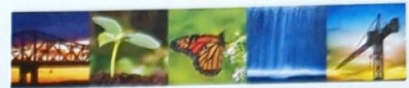




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F: 603.624.9463
www.gza.com



January 20, 2025
File No. 04.0191410.39

New Hampshire Department of Environmental Services
Wetlands Bureau
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302

Re: Statutory Permit-by-Notification (SPN)
Geotechnical Investigation
X178-2 Transmission Line Right-of-Way, Phase 2
Easton, New Hampshire

Dear Wetlands Inspector:

This letter transmits a Statutory Permit-by-Notification (SPN) application on behalf of Public Service of New Hampshire doing business as Eversource Energy (Eversource), for proposed geotechnical investigation located within the existing and maintained X178 Transmission Line Right of Way (ROW). GZA GeoEnvironmental, Inc. (GZA) has been retained by Eversource Energy to pursue State permitting for replacement of utility structures (i.e., utility poles) located within the X178 Transmission Line ROW which crosses through portions of Lincoln and Easton, New Hampshire, and geotechnical investigation is required to finalize structure design. The project team completed a pre-application meeting with MaryAnn Tilton and Alani Ramas on January 10, 2025.

Eversource is proposing to rebuild the 115kV X178 Transmission Line which crosses through portions of Campton, Thornton, Woodstock, Easton, Lincoln, Sugar Hill, Bethlehem, Dalton and Whitefield NH between the Beebe River Substation and Whitefield Substation for approximately 49 miles. In support of engineering design of proposed new structure foundations, Eversource is proposing geotechnical drilling at existing structures 264, 267, and 270 located in Easton, NH (Site). Eversource's goal is to perform this work in the winter of 2025 (approximately February to March), which would be the optimum timeframe to avoid and minimize impacts to the natural environment. A plan set is attached which depicts the right of way corridor, structure locations, boring work locations, helicopter landing areas and relevant environmental and cultural features.

The proposed project includes approximately 900 square feet (sq. ft.) of temporary impact for work platform placement in very poorly drained soils that are mapped as peatland habitat (field observed) in the Town of Easton. GZA field delineated wetland boundaries and verified the presence of very poorly drained soils (i.e., histosols and histic epipedons) and peatlands in November and December 2022 and May 2023.

PROJECT NEED

The 115kV X178 Transmission Line is being rebuilt as it is a critical source of Transmission infrastructure for northern New Hampshire. The structures detailed above require geotechnical subsurface drilling investigations to collect data for structure foundation design needs. The purpose of the geotechnical investigations is to collect boring data and samples to undergo laboratory testing to aid in design for the future replacement structures.



NATURAL RESOURCES EVALUATIONS

GZA delineated wetland boundaries, photographed resources, completed additional wetland documentation, and recorded data relevant to functions and values provided by these natural resources within the ROW in May 2023. GZA delineated wetland boundaries in accordance with the United States Army Corps of Engineers (ACOE) Wetlands Delineation Manual using the Routine Determinations Method and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual as required by the New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau and the ACOE. Within the scope area of the proposed geotechnical work (existing structures 248 through 270), GZA identified 11 wetlands within the ROW, most of which are classified as palustrine emergent and scrub-shrub systems maintained through vegetation maintenance within the ROW.

GZA conducted a vernal pool evaluation in May 2023 in accordance with "Identification and Documentation of Vernal Pools in New Hampshire," 2016, New Hampshire Fish and Game Department, Nongame and Endangered Wildlife Program (NHFG). Vernal pool areas exist as confined basins and must exhibit vernal pool criteria outlined in the New Hampshire Code of Administrative Rules, Env-Wt. 103.64, 104.15, and 104.44. Within the scope area of the proposed geotechnical work (existing structures 248 through 270), GZA identified and confirmed three vernal pools within the ROW.

At the request of the White Mountain National Forest (WMNF) in support of the National Environmental Policy Act (NEPA) permitting process, GZA performed a Rare Plant Survey conducted along a 9.8-mile stretch of the ROW, which included the scope area of the proposed geotechnical work, in June, July, and August 2024. The Rare Plant Survey resulted in the observation of one location of Wiegand's sedge on July 15, 2024, just northwest of existing Structure 257 in Wetland L-5. This area will be avoided during the geotechnical work and the future line rebuild work.

For the proposed geotechnical scope discussed herein, GZA submitted a request for data checks with New Hampshire Natural Heritage Bureau (NHB) (NHB24- 3175 & NHB24-3176) and NHFG in November 2024. The data checks, provided as **Attachment C**, identified the plant species Wiegand's sedge and the insect species Sedge darter (*Aeshna juncea*). GZA and Eversource have coordinated with NHFG regarding best management practices, and on January 9, 2025, NHFG provided a condition that "all work (including mobilization and demobilization) shall occur from December 15 to March 15th." Eversource intends to follow the requested BMPs.

CONSTRUCTABILITY

Given the remote location of the proposed work along the X178-2 Transmission Line and lack of suitable access, Eversource proposes to utilize portable rotary core drills which will be transported by helicopter to the drilling locations. A helicopter landing zone near Route 116 in Easton will be utilized to support this effort. Geotechnical drill personnel will be transported to six helicopter landing area locations within the ROW via helicopter each working day and will travel on foot to the geotechnical boring locations (see attached plans). The helicopter landing areas will consist of 20' x 16' or smaller temporary timber mat work pads. The work is proposed to be conducted by two three-man crews and it is anticipated that it will take 16 days to complete the work. Geotechnical work is proposed to take place this winter to maximize seasonal avoidance of impacts to wetlands and rare species.

Each drilling location requires a 30' x 30' temporary work platform to support the drilling effort. Temporary matting will also be utilized at wetland drilling locations. Further the polyethylene sheeting will be utilized in conjunction with the matting for fuel and spill containment purposes.



Brush maintenance within the ROW adjacent to drilling locations may be needed for proper placement of the 30' x 30' temporary work platforms and/or temporary matting. All geotechnical drilling fluids will be recovered and removed from each drilling location.

Additional details on the drilling setup have been provided by the drilling contractor, Crux, also attached.

GEOTECHNICAL SCOPE OF WORK

The following section summarizes the Scope of Work provided by Eversource's geotechnical drilling contractor, Crux.

TASK 1 – SURFACE RECONNAISSANCE - COMPLETED

- Perform a surface reconnaissance at each of the 15 boring locations identified herein. The purpose of the surface reconnaissance is to identify geologic hazards not visible on aerial photography or videography. Geologic hazards include but are not limited to, seeps and springs, sinkholes, landslides, and relic mining.

TASK 2 – EXPLORATION PLAN

- Coordinate with Eversource personnel to locate the explorations in areas away from buried utilities. Eversource will complete Dig Safe utilities locate request through the New Hampshire 811 system before Crux mobilizes to the Site.

TASK 3 – SUBSURFACE EXPLORATION

- Perform 15 Standard Penetration test (SPT) borings with one boring at each of the following structure locations: 248, 249, 251, 252, 253, 254, 255, 256, 257, 258, 259, 263, 264, 267, 270.
- Where auger drilling refusal is encountered due to bedrock, rock coring will be performed to penetrate and sample bedrock up to 10 feet below the encountered refusal depth. No bedrock will be sampled if auger refusal occurs within 5 feet of planned termination depth.
- Boreholes will be logged in accordance with the Unified Soil Classification System (USCS). Groundwater levels, if encountered, will be recorded during drilling and before hole abandonment.
- Sampling will include standard split spoon sampling at a minimum of four (4) samples in the top 10 feet and 5-foot intervals thereafter.
- Obtain Shelby tube samples where cohesive materials with blow counts less than 20 are encountered, and bulk soil samples collected from auger cuttings for select laboratory testing.
- Mobilize a field representative to characterize and document encountered subsurface conditions on field logs. The field representative will also perform the following: 1) obtain color photographs of the drill equipment and each drill location pre- and post-drilling; 2) obtain color photographs of the samples collected; 3) place recovered core, if bedrock is encountered, in boxes labeled with the project name, boring number, depth interval, and box number (separate core runs with blocks that identify depth); and 4) take color photographs of core in boxes prior to removal from Site.
- Conduct laboratory tests on select samples obtained during the exploration program. The laboratory testing program will include engineering and index properties testing on representative samples throughout the exploration program.



TASK 4 – LABORATORY TESTING

- Conduct geotechnical laboratory tests and evaluate index and geotechnical engineering characteristics and design requirements for the proposed structures.

TASK 5 – GEOTECHNICAL ENGINEERING ANALYSIS AND REPORTING

- Conduct the required engineering evaluations and analyses in order to provide the deliverables listed below. Though not anticipated, where liquefaction hazard is identified, consult with the structural engineer to evaluate potential liquefaction mitigation foundation designs and develop foundation design recommendations. Deliverables will be presented in a Geotechnical Engineering Report that presents the results of the surface reconnaissance, subsurface explorations, and geotechnical recommendations, including:
 - A brief description of the field procedure and equipment;
 - A brief description of the geologic setting of the Site;
 - Subsurface characterization of the conditions encountered during our field and laboratory testing programs, including groundwater conditions;
 - For Seismic Site Classes D, E, and F, a geologic hazard assessment including landslide, flooding, ground rupture, and liquefaction hazards;
 - For liquefaction assessment, characterize the risk including, but not limited to, the level of risk, the types of risk (settlement, differential settlement, lateral spreading, loss of bearing, etc.), and calculate the expected liquefaction-induced settlement;
 - Frost depth;
 - Soil Corrosivity;
 - Site Plan showing location of explorations;
 - Electronic boring logs;
 - Representative Site photographs;
 - Core photographs (if bedrock is encountered); and
 - Laboratory Test Results.

RESOURCE AVOIDANCE

Eversource and GZA has completed a Geotechnical Boring Plan Set to limit and avoid impacts to resources including wetlands, protected species, and archeological features. In addition, Eversource has been completing a review with the United States Forest Service (USFS) for the proposed geotechnical work.

Based on consultation with NHFG, NHB, and the New Hampshire Department of Historical Resources (NHDHR), and coordination with the United States Forest Services (USFS), the proposed geotechnical scope will have no permanent impacts on wetlands, archeological resources, fisheries, and wildlife, or any sensitive plant or animal species.



PROJECT SCHEDULE

As discussed above, the proposed geotechnical scope is proposed to be completed this winter, with a desired start in the WMNF in February-March 2025.

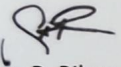
ALTERNATIVES ANALYSIS

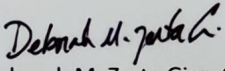
The X178 Transmission Line already exists within a ROW within the White Mountain National Forest and geotechnical drilling is required to adequately design replacement structures installed via helicopter construction methods. The usage of helicopter construction methods will significantly reduce temporary impacts for access within jurisdictional resource areas and there is no other lesser impacting alternative available to Eversource to complete geotechnical analysis.

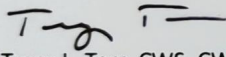
Pursuant to RSA 482-A:3; XV(d), Eversource is submitting a one-time annual fee of \$400 for the Town of Easton in order to cover Notifications during 2024.

Please feel free to contact Mr. Steven Riker at (603) 913-9314 if you have any questions or comments.

Very truly yours,
GZA GEOENVIRONMENTAL, INC.


Steven D. Riker, CWS
Senior Project Manager


Deborah M. Zarta Gier, CNRP
Consultant Reviewer


Tracy L. Tarr, CWS, CWB, CESSWI
Associate Principal

SDR/TLT/DMZ: jkm

P:\04Jobs\0191400s\04.0191410.00 - EE Siting Permitting 2019-2022\04.0191410.39 - X178 Transmission Line Rebuild Project\Work\State Permitting\SPN - geotechnical investigation\Easton\FINAL
04.0191410.00 EASTON SPN.docx

Attachments: Wetlands Statutory Permit-by-Notification (SPN) Form
NHB Report
NHFG Correspondence
Site Locus
Annotated Aerial Plan
Natural Resource Limitations
Crux Drilling Setup Details

cc: Kurt Nelson, Eversource
Town of Easton, Town Clerk



UTILITY MAINTENANCE ACTIVITY
STATUTORY PERMIT-BY-NOTIFICATION (SPN)
Wetlands and Land Resources Management
State of Michigan
March 2010



Wetlands and Land Resources Management
State of Michigan
March 2010

1. Project Name: _____
2. Project Location: _____
3. Project Description: _____
4. Project Dates: _____
5. Project Status: _____

Wetlands and Land Resources Management
State of Michigan
March 2010

6. Wetlands and Land Resources Management
State of Michigan
March 2010

Wetlands Statutory Permit-by-Notification (SPN) Form

Wetlands and Land Resources Management
State of Michigan
March 2010

7. Wetlands and Land Resources Management
State of Michigan
March 2010

Wetlands and Land Resources Management
State of Michigan
March 2010



UTILITY MAINTENANCE ACTIVITY
STATUTORY PERMIT-BY-NOTIFICATION (SPN)
 Water Division/ Land Resources Management
[Check the Status of your Notification](#)



RSA/Rule: RSA 482-A / Env-Wt 308.04(d); Env-Wt 521

NAME OF UTILITY PROVIDER: Eversource Energy

Administrative Use Only	Administrative Use Only	<input type="checkbox"/> SPN complete and project as described conforms with all applicable requirements.	
		<input type="checkbox"/> SPN incomplete and/or project as described does not conform with all applicable requirements.	
		File No.:	Reviewer's Initials:
		Check No.:	Amount:

Terms in **bold font** are defined in the attached "Definition of Terms" page.

SECTION 1 - PROJECT CRITERIA

- a. Does the project meet all applicable [Best Management Practices for Utility Maintenance](#) (Utility BMPs, 2019, New Hampshire Department of Natural and Cultural Resources) and have temporary impacts associated with inspection, maintenance, repair, replacement, or removal of existing utility facilities only within existing rights-of-way (Env-Wt 521.06(a)(1))? ☒ Yes ☐ No
- b. If there will be impacts to any **Priority Resource Area (PRA)**, other than **designated prime wetlands** and their **duly-established 100-foot buffers**, will the project follow recommendations provided by Natural Heritage Bureau (NHB), New Hampshire Fish and Game Department (NHFG), and the Department (Env-Wt 521.06(a)(4))? ☒ Yes ☐ No ☐ N/A

If you answered "No" to question 1a and/or 1b, you cannot use this form and must file a [Standard Permit Application](#) (RSA 482-A:3, XV). If you answered "Yes" to question 1a and 1b, proceed to question 1c.

- c. Will the project include establishing new access roads, installing permanent stream or **wetland** crossings, constructing new utility corridors or rights of way (ROW), or establishing new utility assets within existing corridors or rights of way (Env-Wt 521.06(a)(2))? ☐ Yes ☒ No
- d. Will the project include any permanent fill in navigable waters (Env-Wt 521.06(a)(3))? ☐ Yes ☒ No
- e. Will timber mats be:
- Used in a tidal **marsh**; or
 - Used in an area other than a tidal marsh if they are:
 - Not necessary to conduct activities;
 - Not removed as soon as work is completed; or
 - In place longer than one growing season (Env-Wt 521.06(a)(5))?
- f. Will the project cause permanent conversion of more than 3,000 SF of forested **wetlands** to emergent or **scrub-shrub wetlands** with or without temporary fill (Env-Wt 521.06(a)(6))? ☐ Yes ☒ No

If you answered "Yes" to questions 1c, d, e, and/or f, you cannot use this form and must file a [Standard Permit Application](#) (RSA 482-A:3, XV). If you answered "No" to all of the questions 1c-1f, continue to Section 2.

SECTION 2 - PROPOSED PROJECT DESCRIPTION (RSA 482-A:3, XV(b)(2))

Please provide a brief written description of the nature of the work to be conducted.

The proposed project includes approximately 900 square feet (sq. ft.) of temporary wetland matting in very poorly drained soils to perform one Standard Penetration Test (SPT) boring at a single existing overhead transmission line structure (Existing Structure 264) which is located in a jurisdictional wetland area within the X178-2 Transmission Line Right-of-Way (ROW).

SECTION 3 - LOCATION OF PROPOSED ACTIVITY (RSA 482-A:3, XV(b)(3))Town/City: **Easton****SECTION 4 - PROJECT TYPE (RSA 482-A:3, XV(b)(2))**

Check all that apply:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Equipment repair and maintenance in ROW | <input type="checkbox"/> Natural Gas Lines |
| <input checked="" type="checkbox"/> Overhead Electric Lines | <input type="checkbox"/> Water Supply Lines |
| <input type="checkbox"/> Overhead Telephone or Cable Lines | <input type="checkbox"/> Sewer Lines |
| <input type="checkbox"/> Vegetative maintenance within ROW
(If access through private property is needed to reach the ROW, permission from the landowner(s) is required prior to conducting work.) | <input type="checkbox"/> Other: |

SECTION 5 - UTILITY PROVIDER (RSA 482-A:3, XV(b)(1))UTILITY PROVIDER/COMPANY NAME: **Eversource Energy**AUTHORIZED REPRESENTATIVE LAST NAME, FIRST NAME, M.I.: **Nelson, Kurt**MAILING ADDRESS: **13 Legends Drive**TOWN/CITY: **Hooksett**STATE: **NH**ZIP CODE: **03106****SECTION 6 - IMPACTED RESOURCES (RSA 482-A:3, XV(b)(2))**

Check all that apply.

- | |
|---|
| <input checked="" type="checkbox"/> Temporary Non-Tidal Wetland |
| <input type="checkbox"/> Temporary Intermittent Stream Crossing |
| <input type="checkbox"/> Temporary (2-years maximum) Perennial Stream or River Crossing |

lrn@des.nh.gov or (603) 271-2147

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

des.nh.gov

SECTION 7 - ATTACHMENTS (RSA 482-A:3, XV))

Verify the following attachments are submitted with this form by checking each box below.

☒ **United States Geological Survey (USGS) Topographic Map** (at its original scale 1:24,000 or 1:25,000) with the project location(s) or utility corridor clearly identified (RSA 482-A:3, XV(b)(3)).

☒ The most recent National Wetland Inventory (NWI) map, **USGS topographic map**, or annotated aerial photograph showing wetland types crossed. See NHDES Wetland Permit Planning Tool (Env-Wt 406.03(b)(2)c.(5)).

☒ \$400 non-refundable filing fee per town, per year. Please make check or money order payable to: Treasurer - State of NH (RSA 482-A:3, XV(d)).

☒ The **DataCheck** identification number and an affirmation that recommendations have been received (Env-Wt 308.05(a)(2)).

Natural Heritage Bureau Identification ID:

Questions related to completing this process should be directed to the Natural Heritage Bureau.

SECTION 8 - REQUIRED CERTIFICATIONS FROM AUTHORIZED UTILITY PROVIDER REPRESENTATIVE

By initialing each item and signing this application, the authorized representative affirms that (Env-Wt 308.05(b)(2)):

Initials: KIN	The project is not located in a PRA, except as provided in Env-Wt 407 and Env-Wt 521 where the applicant has met with the resource agencies (NHB, NHFG, and NHDES) in a pre-notice meeting.
------------------	---

Initials: KIN	All recommendations of NHB and NHFG have been received. And
------------------	---


Initials: KIN	The person responsible for the activity is aware of the limits of the SPN and applicable BMPs for the project, and will adhere to both.
------------------	---

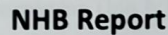
By initialing each item and signing this application, the authorized representative certifies that (Env-Wt 311.11(e)):

Initials: KIN	The information submitted on or within this notification is true, complete, and not misleading to the best of the signer's knowledge and belief. And
------------------	--

Initials: KIN	<p>The signer understands that:</p> <ul style="list-style-type: none"> The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: <ol style="list-style-type: none"> Deny the application. Revoke any approval that is granted based on the information. And If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1.
------------------	---

SECTION 9 - REQUIRED SIGNATURE FROM AUTHORIZED UTILITY PROVIDER REPRESENTATIVE

AUTHORIZED REPRESENTATIVE SIGNATURE: 	PRINT NAME LEGIBLY: Kurt Nelson	DATE:
---	------------------------------------	-------





NHB DataCheck Results Letter

NH Natural Heritage Bureau

Please note: maps and NHB record pages are **confidential** and shall be redacted from public documents.

To: Lindsey White, GZA GeoEnvironmental
5 Commerce Park North Suite 201
Bedford, NH 03110
lindsey.white@gza.com

From: NHB Review
NH Natural Heritage Bureau
Main Contact: Maddie Severance - nhbreview@dncr.nh.gov

cc: NHFG Review

Date: 11/07/2024 (valid until 11/07/2025)

Re: DataCheck Review by NH Natural Heritage Bureau and NH Fish & Game

Permits: MUNICIPAL POR - Easton, NHDES - Utility Statutory Permit by Notification (SPN), USACE - General Permit

NHB ID: NHB24-3175

Town: Easton

Location: Eversource Right-of-Way

Project Description: Eversource Energy is proposing to conduct geotechnical borings in support of proposed utility line maintenance activities within the X178 Transmission Line ROW. Helicopters will be used to deliver equipment to the proposed site locations. This project has been designed to avoid impacts to rare plant and animal species.

Next Steps for Applicant:

NHB's database has been searched for records of rare species and exemplary natural communities. Please carefully read the comments and consultation requirements below.

NHB Comments: Under past projects in this ROW, surveys were completed for Wiegand's sedge (*Carex wiegandii*) in 2024 and no rare plants were found within the proposed project area. The rare plant was found in the existing mapped location on the DataCheck Letter (the year and information are not up to date in our database), however the location is in Lincoln, outside of the proposed work area and is not expected to be impacted. The exemplary ecological systems included on the DataCheck Letter are also not expected to be impacted as long as the work is contained to the maintained ROW in the areas mapped on the DataCheck Letter.

NHFG Comments: Please refer to NHFG consultation requirements below.

NHB Consultation

If this NHB DataCheck letter includes records of rare plants and/or natural communities/systems, please contact NHB and provide any requested supplementary materials by emailing nhbreview@dncr.nh.gov.



NHB DataCheck Results Letter

NH Natural Heritage Bureau

Please note: maps and NHB record pages are **confidential** and shall be redacted from public documents.

If this NHB DataCheck letter DOES NOT include any records of rare plants and/or natural communities/systems, no further consultation with NHB is required.

NH Fish and Game Department Consultation

If this NHB DataCheck letter DOES NOT include ANY wildlife species records, then, based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

If this NHB DataCheck letter includes a record for a threatened (T) or endangered (E) wildlife species, consultation with the New Hampshire Fish and Game Department under Fis 1004 may be required. To review the Fis 1000 rules (effective February 3, 2022), please go to <https://www.wildlife.nh.gov/wildlife-and-habitat/nongame-and-endangered-species/environmental-review>. All requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent by mail, and **must include the NHB DataCheck results letter number and "Fis 1004 consultation request" in the subject line.**

If the NHB DataCheck response letter does not include a threatened or endangered wildlife species but includes other wildlife species (e.g., Species of Special Concern), consultation under Fis 1004 is not required; however, some species are protected under other state laws or rules, so coordination with NH Fish & Game is highly recommended or may be required for certain permits. While some permitting processes are exempt from required consultation under Fis 1004 (e.g., *statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule*), coordination with NH Fish & Game may still be required under the rules governing those specific permitting processes, and it is recommended you contact the applicable permitting agency. For projects not requiring consultation under Fis 1004, but where additional coordination with NH Fish and Game is requested, please email NHFGreview@wildlife.nh.gov, and include the NHB DataCheck results letter number and "review request" in the email subject line. **Contact NH Fish & Game at (603) 271-0467 with questions.**



NHB DataCheck Results Letter

NH Natural Heritage Bureau

Please note: maps and NHB record pages are **confidential** and shall be redacted from public documents.

NHB Database Records:

The following record(s) have been documented in the vicinity of the proposed project.

Please see the map and detailed information about the record(s) on the following pages.

Invertebrate Species	State ¹	Federal	Notes
Sedge Darner (<i>Aeshna juncea</i>)	--	--	Contact the NH Fish & Game Dept (see above).
Natural Community	State ¹	Federal	Notes
High-elevation spruce - fir forest system	--	--	Threats include logging and climate change.
Medium level fen system	--	--	Level fens are stagnant, and as such are characterized by low nutrient levels, relatively high acidity levels, and accumulations of peat. The primary threats to this community are changes to its hydrology (especially that which causes pooling), increased nutrient input from stormwater runoff, and sedimentation from nearby disturbance.
Plant species	State ¹	Federal	Notes
Wiegand's sedge (<i>Carex wiegandii</i>)	E	--	Primary threat to it would be removal of trees through logging or development.

¹Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list.

An asterisk (*) indicates that the most recent report for that occurrence was 20 or more years ago.

For all animal reviews, refer to 'IMPORTANT: NHFG Consultation' section above.

Disclaimer: NHB's database can only tell you of known occurrences that have been reported to NHFG/NHB. Known occurrences are based on information gathered by qualified biologists or members of the public, reported to our offices, and verified by NHB/NHFG.

However, many areas have never been surveyed, or have only been surveyed for certain species.

NHB recommends surveys to determine what species/natural communities are present onsite.

NHB DataCheck Results Letter

NH Natural Heritage Bureau

Please note: maps and NHB record pages are **confidential** and shall be redacted from public documents.

NHB24-3175

EPCODE:

IIODO14080*006*NH

New Hampshire Natural Heritage Bureau - Animal Record

Sedge Darner (*Aeshna juncea*)

Legal Status

Federal: Not listed

State: Not listed

Conservation Status

Global: Demonstrably widespread, abundant, and secure

State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked

Comments on Rank: --

Detailed Description: 2015: 2 males and 1 female observed.

General Area: --

General Comments: --

Management: --

Comments:

Location

Survey Site Name: Bog Pond

Managed By: White Mountain National Forest

County: Grafton

Town(s): Lincoln

Size: .4 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: --

Dates documented

First reported: 2015-08-10

Last reported: 2015-08-10

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

NHB DataCheck Results Letter

NH Natural Heritage Bureau

Please note: maps and NHB record pages are **confidential** and shall be redacted from public documents.

NHB24-3175

ECODE:

ET00000008*008*NH

New Hampshire Natural Heritage Bureau - System Record

High-elevation spruce - fir forest system

Legal Status

Federal: Not listed
State: Not listed

Conservation Status

Global: Not ranked (need more information)
State: Apparently secure but with cause for concern

Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).
Comments on Rank: 2007: System is large, well protected, and in good condition.

Detailed Description: 2007: System observed and photographed from the air.

General Area: --
General Comments: --
Management: --
Comments:

Location

Survey Site Name: Kinsman Ridge
Managed By: White Mountain National Forest

County: Grafton
Town(s): Lincoln
Size: 7658.3 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Kinsman Ridge.

Dates documented

First reported: 2007-10-05 Last reported: 2007-10-05

NHB DataCheck Results Letter

NH Natural Heritage Bureau

Please note: maps and NHB record pages are **confidential** and shall be redacted from public documents.

NHB24-3175

EOCODE:

EP00000003*073*NH

New Hampshire Natural Heritage Bureau - System Record

Medium level fen system

Legal Status

Federal: Not listed

State: Not listed

Conservation Status

Global: Not ranked (need more information)

State: Rare or uncommon

Description at this Location

Conservation Rank: Good quality, condition and landscape context ('B' on a scale of A-D).

Comments on Rank: 2010: Medium level fens of this size or larger are uncommon in the mountains at this elevation. In cases such as this, the Natural Heritage Bureau allows for a size rank adjustment compared to equivalently-sized lowland examples. In this example, the observers suggest a B+ size rank assignment (from an otherwise B or B- rank). Cutting of trees under the powerline is generally not necessary because water levels within the fen keep tree heights short. Oily sheen near old transmission line poles left in the wetland may represent a diminishment of system condition, but not enough to alter exemplary status.

Detailed Description: 2010: The medium level fen system occupies much of the open wetland surrounding the north and west sides of Bog Pond. Beaver activity is present. The snags indicate that portions of the fen were once more wooded, shifting vegetation from wooded fen or swamp to more open peatland communities. The primary communities observed were *sweet gale - meadowsweet - tussock sedge fen, sedge meadow marsh* (peat variant), and mosaics of *alder wooded fen and short sedge - moss lawn* (a common expression of *large cranberry - short sedge moss lawn* without large cranberry). All are well represented and common based on observations made from and near the transmission line corridor. *Myrica gale* (sweet gale), *Spiraea alba* var. *latifolia* (eastern meadowsweet), and *Carex stricta* (tussock sedge) dominate the overstory in the *sweet gale - meadowsweet - tussock sedge fen*, with peat mosses (*Sphagnum* spp.) dominating the ground layer. The *sedge meadow marsh* (typic variant on mudflat) occupies portions of the immediate stream corridor behind beaver dams, and the peat variant of this community occurs elsewhere. Both expressions are typical in **medium level fen systems**. Large areas at the north end of the fen system (NE of the transmission line corridor) are best described as complex mosaics of *alder wooded fen and short sedge - moss lawns*. *Alnus incana* ssp. *rugosa* (speckled alder) varies from 10-25 % cover, with lesser amounts of *Viburnum nudum* var. *cassinoides* (witherod). Intervening open areas contain an abundance of *Eriophorum virginicum* (tawny cotton-grass) and *Carex echinata* (prickly sedge), with lower amounts of *Calamagrostis canadensis* var. *canadensis* (robust bluejoint), *Dulichium arundinaceum* (three-way sedge), and *Aster radula* (roughleaved aster). Peat mosses (*Sphagnum* spp.) dominate the ground layer, typically forming 80% cover or more. The complexity of the vegetation is a reflection of water level changes (damming followed by dam abandonment) and subsequent vegetation successions that follow. With continued

NHB DataCheck Results Letter

NH Natural Heritage Bureau

Please note: maps and NHB record pages are **confidential** and shall be redacted from public documents.

NHB24-3175

EOCODE:

EP00000003*073*NH

inactivity of beavers, a slow progression toward alder wooded fen is expected; with resumption of active damming, progression to open fen or marshy fen vegetation would be likely.

General Area: 2010: The **medium level fen system** occupies a majority of the open wetlands around Bog Pond. The fen transitions to **red spruce swamp** around its margin and to a **poor level fen/bog system**. **Sugar maple - beech - yellow birch forest** and **northern hardwood - spruce - fir forest** surround the upland areas around the wetland.

General Comments: 2010: An oily sheen is evident in localized areas near old transmission line poles (left in wetland following replacement years ago).

Management: --

Comments:

Location

Survey Site Name: Bog Pond
Managed By: White Mountain National Forest

County: Grafton
Town(s): Lincoln
Size: 88.2 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2010: Accessed from Kinsman Pond Trail via the powerline right-of-way opening. Steep ledge near trail should be circumvented by working around the steep area to the east of the right-of-way by about 200 m.

Dates documented

First reported: 2010-08-18 Last reported: 2010-08-19



New Hampshire Dept. of Transportation (NHFDOT) has reviewed the material submitted by GZA and has approved the material for use on the project. The material is being used for the design of the project and the material is being used for the design of the project. The material is being used for the design of the project and the material is being used for the design of the project.

Project description: [faded text]

- [faded text]
- [faded text]
- [faded text]

NHFG Correspondence

Please provide the following information:

Please provide the date of your letter to the [faded text] and the date of the [faded text] letter.

Please provide the [faded text] and the [faded text] of the [faded text] and the [faded text] of the [faded text].

Please provide the [faded text] and the [faded text] of the [faded text] and the [faded text] of the [faded text].

Please provide the [faded text] and the [faded text] of the [faded text] and the [faded text] of the [faded text].

Please provide the [faded text] and the [faded text] of the [faded text] and the [faded text] of the [faded text].

Please provide the [faded text] and the [faded text] of the [faded text] and the [faded text] of the [faded text].

Please provide the [faded text] and the [faded text] of the [faded text] and the [faded text] of the [faded text].

From: Buchanan, Jennifer
To: Steve Riker; FGC: NHFG review
Cc: Kurt Nelson; Kwapiszeski, Jacob; Tracy Tarr; Ramas, Alani; Tilton, Mary Ann
Subject: [EXTERNAL] NHB24-3175_NHB24-3176_Eversource X178-2 (Phase 2)_Lincoln_Easton_DES SPN#UNK_NHFG Recommendations
Date: Thursday, January 9, 2025 8:49:50 AM
Attachments: [image005.png](#)
[image007.png](#)



Morning,

New Hampshire Fish and Game (NHFG) has reviewed the materials submitted by GZA and Eversource on 12/12/24 for consultation on **NHB24-3175 and NHB24-3176**. In the Towns of Lincoln and Easton, Eversource is proposing geotechnical investigations to support engineering design for a line rebuild of the X178 Transmission Line. This submittal (Phase 2) includes areas within the White Mountain National Forest. Eversource is proposing to complete geotechnical borings at select proposed structure replacement locations. Helicopters will be used to deliver equipment to the proposed site locations.

Permit applications associated with this review:

- **NHDES Statutory Permit by Notification Application (Yet to be filed)**
- **NEPA Categorical Exclusion (In Review by the Forest Service)**
- **USACE PCN approval (Yet to be filed)**

Please provide any additional permit numbers.

Please note the time of year restrictions in the recommended permit conditions below. If clarification is needed, contact NHFG.

Notify NHFG if/when phases on this project begin and finish. Please use the subject line "NHB24-3175_NHB24-3176_X178 Geotechnical Boring Work Start/End Notification." Notify NHFG if there are any breaks in the schedule for active work zones.

Please note that "active season" dates for rare species are variable based on weather and other environmental factors. NHFG may recommend dates that vary from initial reviews based on available information of animal activity.

Recommended conservation measures shall apply to all work areas unless otherwise specified by NHFG.

Based on the NHB DataCheck results letter and the information provided in the submission, we request the following recommended permit conditions. These recommended permit conditions are applicable to all state permits listed above. Please include recommended permit conditions in final plan sheets or environmental resources map as written below (updated highlighted text as applicable) and provide to NHDES for final review, with a copy to NHFG. Permit reviewers will adopt/include NHFG permit conditions in the permit if approved.

New Hampshire Fish and Game Permit Conditions for NHB24-3175 and NHB24-3176:

1. All work (including mobilization and demobilization) shall occur from December 15th – March 15th.

2. Sedge Darner (special concern) occur within the vicinity of the project area.
 - a. This species is known to occur in higher latitudes and high elevation environments with ponds, bogs, marshes and fens. The proposed work areas between Structures 246 – 258, and Structures 263 – 266 contain suitable habitat for the sedge darner. This species has been documented within the project area in the vicinity of Bog Pond/Eliza Brook/Harvard Brook (Wetland L-1).
 - b. Rare species information (e.g. identification, observation and reporting of observations, when to contact NHFG immediately and NHFG contact information) shall be posted on site at all times and communicated during morning tailgate meetings prior to work commencement.
3. Vernal pools and potential vernal pools (PVP) shall be flagged prior to work, and impacts shall be avoided.
4. No disturb vegetative buffers of 50' shall be maintained around vernal pools.
5. Work platform disturbance areas shall be minimized to the greatest extent possible.
6. All work activities shall be restricted to the defined roads, construction areas, and staging areas, with no equipment or materials staged or stored outside of the defined areas as shown on plan sheets dated September 24, 2024.
7. All manufactured erosion and sediment control products, with the exception of turf reinforcement mats, utilized for, but not limited to, slope protection, runoff diversion, slope interruption, perimeter control, inlet protection, check dams, and sediment traps shall not contain plastic, or multifilament or monofilament polypropylene netting or mesh with an opening size of greater than 1/8 inches; **See Plan Sheet xxxxx**.
8. All observations of threatened or endangered species on the project site shall be reported immediately to the NHFG nongame and endangered wildlife environmental review program by phone at 603-271-2461 and by email at NHFGreview@wildlife.nh.gov, with the email subject line containing the NHB DataCheck tool results letter assigned number, the project name, and the term Wildlife Species Observation.
 - a. Photographs of the observed species and nearby elements of habitat or areas of land disturbance shall be provided to NHFG in digital format at the above email address for verification, as feasible.
9. In the event a threatened or endangered species is observed on the project site during the term of the permit, the species shall not be disturbed, handled, or harmed in any way prior to consultation with NHFG and implementation of corrective actions recommended by NHFG.
 - a. Site operators shall be allowed to relocate wildlife encountered if discovered within the active work zone if in direct harm from project activities.
 - b. Wildlife shall be relocated in close proximity to the capture location but outside of the work zone and in the direction the individual was heading.
 - c. NHFG shall be contacted immediately if this action occurs.
10. The NHFG, including its employees and authorized agents, shall have access to the property during the term of the permit.

These recommendations have been transmitted to the applicable permitting agency. Questions or concerns on NHFG recommendations provided in this communication **must** follow [FIS 1004.12](#) that requires a written request for further consultation provided within 10 days of receipt of this communication. Note that NHFG recommendations may be withdrawn pursuant to [FIS 1004.13](#).

Please let me know if you have any questions,

Jennifer Buchanan
Wildlife Biologist

Wildlife Division
New Hampshire Fish and Game Department
11 Hazen Drive, Concord, NH 03301
p. 603-271-5860
e. jennifer.l.buchanan@wildlife.nh.gov
wildlife.nh.gov

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New Hampshire Fish and Game requirements for environmental review consultation can be found at: https://gencourt.state.nh.us/rules/state_agencies/fis1000.html. ALL requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail. **The NHB DataCheck results letter number needs to be included in the email subject line to read as "NHBxx-xxxx_Project Name_FIS 1004 Consultation Submittal".**

The requirements for consultation (Fis 1004) shall not apply to the following: statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule. Review requests for these projects or other project types should be submitted to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail – email or mail subject line for these review requests should read "NHBxx-xxxx_Project Name_ Env. Review Request".

Please provide shapefiles/KMZ/KMLs of the project site (and relevant features if applicable) with your submittal.

***Did you know?** New Hampshire Fish and Game protects, conserves, and manages more than 500 species of wildlife and thousands of invertebrates. The program relies in part on private contributions to accomplish its work, and to raise matching funds required for state and federal grants. Learn more at www.wildnh.com/nongame*

From: Steve Riker <steven.riker@gza.com>

Sent: Thursday, December 12, 2024 2:42 PM

To: FGC: NHFG review <NHFGreview@wildlife.nh.gov>

Cc: Kurt Nelson <kurt.nelson@eversource.com>; Kwapiszeski, Jacob <jacob.kwapiszeski@eversource.com>; Tracy Tarr <Tracy.Tarr@gza.com>

Subject: RE: NHB ID: NHB24-3175, NHB24-3176 Consultation Request Eversource X178-2 (Phase 2) – Geotechnical Investigation

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

sender.

I'm using Mimecast to share large files with you. Please see the attached instructions.

Haley,

Please use the attached, the previously sent document had some pages out of order.

Thanks!

Steven D. Riker, CWS

Senior Project Manager

GZA GeoEnvironmental, Inc.

5 Commerce Park North | Bedford, NH 03110

o: 603.232.8757 | c: 603.913.9314 | steven.riker@gza.com | www.gza.com |

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From: FGC: NHFG review <NHFGreview@wildlife.nh.gov>

Sent: Thursday, December 12, 2024 2:18 PM

To: Steve Riker <Steven.Riker@gza.com>

Cc: FGC: NHFG review <NHFGreview@wildlife.nh.gov>

Subject: [EXTERNAL] RE: NHB ID: NHB24-3175, NHB24-3176 Consultation Request Eversource X178-2 (Phase 2) – Geotechnical Investigation

Hello Mr. Riker,

I'm having difficulty opening this document. Is there another way you could send the information, please? When I open the pdf I get a line of code, and it says the document isn't supported.

Please let me know, thank you!

Hayley Gray

Environmental Review Planner

Wildlife Division

New Hampshire Fish and Game Department

11 Hazen Drive, Concord NH 03301

p. (603) 271 - 0467

e. hayley.a.gray@wildlife.nh.gov

wildlife.nh.gov

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From: Steve Riker <Steven.Riker@gza.com>

Sent: Thursday, December 12, 2024 1:59 PM

To: FGC: NHFG review <NHFGreview@wildlife.nh.gov>

Cc: Tracy Tarr <Tracy.Tarr@gza.com>; Kurt Nelson <kurt.nelson@eversource.com>; Kwapiszeski, Jacob <jacob.kwapiszeski@eversource.com>

Subject: NHB ID: NHB24-3175, NHB24-3176 Consultation Request Eversource X178-2 (Phase 2) – Geotechnical Investigation

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

Good afternoon,

On behalf of Eversource, below is a link to the NHFG consultation memo for the proposed X178-2 (Phase 2) Geotechnical Investigation. The NHB data check file numbers are NHB24-3175 and NHB24-3176.

Please feel free to reach out with any comments/questions.

[NHFG Geotechnical Consult Memo 121224.pdf.lfs](#)

Thanks!

Steven D. Riker, CWS

Senior Project Manager

GZA GeoEnvironmental, Inc.

5 Commerce Park North | Bedford, NH 03110

o: 603.232.8757 | c: 603.913.9314 | steven.riker@gza.com | www.gza.com |

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For information about GZA GeoEnvironmental, Inc. and its services, please visit our website at www.gza.com.

From: [DNCR: NHB Review](#)
To: [Steve Riker](#)
Cc: [Kurt Nelson](#); [Kwapiszewski, Jacob](#); [Tracy Tarr](#)
Subject: [EXTERNAL] RE: NHB ID: NHB24-3175 and NHB24-3176 Consultation Request Eversource X178-2
Date: Tuesday, January 21, 2025 12:48:57 PM
Attachments: [image001.png](#)



Hi Steve,

Thank you for providing additional information about the geotechnical drilling. Based on the provided information, in addition to the work being completed in the winter, measures will be taken to protect wetlands including the use of temporary matting at drilling locations and the use of a polyethylene sheet to contain fuel and spill. According to the provided SPN application, no permanent impacts are proposed to wetlands.

Because no permanent impacts are proposed to wetlands and several measures will be taken to further avoid and minimize any wetland impacts, NHB has no further concerns regarding NHB24-3175 and NHB24-3176.

Best,

Madeline (Maddie) Severance (*she/her/hers*)
Environmental Reviewer
New Hampshire Natural Heritage Bureau (NHB)
Division of Forests & Lands
N.H. Department of Natural & Cultural Resources
172 Pembroke Rd
Concord, NH 03301
(603)-271-2834
nhbreview@dncr.nh.gov
nhdfl.dncr.nh.gov
[NHB DataCheck Tool](#)

From: Steve Riker <Steven.Riker@gza.com>
Sent: Tuesday, January 21, 2025 9:31 AM
To: DNCR: NHB Review <nhbreview@dncr.nh.gov>
Cc: Kurt Nelson <kurt.nelson@eversource.com>; Kwapiszewski, Jacob <jacob.kwapiszewski@eversource.com>; Tracy Tarr <Tracy.Tarr@gza.com>
Subject: RE: NHB ID: NHB24-3175 and NHB24-3176 Consultation Request Eversource X178-2

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Maddie,

Thanks for the quick response. I failed to provide you with some critical information. Attached are the NH DES Statutory Permit by Notification Narratives (1 for Easton and 1 for Lincoln) which both include BMP and protection measures on pages 2&3 under Constructability.

Also, the last 3 pages of the attached document is the drilling setup sheet from Crux, the Geotech Drilling Contractor that will be performing the work.

In summary, temporary work platforms and/or matting will be placed at each drilling location. Polyethylene sheeting will be utilized in conjunction with the matting for fuel and spill containment purposes.

Please let me know if you need any additional info.

Thanks!

Steven D. Riker, CWS

Senior Project Manager

GZA GeoEnvironmental, Inc.

5 Commerce Park North | Bedford, NH 03110

o: 603.232.8757 | c: 603.913.9314 | steven.riker@gza.com | www.gza.com |

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From: DNCR: NHB Review <nhbreview@dn-cr.nh.gov>

Sent: Tuesday, January 21, 2025 9:09 AM

To: Steve Riker <Steven.Riker@gza.com>

Cc: Kurt Nelson <kurt.nelson@eversource.com>; Kwapiszeski, Jacob <jacob.kwapiszeski@eversource.com>; Tracy Tarr <Tracy.Tarr@gza.com>

Subject: [EXTERNAL] RE: NHB ID: NHB24-3175 and NHB24-3176 Consultation Request Eversource X178-2

Hi Steve,

Thank you for providing plans and detailed information about the proposed work.

Based on your description and the proposed plans, Wiegand's sedge (*Carex wiegandii*) is not proposed to be impacted. NHB recommends fencing off the area where this occurrence is known to occur to ensure there are no incidental impacts from drilling. **As long as the direct area where Wiegand's sedge is known to occur is not impacted, NHB has no further concerns regarding impacts to rare plants.**

Based on the proposed plans, boring and helicopter landing areas are proposed within exemplary wetlands. As indicated, work is proposed from approximately February to March which is the most protective time to do this work as the wetlands should be frozen. **Please provide additional information on the impacts geotechnical drilling has on wetlands and what BMPs/protective measures are proposed to avoid and minimize impacts to exemplary wetlands.**

Threats to both the medium level fen system and poor level fen/bog system includes changes to hydrology, especially those which result in pooling, increased nutrient input, and increased sedimentation.

Please let me know if you have any questions.

Best,

Madeline (Maddie) Severance (*she/her/hers*)
Environmental Reviewer
New Hampshire Natural Heritage Bureau (NHB)
Division of Forests & Lands
N.H. Department of Natural & Cultural Resources
172 Pembroke Rd
Concord, NH 03301
(603)-271-2834
nhbreview@dncr.nh.gov
nhdfl.dncr.nh.gov
[NHB DataCheck Tool](#)

From: Steve Riker <steven.riker@gza.com>

Sent: Friday, January 17, 2025 2:14 PM

To: DNCR: NHB Review <nhbreview@dncr.nh.gov>

Cc: Kurt Nelson <kurt.nelson@eversource.com>; Kwapiszeski, Jacob
<jacob.kwapiszeski@eversource.com>; Tracy Tarr <Tracy.Tarr@gza.com>

Subject: NHB ID: NHB24-3175 and NHB24-3176 Consultation Request Eversource X178-2

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I'm using Mimecast to share large files with you. Please see the attached instructions.

Maddie,

Good afternoon!

On behalf of Eversource I am writing to provide you with additional info relative to the NHB data check files referenced above. Eversource is proposing geotechnical drilling at existing structures 264, 267, and 270 located in Easton, NH and at existing structures 248, 249, 251, 252, 253, 254, 255, 256, 257, 258, 259, 263 located in Lincoln, NH. Eversource's goal is to perform this work in the winter of 2025 (approximately February to March), which would be the optimum timeframe to avoid and minimize impacts to the natural environment. A plan set is attached which depicts the right of way corridor, structure locations, boring work locations, helicopter landing areas and relevant environmental and cultural features.

Given the remote location of the proposed work along the X178-2 Transmission Line and lack of suitable access, Eversource proposes to utilize portable rotary core drills which will be transported by helicopter to the drilling locations. Geotechnical drill personnel will be transported to six helicopter landing area locations within the ROW via helicopter each working day and will travel on foot to the geotechnical boring locations. The helicopter landing areas will consist of 20' x 16' or smaller temporary timber mat work pads. The work is proposed to be conducted by two three-man crews and it is anticipated that it will take 16 days to complete the work. Attached are the plans for the proposed geotechnical scope for your review.

GZA and Eversource have coordinated with NHFG regarding best management practices and on January 9, 2025 NHFG provided a condition that "all work (including mobilization and demobilization) shall occur from December 15th-March 15th." Eversource intends to follow the requested BMPs and they have been incorporated into the plan sets.

At the request of the White Mountain National Forest (WMNF), GZA performed a Rare Plant Survey conducted along a 9.8 mile stretch of the ROW, which included the scope area of the proposed geotechnical work, in June, July and August 2024. The Rare Plant Survey resulted in the observation of one location of Wiegand's sedge on July 15, 2024, just northwest of existing Structure 257 in Wetland L-5. This area will be avoided during the geotechnical work and the future line rebuild work. Attached is the Rare Plant Survey

for your use.

Lastly, please note that GZA had some correspondence with you between August 27, 2024 and September 9, 2024 regarding the proposed X178-2 (Phase 2) Transmission Line Structure Rebuild Project and avoidance of impacts to Wiegand's sedge (*Carex wiegandii*) associated with NHB data check file numbers NHB24-1713, NHB24-1714, and NHB24-1715.

Do not hesitate to reach out if you need anything else to complete your review.

Thanks!

Steven D. Riker, CWS

Senior Project Manager

GZA GeoEnvironmental, Inc.

5 Commerce Park North | Bedford, NH 03110

o: 603.232.8757 | c: 603.913.9314 | steven.riker@gza.com | www.gza.com |

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Site Locus



Annotated Aerial Plan

[illegible]

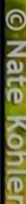
1. ALL WORK (INCLUDING MOBILIZATION AND DEMOBILIZATION) SHALL OCCUR FROM DECEMBER 15TH - MARCH 15TH.

10. THE NHFG, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.

EASTON & LINCOLN
NEW HAMPSHIRE

EVERSOURCE
ENERGY

SEDGE DARNER (AESHNA JUNCEA)



SEDGE DARNER IDENTIFICATION

- ### 3. AMONG THE LARGEST AND FASTEST FLYING DRAGONFLY IN NORTH AMERICA

X-178-2 TRANSMISSION LINE REBUILD & OPGW

WILDLIFE NOTES

6. OTHER NOTES

GZA GeoEnvironmental,
Engineers and Scientists
www.gza.com

EVERSOURCE
ENERGY

PROJ WORK	CEM	REVIEWED BY:	TL
DESIGNED BY:	LEW	DRAWN BY:	SON
DATE	01/09/2025	PROJECT NO.	04 0191687

S2



Natural Resource Limitations



USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) has prepared this report on behalf of, and for the exclusive use of Eversource Energy ("Client") for the stated purpose(s) and location(s) identified in the report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not identified in the agreement, for any use, without our prior written permission, shall be at that party's risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Report and/or proposal, and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the data gathered and observations made during the course of our work. Conditions other than described in this report may be found at the subject location(s).
3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made.

LIMITS TO OBSERVATIONS

4. Natural resource characteristics are inherently variable. Biological community composition and diversity can be affected by seasonal, annual or anthropogenic influences. In addition, soil conditions are reflective of subsurface geologic materials, the composition and distribution of which vary spatially.
5. The observations described in this report were made on the dates referenced and under the conditions stated therein. Conditions observed and reported by GZA reflect the conditions that could be reasonably observed based upon the visual observations of surface conditions and/or a limited observation of subsurface conditions at the specific time of observation. Such conditions are subject to environmental and circumstantial alteration and may not reflect conditions observable at another time.
6. The conclusions and recommendations contained in this report are based upon the data obtained from a limited number of surveys performed during the course of our work on the site, as described in the Report. There may be variations between these surveys and other past or future surveys due to inherent environmental and circumstantial variability.

RELIANCE ON INFORMATION FROM OTHERS

7. Preparation of this Report may have relied upon information made available by Federal, state and local authorities; and/or work products prepared by other professionals as specified in the report. Unless specifically stated, GZA did not attempt to independently verify the accuracy or completeness of that information.

COMPLIANCE WITH REGULATIONS AND CODES

8. GZA's services were performed to render an opinion on the presence and/or condition of natural resources as described in the Report. Standards used to identify or assess these resources as well as regulatory jurisdiction, if any, are stated in the Report. Standards for identification of jurisdictional resources and regulatory control over them may vary between governmental agencies at Federal, state and local levels and are subject to change over time which may affect the conclusions and findings of this report.



NEW INFORMATION

9. In the event that the Client or others authorized to use this report obtain information on environmental regulatory compliance issues at the site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this work, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

10. GZA recommends that we be retained to provide further investigation, if necessary, which would allow GZA to (1) observe compliance with the concepts and recommendations contained herein; (2) evaluate whether the manner of implementation creates a potential new finding; and (3) evaluate whether the manner of implementation affects or changes the conditions on which our opinions were made.

Creek Drilling Setup Details



Crux Drilling Setup Details

Date: 12/23/2024

24-019-NH_Eversource_Line X178

REV00

Site Set Up/Matting Plan

Reconnaissance

1. To access project specific structures, Drill Crew/s will be flown internally by helicopter to proposed landing areas near project specific structures. Drill Crew/s will then hike to project specific structures. Once Drill Crew/s are onsite, a review of site-specific details will be measured and planned on what logistics need to take place in order for Drill and support equipment/materials to be flown in externally by helicopter.

Site Clearing

1. Drill Crew/s will perform light brushing and clearing for the Drill and support equipment/materials to be placed on even ground. Slight deviations within the slope are acceptable.

Initial Matting

1. Drill Crew/s will place an initial layer of matting to provide a stable area for Drill Crew/s to work as well as a base for spill containment to be installed. Matting will be light enough for Drill Crew/s to move by hand, if needed. (Example of matting below)



2.

Spill Containment

1. Drill Crew/s will place a layer of greater or equal to 6 mil plastic on initial matting for overall spill containment. The perimeter of the plastic will be built up vertically to ensure that any potential spill will not exit into sensitive habitat. Spill containment kits will be on every active drill site and will always to fully stocked and at the ready if needed. (Spill Containment kits will be stocked at a minimum with Oil absorbent pads, Oil absorbent booms, litter, trash bags, dawn dish soap, etc.) If a spill occurs, Drill

Crew/s will halt operations for immediate spill response. Spill will be cleaned up by Drill Crew/s personnel and all spill related materials will be removed from drill site daily and disposed of at an approved location. Notice of a spill will be communicated to the client daily.

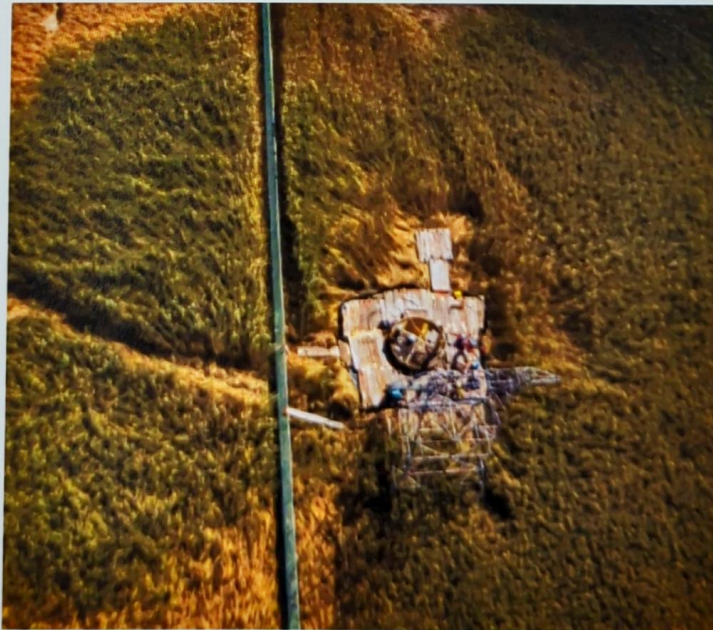
Final Matting

1. Drill Crew/s will place a final layer of matting consisting of (depending on ground conditions) additional matting as referenced above (initial matting), timber matting, and/or metal grating. This final layer of matting is for overall stability of the Drill and support equipment/materials as well as to prevent slip, trip and fall hazards for the Drill Crew/s and other applicable personnel.



2.

Aerial view of matting footprint (Example)



3.

Additional Reference:

Fully Contained Drill site including perimeter silt fence and outdoor carpeting on top of plastic

Metal grating may be used on top of plastic sheeting for additional stability and safety of personnel

