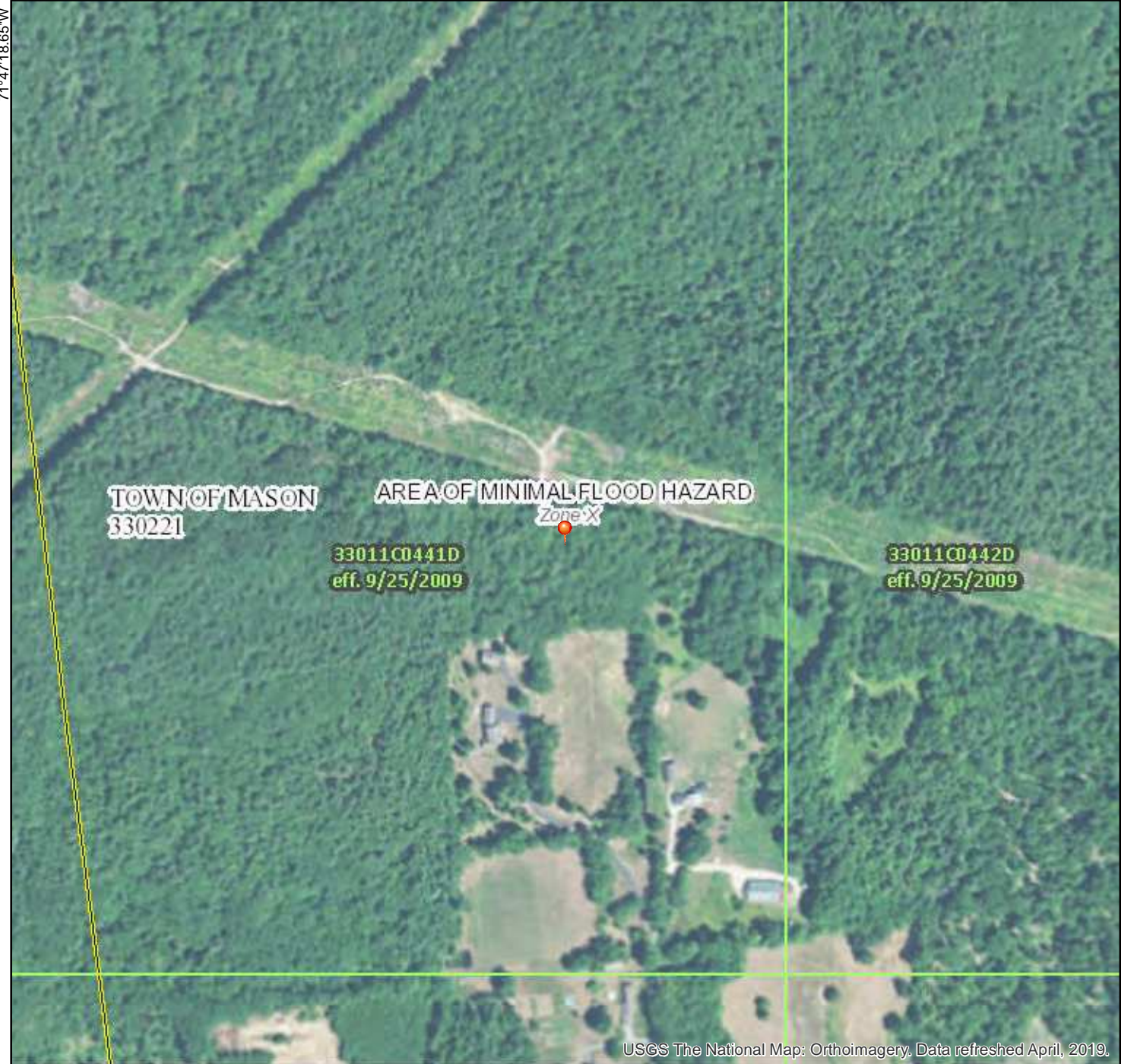
Notes



National Flood Hazard Layer FIRMette



42°47'16.64"N



Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

MAP PANELS		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 4/21/2020 at 6:55:28 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.

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71°47'18.65"W

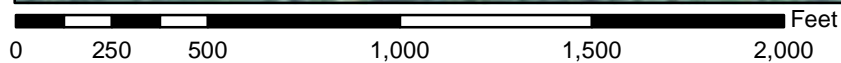
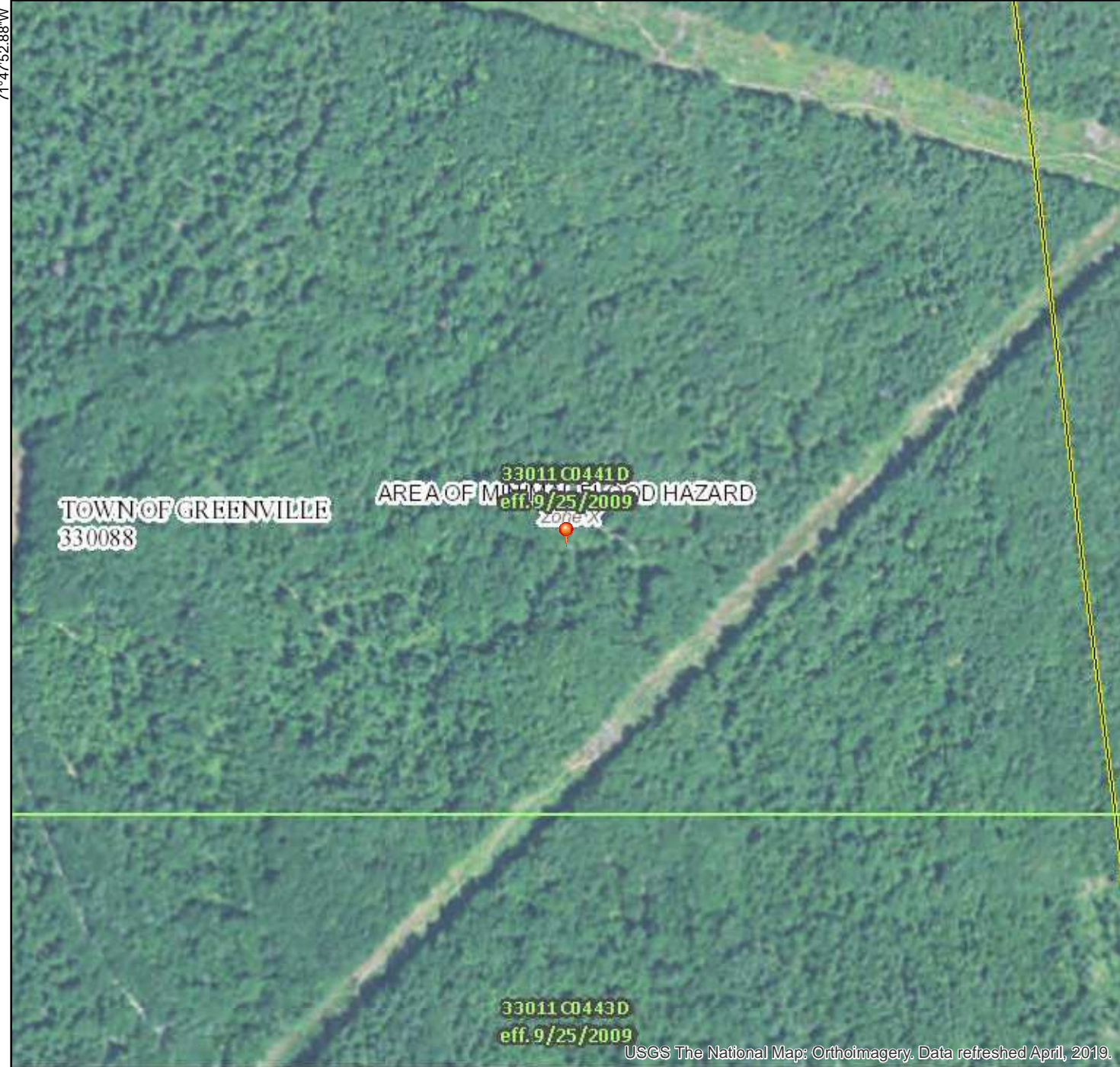
71°46'41.20"W



National Flood Hazard Layer FIRMette



42°47'12.61"N



1:6,000

42°46'46.21"N

Legend

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

- | | | |
|-----------------------------|--|---|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE)
<i>Zone A, V, A99</i> |
| | | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> |
| | | Regulatory Floodway |
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. <i>Zone X</i> |
| | | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i> |
| | | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i> |
| | | Area with Flood Risk due to Levee <i>Zone D</i> |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i> |
| | | Effective LOMRs |
| GENERAL STRUCTURES | | Area of Undetermined Flood Hazard <i>Zone D</i> |
| | | Channel, Culvert, or Storm Sewer |
| | | Levee, Dike, or Floodwall |
| OTHER FEATURES | | Cross Sections with 1% Annual Chance Water Surface Elevation |
| | | Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| | | Jurisdiction Boundary |
| MAP PANELS | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| | | 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

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71°47'15.42"W

Attachment C

367 Line - 2020 Structure Replacement Project
Greenville & Mason, NH
NHDES Alteration of Terrain Permit

NHB AND NHF&G CORRESPONDENCE
[REDACTED IN MUNICIPAL COPIES]



New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Marleigh Sullivan, BSC Group, Inc.
33 Waldo Street
Suite 5
Worcester, MA 01608

From: NH Natural Heritage Bureau

Date: 2/26/2020 (valid for one year from this date)

Re: Review by NH Natural Heritage Bureau of request submitted 2/13/2020

VALID ONLY FOR NOTIFICATION OR MINIMUM EXPEDITED
APPLICATIONS SUBMITTED TO THE NHDES WETLANDS BUREAU

NHB File ID: NHB20-0464

Applicant: Jeremy Fennell

Location: Greenville

Eversource's existing 367 transmission line right-of-way (ROW)

Project

Description: Maintain and replace existing utility structures within an existing right-of-way

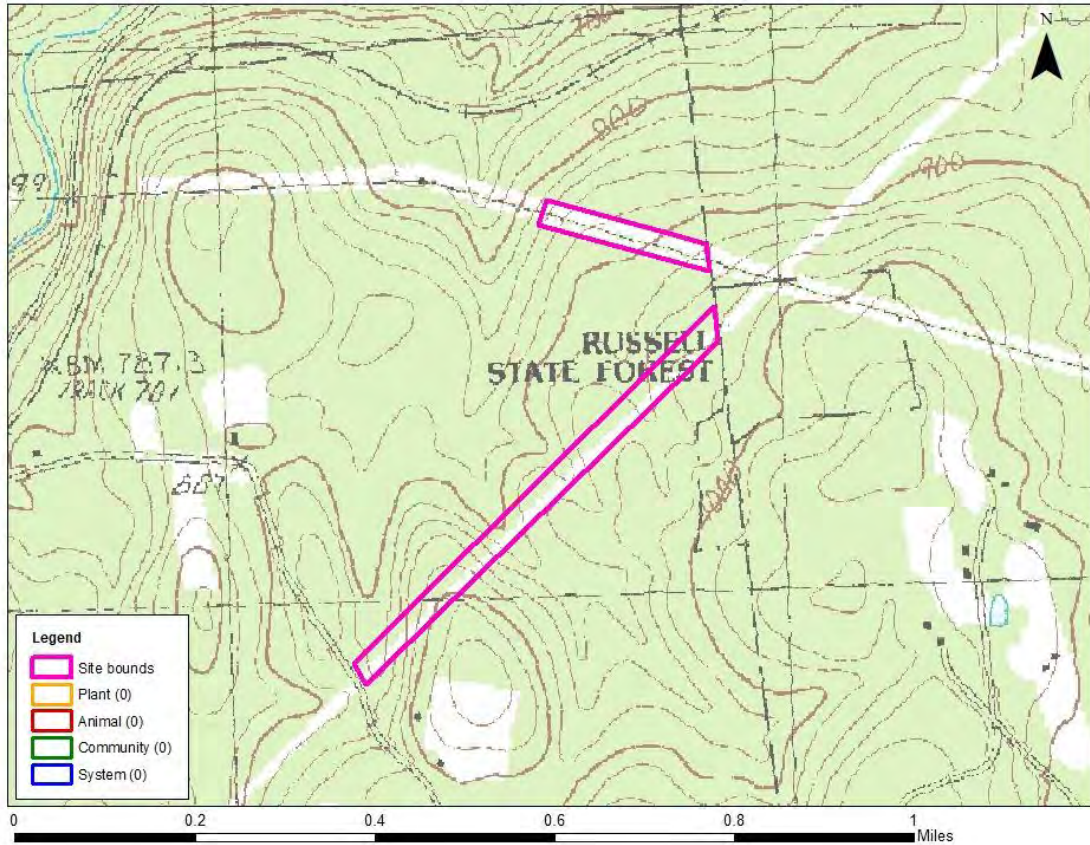
The NH Natural Heritage database has been checked by staff of the NH Natural Heritage Bureau and/or the NH Nongame and Endangered Species Program for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government.

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 2/13/2020, and cannot be used for any other project.



MAP OF PROJECT BOUNDARIES FOR: **NHB20-0464**

NHB20-0464



CONFIDENTIAL DNCR

CONFIDENTIAL DNCR

Sullivan, Marleigh

From: Tuttle, Kim <Kim.Tuttle@wildlife.nh.gov>
Sent: Tuesday, March 3, 2020 10:25 AM
To: Sullivan, Marleigh
Subject: RE: NHB20-0465 Maintain and replace existing utility structures 367 line Mason

Hi Marleigh,

CONFIDENTIAL DNCR

Thanks,

Kim Tuttle
Wildlife Biologist
NH Fish and Game
11 Hazen Drive
Concord, NH 03301
603-271-6544

From: Sullivan, Marleigh <msullivan@bscgroup.com>
Sent: Tuesday, March 3, 2020 9:55 AM
To: Tuttle, Kim <Kim.Tuttle@wildlife.nh.gov>
Subject: RE: NHB20-0465 Maintain and replace existing utility structures 367 line Mason

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Hello Kim!

I was just thinking about shooting you another call, so great timing!

- The work was anticipated to start in April (2020) but may be delayed.
- There are ten (10) structures in Mason, . Five (5) of those structures are in the polygon shown on the NHB locus map out to the west that are far removed from the identified rare wildlife locations.
- No work is proposed within a vernal pool.
- Wetland crossings will be necessary for the proposed work. All streams will be spanned the full width of bank and all wetlands will be crossed using temporary matting. No permanent access is proposed within a wetland.

Please let me know if you have any further questions.

Thanks!

Marleigh Sullivan | Ecological Scientist

[BSC Group](#)

33 Waldo St. | Worcester | MA | 01608

Direct | 617-896-4511

cell | 203-947-3455

Conference Calls: <https://zoom.us/j/4126726352>

From: Tuttle, Kim [<mailto:Kim.Tuttle@wildlife.nh.gov>]

Sent: Tuesday, March 3, 2020 9:27 AM

To: Sullivan, Marleigh <msullivan@bscgroup.com>

Subject: NHB20-0465 Maintain and replace existing utility structures 367 line Mason

Hi Marleigh,



CONFIDENTIAL DNCR

Please distribute the attached flyers to all construction workers and advise them of their protected status. Please avoid the use of welded plastic or 'biodegradable plastic' netting or thread (e.g. polypropylene) in erosion control matting. There are numerous documented cases of snakes including northern black racer, turtles, and other wildlife being trapped and killed in erosion control matting with synthetic netting and thread. The use of erosion control berm, white Filtrexx Degradable Woven Silt Sock, or several 'wildlife friendly' options such as woven organic material (e.g. coco or jute matting such as North American Green SC150BN or equivalent) are readily available.

Thanks,

Kim Tuttle
Wildlife Biologist
NH Fish and Game
11 Hazen Drive
Concord, NH 03301
603-271-6544

From: Sullivan, Marleigh <msullivan@bscgroup.com>
Sent: Wednesday, February 26, 2020 3:19 PM
To: Tuttle, Kim <Kim.Tuttle@wildlife.nh.gov>
Subject: RE: NHB review: NHB20-0465

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Hello Kim,

Just called and left a voicemail. Just in case, my contact is in my signature below. Direct line or cell work.

Thanks!

Marleigh Sullivan | Ecological Scientist

[BSC Group](#)
33 Waldo St. | Worcester | MA | 01608
Direct | 617-896-4511
cell | 203-947-3455
Conference Calls: <https://zoom.us/j/4126726352>

From: Lamb, Amy [<mailto:Amy.Lamb@dncr.nh.gov>]
Sent: Wednesday, February 26, 2020 1:23 PM
To: Sullivan, Marleigh <msullivan@bscgroup.com>
Cc: Tuttle, Kim <Kim.Tuttle@wildlife.nh.gov>
Subject: NHB review: NHB20-0465

Attached, please find the review we have completed. If your review memo includes potential impacts to plants or natural communities please contact me for further information. If your project had potential impacts to wildlife, please contact NH Fish and Game at the phone number listed on the review.

Best,
Amy

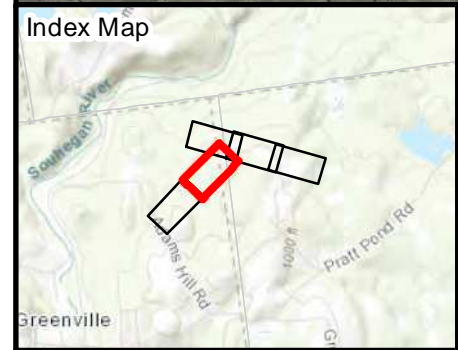
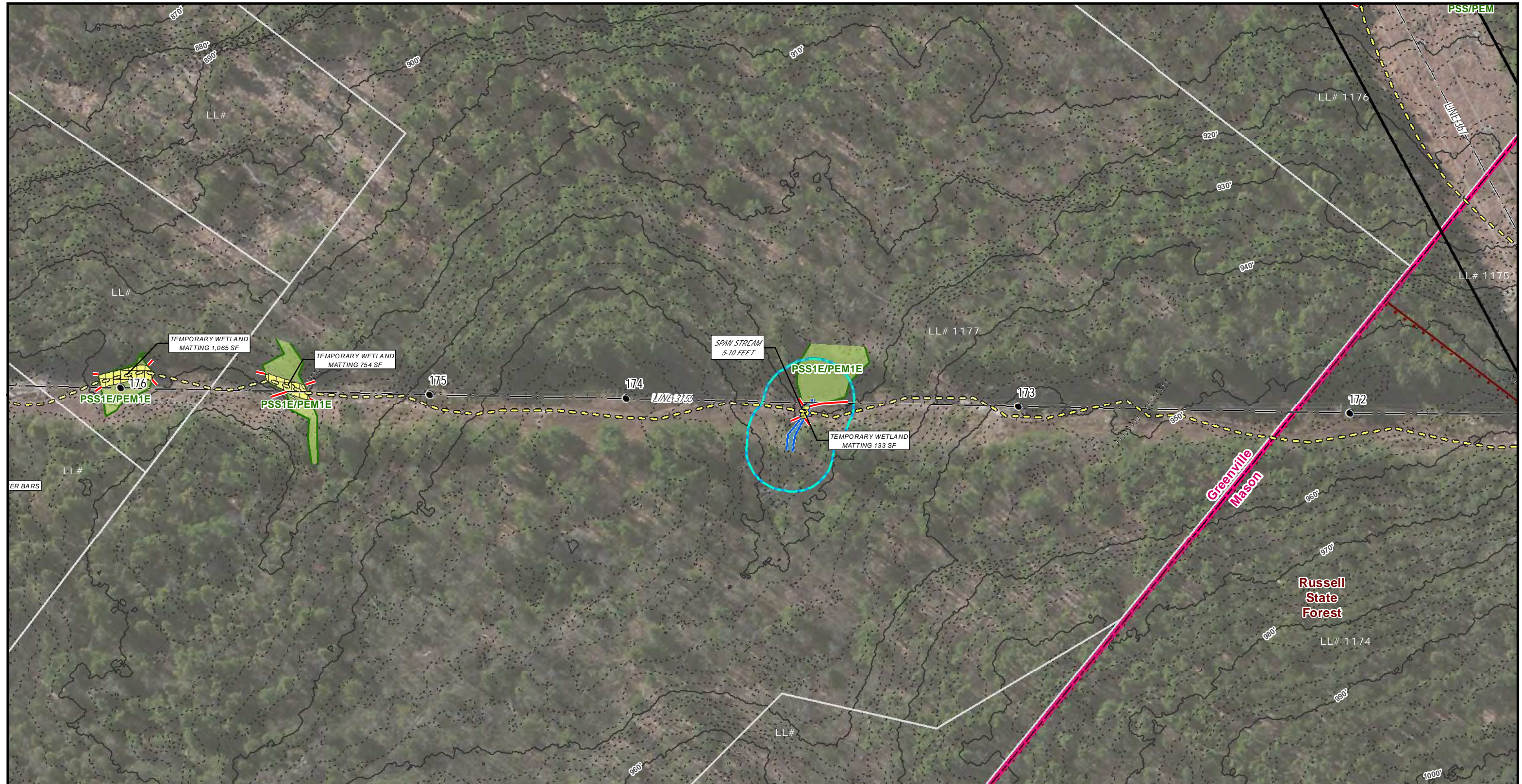
Amy Lamb
Ecological Information Specialist

NH Natural Heritage Bureau
DNCR - Forests & Lands
172 Pembroke Rd
Concord, NH 03301
603-271-2834

Attachment D

367 Line - 2020 Structure Replacement Project
Greenville & Mason, NH
NHDES Alteration of Terrain Permit

ENVIRONMENTAL RESOURCES MAP



Legend			
! Proposed Structure	Watercourse (not delineated)	Line List Parcel	H Culvert
! Existing Structure to be Removed	Delineated Intermittent Watercourse	LL# 100 Line List Label	f Gate
(Existing Structure	Delineated Perennial Watercourse	State-Owned Property	Hiking Trail
- - - Overhead Lines	Delineated Wetland Boundary	50ft Stream Buffer	
o-o-o Proposed Access	Field Delineated Wetland	Peatlands	
— Sediment Controls	Delineated Open Water	Town Boundary	
Temporary Work Pad	FEMA 100yr Floodplain	Approx. Stone Wall	
Stone Work Pad	Existing Right-of-Way (ROW)	10ft Contours	
Temporary Construction Matting	Joint-use Easement	2ft Contours	

367 LINE STRUCTURE REPLACEMENT PROJECT

Environmental Resources Map

Greenville & Mason, NH

Page 2 of 5

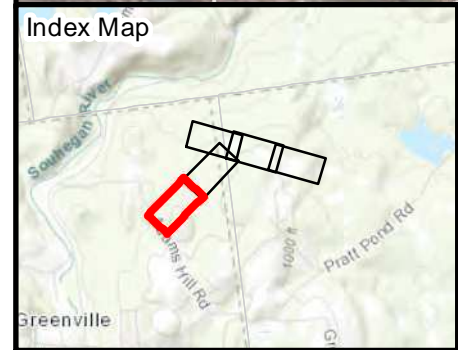
1 inch = 116 feet

0 60 120 Feet

Source: -MassGIS Basemap & Environmental Data -Aerial & Topo Imagery ESRI, DigitalGlobe, GeoEye, i-cubed, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., AEX, GEBCO, USDA, USGS, FAO, NPS, NRCAN, GeoBase, Getmapping, Aerogrid, IGP, IGN, Kadaster NL, Ordnance Survey, ESRI Japan, METI, ESRI China (Hong Kong), swisstopo, & the GIS User Community

EVERSOURCE ENERGY

BSC GROUP



Legend	
! Proposed Structure	Watercourse (not delineated)
! Existing Structure to be Removed	Delineated Intermittent Watercourse
(Existing Structure	Delineated Perennial Watercourse
- - - Overhead Lines	Delineated Wetland Boundary
o Proposed Access	Field Delineated Wetland
— Sediment Controls	Delineated Open Water
Temporary Work Pad	FEMA 100yr Floodplain
Stone Work Pad	Existing Right-of-Way (ROW)
Temporary Construction Matting	Joint-use Easement
Watercourse (not delineated)	Line List Parcel
Delineated Intermittent Watercourse	LL# 100 Line List Label
Delineated Perennial Watercourse	State-Owned Property
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Field Delineated Wetland	Peatlands
Delineated Open Water	Town Boundary
FEMA 100yr Floodplain	Approx. Stone Wall
Existing Right-of-Way (ROW)	10ft Contours
Joint-use Easement	2ft Contours
H Culvert	
f Gate	
Hiking Trail	

367 LINE STRUCTURE REPLACEMENT PROJECT

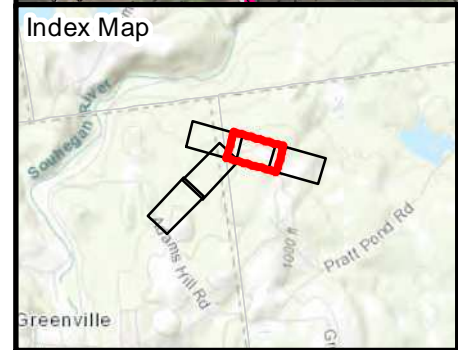
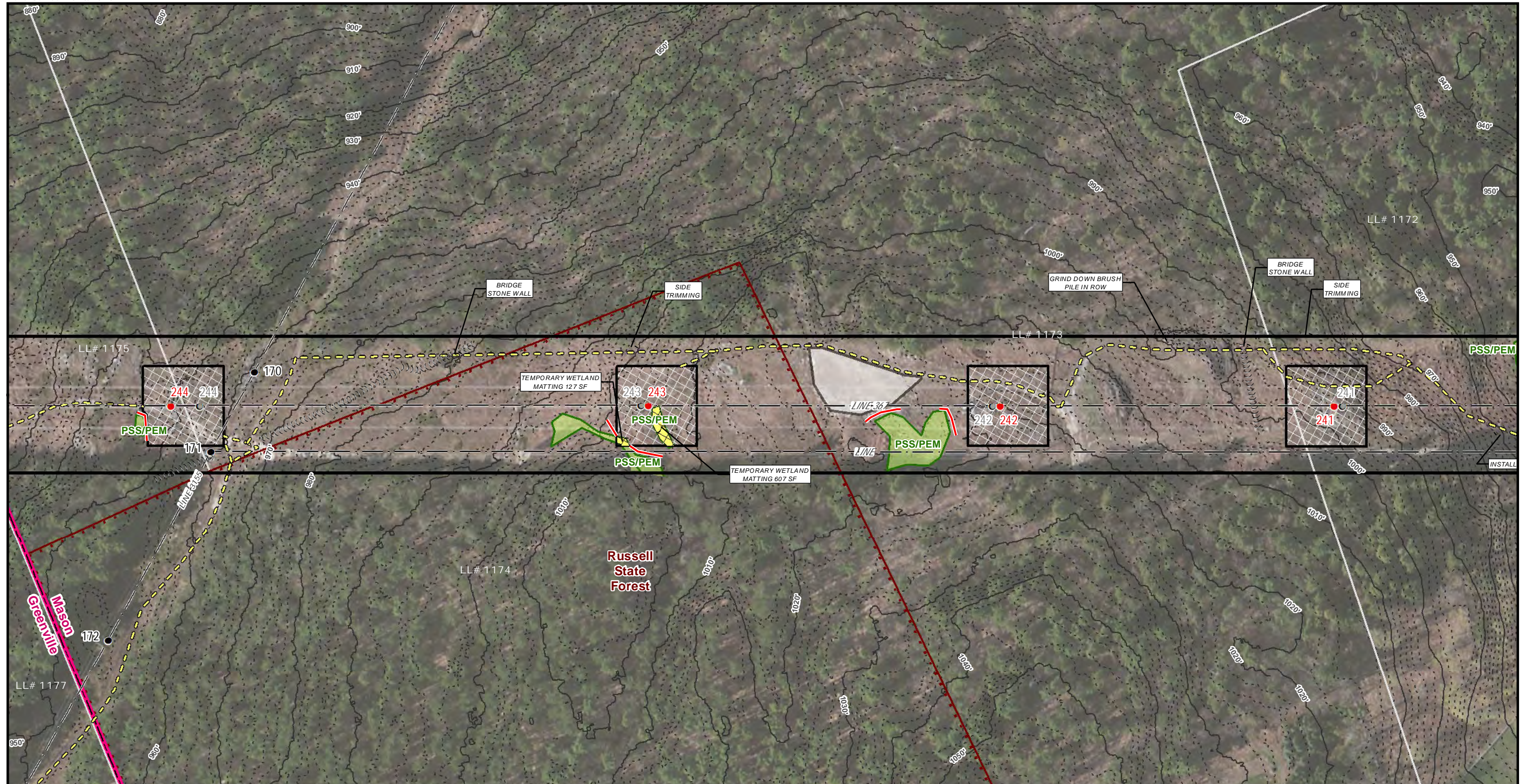
Environmental Resources Map

Greenville, NH

Page 3 of 5

EVERSOURCE ENERGY

BSC GROUP



Legend			
— (Red)	Proposed Structure	— (Blue)	Watercourse (not delineated)
— (Black)	Existing Structure to be Removed	— (Blue Dashed)	Delineated Intermittent Watercourse
— (Grey)	Existing Structure	— (Blue Solid)	Delineated Perennial Watercourse
— (Black Dashed)	Overhead Lines	— (Green)	Delineated Wetland Boundary
— (Yellow Dashed)	Proposed Access	— (Light Green)	Field Delineated Wetland
— (Red)	Sediment Controls	— (Light Blue)	Delineated Open Water
— (Grey with X)	Temporary Work Pad	— (Blue)	FEMA 100yr Floodplain
— (White)	Stone Work Pad	— (Black)	Existing Right-of-Way (ROW)
— (Yellow with X)	Temporary Construction Matting	— (Black Dashed)	Joint-use Easement
— (White)	Line List Parcel	— (Black Dotted)	Approx. Stone Wall
— (Black)	LL# 100 Line List Label	— (Black Dotted)	10ft Contours
— (Red with X)	State-Owned Property	— (Black Dotted)	2ft Contours
— (Cyan)	50ft Stream Buffer	— (Black Dotted)	
— (Green with X)	Peatlands	— (Black Dotted)	
— (Pink)	Town Boundary	— (Black Dotted)	
— (Black)	Culvert	— (Black Dotted)	
— (Blue)	Gate	— (Black Dotted)	
— (Brown)	Hiking Trail		

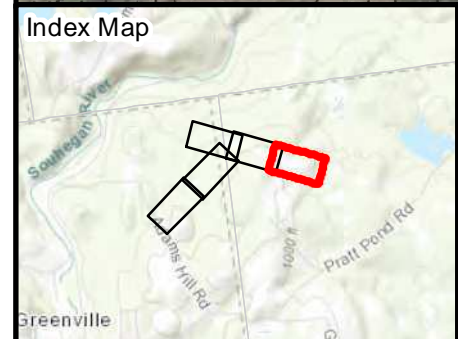
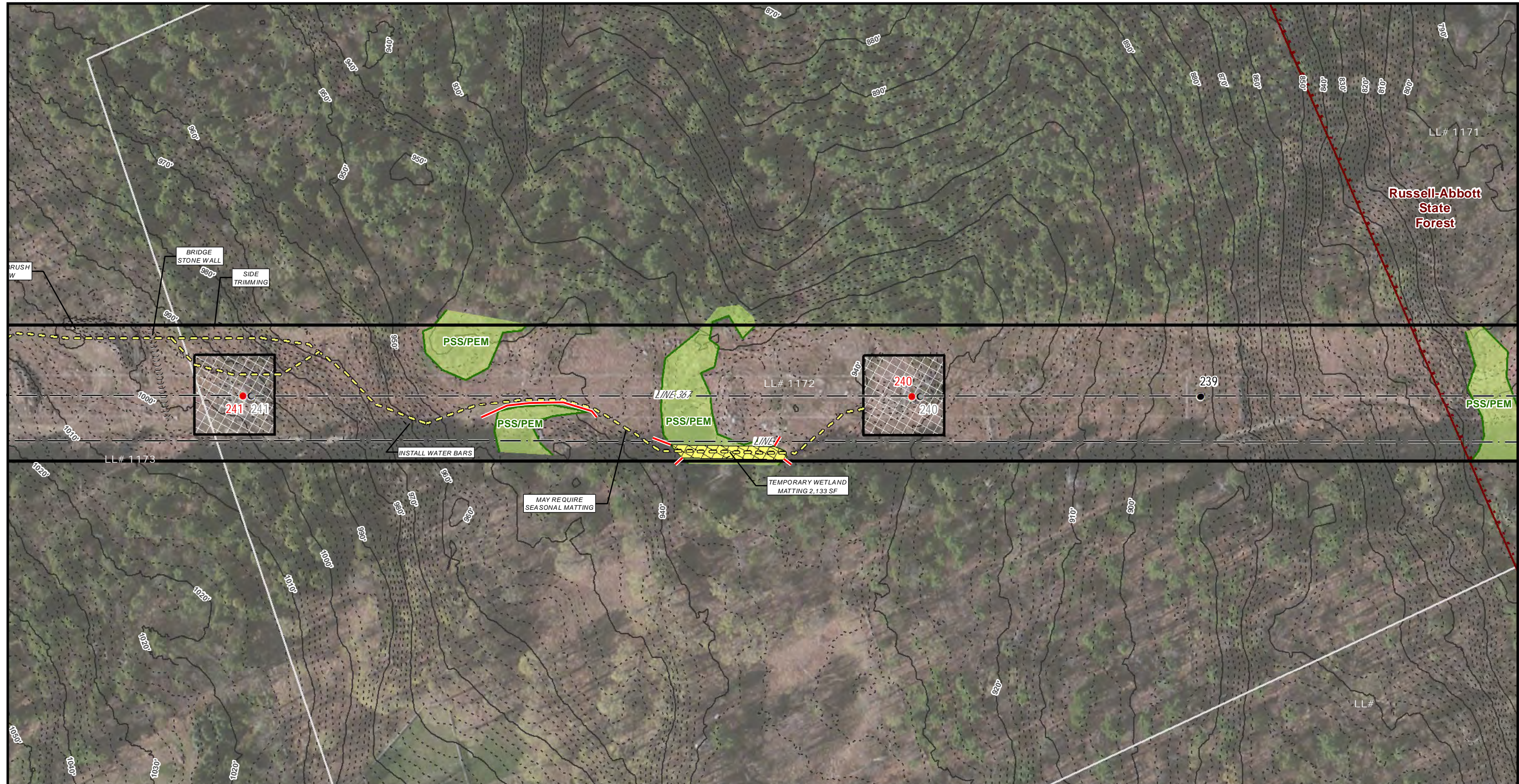
367 LINE STRUCTURE REPLACEMENT PROJECT

Environmental Resources Map

Mason, NH
Page 4 of 5

EVERSOURCE ENERGY

BSC GROUP



Legend			
! Proposed Structure	Watercourse (not delineated)	Line List Parcel	H Culvert
! Existing Structure to be Removed	Delineated Intermittent Watercourse	LL# 100 Line List Label	f Gate
(Existing Structure	Delineated Perennial Watercourse	State-Owned Property	Hiking Trail
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367 LINE STRUCTURE REPLACEMENT PROJECT

Environmental Resources Map

Mason, NH
Page 5 of 5

EVERSOURCE ENERGY

BSC GROUP

367 Line Structure Replacement Project

PLAN NOTES:

- DATA SOURCE: NEW HAMPSHIRE GEOGRAPHICALLY REFERENCED ANALYSIS AND INFORMATION TRANSFER SYSTEM (GRANIT) FROM GRANIT LIDAR (<http://lidar.unh.edu/map/>) AND CONVERTED TO CONTOURS, NAD 83. A SMALL PORTION OF WORK IN GREENVILLE DID NOT HAVE AVAILABLE DATA.

WETLAND DELINEATION

- WETLANDS WERE DELINEATED IN 2016 BY GZA & 2018 BY TIGHE & BOND. WETLANDS WERE DELINEATED USING ALPHA-NUMERICALLY CODED PINK FLAGGING TAPE.
- WETLAND DELINEATION WAS PERFORMED TO THE STANDARDS IN THE *CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0* (JANUARY 2012).

CONSTRUCTION SEQUENCE:

1. REFLAG WETLAND RESOURCE AREA BOUNDARIES PRIOR TO THE COMMENCEMENT OF WORK. MAINTAIN FLAGGING THROUGHOUT CONSTRUCTION.
2. SURVEY AND STAKE LIMITS OF CLEARING AND GRUBBING.
3. INSTALL SILT FENCING, STRAW BALES, STRAW WATTLES, SILT SOCKS, AND/OR STABILIZED CONSTRUCTION EXITS, ETC. PRIOR TO START OF CONSTRUCTION, TO BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND PERMANENT STABILIZATION
4. THE ENVIRONMENTAL CONTROLS SHOWN ON THESE PLANS MAY NEED TO BE SUPPLEMENTED DUE TO SEASON OF WORK, WORK METHODS PROPOSED, AND ADDITIONAL REQUIREMENTS OF OUTSTANDING PERMITS. LOCATION AND ALIGNMENT OF SEDIMENT AND EROSION CONTROLS MAY BE FIELD ADJUSTED AS LONG AS CONTROLS PROVIDE PROTECTION EQUAL TO OR GREATER THAN WHAT IS DEPICTED ON PROJECT MAPPING. ADDITIONAL CONTROLS MAY BE IMPLEMENTED THROUGHOUT CONSTRUCTION AS NECESSARY TO PROTECT ADJACENT WETLANDS AND RESPOND TO SITE EROSION. REFER TO BMP MANUALS, NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3 ("THE STORMWATER MANUAL"), AND ADDITIONAL GUIDANCE DOCUMENTS, AS NEEDED.
5. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL. REPAIR, CLEAN, AND REPLACE ANY SEDIMENT CONTROLS DAMAGED DURING AND/OR AFTER RAINFALL EVENTS.
6. PERFORM REQUIRED GRADING AND INSTALL BMPS TO CONTROL STORMWATER AS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT THE PRELIMINARY GRADING ALLOWS SURFACE WATER RUNOFF FROM UN-STABILIZED AREAS TO FLOW TOWARDS STABILIZED AREAS.
7. PERFORM CONSTRUCTION (I.E. UTILITY STRUCTURE REPLACEMENT).
8. LOAM, SEED, AND MULCH DISTURBED AREAS, AS NECESSARY.
9. FLATTEN OUT CUTS AND FILLS WHERE POSSIBLE AND PERMANENTLY STABILIZE SLOPES DEPENDING ON FINAL GRADE.
10. REMOVE NON-BIODGRADEABLE TEMPORARY EROSION CONTROL MEASURES, SILT FENCE, ETC. UPON COMPLETION OF CONSTRUCTION AND PERMANENTLY STABILIZE DISTURBED AREAS.

NOTE: PROPOSED BMPS PRESENTED IN DETAIL SHEETS DO NOT PRECLUDE THE NEED TO ADHERE TO OTHER REGULATORY OR PERMIT CONDITIONS.

NOTE: THE PROJECT WILL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

367 Line Structure Replacement Project

EROSION CONTROL:

1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
2. EROSION AND SEDIMENTATION CONTROLS SHALL BE APPROPRIATE TO THE SIZE AND NATURE OF THE PROJECT AND TO THE PHYSICAL CHARACTERISTICS OF THE SITE, INCLUDING SLOPE, SOIL TYPE, VEGETATIVE COVER, AND PROXIMITY TO WETLANDS OR SURFACE WATERS.
3. THE TYPE AND INSTALLATION METHOD OF EROSION AND SEDIMENT CONTROLS SHALL FOLLOW THE *BMP MANUAL FOR UTILITY MAINTENANCE IN AND ADJACENT TO WETLANDS AND WATERBODIES IN NEW HAMPSHIRE* ("BMP MANUAL") (NH DNCR, 2019).
4. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES AND REMOVE SEDIMENT ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT (0.5" OF RAINFALL OR GREATER) AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO NOT ENCUMBER OTHER PROTECTED AREAS.
5. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
6. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM AMOUNT OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
7. AREAS REMAINING UN-STABILIZED FOR A PERIOD OF MORE THAN 30 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED. STRAW MULCH SHALL BE APPLIED AT A MINIMUM RATE OF 1-1/2 TONS PER ACRE.
8. PERMANENT SEEDING SHALL OCCUR BETWEEN APRIL 1 AND JUNE 1, AND/OR BETWEEN AUGUST 15 AND OCTOBER 15. ALL SEEDING FROM MAY 15 TO SEPTEMBER 15 SHALL BE STRAW MULCHED.
9. DUST SHALL BE CONTROLLED THROUGH THE USE OF WATER.
10. THE SELECTED CONTRACTOR IS RESPONSIBLE FOR STREET SWEEPING, AS REQUIRED, AT POINTS OF INGRESS/EGRESS FROM PUBLIC AND PRIVATE ROADWAYS IN ACCORDANCE WITH THE NPDES CONSTRUCTION GENERAL PERMIT.
11. SOILS TO BE STOCKPILED FOR A PERIOD OF MORE THAN 30 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED. CONTRACTOR SHALL INSTALL SILT FENCING ALONG DOWNHILL SIDE OF STOCKPILES.
12. CONSTRUCTION MATTING SHOWN ON THE PLANS REPRESENTS THE SQUARE FOOTAGE AND ALIGNMENT OF MATTING WHICH IS REQUIRED AND APPROVED BY THE REGULATORS. ADDITIONAL LAYERS OF MATS MAY BE REQUIRED AT CERTAIN LOCATIONS. ANY INCREASE IN THE NUMBER, CHANGE IN ALIGNMENT, OR DECISION NOT TO USE CONSTRUCTION MATS MUST BE APPROVED BY AN AUTHORIZED REPRESENTATIVE OF THE PERMITTEE(S) AND, AS APPROPRIATE, REGULATORS.
13. SPAN STREAMS OR DRAINAGE SWALES WITH TEMPORARY BRIDGE OR CONSTRUCTION MATS THAT ARE FREE OF SOIL AND DEBRIS. PROTECT ALL EXISTING CULVERTS ENCOUNTERED ALONG ACCESS ROADS WITHIN THE ROW.
14. CONTRACTOR SHALL PROVIDE NECESSARY EROSION CONTROL MEASURES TO ENSURE THAT SURFACE WATER RUN-OFF FROM UNSTABILIZED AREAS DOES NOT CARRY SILT, SEDIMENT, AND OTHER DEBRIS OUTSIDE OF THE LIMITS OF WORK.
15. WATERBARS SHOULD BE INSTALLED IN ACCESS ROADS TO DIRECT STORMWATER FLOW TO UNDISTURBED AREAS, SEDIMENT TRAPS OR A SEDIMENT BASIN. EFFORTS SHOULD BE MADE TO INSTALL WATER BARS DURING THE INITIAL
16. CONSTRUCTION PHASES AND SHOULD BE MAINTAINED DURING THE RESTORATION PHASE. THE FOLLOWING ARE GENERAL GUIDELINES FOR SPACING WATERBARS ON A GIVEN SLOPE:

% GRADE	SPACING BETWEEN WATERBARS (FEET)
2	250
5	130
10	80
15	50
25+	40

367 Line Structure Replacement Project

EROSION CONTROL (Continued)

16. WHERE NECESSARY, SEDIMENT TRAPS SHOULD BE INSTALLED AT DISCHARGE POINTS FROM A DISTURBED AREA OR WITHIN A DRAINAGE SWALE TO INTERCEPT SEDIMENT-LADEN RUNOFF, ALLOWING COARSER SEDIMENT PARTICLES TO FILTER OUT AND FOLLOW GUIDELINES LISTED IN THE STORMWATER MANUAL.
17. IF DEWATERING IS REQUIRED, DEWATERING BASINS SHALL BE PLACED IN UPLANDS AND DISCHARGE WATER INTO VEGETATED UPLAND AREAS. IF THIS IS INFEASIBLE WHEN WORK IS WITHIN THE INTERIOR OF A WETLAND OR WATERBODY, GROUNDWATER WILL EITHER BE PUMPED TO A TRUCK AND THEN DRIVEN TO ADJACENT VEGETATED UPLANDS TO DISCHARGE OR A DEWATERING STRAW BALE BASIN WILL BE INSTALLED ON CONSTRUCTION MATTING TO FILTER SEDIMENT BEFORE BEING DISCHARGED (SEE SPECIFICATIONS ON PAGE 5 OF NOTES)
18. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - a. BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - a) A MINIMUM OF 85% VEGETATED GROWTH IS ESTABLISHED;
 - b) A MINIMUM OF 3-IN OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIPRAP, IS INSTALLED;
 - c) EROSION CONTROL BLANKETS ARE PROPERLY INSTALLED.
19. TEMPORARY SEEDING SHOULD OCCUR TYPICALLY BEFORE SEPTEMBER 15. FOR AREAS IN NEED OF STABILIZATION OUTSIDE OF THE GROWING SEASON, SEE WINTER CONSTRUCTION NOTES BELOW.

RESTORATION:

1. ANY PERMANENT CUT AND FILL SLOPES SHALL BE LOAMED AND SEEDED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
2. ALL PERMANENT SEEDING SHOULD FOLLOW RECOMMENDATIONS FOR BOTH SOIL TYPE AND SPECIES MIXTURE AS SHOWN IN THE BMP MANUAL IN BEST MANAGEMENT PRACTICE 17
3. FLATTEN OUT CUTS AND FILLS WHERE POSSIBLE AND PERMANENTLY STABILIZE SLOPES DEPENDING ON FINAL GRADE:
 - a) 0-15% SLOPE – SEED AND MULCH
 - b) 16-25% SLOPE – SEED AND EROSION CONTROL BLANKETS MADE OF NON-PLASTIC, BIODEGRADABLE MATERIAL.
 - c) > 26% SLOPE – RIPRAP – ALSO, FOR 16-25% SLOPES WITH CONDITIONS UNSUITABLE FOR EROSION CONTROL BLANKETS SUCH AS UNEVEN OR ROCKY GROUND SURFACES & SANDY SOILS
4. WHERE FEASIBLE IN UPLANDS, RETAIN STABILIZED WORKPADS AND ACCESS ROADS TO STRUCTURES FOR PERMANENT VEHICLE MAINTENANCE ACCESS OF TRANSMISSION SYSTEM. GENERALLY WORKPAD DIMENSIONS RETAINED WILL BE 30' X 60', HOWEVER LARGER AREAS MAY BE NEEDED FOR 3-POLE ANGLE STRUCTURES OR OTHER STRUCTURES WITH GUY WIRES.
5. IN AREAS WHERE CONSTRUCTION MATS HAVE BEEN REMOVED, ESTABLISH A PERMANENT 15' MINIMUM GRAVEL TRANSITION/TAPERED AREA TO REDUCE ABRUPT TRANSITION FROM UPLAND ACCESS ROAD TO WETLAND AND MINIMIZE EROSION POTENTIAL.
6. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT STABILIZATION, CONTRACTOR SHALL REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.

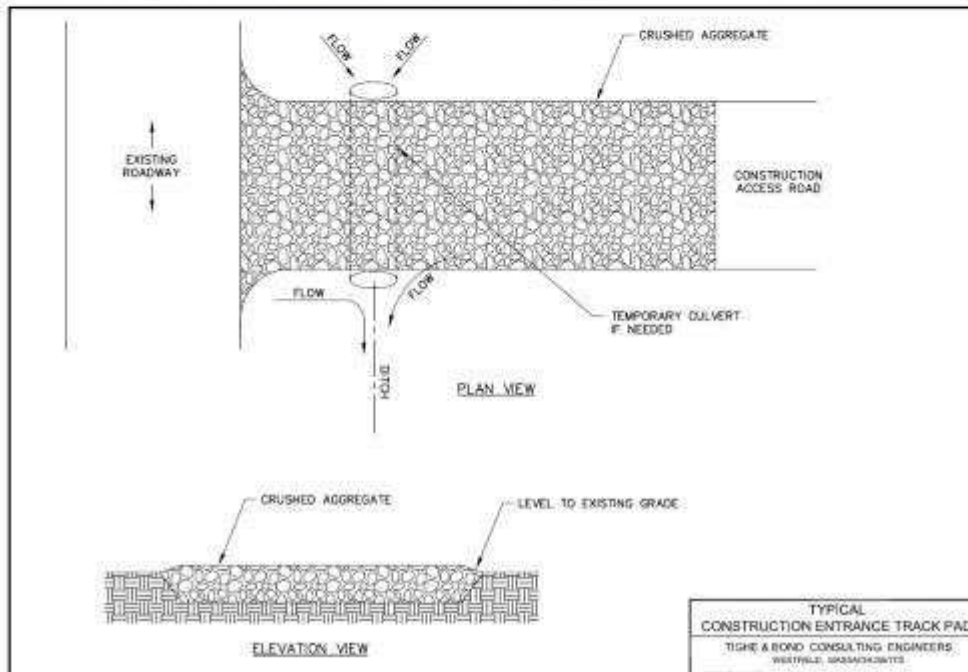
WINTER CONSTRUCTION NOTES:

1. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED. STABILIZATION METHODS SHALL INCLUDE SEEDING AND MULCH, AND INSTALLATION OF EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE TEMPORARILY STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
3. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL (NHDOT 304.3).

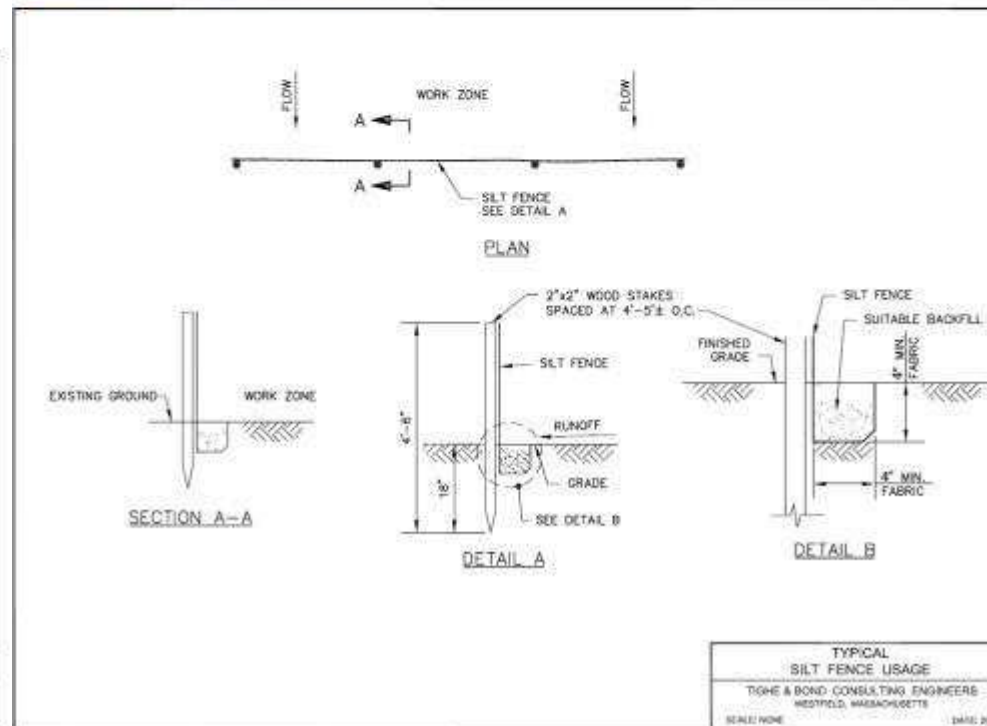
367 Line Structure Replacement Project

Best Management Practices (BMP) EXAMPLES

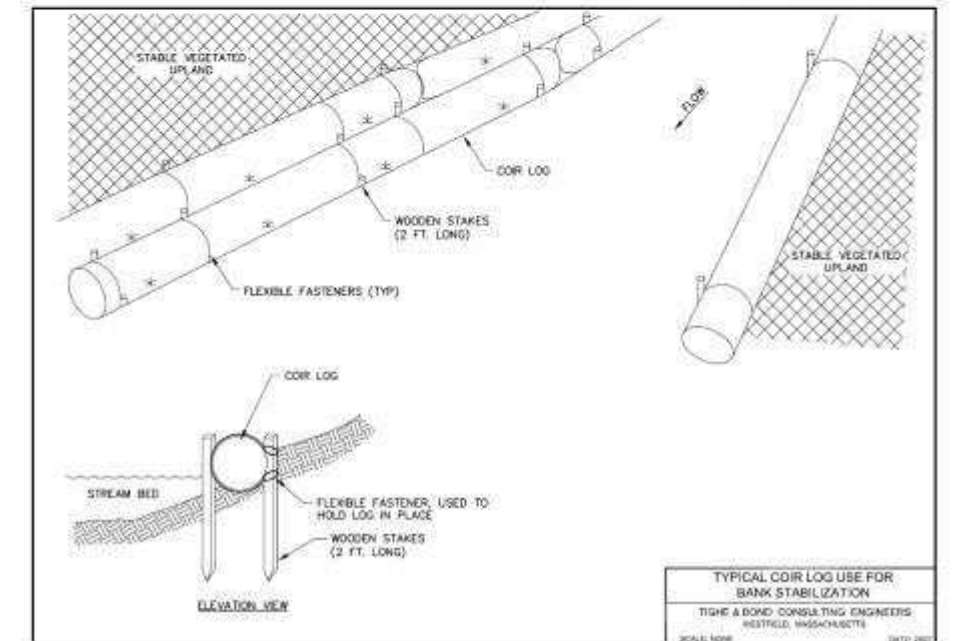
Best Management Practice 3: Temporary Construction Exit



Best Management Practice 5: Silt Fence



Best Management Practice 4: Coir Logs



Note: The use of welded plastic or 'biodegradable plastic' netting or thread (e.g. polypropylene) in erosion controls is prohibited.

367 Line Structure Replacement Project

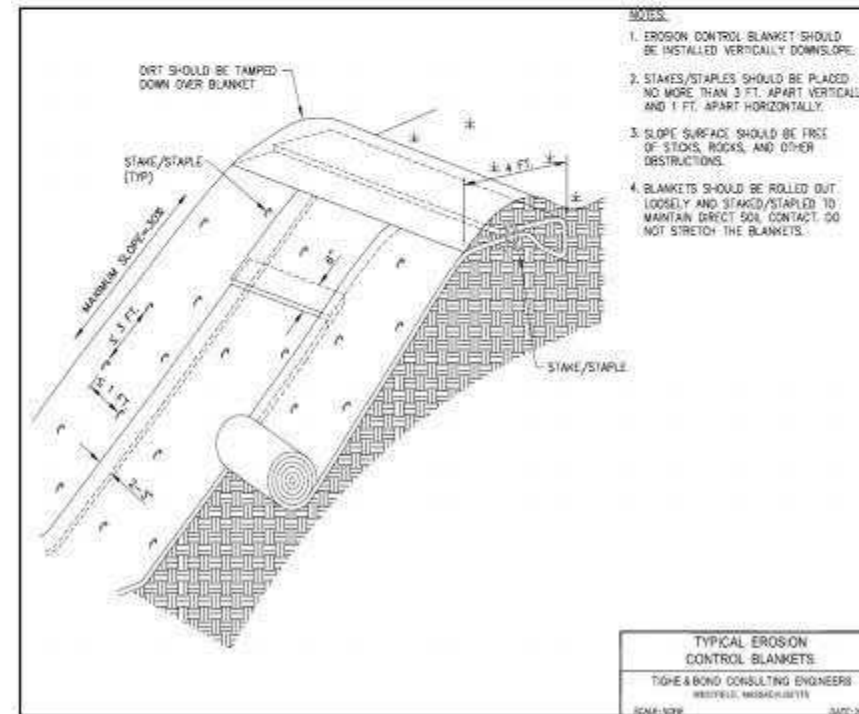
Best Management Practices (BMP) EXAMPLES

Best Management Practice 6: Weed-Free Straw or Hay Bales

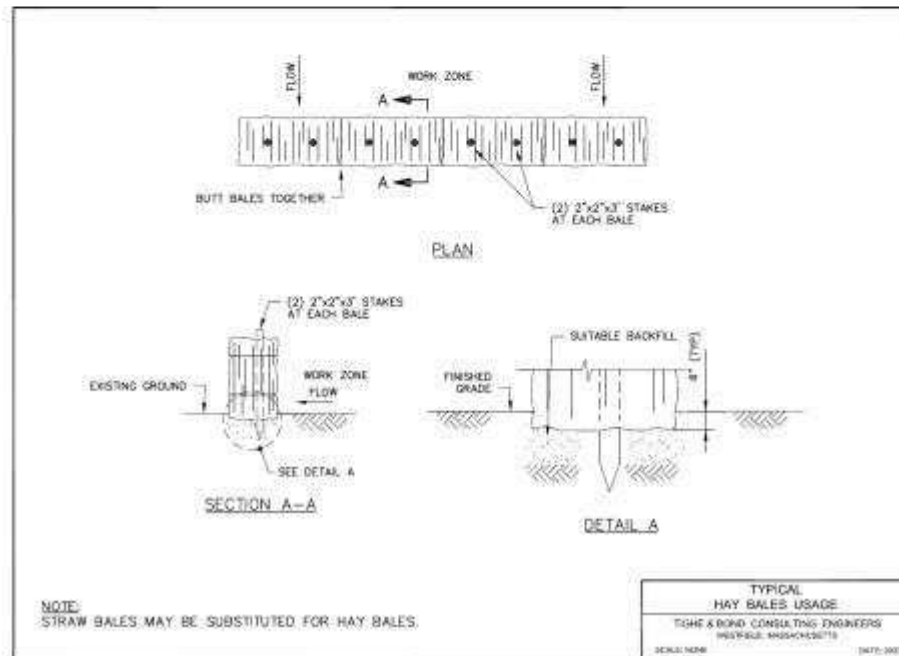
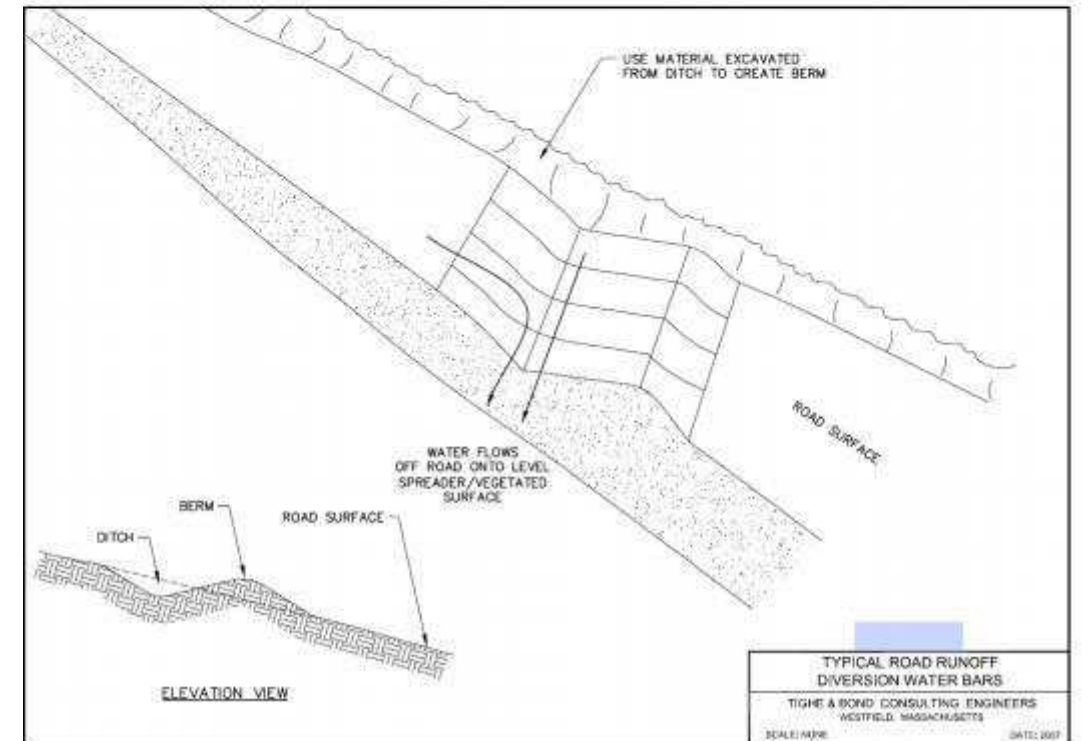


Properly installed hay bale barrier with silt fence (direction of flow indicated by arrow).

Best Management Practice 15: Erosion Control Blankets



Best Management Practice 18: Water Bars



SOURCE: BMP MANUAL FOR UTILITY MAINTENANCE IN AND ADJACENT TO WETLANDS AND WATERBODIES IN NEW HAMPSHIRE ("BMP MANUAL") (NH DNCR, 2019).
https://www.nh.gov/nhdfl/documents/new_final_utility_bmp_manual_3_8_19.pdf

Note: The use of welded plastic or 'biodegradable plastic' netting or thread (e.g. polypropylene) in erosion controls is prohibited.

Attachment E

367 Line - 2020 Structure Replacement Project
Greenville & Mason, NH
NHDES Alteration of Terrain Permit

SITE PHOTOGRAPHS



Photo #1: Example of partially revegetated, existing, historic road (3155 distribution line). *Facing northeast.*



Photo #2: Example of partially revegetated, existing, historic road (367 Line). *Facing east.*



Photo #3: Structure 242 and existing gravel access road and staging area. *Facing west.*



Photo #4: Example of existing access road between Structure 243 and 242. *Facing west.*

Attachment F

367 Line - 2020 Structure Replacement Project
Greenville & Mason, NH
NHDES Alteration of Terrain Permit

WAIVER REQUEST

Alteration of Terrain Waiver Request

RSA/Rule: RSA 485-A:17, Env – WQ 1500

Water Division / Alteration of Terrain Bureau / Land resources Management
29 Hazen Drive, PO Box 95
Concord, New Hampshire 03302-0095

A. PROJECT INFORMATION		
367 Transmission Line Project Name		
Existing 367 Line Right-of-Way Street Address		
Greenville & Mason City/Town		Various Zip Code
N/A Tax Map/Lot Number		

B. APPLICANT/OWNER INFORMATION		
Jeremy First Name	Fennell Last Name	
Eversource Energy Organization		
13 Legends Drive Street Address		
Hooksett City/Town	New Hampshire State	03106 Zip Code
Jeremy.fennell@eversource.com Email	603-634-3396 Telephone Number	

C. APPLICANT/OWNER AGENT INFORMATION		
Marleigh First Name	Sullivan Last Name	
BSC Group, Inc Organization		
33 Waldo Street, Suite 5 Street Address		
Worcester City/Town	MA State	01608 Zip Code
msullivan@bscgroup.com Email	617-896-4511 Telephone Number	

D. WAIVER REQUESTS	
<p>Env-Wq 1504.09</p> <p>Rule Section Waiver Request</p>	<p>Stormwater Drainage Report; Drainage Area Plans; Hydrologic Soil Group Plans</p> <p>Name of Rule</p>
<p>Reason for Waiver Request</p> <p>Eversource is requesting a waiver for preparing a Stormwater Drainage Report, Drainage Area Plans and Hydrologic Soil Group Plans for proposed access improvements and work pad grading associated with maintenance of the existing transmission Line structures. The proposed access and work pad improvements for continued transmission line maintenance work will not result in new impervious surfaces. As a result, stormwater treatment practices are not proposed.</p>	
<p>Waiver Timeline</p> <p>Permanent</p>	
<p>Proposed Alternative</p> <p>The proposed access and work pad improvements will not result in new impervious surface. Therefore, there is no proposed alternative to substitute the requirements of Env-Wq 1504.09.</p>	
<p>Compliance with Env- WQ 1509.04</p> <p>The project proposes to improve access routes and work pads around utility structures for the purpose of maintaining existing utility infrastructure. This project is necessary in order to maintain the safety and reliability of the electrical infrastructure. Access and work pad improvements will be completed using stone and gravel, and therefore stormwater drainage should not be affected by the proposed project. In addition, it is not anticipated that stormwater drainage area plans would show significant differences between existing and proposed conditions. An NRCS Web Soil Survey report was generated to show general soil information within the project area. Since there is no new impervious surface area proposed and stormwater drainage is not anticipated to be affected by the proposed project, it is not anticipated that soils will be significantly impacted by the project.</p> <p>Best Management Practices will be utilized to protect wetlands from erosion, sedimentation, or other environmental degradation. In addition, gravel work pads will be coated with seed and mulch to allow vegetation growth on the surface, further minimizing and preventing erosion and sedimentation. As a result, Eversource respectfully requests that a Stormwater Drainage Report, Drainage Area Plans, and Hydrologic Soil Group Plans be waived for the purposes of the proposed utility line maintenance project.</p>	

E. SIGNATURES



Applicant/Owner, Jeremy Fennell, Eversource Energy

5/13/20

Date



Applicant/Owner Agent, Marleigh Sullivan, BSC

5/13/20

Date

Redaction Log

Total Number of Redactions in Document: 10

Redaction Reasons by Page

Page	Reason	Description	Occurrences
38	CONFIDENTIAL DNCR	NH RSA 91-A:5, IV Confidential information. NH Department of Natural and Cultural Resources (DNCR) has asserted a claim of confidentiality. See also NH RSA 212-A, RSA 212-B, RSA 217-A, and/or RSA 227-C:11.	1
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41	CONFIDENTIAL DNCR	NH RSA 91-A:5, IV Confidential information. NH Department of Natural and Cultural Resources (DNCR) has asserted a claim of confidentiality. See also NH RSA 212-A, RSA 212-B, RSA 217-A, and/or RSA 227-C:11.	1
42	CONFIDENTIAL DNCR	NH RSA 91-A:5, IV Confidential information. NH Department of Natural and Cultural Resources (DNCR) has asserted a claim of confidentiality. See also NH RSA 212-A, RSA 212-B, RSA 217-A, and/or RSA 227-C:11.	1
43	CONFIDENTIAL DNCR	NH RSA 91-A:5, IV Confidential information. NH Department of Natural and Cultural Resources (DNCR) has asserted a claim of confidentiality. See also NH RSA 212-A, RSA 212-B, RSA 217-A, and/or RSA 227-C:11.	1
44	CONFIDENTIAL DNCR	NH RSA 91-A:5, IV Confidential information. NH Department of Natural and Cultural Resources (DNCR) has asserted a claim of confidentiality. See also NH RSA 212-A, RSA 212-B, RSA 217-A, and/or RSA 227-C:11.	1
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Redaction Log

Page	Reason	Description	Occurrences
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Redaction Log

Redaction Reasons by Exemption

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CONFIDENTIAL DNCR	NH RSA 91-A:5, IV Confidential information. NH Department of Natural and Cultural Resources (DNCR) has asserted a claim of confidentiality. See also NH RSA 212-A, RSA 212-B, RSA 217-A, and/or RSA 227-C:11.	38(1) 39(1) 40(1) 41(1) 42(1) 43(1) 44(1) 45(1) 58(1) 59(1)