

December 23, 2020

VIA ELECTRONIC MAIL: siting_council@ct.gov

Melanie Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: PETITION NO. 1436 - Groton Utilities petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed replacement and reconductoring of electric transmission line structures along approximately 1.7 miles of its existing 115-kilovolt (kV)/69-kV 1410/400 double-circuit electric transmission line and 115-kV 1280 single-circuit electric transmission line within existing Groton Utilities electric transmission line right-of-way between Groton/Ledyard town line and Buddington Substation located north of Gold Star Highway in Groton, Connecticut, and related transmission line and substation improvements.

Dear Ms. Bachman:

I am writing on behalf of Groton Utilities in connection with the above-referenced Petition. With this letter, I am enclosing Responses to Set One of Interrogatories dated December 9, 2020 from the Connecticut Siting Council.

Should you have any questions concerning this submittal, please contact me at your convenience. I certify that copies of this submittal have been made to all parties on the Petition's Service List as of this date.

Sincerely,

A handwritten signature in black ink that reads "Robin Kipnis".

Robin Kipnis, Esquire
General Counsel,
Connecticut Municipal Electric Energy Cooperative
30 Stott Avenue
Norwich, CT 06360
rkipnis@cmeec.org
On Behalf of Groton Utilities

Enclosure

cc: The Honorable Fred Allyn III, Town of Ledyard
The Honorable Patrice Granatosky, Town of Groton
The Honorable Keith Hedrick, City of Groton

30 Stott Avenue ▶ Norwich, Connecticut 06360
p ▶ 860.889.4088 f ▶ 860.889.8158 w ▶ cmeec.org

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

PETITION NO. 1436 - Groton Utilities petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed replacement and reconductoring of electric transmission line structures along approximately 1.7 miles of its existing 115-kilovolt (kV)/69-kV 1410/400 double-circuit electric transmission line and 115-kV 1280 single-circuit electric transmission line within existing Groton Utilities electric transmission line right-of-way between Groton/Ledyard town line and Buddington Substation located north of Gold Star Highway in Groton, Connecticut, and related transmission line and substation improvements

Petition No. 1436

December 23, 2020

**GROTON UTILITIES' RESPONSES TO THE CONNECTICUT SITING
COUNCIL'S (SET ONE) DECEMBER 9, 2020 INTERROGATORIES**

The petitioner, Groton Utilities, respectfully submits this response to the Council's (Set One) Interrogatories, dated December 9, 2020, in the above-referenced Petition. In response to the Council's Interrogatories, Groton Utilities states as follows:

- 1. For the 69-kV 400 Line, are there any plans to upgrade the line to 115-kV? If not why not? Will the new structures supporting the 1410/400 Lines be designed to support a conductor upgrade on the 400 Line from 69-kV to 115-kV if needed in the future?**

Petition 1436 prepares for an upgrade of the 400 line to 115kV at some point in the future. ISO-NE has directed this upgrade to occur by 2023 as part of an overall plan to return Eastern Connecticut Area grid reliability to acceptable standards. The 400 Line has been designed to allow for operation at 115-kV using the existing conductors. The proposed structure designs are based on loading from the existing 556 KCMIL ACSR conductor which will be sufficient for 69-kV or 115-kV operation. The designed structure heights and configurations are sufficient to meet 115-kV requirements under relevant loading conditions. Additionally, the hardware being installed on the 400 Line structures are designed to 115-kV levels. The intent of this project is to fully upgrade this segment of the 400 Line such that no additional work would be needed on this portion when the remainder of the line and substations are ready to be upgraded to 115-kV in 2023.

- 2. Please explain how replacing the structures will eliminate thermal and voltage violations without replacing the conductors.**

While this project does not propose to reconductor the existing lines, all conductors on the 1280, 400, and 1410 Lines are designed to meet wire-to-wire, wire-to-structure, and wire-to-bare ground clearances required by current codes. This is achieved by increasing structures' heights to improve wire-to-bare ground clearances, respacing and adjusting the centerlines of the circuits to meet wire-to-wire clearances and updating structure framing dimensions to meet wire-to-structure clearances. Updating the structures' configurations allows for the conductor violations to be corrected. The design maintains a minimum of 24-foot clearance to ground under a maximum ACSR operating temperature of 285°F for all three lines.

- 3. Referring to Petition p. 8, was a copy of the historic/archeological assessment filed with the State Historic Preservation Office (SHPO)? If yes, please submit any response from SHPO regarding the proposed project.**

See Exhibit A, letter to Connecticut State Historic Preservation Office dated July 9, 2020, attached hereto. To date, Groton Utilities has not received a response to its letter but a subsequent conversation with the SHPO indicated that there were no adverse findings and that a letter would be forthcoming.

- 4. Petition p. 5 and p. 7 states the Project would require some tree clearing and that the clearing is not significant. Petition Attachment B shows tree clearing along the east and west sides of the right-of-way so that the managed area is the full width of the right-of-way. Estimate of the total amount of tree clearing (in acres) required to convert unmanaged areas of the right-of-way to managed areas.**

The estimated total amount of tree clearing (in acres) required to convert the unmanaged acres of the right-of-way to managed areas is approximately 13 acres for widening of the vegetation clearance to the edge of the existing ROW.

- 5. Referring to Petition pp. 15-16, was there any consultation with the U.S. Fish and Wildlife Service (USFWS) regarding potential project impacts to the Northern Long-eared Bat? If so, please submit the response from the USFWS. If not, does Groton Utilities intend on filing a consultation form with the USFWS?**

Consultation was filed with the U.S. Fish and Wildlife Service. Please see attached Species List dated December 14, 2020 (Exhibit B) and Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency letter dated December 18, 2020 (Exhibit C). The potential tree clearing activities are proposed prior to April 2021 provided permits are in place in order to avoid impacts to NLEB.

6. **Referring to Petition pp. 19-20, is property owner outreach performed prior to the installation of gravel work pads? If so, are work pad mitigation/design options discussed with the property owner at that point? If not, what post-construction mitigation options are available to the property owner after a gravel pad is installed?**

Groton Utilities has had person-to-person discussions with the major property owner on a regular basis throughout the construction planning and have discussed options with the property owner regarding how the property will be left after construction. Property owner wishes us to leave the gravel.

7. **Petition Sheet 1 shows temporary impacts to Wetland 10 but this wetland was not described in Petition Attachment D. Provide more information regarding Wetland 10.**

Please see attached Wetland Amendment Report (**Exhibit D**). We have corrected a data set error near Structures 7435 and 126 and have provided an Amended Wetland Report that contains the revised map sheet. Please see below for updated impacts to Wetland 10 and 11.

TABLE 1. Wetland Impacts

Wetland No.	Temporary Impacts (sf)
W10	5,225
W11	535

Temporary timber matting will be used for work pads and will be removed upon project completion of construction. There are no proposed permanent impacts to these wetlands as result of the Project.

8. **Petition Sheet 1 shows minimal areas of temporary matting within the gravel work pad at Structure 127 and Structure 7435 to protect Wetlands 9 and 10, respectively. Can the use of temporary matting at these two locations be expanded to reduce the impact to soils immediately adjacent to these wetlands?**

Groton Utilities will ensure that temporary matting is used at these locations or that the working pad area is modified as to not affect these wetland areas. Groton Utilities will work with VHB, B&M and the contractor to ensure this is identified and handled properly.

9. **How will tree clearing work to expand the managed portion of the right-of-way, as shown in Petition Attachment B, be performed to reduce impacts to NEC populations as well as to enhance habitat for the NEC?**

Groton Utilities is planning to work with nature and wildlife experts to reduce impacts to the New England Cottontail populations. The detail pertaining to this is also found in Petition Attachment G - New England Cottontail Best Management Practices.

10. **Petition Attachment G - Item #10 states stonework pad sizes shall be minimized to the extent practicable. Has Groton Utilities reduced the size of the Project work pads to lessen construction related impacts to NEC habitat?**

Groton Utilities will work with our consultant experts on vegetation and wildlife to help reduce the pad sizes to what is absolutely necessary. This will be done with permanent and temporary matting, near wetlands areas and in NEC habitat areas. Groton Utilities will work with VHB and B&M to ensure this is identified and handled properly.

11. **Referring to Petition p. 2, provide representative photographs of structural deficiencies identified in the recent transmission structure assessment.**

Below are photos of the structures and the current condition that has created the need to replace the structures on this critical transmission infrastructure. The label is the file name for future reference.

Structure 7437



Structure 7436



Structure 7444



Structure 7446



Structure 7449



Structure 7449



Respectfully submitted,
ON BEHALF of GROTON UTILITIES

By: /s/ Robin Kipnis
Robin Kipnis
General Counsel
rkipnis@cmeec.org
Connecticut Municipal Electric Energy
Cooperative
30 Stott Avenue
Norwich, CT 06030
Ph. (860) 383-1042

EXHIBIT A

**Response to CSC Interrogatory Number 3:
Letter to Connecticut State Historic Prevention Office**



July 9, 2020

Ms. Marena Wisniewski
National Register Specialist/Architectural Historian
Connecticut State Historic Preservation Office
450 Columbus Boulevard, Suite 5
Hartford, Connecticut 06103

**RE: Report for Phase IB Cultural Reconnaissance Survey of the Proposed Line 1208/1410/400
Structure Replacement Project in Groton, Connecticut**

Ms. Wisniewski:

Please find enclosed two hard copies of the Report of Investigations for the Phase IB Cultural Reconnaissance Survey of the Proposed Line 1208/1410/400 Structure Replacement Project in Groton, Connecticut. This project was completed following all stipulations and guidelines promulgated in the *Environmental Review Primer for Connecticut's Archaeological Resources*. Please do not hesitate to contact me at 860.299.6328 or dgeorge@heritage-consultants.com if you have any question about this submission or any if its contents. Than you for time and consideration.

Sincerely,

A handwritten signature in cursive script that reads "David R. George".

David R. George, M.A., R.P.A.
Heritage Consultants, LLC

Ms. Kaplan
February 25, 2020
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Table 1. Proposed Project Items, Environmental Variables, and Archaeological Sensitivity

Item Number	Item Type	Town/State	Slope	Cultural Resources Within 500 ft	Major Soil Type(s)/Drainage	Matted	Disturbed	Wetlands	Archaeological Sensitivity
7884	Structure	Somers/CT	Steep	No	Manchester/Well Drained	No	No	No	No/Low
7898	Structure	Somers/CT	Low	No	Saco/Poorly Drained	Yes	No	Yes	No/Low
7902	Structure	Somers/CT	Low	No	Saco/Poorly Drained	Yes	No	Yes	No/Low
7904	Structure	Somers/CT	Moderate	No	Raypol/Poorly Drained	Yes	No	Yes	No/Low
7906	Structure	Somers/CT	Low	No	Raypol/Poorly Drained	Yes	No	Yes	No/Low
7913	Structure	Somers/CT	Low	No	Raypol/Poorly Drained	Partial	Partial	Partial	No/Low
7915	Structure	Somers/CT	Low	No	Sudbury/Well Drained	Yes	Partial	Partial	Moderate/High*
7916	Structure	Somers/CT	Moderate	No	Hartford/Well Drained	Yes	Partial	Partial	Moderate/High*
7918	Structure	Somers/CT	Moderate	No	Manchester/Well Drained	Yes	Partial	No	Moderate/High*
7922	Structure	Somers/CT	Steep	No	Agawam/Well Drained	No	No	No	No/Low
7928	Structure	Somers/CT	Steep	No	Haven-Enfield/Well Drained	Yes	Partial	No	No/Low
7933	Structure	Enfield/CT	Moderate	No	Narragansett/Well Drained	No	No	No	Moderate/High
7936	Structure	Enfield/CT	Steep	No	Narragansett/Well Drained	Yes	Partial	No	No/Low
7939	Structure	Enfield/CT	Steep	No	Narragansett/Well Drained	Yes	Partial	No	No/Low
7943	Structure	Enfield/CT	Moderate	No	Narragansett/Well Drained	Partial	No	Partial	Moderate/High
44090	Structure	Hampden/MA	Low	No	Wareham/Poorly Drained	Yes	No	Partial	No/Low
44096	Structure	Hampden/MA	Low	No	Sudbury/Well Drained	Yes	Partial	No	Moderate/High*
ALT-AR-7913	Alternative Access Road	Somers/CT	Moderate	No	Merrimac/Well Drained	No	Partial	No	Moderate/High
ALT-AR-7917	Alternative Access Road	Somers/CT	Moderate	Yes	Hartford/Well Drained	No	Yes	No	No/Low
ALT-AR-7922	Alternative Access Road	Somers/CT	Moderate	No	Agawam/Well Drained	No	Yes	No	No/Low
ALT-AR-7928	Alternative Access Road	Somers/CT	Moderate	No	Agawam/Well Drained	No	Yes	No	No/Low
ALT-AR-7936	Alternative Access Road	Enfield/CT	Moderate	No	Haven-Enfield/Well Drained	No	Partial	No	Moderate/High
ALT-AR-7939	Alternative Access Road	Enfield/CT	Moderate	No	Haven-Enfield/Well Drained	No	Partial	No	Moderate/High
ALT-AR-7940	Alternative Access Road	Enfield/CT	Steep	No	Haven-Enfield/Well Drained	No	Partial	No	No/Low
ALT-AR-7943	Alternative Access Road	Enfield/CT	Moderate	No	Narragansett/Well Drained	No	Partial	No	Moderate/High
AR-7884	Proposed Access Road	Somers/CT	Moderate	No	Sudbury/Well Drained	Partial	Partial	Partial	Moderate/High
AR-7916	Proposed Access Road	Somers/CT	Moderate	No	Hartford/Well Drained	No	Partial	No	Moderate/High

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AR-7933	Proposed Access Road	Enfield/CT	Moderate	No	Narragansett/Well Drained	No	No	Partial	Moderate/High
AR-7943	Proposed Access Road	Enfield/CT	Moderate	No	Narragansett/Well Drained	No	No	No	Moderate/High

*No additional examination is recommended unless timber mats are removed.

EXHIBIT B

**Response to CSC Interrogatory Number 5:
U.S. Fish and Wildlife Service
List of Threatened and Endangered Species**



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
<http://www.fws.gov/newengland>

In Reply Refer To:

December 14, 2020

Consultation Code: 05E1NE00-2021-SLI-0720

Event Code: 05E1NE00-2021-E-02172

Project Name: Groton Utilities 1410/400 and 1290 Lines Structure Replacements

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

Project Summary

Consultation Code: 05E1NE00-2021-SLI-0720

Event Code: 05E1NE00-2021-E-02172

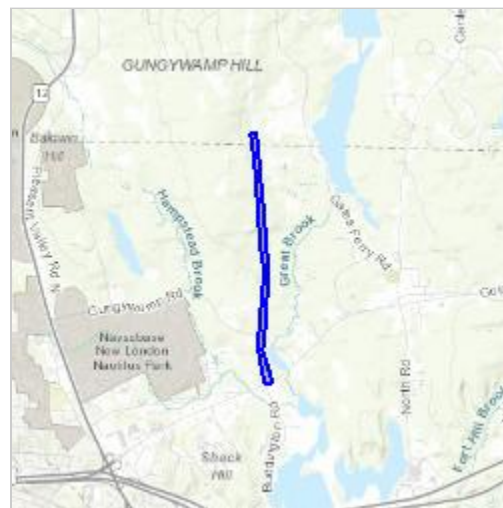
Project Name: Groton Utilities 1410/400 and 1290 Lines Structure Replacements

Project Type: TRANSMISSION LINE

Project Description: The Project consists of 36 structure replacements to the double-circuit 115-kilovolt ("kV") Line 1410/69kV Line 400 and single circuit 115kV 1290 Line in the Town of Groton, Connecticut. Additionally, the existing aluminum shield wire will be replaced with Optical Ground Wire (OPGW). The project is approximately 1.7 miles in length and is located within the existing right-of-way from the Groton/Ledyard municipal line to Budding Station, just north of Gold Star Highway in Groton, CT. Construction on the project is scheduled to begin in the first quarter of 2021.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/41.387638061264525N72.04640220314357W>



Counties: New London, CT

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

EXHIBIT C

**Response to CSC Interrogatory Number 5:
U.S. Fish and Wildlife Service
Long-Eared Bat Consultation and
4(d) Rule Consistency Letter, December 18, 2020**



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
<http://www.fws.gov/newengland>

IPaC Record Locator: 770-24662705

December 18, 2020

Subject: Consistency letter for the 'Groton Utilities 1410/400 and 1290 Lines Structure Replacements' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Maggie Murphy:

The U.S. Fish and Wildlife Service (Service) received on December 14, 2020 your effects determination for the 'Groton Utilities 1410/400 and 1290 Lines Structure Replacements' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause “take”^[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action’s effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

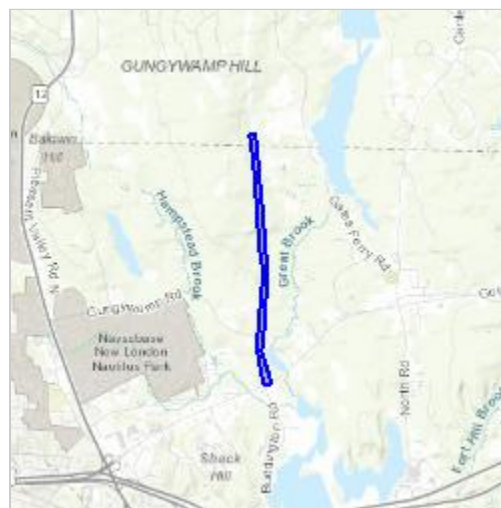
Groton Utilities 1410/400 and 1290 Lines Structure Replacements

2. Description

The following description was provided for the project 'Groton Utilities 1410/400 and 1290 Lines Structure Replacements':

The Project consists of 36 structure replacements to the double-circuit 115-kilovolt ("kV") Line 1410/69kV Line 400 and single circuit 115kV 1290 Line in the Town of Groton, Connecticut. Additionally, the existing aluminum shield wire will be replaced with Optical Ground Wire (OPGW). The project is approximately 1.7 miles in length and is located within the existing right-of-way from the Groton/Ledyard municipal line to Budding Station, just north of Gold Star Highway in Groton, CT. Construction on the project is scheduled to begin in the first quarter of 2021.

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/41.387638061264525N72.04640220314357W>



Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

No

2. Will your activity purposefully **Take** northern long-eared bats?

No

3. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

Automatically answered

No

4. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

Yes

5. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

No

6. Will the action involve Tree Removal?

Yes

7. Will the action only remove hazardous trees for the protection of human life or property?
Yes

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

13.06

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?
0

EXHIBIT D

**Response to CSC Interrogatory Number 7:
Amended Wetland Report**



December 18, 2020

Ref: 42663.00

Mr. Randall Surprenant
Acting Manager of Operations
Groton Utilities
295 Meridian Street
Groton, CT 06340
(860) 446-4000

Re: Wetland & Watercourse Delineation Report – Amendment
1410/400/1280 Line, Groton, CT

Dear Mr. Surprenant,

VHB completed an on-site investigation to determine the presence or absence of wetlands and/or watercourses on the 1410/400/1280 Line near Structures 7435 and 126 in Groton and Ledyard, CT for the proposed structure replacement project (the “Project”) as requested and authorized. This investigation involved a wetland/watercourse delineation that was completed by a qualified staff soil scientist and conducted in accordance with the principles and practices noted in the United States Department of Agriculture (USDA) Soil Survey Manual (1993). The soil classification system of the National Cooperative Soil Survey was used in this investigation to identify the soil map units present on the project site.

INVESTIGATION

The project Site was previously delineated by VHB on December 26, 2019 with a temperature average of 40 °F under partly cloudy conditions. The wetlands were confirmed during a July 14, 2020 site visit. Soil types were identified by observing soil morphology (soil texture, color, structure, etc.). Soil morphology was evaluated through numerous test pits and/or hand borings (generally to a depth of at least two feet). If a wetland and/or watercourse was present, the boundaries were identified with vinyl flagging tape and hung from vegetation or flags on small wire stakes if in fields or grass communities. These flags are labeled “Wetland Delineation” and generally spaced a maximum of approximately 50 feet apart. It is important to note that flagged wetland and watercourse boundaries are subject to change until verified by local, state, or federal regulatory agencies.



REGULATORY INFORMATION

Wetlands and watercourses are regulated by both state and federal law each with different definitions and regulatory requirements. Accordingly, the State may regulate waters that fall outside of federal jurisdiction; however, where federal jurisdiction exists concurrent State jurisdiction is almost always present.

State Regulation

Wetland determinations are based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils and submerged land. *Watercourses* are defined as “rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof.” *Intermittent watercourse* determinations are made based on the presence of a defined permanent channel and bank, and two of the following characteristics: (1) evidence of scour or deposits of recent alluvium or detritus, (2) the presence of standing or flowing water for a duration longer than a particular storm incident, and (3) the presence of hydrophytic vegetation. (See Inland Wetlands and Watercourses Act §22a-38 CGS.)

WETLAND AND WATERCOURSE SITE DESCRIPTION

Wetland classifications used to identify the type of wetland(s) occurring on the project site are based on guidance from the U.S. Fish and Wildlife Service (USFWS) (Cowardin et.al. 1979). These are further qualified with the Hydrogeomorphic Method of wetland classification (Brinson, 1993).

Wetland/Watercourse Descriptions

Three (3) on-site freshwater inland wetlands and one (1) intermittent watercourse were identified during the December 26, 2019 and July 14, 2020 site visits.

Wetland 10

Wetland 10 consists of a large palustrine scrub-shrub wetland community that was delineated with sequentially numbered flags 16-100 to 132 and 16-400 to 416 with open ends on each end. The wetland continues off the right-of-way as a palustrine forested wetland. This large depressional system is located adjacent to both sides of the access road and is connected hydrologically via culverts. It is situated north of Structures 7435 and 126. The wetland is fed by groundwater discharge. Dominant wetland vegetation in this wetland community includes speckled alder (*Alnus incana*), American hornbeam (*Carpinus caroliniana*), sweet pepperbush (*Clethra alnifolia*), winterberry (*Ilex verticillata*), mountain laurel (*Kalmia latifolia*), common reed (*Phragmites australis*), sensitive fern (*Onoclea sensibilis*), multiflora rose (*Rosa multiflora*), steeplebush (*Spiraea tomentosa*), and roundleaf greenbrier (*Smilax glauca*).



Stream 10

Stream 10 is located within Wetland 10 and consists of riverine intermittent streambed bedrock system that was delineated with sequentially numbered flags 16-500 to 16-501. The intermittent stream is fed by groundwater discharge. It is located in the western portion of Wetland 10. The intermittent stream flows easterly under the access road via culvert and dissipates into the wetland.

Wetland 11

Wetland 11 consists of an isolated palustrine emergent wetland system that was delineated with a closed loop of flags numbered 18-100 to 108. The wetland is a small isolated depressional system situated south of Structure 7435. The wetland is located in its entirety within right-of-way and is fed by groundwater discharge and surface water runoff. Dominant wetland vegetation includes small bayberry (*Morella caroliniensis*), sedge (*Carex* sp.), soft rush (*Juncus effusus*), panicgrass (*Panicum* sp.), bulrush (*Scirpus* sp.), and rough-stemmed goldenrod (*Solidago rugosa*).

Wetland 12

Wetland 12 consists of a palustrine scrub-shrub wetland that was delineated with sequentially numbered flags 17-100 to 105 with open ends on each end. The wetland continues off the right-of-way as a palustrine forested wetland. This depressional wetland system is situated south of Structure 126. Dominant wetland vegetation within this wetland community consists of red maple (*Acer rubrum*), mountain laurel and sensitive fern.

TABLE 1: Dominant Vegetation within and adjacent to the wetlands (Common (*Scientific*) names.)

TREES & SAPLINGS				
Scientific	Common	Indicator	Upland	Wetland
<i>Acer rubrum</i>	Red Maple	FAC	X	X
<i>Alnus incana</i>	Speckled alder	FACW		X
<i>Carpinus caroliniana</i>	American hornbeam	FAC		X

SHRUBS				
Scientific	Common	Indicator	Upland	Wetland
<i>Ilex verticillata</i>	Winterberry	FACW		X
<i>Kalmia latifolia</i>	Mountain laurel	FACU	X	X
<i>Clethra alnifolia</i>	Sweet Pepperbush	FAC	X	X
<i>Spiraea tomentosa</i>	Steeplebush	FACW		X
<i>Morella caroliniensis</i>	Small bayberry	FAC		X
<i>Rosa multiflora*</i>	Multiflora Rose*	FACU	X	

HERBS & VINES				
Scientific	Common	Indicator	Upland	Wetland
<i>Carex</i> sp.	Sedges	NI		X



HERBS & VINES				
Scientific	Common	Indicator	Upland	Wetland
<i>Dennstaedtia punctilobula</i>	Hay-Scented Fern	UPL	X	
<i>Impatiens capensis</i>	Jewelweed	FACW		X
<i>Juncus effusus</i>	Soft rush	OBL		X
<i>Onoclea sensibilis</i>	Sensitive Fern	FACW		X
<i>Panicum sp.</i>	Panicgrass	NI		X
<i>Phragmites australis</i> *	Common Reed*	FACW		X
<i>Scirpus sp.</i>	Bullrush	NI		X
<i>Smilax glauca</i>	Roundleaf greenbrier	FACU	X	X
<i>Solidago rugosa</i>	Rough-stemmed goldenrod	FAC		X

*Connecticut State non-native invasive species
 NI = Not Indicated

SOIL MAP TYPES

A brief description of each soil map unit identified on the project site is presented below including information from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil descriptions. Further information on these and other soils, please refer to the internet site at <https://soilseries.sc.egov.usda.gov/>.

Upland Soils

Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony (62C)

Canton Soils

The Canton series consists of very deep, well drained soils formed in a loamy mantle and underlain by sandy till. The series is typically found on nearly level to very steep glaciated plains, hills, and ridges with slopes that range from 0 to 45 percent. Saturated hydraulic conductivity is moderately high or high in the solum and high or very high in the substratum. Diagnostic horizons and features recognized in this pedon include an ochric epipedon (Oi and A horizons), cambic horizon (Bw1, Bw2, and Bw3 horizons), and lithologic discontinuity (2C horizon).

Charlton Soils

The Charlton series consists of very deep, well drained soils formed in loamy melt-out till. They are nearly level to very steep soils on moraines, hills, and ridges. Slope ranges from 0 to 60 percent.



Saturated hydraulic conductivity is moderately high or high. Diagnostic features recognized in this pedon include ochric epipedon (Ap horizon) and cambic horizon (Bw1, Bw2, and Bw3 horizons).

Narragansett silt loam, 3 to 8 percent slopes, very stony (67B) & 3 to 15 percent slopes, extremely stony (68C)

The Narragansett series consists of very deep, well drained loamy soils formed in a mantle of medium-textured deposits overlying till. They are nearly level to moderately steep soils on till plains, low ridges and hills. Slope ranges from 0 to 25 percent. Permeability is moderate in the surface layer and subsoil and moderately rapid or rapid in the substratum. Diagnostic horizons and features recognized in this pedon include an ochric epipedon (Ap horizons), cambic horizon (Bw horizons), and lithologic discontinuity (2C horizon).

Wetland Soils

Raypol silt loam (12)

The Raypol series consists of very deep, poorly drained soils formed in loamy over sandy and gravelly outwash. They are nearly level to gently sloping soils in shallow drainageways and low-lying positions on terraces and plains. Slope ranges from 0 to 5 percent. The soils have a water table at or near the surface much of the year. Permeability of the Raypol soils is moderate in the surface layer and subsoil and rapid or very rapid in the substratum. Diagnostic horizons and features recognized in this pedon include an ochric epipedon (Ap horizon), cambic horizon (Bg and Bw horizons), and an aquic moisture regime in the (Bg horizon).

WETLAND IMPACTS

The proposed project will result in temporary impacts to two wetlands in the project area due to work pads. Temporary timber matting will be used for work pads and will be removed upon Project completion and the wetland areas will be restored. There are no proposed permanent impacts to these wetlands as result of the Project.

TABLE 2. Wetland Impacts

Wetland No.	Temporary Impacts (sf)
W10	5,225
W11	535



REFERENCES

1. Brinson, M.M. 1993. *A Hydrogeomorphic Classification for Wetlands*. Tech. Rpt.WRP-DE-4, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
2. Cowardin, L.M., V. Carter, F.C. Golet and E.T. LaRoe, 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Fish and Wildlife Service. Washington, D.C. FWS/OBS-79/31.
3. United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil descriptions. Internet site:
<https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/>.

CLOSING

Thank for the opportunity to work with you on this project. Please contact me at 860-807-4388 if you have any questions or require additional assistance.

Sincerely,
Vanasse Hangen Brustlin, Inc.

A handwritten signature in black ink, appearing to read "J. Shamas".

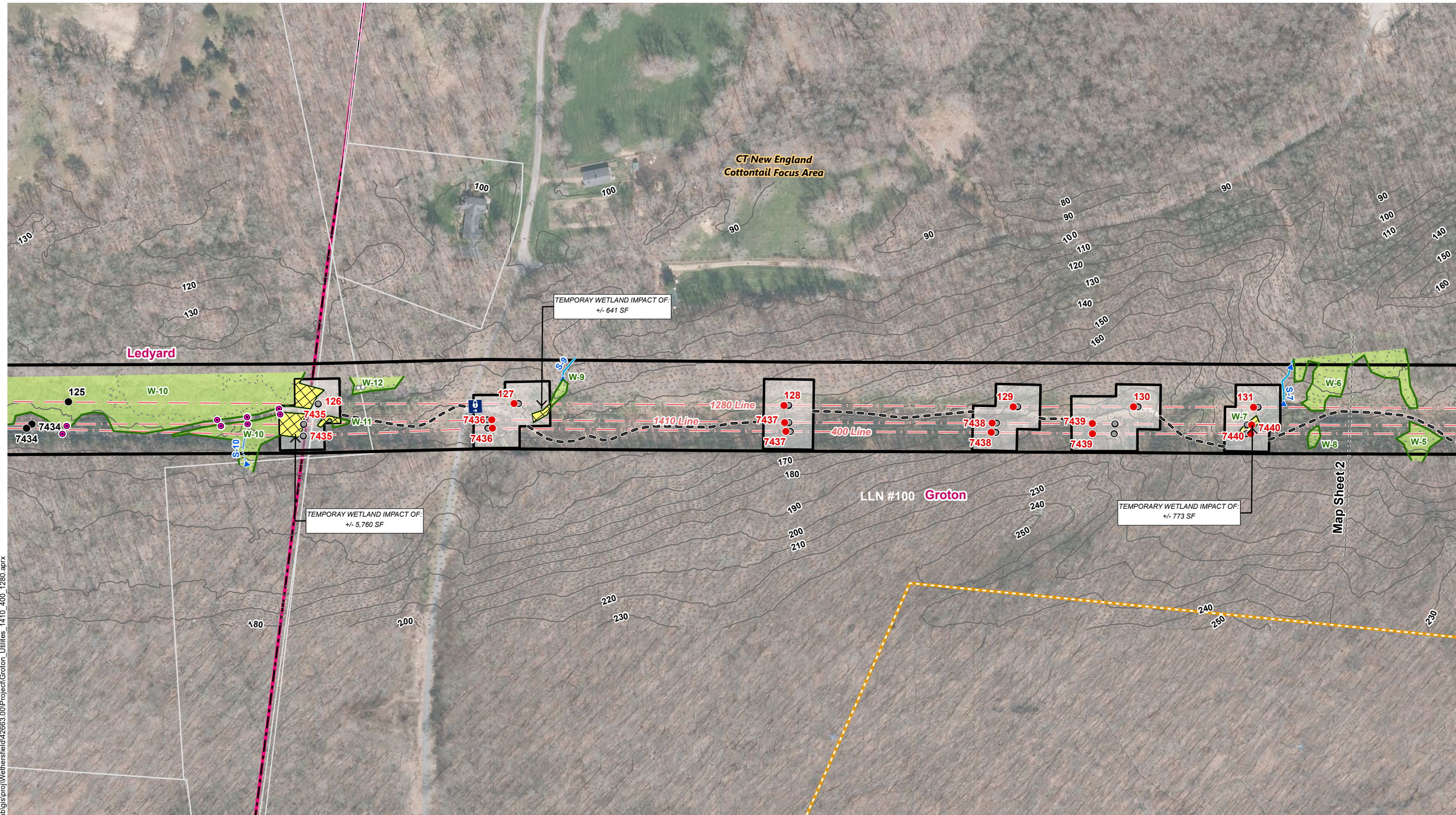
Jeffrey R Shamas, CSS, PWS, CE
Director of Environmental Services

jshamas@vhb.com

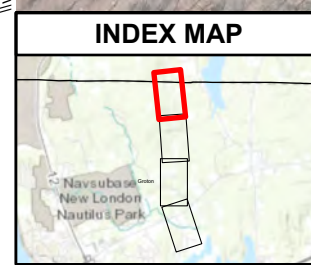
Attachments

Attachment A – Wetland Figure
Attachment B – Photographic Log

Attachment A- Wetland Figure



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● Existing Structure Str	▭ Stone Work Pad	🌊 FEMA 100-Year Flood Zone	● Culvert
○ Existing Structure to be Removed	— Delineated Wetland Boundary Outline	🏠 CT New England Cottontail Focus Area	--- Map Sheet Match Line
● Proposed Structure Str	🌊 Delineated Ephemeral Watercourse	🌿 Rare Species Area (NDDB June 2020)	▭ Parcel Boundary
— Existing Right-of-Way (ROW)	🌊 Delineated Intermittent Watercourse	🚪 Gate	▭ City of Groton Owned Parcel
— Overhead Line	🟩 Field Delineated Wetland	— 10' Contour Line	▭ Municipal Boundary
— Existing Access (all necessary rights in place)		--- 2' Contour Line	
🟩 Temporary Construction Matting			

NO.	DATE	REVISIONS	BY	CHK	APP	APP

GROTON UTILITIES

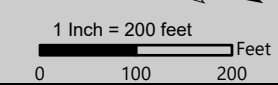
400/1410/1280 Line Structure Replacement Project

Date: December 17, 2020 Map Author: S.Pelletier

Ledyard, CT

Map Sheet 1 of 4

vhb



Base Map Source: 2016 Aerial Imagery (CTDEP)

Client Name: Groton Utilities

Site Location: Ledyard, CT

Project No: 42663.00

Photo No.: 1

Date: 12/26/19

Description:

View facing north along the boundary of Wetland 10. Eversource Structure 125 (1280 Line) in background on the right and Eversource Structures 7434 (1410 and 400 Lines) in the background in center and left.



Client Name: Groton Utilities

Site Location: Ledyard, CT

Project No: 42663.00

Photo No. : 2

Date: 12/26/19

Description:

View facing west of Stream 10. The intermittent stream channel is fed by groundwater discharge.





Attachment B - Photographic Log

Client Name: Groton Utilities

Site Location: Groton, CT

Project No: 42663.00

Photo No. : 3

Date: 12/26/19

Description:

View facing northwest of Wetland 11. Structure 7535 (1410 and 400 Lines) in background on the right.



Client Name: Groton Utilities

Site Location: Groton, CT

Project No: 42663.00

Photo No. : 4

Date: 12/26/19

Description:

View facing east of forested portion of Wetland 12.

