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February 17, 2023
File: 195602389

Attention: Mr. Ridgely Mauck
Program Supervisor – Permitting
NHDES Land Resources Management
Alteration of Terrain Bureau
29 Hazen Drive
P.O. Box 95
Concord, NH 03302

Reference: Alteration of Terrain Permit Application, W179 Transmission Line Rebuild Project, Berlin, Milan, Dummer, New Hampshire

Dear Mr. Mauck,

On behalf of the Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource), Stantec Consulting Services Inc. is submitting this Alteration of Terrain (AoT) permit application for the proposed W179 Transmission Line Rebuild Project in accordance with Terrain Alteration Law (RSA 485-A:17), New Hampshire Department of Environmental Services (NHDES) Administrative Rules (Env-Wq 1500 Alteration of Terrain) and discussions between the NHDES AoT Bureau and Eversource.

The proposed project includes replacement of the existing utility structures and wires along the W179 Transmission Line, which runs approximately 15.4 miles between Berlin and Dummer, New Hampshire. Areas of upland disturbance associated with the project are subject to AoT permitting. Replacement of the existing utility structures is necessary to maintain the safety and reliability of the system. To conduct the structure replacement work more efficiently and safely, as well as allow for future routine maintenance of the existing W179 Transmission Line, work pad grading and access road improvements are proposed as part of this project.

The proposed project will require disturbance subject to AoT permitting through the NHDES as a result of upland disturbances exceeding 100,000 square feet of contiguous disturbed area. The application fee of \$24,375 is based on the amount of total ground disturbance, minus wetland matting (1,899,999 square feet), and the latest NHDES fee schedule.

Included with this permit application is the application fee check, a completed AoT Permit Application Form, a detailed project description and narrative, required plans and figures, additional required materials, and the Natural Heritage Bureau DataCheck Results letters, which did not identify any rare species or habitats in the Project area. Waiver requests for the preparation of a stormwater drainage report, drainage area plans and hydrologic soil group plans (Env-Wq 1509.04, notification of project deviations (Env-Wq 1503.21), and measurement of contiguous area disturbed (Env-Wq 1503.12) are included in the application, as discussed with NHDES during a pre-application meeting regarding Eversource maintenance projects on February 8, 2022. The proposed project is scheduled to be constructed in June 2023 through fall or winter 2024. Eversource appreciates the efforts of the AoT Bureau in helping to maintain the anticipated construction schedule.

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Please contact me if you need additional information or have any questions or concerns regarding the enclosed application materials.

Regards,

Stantec Consulting Services Inc.



Tom Tetreau NHCWS
Project Manager / Environmental Scientist
Phone: 207 504 7231
Tom.Tetreau@stantec.com

Attachment: Alteration of Terrain Permit Application
Application Fee Check

- c. City of Berlin, New Hampshire
- Town of Milan, New Hampshire
- Town of Dummer, New Hampshire



**NHDES Alteration of Terrain Permit
Application**

W179 Transmission Line Rebuild Project
Berlin, Milan, and Dummer, New Hampshire

February 17, 2023

Prepared for:

Public Service Company of New Hampshire
d/b/a Eversource Energy
13 Legends Drive
Hooksett, NH 03106

Prepared by:

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1.0 PROJECT BACKGROUND AND PURPOSE

Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource) owns and maintains the W179 electrical transmission line (W179 line; Project) in Berlin, Milan, and Dummer, New Hampshire (Figures 1 and 2). The W179 line was originally constructed in the 1940s and runs within an existing right-of-way (ROW) between the East Berlin Substation off Goebel Street in Berlin and the Paris Substation off Dummer Pond Road in Dummer. Eversource has identified that all wooden structures will need to be replaced within the ROW due to age, cracking, leaning, and/or woodpecker damage. The existing wooden structures will be replaced with new, steel structures to provide more reliable electrical infrastructure. Once the structures are replaced, Eversource also plans on replacing the overhead wires with new wires that meet current electrical standards. Natural resource impacts have been minimized and avoided to the greatest extent practicable through careful siting of access roads and work pads.

The Project requires up to approximately 2,901,914 square feet (sf; 66.6 acres) of total disturbance area (overall Project footprint), which has been conservatively calculated using the following impact areas: 961,482 sf (22.1 acres) of temporary wetland matting, 40,433 sf (0.9 acre) of upland matting, and 1,899,999 sf (43.6 acres) of ground disturbance. The total ground disturbance required for the proposed replacement Project is subject to the Alteration of Terrain (AoT) disturbance threshold (Env-Wq 1500 and RSA 485-A:17). The total ground disturbance for the Project will be collectively referred to hereinafter as the AoT project area (see Figure 4 – Alteration of Terrain Permitting Plans and Appendix A – Alteration of Terrain Application Form).

2.0 SITE INFORMATION

2.1 SITE LOCATION AND DESCRIPTION

The AoT project area includes portions of the W179 line ROW in Berlin, Milan, and Dummer. The W179 line ROW is approximately 15.4 miles in length and approximately 150 to 250 feet (ft) in width.

The AoT project area crosses 22 streams including 15 perennial streams, and 7 intermittent and ephemeral streams (see Figure 4). There are 76 wetlands located within the AoT project area. The AoT project area crosses five public roads and proposes use of up to 20 private access points. The ground disturbance resulting from the Project is associated with establishment of access roads and work pads within uplands.

2.2 TAX MAP AND LOT INFORMATION

Eversource holds easements or is the landowner for parcels located within the AoT project area (see Figure 4). Within the AoT project area, the ROW is considered the “subject property” because Eversource is the applicant/owner and only has control over the easement area. There are 119 abutting properties



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that contain pre-existing Eversource easements for the ROW within the AoT project area. AoT project area abutters have been identified and are listed in Appendix B.

2.3 IDENTIFICATION OF NATURAL AND CULTURAL RESOURCES

In addition to preparing this permit application, Stantec Consulting Services Inc. (Stantec) has been retained by Eversource to provide professional services related to natural and cultural resource identification and assessment for this Project. Stantec is also preparing permit applications for natural resource impacts required to complete the Project. Stantec has conducted and coordinated field evaluations and has corresponded with appropriate agencies to identify natural and cultural resources present within the vicinity of the AoT project area and W179 line ROW.

2.3.1 Identification of Cultural and Historical Resources

The Project does not anticipate any adverse effects to cultural resources and is currently in consultation with the New Hampshire Division of Historical Resources (NHDHR) to identify and mitigate any such impacts. The full length of the transmission line corridor from the East Berlin Substation to the Paris Substation were previously surveyed for archaeological resources during Eversource's Northern Pass and S136 transmission line projects. Sensitive areas were identified in proximity to proposed Project activities (Figure 4). Archeological investigations were conducted in 2020 to identify sensitive areas and the Project layout has been designed to avoid ground disturbance and impacts within those areas. A Request for Project review is currently under review by the NHDHR. The NHDHR response will be forwarded to the New Hampshire Department of Environmental Services (NHDES) if requested.

2.3.2 Identification of Jurisdictional Wetlands and Vernal Pools

Wetland delineations and vernal pool identification were conducted by Stantec in the W179 ROW in May 2022. The wetland delineation and verification was led and conducted by New Hampshire Certified Wetland Scientist Tom Tetreau (#283) using the technical criteria described in the United States Army Corps of Engineers (Corps) *Corps of Engineers Wetlands Delineation Manual*¹ and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2)*.² Anticipated federal and state jurisdictional determinations made during the wetland delineations were based on the criteria set forth in the NHDES Wetlands Bureau Administrative Rules. Wetland communities were classified according to the *Classification of Wetlands and Deepwater Habitats of the United States*.³ The results of the wetland delineation are shown on Figures 3 and 4.

¹ Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.

² U.S. Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*, ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

³ Federal Geographic Data Committee. 2013. *Classification of Wetlands and Deepwater Habitats of the United States*. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.



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Vernal pools were identified concurrent with wetland delineations in May 2022 and based on the characteristics outlined in the *Identifying and Documenting Vernal Pools in New Hampshire*.⁴ Stantec wetland scientists identified 33 vernal pools within the AoT project area, many of which are manmade disturbance-created depressional areas or ruts located within existing trails in the ROW. The Project design will avoid most of the identified vernal pools. For those pools that cannot be avoided, installation and removal of wetland matting will be limited to outside the April 1 to October 15 period when vernal pool dependent species may be present.

2.3.3 Identification of Surface Waters

Jurisdictional limits of surface waters of the State of New Hampshire were delineated and confirmed by Stantec in accordance with their definition in RSA 485-A:2 XIV and 482-A:4 II. Surface waters included wherever freshwater flows or stands and tidal waters. This includes, but is not limited to, rivers, perennial and intermittent streams, lakes, ponds, intertidal zones, and tidal waters. The limits of jurisdiction for surface waters were delineated as the top of bank (where a natural bank occurs) or its ordinary high water mark (where a natural bank is not present). Streams identified during the delineations were identified based on the definitions in NHDES Certified Administrative Rules Env-Wt 406 as well as the technical guidance available from the Corps on the identification of an Ordinary High Water Mark⁵ and definition of a tributary as described in the Clean Water Act.⁶ Surface waters within the AoT project area include one named perennial riverine system (Bean Brook in Berlin), 15 unnamed perennial streams, and 7 unnamed intermittent or ephemeral streams. The W179 line crosses the Androscoggin River in Berlin, but no AoT disturbances are proposed in or over this water resource.

2.3.4 Natural Heritage Bureau Results and Rare Species Consultation

A review completed by the Natural Heritage Bureau through their DataCheck Tool did not identify any state-listed plant and animal species that would be anticipated to be impacted by the Project. The Natural Heritage Bureau DataCheck results letters from June 2022 are included in Appendix C. Although no state-listed plant and animal species impacts were identified, the Project has avoided and minimized disturbances in sensitive areas, such as vernal pools, stream, and open water habitats, to the greatest extend practical. Construction will follow the Utility BMP Manual, with erosion controls and other protection measures to be utilized as necessary to protect downslope resources (see section 4.3). If rare species are observed during construction, the New Hampshire Fish and Game Department will be notified immediately.

⁴ Marchand, M. 2016. *Identifying and Documenting Vernal Pools in New Hampshire*. Third Edition, New Hampshire Fish and Game Department, Nongame and Endangered Wildlife Program.

⁵ U.S. Army Corps of Engineers. 2005. Regulatory Guidance Letter: Ordinary High Water Mark Identification. December 8, 2005. No. 05-05.

⁶ U.S. Army Corps of Engineers. 2015. 33 Code of Federal Regulations, Part 328, "Waters of the United States". June 29, 2015.



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3.0 EXISTING CONDITIONS

The proposed structure and overhead wire replacement work is located within the existing and maintained W179 line ROW. The proposed AoT project areas cross through portions of Berlin, Milan, and Dummer. Existing dirt and/or grass access routes traverse portions of the existing ROW and are currently used for access to existing utility structures within the ROW. A gas pipeline, owned and operated by a separate utility company, parallels the W179 line for most of its length. Some existing access routes will need to be improved using gravel and stone as part of the Project. In areas where no existing access routes or trails are present, new gravel roads will be established or temporary access routes will be installed using construction matting. According to the Natural Resources Conservation Service soil survey for Coos County, New Hampshire, existing upland soils are generally well drained and derived from unconsolidated deposits of glacial till and alluvium, suitable for construction of gravel access roads and work pads. The Natural Resources Conservation Service web soil survey report for the AoT project area is included in Appendix D.

The AoT project area includes uplands and wetlands located in rural, residential, and industrial areas. Upland communities consist of an open maintained ROW dominated by common shrub, sapling, and herb species with moderately well drained to well drained soil. Characteristic shrub and sapling species include sweet-fern (*Comptonia peregrina*), gray birch (*Betula populifolia*), maleberry (*Lyonia ligustrina*), sheep-laurel (*Kalmia angustifolia*), broad-leaf meadowsweet (*Spiraea latifolia*), fire cherry (*Prunus pensylvanica*), quaking aspen (*Populus tremuloides*), northern red oak (*Quercus rubra*), Allegheny blackberry (*Rubus allegheniensis*), black huckleberry (*Gaylussacia baccata*), late lowbush blueberry (*Vaccinium angustifolium*), and eastern white pine (*Pinus strobus*). Herbaceous plants include little bluestem (*Schizachyrium scoparium*), wintergreen (*Gaultheria procumbens*), wrinkle-leaf goldenrod (*Solidago rugosa*), bristly dewberry (*Rubus hispidus*), bracken fern (*Pteridium aquilinum*), eastern hay-scented fern (*Dennstaedtia punctilobula*), and Pennsylvania sedge (*Carex pensylvanica*). Invasive species are generally low in overall abundance.

Routine vegetation maintenance is performed along the ROW on an approximate four-year cycle. Trees and shrub species capable of growing to heights that could interfere with conductors are mowed and allowed to regenerate until the next maintenance cycle.

AoT screening layers were requested from NHDES for each town within the AoT project area and are shown on Figure 3 – Surface Water and Groundwater Overlay Plans if they fall within the vicinity of the project area. AoT screening layers include:

- Coastal and Great Bay Communities;
- Groundwater Protection Areas (Groundwater Classification Areas GA1, Groundwater Classification Areas GA2);
- Wellhead Protection Areas;
- Water Supply Intake Protection Areas;
- Outstanding Resource Waters;
- Class A Water Watersheds;



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- Surface Water Impairments;
- Local Potential Contamination Sources;
- Designated Rivers within 0.25 miles;
- All Lakes within 0.25 miles;
- Surface Waters with Impairments (2016); and
- Watersheds with Chloride Impairments (2016).

AoT screening layers crossed by the AoT project area are described within each of the AoT jurisdictional areas below. Existing conditions within each AoT jurisdictional area are further described below and consistent with recent guidance and discussion between Eversource and NHDES. Representative photographs of the AoT project area are included in Appendix E.

3.1 AOT PROJECT AREA: BERLIN, MILAN, AND DUMMER

The AoT project area includes work areas along the length of the W179 line ROW. The W179 line begins at the East Berlin Substation in Berlin and extends generally south for approximately 0.5 miles before turning east, where an existing buried gas line enters the ROW from the south and remains co-located with the Project ROW for the rest of the line. The east-west oriented portion of the ROW extends through a generally undeveloped, forested surrounding area, crosses Cascade Alpine Brook Road, and is roughly 1.4 miles in length. The line then extends generally north for the remainder of the Project corridor, paralleling New Hampshire Route 16 and the Androscoggin River. The ROW crosses from the east to the west side of the Androscoggin River in Berlin, to the north of the White Mountain Community College campus. The dominant landcover adjacent to the AoT project area is forest, and smaller portions of the corridor abut rural residential and/or agricultural lands and fields.

3.1.1 Surface and Groundwater Protection

There are 22 surface waters located within the AoT project area: 15 perennial streams and 7 intermittent and ephemeral streams (Figure 3). The AoT project area includes temporary matting in 76 wetland systems, including five wetlands identified as Priority Resource Areas (PRAs), for access and work pad placement. Temporary matting impact totals are summarized in the table below. AoT disturbance area is summarized in Section 5.1.2.

Temporary Matting	Impact (sf)
Access	542,551
Work/Pull Pad	1,303,524
Emergency Pull-offs and Misc. Features	53,942
Total	1,899,999



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According to Figure 3, portions of the AoT project area are within the following AoT screening layers:

- All Lakes with a 0.25 Mile Buffer
 - No lakes occur within 0.25 mile of the AoT project area
- Surface Waters with Impairments with 0.25 Mile Buffer
- Androscoggin River, Berlin, proposed structures 1 to 9 (Figure 3, Sheets 1 and 2).
- Groundwater Classification Areas
 - No Groundwater classification Areas occur within the AoT project area.
- Ground Water Classification Areas GA2
 - Adjacent to Androscoggin River, Berlin, near proposed structure 62.
- Wellhead Protection Areas
 - Berlin Water Works, Berlin, proposed structures 56-67 (Figure 3, Sheets 9 to 11).

3.1.2 FEMA 100-Year Floodplain, Shoreland Protection, Designated Rivers

According to the FEMA Flood Insurance layer on Figure 3, there are two 100-year floodplain zones within AoT project area. These are associated with the Androscoggin River (Stantec-delineated Stream S35, map sheet 10) and Bean Brook (Stantec-delineated Stream S17, map sheet 7), both in Berlin.

There is an NHDES Protected Shoreland within the AoT Project area associated with the Androscoggin River. NHDES Shoreland Permit by Notifications are being prepared for ground disturbances within the 250-foot protected shoreland area, which will consist of removal of Structure 61 and installation of Structure 62.

According to the Consolidated List of Water Bodies Subject to RSA 483-B (May 22, 2019) and the NHDES Designated River Corridor Map, the AoT project area does not contain any designated river corridor areas.

4.0 PROJECT DESCRIPTION

4.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT

The proposed Project includes replacement of all existing wooden transmission line structures along the W179 line ROW. Within the AoT project areas, 168 structures will be replaced with 171 new structures, including 3 new poles at the Pontook Tap in Dummer (Figure 1 sheet 29). The structure replacement process consists of drilling approximately 4-ft-diameter holes near the existing structures. A caisson, or can, is installed approximately 15 to 20 ft below the ground surface. The new structure will be installed in the can and backfilled with clean, suitable rock or gravel material. Spoils produced from drilling the hole will be disposed of in an approved upland location away from wetland areas. Spoil piles will be stabilized with seed and mulch. Some replacement structures may require anchors, which will be installed by excavating trenches, installing concrete block anchors, and backfilling trenches. If anchors are installed in wetlands, excavated material will be stockpiled in a suitable upland area or on construction mats, then



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backfilled following installation to maintain hydric soil conditions. Once the new structure is installed and stable, the wires from the old structure will be transferred to the new structure. Old structures will be cut and removed from the ground in upland locations. Old structures located in wetlands will be cut at ground level if saturated soils prevent a clean removal. All construction materials and old structure pieces will be removed and disposed of off-site at an approved disposal facility.

Following completion of the structure replacement and wire work, all temporary construction mats will be removed. Disturbed wetland areas will be restored and stabilized with weed-free straw mulch. Disturbed upland areas will also be restored and stabilized. Disturbance associated with upland work pad areas will be minimized by reducing the work pad size to 30 ft by 60 ft and by restoring upland perimeter areas to pre-existing contours, with seeding and mulch used as needed. Slopes will be reduced to less than 25 percent where necessary, and exposed soils will be stabilized with seed and mulch. Seed and mulch will be applied along the shoulders and side slopes of the access roads as necessary, and the established access roads will be left in place.

Overhead wire replacement work involves restringing and replacing the existing wires on all structures along the length of the W179 line. Wire replacement work will be completed following the structure replacement work and will utilize the access roads and work pads created during the structure replacement. Access roads will also be established to pull pads, where the wire will be pulled from one location to another across the structures and spliced together. The majority of the wire unclipping/clipping will likely be accomplished via bucket truck aerial access. Helicopters may also be utilized during the wire replacement process where terrain and surrounding infrastructure allow.

4.1.1 Access

The proposed rebuild Project utilizes existing access routes within the W179 line ROW wherever possible. The condition of many of the existing on-ROW access routes comprise dirt or grassed areas and are proposed to be improved with the addition of gravel or crushed stone as part of the Project to allow for construction vehicle access. Proposed access routes are shown on Figures 3 and 4. Access road entrances are located off state and local roadways and utilize existing entrances wherever possible. Temporary driveway permits for access from state owned roads will be obtained from the New Hampshire Department of Transportation and municipalities prior to the start of construction, as necessary. The proposed access routes were sited to minimize ground disturbance and temporary wetland impacts to the greatest extent practicable while providing safe and efficient access to the existing structures. Timber matting will be used to cross wetlands that cannot be avoided, and streams that cannot be avoided will be spanned with mats to avoid impacts to the bed and banks. Emergency pull-offs will be constructed along access routes, as necessary, to allow vehicles to pass each other safely in the event of an emergency. The pull-offs will be approximately 15-ft by 100-ft and will be constructed at the discretion of contractor and Eversource on an as-needed basis.

4.1.1.1 Road Construction

Proposed upland access road improvements include construction of approximately 12-ft-wide gravel and stone roads within the ROW. The roads will provide access to existing utility structures for replacement



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activities. The improved access roads will provide reliable, permanent access to utility infrastructure during future maintenance or emergency repairs. Where possible, the proposed access roads will be located on top of existing dirt or grass roads or trails. If no existing routes are available or suitable, a new road will be established. Minor grading may be necessary to remove large boulders and create a flat surface for the new rock or gravel.

4.1.1.2 Wetland and Upland Temporary Matting

Access through delineated wetlands in the AoT project area will utilize temporary timber construction mats to minimize impacts and prevent rutting in the wetlands (see Figure 4). Where necessary in overly saturated conditions, runners (mats placed parallel to the direction of travel) will be placed on the wetland surface prior to setting the top, perpendicular-positioned layer of mats. This helps reduce settling and overall wetland disturbance. Upland timber construction mats are occasionally requested by the landowner where agricultural fields or residential lawn areas may be crossed by the proposed access road. Timber mats will also be used in select upland areas to protect soils that have been identified as being archeologically sensitive and may be utilized to safely cross underground pipelines or other existing utilities.

4.1.2 Work Pad Construction

The proposed project includes construction of structure replacement work pads and pull pads. Structure replacement pads will be approximately 120 ft by 120 ft at corner structures and approximately 100 ft by 100 ft at all other replacement structures. Pull pads will be 50 ft by 100 ft. All upland work pads will be constructed using clean stone. The work pads will be top dressed with compacted 1.5- to 3-inch-diameter clean stone. Proposed work pads located in wetland areas will be constructed using temporary timber construction mats and will be removed upon completion of the work. Upland work pads will be restored by reducing the work pad size to approximately 30 ft by 60 ft by covering perimeter areas with stockpiled loam. Slopes will be reduced to less than 25 percent where necessary, and exposed soils will be stabilized with seed and mulch.

4.2 CONSTRUCTION SEQUENCE

The general project construction sequence will be as follows.

1. Install appropriate signage for traffic safety along public roads near construction entrances and post Project permits at a central location:
 - a. Consult and coordinate with municipalities and police as necessary if short duration lane closures are needed to allow for safe entry and exit of construction equipment to/from the ROW.
2. Install erosion control devices, as needed, as shown on Figure 4:
 - a. Erosion control practices will follow the NHDES Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire (March 2019; Utility BMP Manual).



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- b. Typical erosion controls devices used within the ROW may consist of stabilized construction entrances, silt fence, straw wattles, stone check dams, and/or hay and straw mulch stabilization.
3. Place construction mats in wetlands for access roads and work pads as depicted on Figure 4:
 - a. Mats will be stored off-site by the contractor. Storage areas will be determined by the contractor and are usually non-Project specific yards owned or leased by the contractor or existing parking lots near the Project area. A log loader style truck will deliver mats to the ROW. Depending on the terrain, the log loader truck may deliver the mats directly to where they will be installed, or they will be stockpiled within the ROW near an existing road. A forwarder will then move the mats to where they are needed on the ROW and install them in conjunction with an excavator.
4. Grade and improve upland access roads and work pads:
 - a. If existing trails are present, they will be improved with a layer of compacted gravel or stone to prevent rutting.
 - b. Where no existing trails are present, an approximately 12- to 16-ft-wide path will be graded smooth by removing some of the topsoil. If present, large boulders will be removed and set to the side of the route in upland areas. The graded areas will be topped with compacted gravel or stone. Exposed soils on side slopes will be stabilized with seed and mulch.
5. Structure replacements:
 - a. Drill new structure holes utilizing an excavator with a drill attachment;
 - b. Install new poles and structure components. Typical equipment consists of one to two bucket trucks working with a crane truck that lifts the new structure;
 - c. Transfer electrical lines from old structures to new structures; and
 - d. Remove and haul away old structures. Pull cut pole from the ground if possible, in upland locations. Cut pole flush with ground, if pulling would create excessive disturbance, in wetland locations and restore area with weed-free straw mulch.
6. Mobilize overhead wire spools and pulling equipment to designated pull pads.
7. Replace overhead wires. Wire unclipping, pulley installation, and wire clipping is typically done with a bucket truck. A helicopter may also perform these tasks at select locations depending on the surrounding terrain, tree cover, or other obstacles identified by the contractor.
8. Clean up excess/stockpiled material at work pads and pull pads.
9. Smooth/grade upland work pads and stabilize and restore with seed and mulch as necessary. Upland work pads are typically restored to an approximately 30-ft by 60-ft size. Topsoil pushed to the sides during the initial construction is used to recover the work pads. Exposed soils are stabilized with seed and mulch.



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10. Clean soil material and debris as necessary and remove construction mats from wetland areas and stabilize/restore disturbed wetland areas with weed-free straw mulch. Matting is removed in a similar manner to how it was installed by using log loader trucks, forwarders, and/or excavators.
11. Stabilize, restore, and clean up all staging areas and entrance points.

Provided necessary permits are in place, work is anticipated to begin in approximately June 2023 and continue until approximately spring or summer 2024. Entrances, access roads, and work pads will be created prior to structure replacement work. New structure holes will likely be drilled prior to mobilization of structure replacement equipment (e.g., cranes, bucket trucks). Installation of new poles and wire replacement will be completed prior to moving on to the next structure. Multiple structure replacement crews may work in different areas to expedite the process. Once all planned structure replacements within a designated segment of line occur, pull pads will be established as necessary, and the replacement wires will be pulled into place. Pull pad placement will be determined based on the length of wire and angle structures along the line. A spool of wire will be placed on one pull pad, and the wire will be pulled into place through pulleys on the structures by a large winch at another location. When wire pulling is complete, the wire segments will be spliced together and clipped permanently onto the structures. Removal of mats and restoration will occur as individual work areas are completed.

4.3 BEST MANAGEMENT PRACTICES

4.3.1 Erosion and Sedimentation Control

Work will be conducted in accordance with Eversource's standard BMPs as designated by the Utility BMP Manual. Installing BMPs in accordance with this manual will minimize and avoid impacts to wetland and stream resources and the surrounding upland to the greatest extent practicable. Erosion control notes are also provided on the Notes and Details sheets of Figures 3 and 4.

Perimeter erosion controls consisting of silt fence, straw wattles, mulch, and straw bales will be installed as necessary around the work areas to minimize potential impacts to adjacent resource areas. Water bars, also known as diversion ditches, will be installed along access roads with steep slopes, where necessary, to reduce potential for water to flow extended distances down the road causing erosion. Water bars will direct water off the road into adjacent upland areas. Exposed soil created during construction will be stabilized with seed and mulch as soon as possible after active work in the area is complete. No equipment or material will be stored within wetland areas. Erosion control details are shown on the Notes and Details sheets of Figures 3 and 4. Temporary timber construction mats will be used in all unavoidable wetland areas and will be used to cross all unavoidable streams within the Project area.

4.3.2 Invasive Species Control Plan

Sparse invasive species occurrences were observed during field surveys along the ROW. Contractors will follow the invasive species recommendations in the Utility BMP Manual to minimize potential spread of invasive species. Recommended measures include inspection and cleaning of equipment and contractor training. Equipment, including construction mats, brought to the Project area will be inspected by the contractor and/or environmental monitor, and if plant material or soil is present, the equipment will be



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cleaned and dried prior to use on the Project. Contractors will be familiar with identification of common invasive species and will be required to clean mats and equipment prior to mobilization to and from the Project. If possible and without increasing wetland impacts, the contractors may also make slight shifts in access roads or work pads to avoid invasive species locations to minimize the risk of spread.

4.3.3 Construction Observation and Post Construction Monitoring

During construction, Eversource will contract an environmental monitor to perform routine construction observation visits. The environmental monitor will inspect the Project area for compliance with the Utility BMP Manual and applicable Project permit conditions. Construction observation visits will occur at least once per week and/or after a significant rainfall (0.5 inches or greater) or snow melt event. Under the National Pollutant Discharge Elimination System, Eversource will file a Notice of Intent and Stormwater Pollution Prevention Plan (SWPPP) under the U.S. Environmental Protection Agency's Construction General Permit. Construction observation visits and associated reporting will follow the SWPPP and Construction General Permit guidelines and be performed by a qualified individual familiar with the SWPPP, Utility BMP Manual, and project specific permit conditions.

A series of post-construction monitoring visits in the Project area will be performed by a qualified environmental scientist to document that disturbed areas are properly stabilized and vegetation is beginning to regrow. Site restoration will be considered successful when there is at least 85 percent vegetative cover by native and non-invasive herbaceous plant species within the restored portions of ROW, including restored wetland areas. This does not include gravel work pads or access roads that existed prior to construction or were created during construction. The environmental scientist will prepare a report following each post-construction monitoring visit that includes representative photographs and corrective actions (if applicable). Once the disturbed uplands and temporarily impacted wetlands within the Project area are determined to be permanently stabilized, post-construction monitoring will be considered complete.

5.0 REGULATORY COMPLIANCE

5.1 ALTERATION OF TERRAIN

The NHDES requires an AoT permit whenever a project proposes to disturb more than 100,000 sf of terrain or 50,000 sf if within a protected shoreland (Env-Wq-1500). The NHDES rule is intended to protect New Hampshire surface waters by controlling soil erosion and managing stormwater runoff from developed areas. The AoT project area is calculated based on overall area of disturbance. Details on impacts in the AoT project area are provided in Section 5.1.2.

5.1.1 Waiver Requests

Env-Wq 1503.12 (d)(1&2)

Eversource is requesting a waiver for including past disturbance in the measurement of contiguous disturbed area included in this W179 Line AoT application. Existing terrain alteration associated with past



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transmission line maintenance within the W179 ROW is minimal. Any existing trails or access roads that may have been created within the last 10 years will be utilized and/or improved as part of this Project and have been included in the current calculations within this application. Future structure maintenance may occur within the W179 ROW. Eversource, through consultation with NHDES, will evaluate whether future terrain disturbances within the W179 ROW will be permitted with an amendment to this application or subject to a new, separate application. These exemptions for transmission line maintenance projects were discussed during pre-application consultation between Eversource, Stantec, and NHDES with regards to the Eversource P145 (towns of Concord, Pembroke, and Bow; AoT-2205) project in 2022. A formal waiver request form is provided in Appendix F.

Env-Wq 1503.21 (d)(6&7)

Eversource is requesting a waiver for deviations from the approved plans without applying for an amended permit or a new permit if shifts in the proposed Project layout occur. Changes in project layout are sometimes identified during construction by Eversource and their contractors and may be necessary to safely perform the work or avoid rare species or sensitive areas identified during the construction biological monitoring. This waiver would allow for shifts of access road centerlines and work pad center points within the existing ROW. A formal waiver request form is provided in Appendix F.

Env-Wq 1504.09

Eversource is requesting a waiver from the requirements to prepare a Stormwater Drainage Report, Drainage Area Plans, and Hydrologic Soil Group Plans. New impervious surfaces associated with the project are limited to the footprint of the new transmission line structures. It is not anticipated that the proposed structures will have a significant impact on site drainage patterns, and stormwater treatment practices are not proposed. These exemptions for transmission line maintenance projects have been discussed previously with NHDES on another recent similar project (P145 as noted above). A formal waiver request form is provided in Appendix F.

5.1.2 Quantification of Impacts Subject to AoT

There is up to approximately 2,901,914 sf of total ground area (total Project footprint), including 961,482 sf of temporary wetland matting, 40,433 sf of upland matting, and 1,899,999 sf of ground disturbances, proposed within the AoT project area that requires an AoT permit in accordance with Env-Wq 1502.58. Specific areas are detailed below that exceed the AoT disturbance thresholds for Env-Wq 1502.58(b)(2) "An area that, over a 10-year period, cumulatively exceeds 100,000 sf of contiguous area..." The width of the proposed disturbance for new access roads is assumed to average approximately 12 ft throughout the AoT project area, and temporary timber construction mats are 16 ft wide. Additional details are shown on Figure 4.



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AoT Project Area: Berlin, Milan, Dummer

Structures 1–173 (proposed), 1–169 (existing)

Figure 4

Disturbance Type	Impact (sf)
New Access	542,551
Gravel Work/Pull Pad	1,303,524
Emergency Pull-offs and Misc.	53,924
Total Disturbed Area	1,899,999

5.2 OTHER REGULATORY PROGRAMS

Other regulatory permits and notifications required for the proposed project are summarized below. Eversource and Stantec have corresponded with the towns of Berlin, Milan, and Dummer regarding the proposed work. Of the three towns where AoT project activities would occur, only one (Dummer) requires municipal permitting (height variance and building permit). All three towns will receive a copy of the AoT permit application. Stantec will provide NHDES with mailing receipts and/or proof that the application was delivered to the towns via email, once available.

Agency	Permit/Notification	Status
NHDES	Wetlands Utility Statutory Permit by Notification (3)	Pending
NHDES	Shoreland Permit by Notification (3)	Pending
EPA (Construction General Permit)	Stormwater Pollution Prevention Plan	Pending
Town of Dummer	Variance; Building Permit	Pending



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FIGURES

Figure 1: USGS Locus Plan

Figure 2: Aerial Site Plan

Figure 3: Surface Water and Groundwater Overlay Plans

Figure 4: Alteration of Terrain Permitting Plans

Project Plans submitted electronically as separate pdf file.



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**Appendix A ALTERATION OF TERRAIN PERMIT APPLICATION
FORM**





ALTERATION OF TERRAIN PERMIT APPLICATION



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

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

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

1. APPLICANT INFORMATION (INTENDED PERMIT HOLDER)			
Applicant Name: Public Service Co. of NH d/b/a Eversource Energy		Contact Name: Jeremy Fennell	
Email: jeremy.fennell@eversource.com		Daytime Telephone: 603-634-3396	
Mailing Address: 13 Legends Drive			
Town/City: Hooksett		State: NH	Zip Code: 03106
2. APPLICANT'S AGENT INFORMATION If none, check here: <input type="checkbox"/>			
Business Name: Stantec Consulting Services Inc.		Contact Name: Tom Tetreau	
Email: tom.tetreau@stantec.com		Daytime Telephone: 207-504-7231	
Address: 30 Park Drive			
Town/City: Topsham		State: ME	Zip Code: 04086
3. PROPERTY OWNER INFORMATION (IF DIFFERENT FROM APPLICANT)			
Applicant Name:		Contact Name:	
Email:		Daytime Telephone:	
Mailing Address:			
Town/City:		State:	Zip Code:
4. PROPERTY OWNER'S AGENT INFORMATION If none, check here: <input checked="" type="checkbox"/>			
Business Name:		Contact Name:	
Email:		Daytime Telephone:	
Address:			
Town/City:		State:	Zip Code:
5. CONSULTANT INFORMATION If none, check here: <input type="checkbox"/>			
Engineering Firm: Stantec Consulting Services Inc.		Contact Name: Tom Tetreau	
Email: tom.tetreau@stantec.com		Daytime Telephone: 207-504-7231	
Address: 30 Park Drive			
Town/City: Topsham		State: ME	Zip Code: 04086

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

NHDES Alteration of Terrain Bureau, PO Box 95, Concord, NH 03303-0095

www.des.nh.gov

6. PROJECT TYPE			
<input type="checkbox"/> Excavation Only	<input type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Golf Course
<input type="checkbox"/> Agricultural	<input type="checkbox"/> Land Conversion	<input checked="" type="checkbox"/> Other: Utility	
<input type="checkbox"/> School			
<input type="checkbox"/> Municipal			
7. PROJECT LOCATION INFORMATION			
Project Name: W179 Transmission Line Rebuild			
Street/Road Address: Existing utility ROW between East Berlin Substation in Berlin and Paris Substation in Dummer			
Town/City: Berlin, Milan, and Dummer		County: Coos	
Tax Map: multiple	Block: multiple	Lot Number: multiple	Unit: multiple
Location Coordinates: 44.549°, -71.183°		<input checked="" type="checkbox"/> Latitude/Longitude	<input type="checkbox"/> UTM
<input type="checkbox"/> State Plane			
Post-development, will the proposed project withdraw from or directly discharge to any of the following? If yes, identify the purpose.			
1. Stream or Wetland Purpose:	<input type="checkbox"/> Yes	<input type="checkbox"/> Withdrawal	<input type="checkbox"/> Discharge
	<input checked="" type="checkbox"/> No		
2. Man-made pond created by impounding a stream or wetland Purpose:	<input type="checkbox"/> Yes	<input type="checkbox"/> Withdrawal	<input type="checkbox"/> Discharge
	<input checked="" type="checkbox"/> No		
3. Unlined pond dug into the water table Purpose:	<input type="checkbox"/> Yes	<input type="checkbox"/> Withdrawal	<input type="checkbox"/> Discharge
	<input checked="" type="checkbox"/> No		
Post-development, will the proposed project discharge to:			
• A surface water impaired for phosphorus and/or nitrogen? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen			
• A Class A surface water or Outstanding Resource Water? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen			
• A lake or pond not covered previously? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond			
Is the project a High Load area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, specify the type of high load land use or activity: _____			
Is the project within a Water Supply Intake Protection Area (WSIPA)?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the project within a Groundwater Protection Area (GPA)?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the well setbacks identified in Env-Wq 1508.02 be met?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Note: Guidance document titled " Using NHDES's OneStop WebGIS to Locate Protection Areas " is available online. For more details on the restrictions in these areas, read Chapter 3.1 in Volume 2 of the NH Stormwater Manual.			
Is any part of the property within the 100-year floodplain? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
If yes: Cut volume: <u>0</u> cubic feet within the 100-year floodplain			
Fill volume: <u>0</u> cubic feet within the 100-year floodplain			
<input type="checkbox"/> Project IS within ¼ mile of a designated river		Name of River: _____	
<input checked="" type="checkbox"/> Project is NOT within ¼ mile of a designated river			
<input type="checkbox"/> Project IS within a Coastal/Great Bay Region community - include info required by Env-Wq 1503.08(I) if applicable			
<input checked="" type="checkbox"/> Project is NOT within a Coastal/Great Bay Region community			
8. BRIEF PROJECT DESCRIPTION (PLEASE DO NOT REPLY "SEE ATTACHED")			
Eversource Energy (Eversource) has identified the need to replace the existing wooden structures with new, steel structures and replace the overhead wires along the existing W179 transmission line (Project). This is an approximately 15.4-mile-long line built in the 1940s that crosses through the towns of Berlin, Milan, and Dummer.			
9. IF APPLICABLE, DESCRIBE ANY WORK STARTED PRIOR TO RECEIVING PERMIT			
Not applicable. Unless an emergency repair situation is identified, no work will be performed prior to receiving necessary permits.			

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

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

BIND IN A REPORT IN THE FOLLOWING ORDER:

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

PLANS:

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

100-YEAR FLOODPLAIN REPORT:

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

ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE

- See Checklist for Details

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

ATTACHMENT A: ALTERATION OF TERRAIN PERMIT APPLICATION CHECKLIST

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

DESIGN PLANS

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

DETAILS

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

CONSTRUCTION SEQUENCE/EROSION CONTROL

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

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

- Note the definition of the word “stable”

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

- Base course gravels have been installed in areas to be paved.
- A minimum of 85 percent vegetated growth has been established.
- A minimum of 3 inches of non-erosive material such stone or riprap has been installed.
- Or, erosion control blankets have been properly installed.

- Note the limit of time an area may be exposed
Example note: All areas shall be stabilized within 45 days of initial disturbance.

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

- Provide winter construction notes that meet or exceed our standards.

Standard Winter Notes:

- All proposed vegetated areas that do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting, elsewhere. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melt events.
- All ditches or swales which do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions.
- After October 15, incomplete road or parking surfaces, where work has stopped for the winter season, shall be protected with a minimum of 3 inches of crushed gravel per NHDOT item 304.3.

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

DRAINAGE ANALYSES

Please double-side 8 ½" × 11" sheets where possible but, **do not** reduce the text such that more than one page fits on one side.

- PE stamp
- Rainfall amount obtained from the Northeast Regional Climate Center- <http://precip.eas.cornell.edu/>. Include extreme precipitation table as obtained from the above referenced website.
- Drainage analyses, in the following order:
- Pre-development analysis: Drainage diagram.
 - Pre-development analysis: Area Listing and Soil Listing.
 - Pre-development analysis: Node listing 1-year (if applicable), 2-year, 10-year and 50-year.
 - Pre-development analysis: Full summary of the 10-year storm.
 - Post-development analysis: Drainage diagram.
 - Post-development analysis: Area Listing and Soil Listing.
 - Post-development analysis: Node listing for the 2-year, 10-year and 50-year.
 - Post-development analysis: Full summary of the 10-year storm.
- Review the Area Listing and Soil Listing reports
- Hydrologic soil groups (HSG) match the HSGs on the soil maps provided.
 - There is the same or less HSG A soil area after development (check for each HSG).
 - There is the same or less "woods" cover in the post-development.
 - Undeveloped land was assumed to be in "good" condition.
 - The amount of impervious cover in the analyses is correct.

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

- Check the storage input used to model the ponds.
- Check to see if the artificial berms pass the 50-year storm, i.e., make sure the constructed berms on ponds are not overtopped.
- Check the outlet structure proposed and make sure it matches that modeled.
- Check to see if the total areas in the pre and post analyses are same.
- Confirm the correct NRCS storm type was modeled (Coos, Carroll & Grafton counties are Type II, all others Type III).

PRE- AND POST-DEVELOPMENT DRAINAGE AREA PLANS

- Plans printed on 34 - 36" by 22 - 24" on white paper.
- Submit these plans separate from the soil plans.
- A north arrow.
- A scale.
- Labeled subcatchments, reaches and ponds.
- Tc lines.
- A clear delineation of the subcatchment boundaries.
- Roadway station numbers.
- Culverts and other conveyance structures.

PRE AND POST-DEVELOPMENT COLOR-CODED SOIL PLANS

- 11" × 17" sheets suitable, as long as it is readable.
- Submit these plans separate from the drainage area plans.
- A north arrow.
- A scale.
- Name of the soil scientist who performed the survey and date the soil survey took place.
- 2-foot contours (5-foot contours if application is for a gravel pit) as well as other surveyed features.
- Delineation of the soil boundaries and wetland boundaries.
- Delineation of the subcatchment boundaries.
- Soil series symbols (e.g., 26).
- A key or legend which identifies each soil series symbol and its associated soil series name (e.g., 26 = Windsor).
- The hydrologic soil group color coding (A = Green, B = yellow, C= orange, D=red, Water=blue, & Impervious = gray).

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

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

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

ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE

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

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Appendix B ABUTTERS LIST



Appendix B: Abutters List

W179 Transmission Line Rebuild Project

Berlin, Milan, Dummer, Success, New Hampshire

Abutter Number	MBLU	Owner (First Name)	Owner (Last Name)
Berlin			
803-041	403-15	Barry J	Kelley
803-042	404-20	Michael & Steven M	Kelley Trustee
803-043	403-25	Wayne A	Dimitri
803-044	403-26	Wayne A	Dimitri
803-045	403-24	Wintergreen Landscaping LLC	
803-046	404-16	David V & Anne E	Hazard, Trustees
803-047	403-16	Barry J	Kelley
803-048	404-11	Emile L	Croteau
803-049	404-6	William J	Woodward
803-050	140-13	Tom & C Realty, LLC	
803-051	140-6	Raymond	Barbin
803-052	140-11	Susan G	Dodge Trustee
803-053	140-10	Romeo R	LaPointe
803-054	140-14	Theodore J	Lacasse
803-055	140-16	M & L Foundations LLC	
803-056	139-25	Berlin Water Works	
803-057	139-27	Barry J	Kelley
803-058	138-70	Barry J	Kelley
803-059	137-135-10	Pamela Mercier	Van Vlaanderen
803-060	137-85	Northwoods Mobile Home Park	
803-060.01	137-85-L3	David	Aubin
803-060.02	137-85-L4	Mark A	Miller
803-060.03	137-85-L5	Therese	Pinette
803-060.04	137-85-L7	Michael	Dubay
803-060.05	137-85-L8	Maurice J	Mailhot
803-060.06	137-85-L9	Carl	Medeiros
803-060.07	137-85-L10	Randy D	Bourassa
803-060.08	137-85-L11	Robert R	Guerin
803-060.09	137-85-L12	Leo A	Guerin Jr
803-060.10	137-85-L13	James	Cote
803-060.11	137-85-L14	Denise	Vander-Heyden
803-060.12	137-85-L15	Lorna D	Fitts
803-060.13	137-85-L16	Rene A	Lawrence
803-060.14	137-85-L17	Pamela J	Guerin
803-060.15	137-85-L18	William	Douglass
803-060.16	137-85-L19	Theresa M	Beaudry
803-060.17	137-85-L20	Roland	Riendeau
803-060.18	137-85-L21	David	Gagnon, Etal
803-060.19	137-85-L22	Donald	Perry
803-060.20	137-85-L23	Donald W	Riff
803-060.21	137-85-L24	Louise I	Guerin
803-060.22	137-85-L25	Kelly	Croteau

803-060.23	137-85-L26	Gail	Burlock
803-060.24	137-85-L27	Gary	Langlais
803-060.25	137-85-L28	Michael I	Holt
803-060.26	137-85-L29	Paul	Dooley
803-060.27	137-85-L31	Donald	Guerin
803-060.28	137-85-L33	Claire G	Riendeau
803-060.29	137-85-L35	Tammy J	Morin
803-060.30	137-85-L37	Charles	Haynes Jr
803-060.31	137-85-L38	Wilfred & Florence Aubut Life Estate	
803-060.32	137-85-L39	George R	Moreau
803-060.33	137-85-L40	Charles J	Haynes Sr
803-060.34	137-85-L41	Bethany	Cargill
803-060.35	137-85-L42	Elaine C	Morin
803-060.36	137-85-L43	Scot P	Lavoie
803-060.37	137-85-L44	Lawrence	Byron
803-060.38	137-85-L46	Gerald R	Shute
803-060.39	137-85-L47	Dan	Baillargeon
803-060.40	137-85-L48	Kenneth	Labbe
803-060.41	137-85-L49	Shari	Reid
803-060.42	137-85-L50	Jeannette L	Viens
803-060.43	137-85-L51	Judy	Chapman
803-060.44	137-85-L52	Richard L	Laflamme
803-060.45	137-85-L53	Brenda O	Delaney
803-061	137-135	Carl J	Mercier, Trustee
803-062	133-105	Pulp of America LLC/C Schubert	
803-064	133-78	City of Berlin	
803-065	133-79	Androscoggin Valley Regional Refuse Disposal District	
803-066	132-30	Public Service Company of New Hampshire (Eversource)	
803-067	132-66	Kimberly	Selter
803-068	132-67	Maurice J	Laroche
803-069	132-68	Androscoggin Valley Regional Refuse Disposal District	
803-070	414-4	Androscoggin Valley Regional Refuse Disposal District	
803-071	118-182	Public Service Company of New Hampshire (Eversource)	
Dummer			
802-052	0000R1000002000000	Bayroot, LLC	
803-001	R19-6	Road Kings Motorcycle Club, Incorporated	
803-002	R19-8	Pontook Operating Limited Partnership	
803-003	R19-2	Bergeron Irrevocable Trust	
803-004	R20-1	Public Service Company of New Hampshire (Eversource)	
Gorham			
804-127	00R8-00006-0000	Bayroot LLC	
804-129	00R8-00006-0000	Bayroot LLC	

Milan

803-005	0288-0034-0000	Pamela D	Brackett
803-006	0288-0001-0000	David Paul	Croteau
803-007	0046-0089-0000	Claude David & Vickie	Plourde
803-008	0288-0035-0000	Arthur M	Potter
803-009	0046-0097-0000	Gary	Biggart
803-010	0046-0014-0000	Steven A	Ramsey
803-011	0046-0016-0000	Jonathan	Marino
803-012	0046-0015-0000	Steven	McLain
803-013	0046-0022-0000	Michael	Godbout
803-014	0046-0023-0000	Bruno	Hallee
803-015	0046-0024-0000	Michael	Fournier
803-016	0046-0027-0000	Ronald	Lemoine
803-017	0046-0028-0000	Douglas	Young
803-018	0046-0029-0001	Michael	Godbout
803-019	0046-0029-0000	Megwood LLC	
803-020	0042-0002-000M	Megwood LLC	
803-021	0046-0096-0002	Brian K.	Granville
803-022	0044-0012-0000	Barry J	Kelley
803-023	0044-0010-0000	Richard	Flint
803-024	0044-0161-0000	Richard	Flint
803-025	0044-0047-0000	Arthur M	York
803-026	0044-0039-0000	Daniel J	Cordwell
803-027	0044-0037-0000	Joan B	McGrath, Trustee
803-028	0044-0039-0005	Jolinda	Hawkins
803-029	0044-0039-0004	Mark A	Dumont
803-030	0044-0042-0000	Paul	Oullette
803-031	0042-0003-0000	Michael E	Galuszka
803-032	0042-0006-0000	Stephen	Woodward
803-033	0042-0005-0000	Arthur M	Potter
803-034	0042-0014-0000	John	Beaudoin
803-035	0042-0016-0003	John	Beaudoin
803-036	0042-0016-0002	Jennifer L	Morin
803-037	0042-0016-02.1	Jennifer L.	Morin
803-038	0042-0016-0001	Marcel	Arnold
803-039	0042-0002-0001	Town of Milan	
803-040	0042-0020-0000	Wade A. Boucher & Lynn McLain	

Success

803-063	1612-0001-0000	Androscoggin Valley Regional Refuse Disposal District	
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NHDES ALTERATION OF TERRAIN PERMIT APPLICATION

February 17, 2023

**Appendix C NATURAL HERITAGE BUREAU DATACHECK
RESULTS LETTERS**



New Hampshire Natural Heritage Bureau

NHB DataCheck Results Letter

To: Tom Tetreau, Stantec
30 Park Drive

Topsham, ME 04086

From: NH Natural Heritage Bureau

Date: 6/14/2022 (valid until 6/14/2023)

Re: Review by NH Natural Heritage Bureau of request submitted 6/6/2022

Permits: MUNICIPAL POR - Berlin, NHDES - Alteration of Terrain Permit, NHDES - Shoreland Standard Permit, NHDES - Utility Statutory Permit by Notification (SPN), USACE - General Permit, USEPA - Stormwater Pollution Prevention

NHB ID: NHB22-1979

Applicant: Tom Tetreau

Location: Berlin

existing ROW between Devens ST. and Milan town line, east of
Route 16

Project

Description: Eversource is proposing to replace all the existing wooden structures within the existing W179 transmission line corridor in Berlin, Milan, and Dummer, NH, approximately 15 miles. The wooden poles are deteriorating due to age, cracking, rot, and woodpecker damage and will be replaced with similar steel structures. Existing roads and trails will be utilized to the greatest extent possible, but some new gravel roads and work pads will be created in uplands. Temporary wetland matting will be used to cross wetlands and access wetland structures. Vernal pools were identified during wetland delineations in May 2022 and the project will attempt to avoid these features. Construction is planned for Fall 2023 through Spring 2025.

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

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 6/6/2022 1:07:36 PM, and cannot be used for any other project.

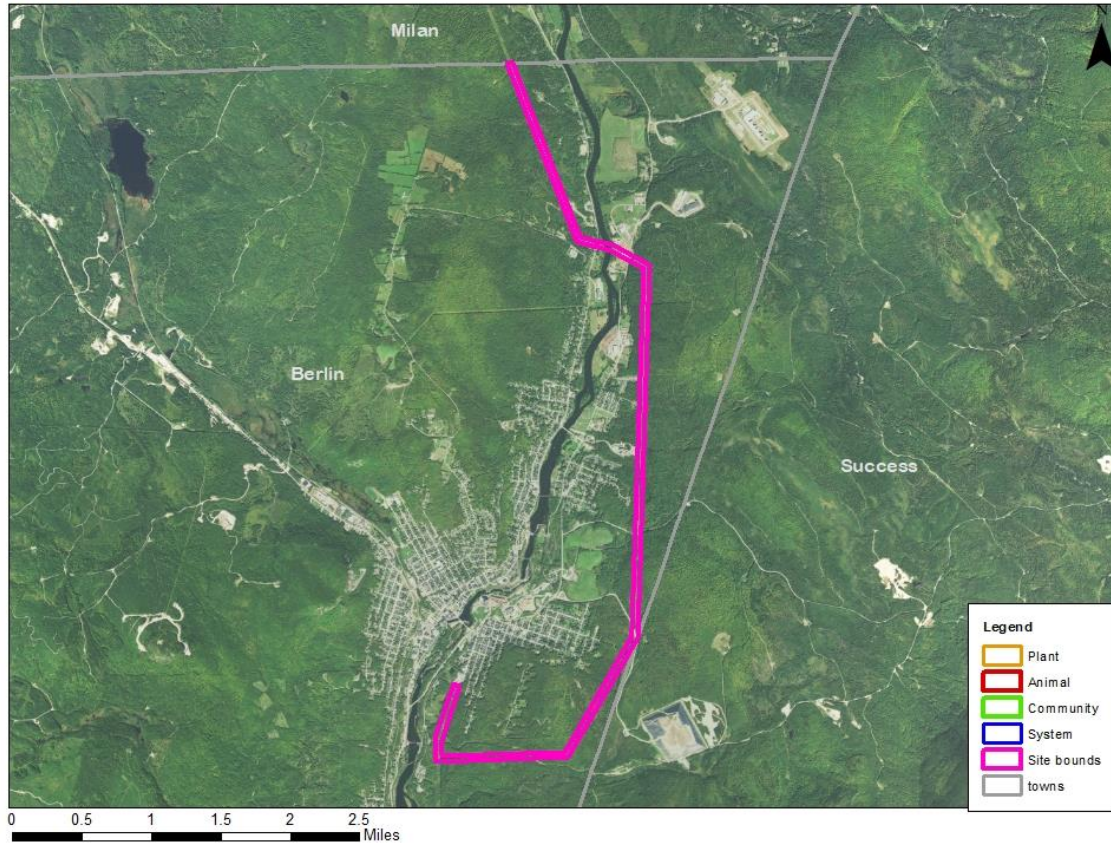
New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

New Hampshire Natural Heritage Bureau NHB DataCheck Results Letter

MAP OF PROJECT BOUNDARIES FOR: **NHB22-1979**

NHB22-1979



New Hampshire Natural Heritage Bureau

NHB DataCheck Results Letter

To: Tom Tetreau, Stantec
30 Park Drive

Topsham, ME 04086

From: NH Natural Heritage Bureau

Date: 6/14/2022 (valid until 6/14/2023)

Re: Review by NH Natural Heritage Bureau of request submitted 6/6/2022

Permits: MUNICIPAL POR - Milan, NHDES - Alteration of Terrain Permit, NHDES - Utility Statutory Permit by Notification (SPN), USACE - General Permit, USEPA - Stormwater Pollution Prevention

NHB ID: NHB22-1980

Applicant: Tom Tetreau

Location: Milan

existing ROW from Milan/Berlin town line, east of Route 16 to Milan/Dummer town line south of Route 110A

Project

Description: Eversource is proposing to replace all the existing wooden structures within the existing W179 transmission line corridor in Berlin, Milan, and Dummer, NH, approximately 15 miles. The wooden poles are deteriorating due to age, cracking, rot, and woodpecker damage and will be replaced with similar steel structures. Existing roads and trails will be utilized to the greatest extent possible, but some new gravel roads and work pads will be created in uplands. Temporary wetland matting will be used to cross wetlands and access wetland structures. Vernal pools were identified during wetland delineations in May 2022 and the project will attempt to avoid these features. Construction is planned for Fall 2023 through Spring 2025.

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It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 6/6/2022 1:10:54 PM, and cannot be used for any other project.

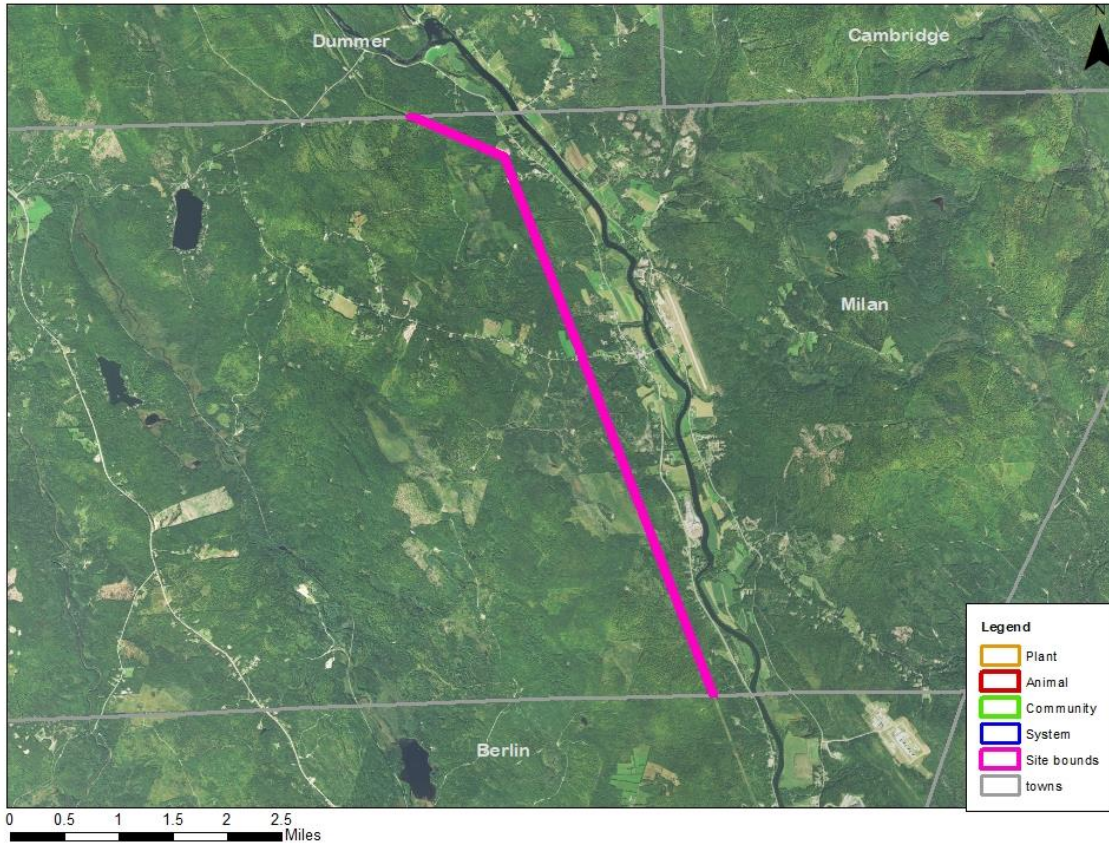
New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

New Hampshire Natural Heritage Bureau NHB DataCheck Results Letter

MAP OF PROJECT BOUNDARIES FOR: **NHB22-1980**

NHB22-1980



New Hampshire Natural Heritage Bureau

NHB DataCheck Results Letter

To: Tom Tetreau, Stantec
30 Park Drive

Topsham, ME 04086

From: NH Natural Heritage Bureau

Date: 6/14/2022 (valid until 6/14/2023)

Re: Review by NH Natural Heritage Bureau of request submitted 6/6/2022

Permits: MUNICIPAL POR - Dummer, NHDES - Alteration of Terrain Permit, NHDES - Utility Statutory Permit by Notification (SPN), USACE - General Permit, USEPA - Stormwater Pollution Prevention

NHB ID: NHB22-1981

Applicant: Tom Tetreau

Location: Dummer

existing ROW from Milan/Dummer town line to substation just west of the intersection of Route 16 and Dummer Pond Road

Project

Description: Eversource is proposing to replace all the existing wooden structures within the existing W179 transmission line corridor in Berlin, Milan, and Dummer, NH, approximately 15 miles. The wooden poles are deteriorating due to age, cracking, rot, and woodpecker damage and will be replaced with similar steel structures. Existing roads and trails will be utilized to the greatest extent possible, but some new gravel roads and work pads will be created in uplands. Temporary wetland matting will be used to cross wetlands and access wetland structures. Vernal pools were identified during wetland delineations in May 2022 and the project will attempt to avoid these features. Construction is planned for Fall 2023 through Spring 2025.

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

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 6/6/2022 1:15:06 PM, and cannot be used for any other project.

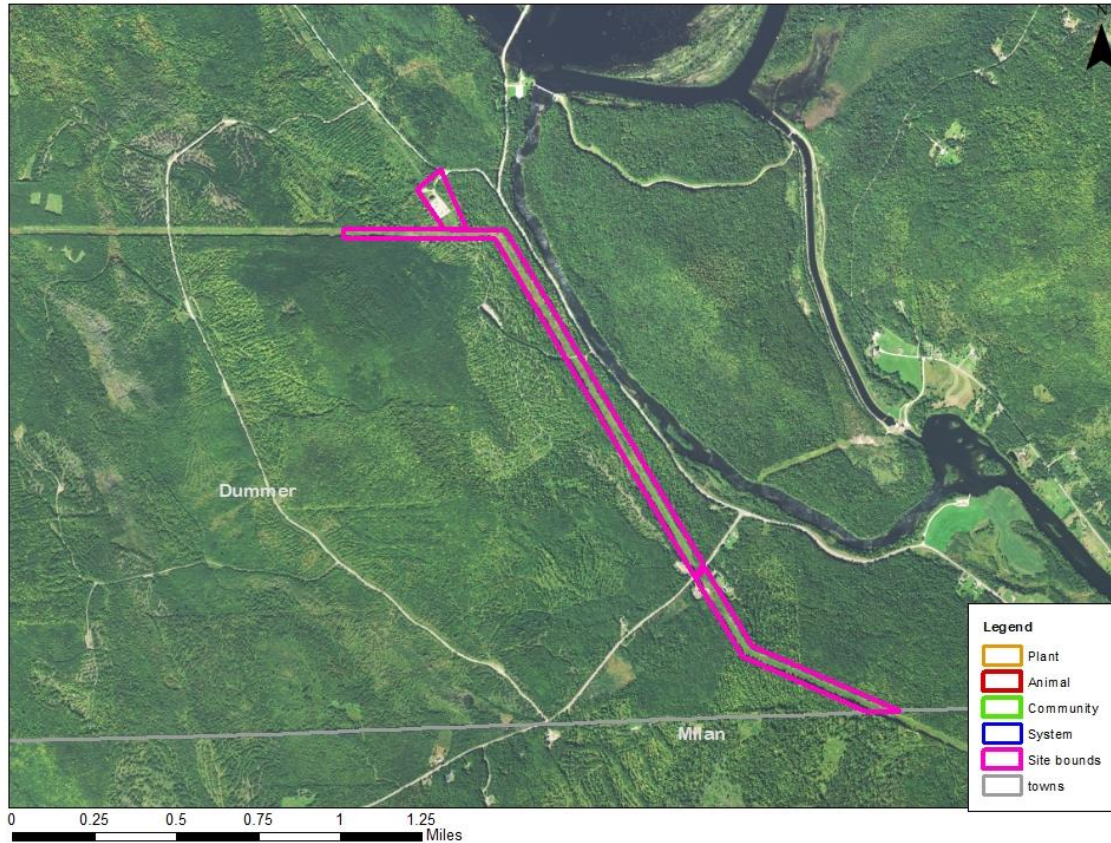
New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

New Hampshire Natural Heritage Bureau NHB DataCheck Results Letter

MAP OF PROJECT BOUNDARIES FOR: NHB22-1981

NHB22-1981



NHDES ALTERATION OF TERRAIN PERMIT APPLICATION

February 17, 2023

**Appendix D NATURAL RESOURCES CONSERVATION SERVICE
SOIL REPORT**

NRCS Soil Report submitted electronically as separate pdf file.



NHDES ALTERATION OF TERRAIN PERMIT APPLICATION

February 17, 2023

Appendix E REPRESENTATIVE PHOTOGRAPHS



W179 Transmission Line Rebuild Project, Representative Photographs, Berlin, New Hampshire



Photo 1. Wetland W01, near existing structure 1 and the Berlin Substation. Stantec, May 2, 2022.



Photo 2. View south from near existing structure 3. Stantec, May 2, 2022.



Photo 3. View east at steep slope leading up from near existing structure 8. Stantec, May 2, 2022.



Photo 4. View east from near existing structure 16. Stantec, May 2, 2022.



Photo 5. View south from near existing structure 37. Stantec, May 2, 2022.



Photo 6. View north toward existing structure 49. Stantec, May 3, 2022.



Photo 7. View west across Androscoggin River from near existing structure 61. Stantec, May 3, 2022.



Photo 8. View south from near existing structure 69. Stantec, May 3, 2022.



Photo 9. View north from near existing structure 77. Stantec, May 3, 2022.



Photo 10. View north toward existing structure 95. Stantec, May 4, 2022.



Photo 11. View north from near existing structure 102. Stantec, May 3, 2022.



Photo 12. View south from near existing structure 117. Stantec, May 4, 2022.



Photo 13. Existing snowmobile bridge, stream S50, near existing structure 135. Stantec, May 4, 2022.



Photo 14. View north from existing structure 149. Stantec, May 5, 2022.



Photo 15. View north from near existing structure 165. Stantec, May 5, 2022.



Photo 16. View of Paris Substation and existing stormwater basin. Stantec, May 5, 2022.

NHDES ALTERATION OF TERRAIN PERMIT APPLICATION

February 17, 2023

Appendix F WAIVER REQUESTS



Alteration of Terrain Waiver Request

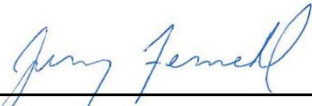
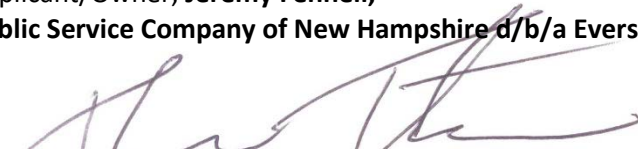
RSA/Rule: RSA 485-A:17, Env – WQ 1500

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

A. PROJECT INFORMATION		
W179 Transmission Line Rebuild Project Project Name		
Existing W179 Right-of-Way Street Address		
Berlin, Milan, Dummer City/Town	Multiple Zip Code	
Multiple – see attached plans Tax Map/Lot Number		
B. APPLICANT/OWNER INFORMATION		
Jeremy First Name	Fennell Last Name	
Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource) Organization		
13 Legends Drive Street Address		
Hooksett City/Town	New Hampshire State	03106 Zip Code
jeremy.fennell@eversource.com Email	603-634-3396 Telephone Number	
C. APPLICANT/OWNER AGENT INFORMATION		
Tom First Name	Tetreau Last Name	
Stantec Consulting Services Inc. Organization		
30 Park Drive Street Address		
Topsham City/Town	Maine State	04086 Zip Code
tom.tetreau@stantec.com Email	207-504-7231 Telephone Number	

D. WAIVER REQUESTS	
<p>Env-Wq 1503.12 (d)(1&2)</p> <p>Rule Section Waiver Request</p>	<p>Measurement of Contiguous Area Disturbed; Inclusion in Plans</p> <p>Name of Rule</p>
<p>Reason for Waiver Request</p> <p>Eversource is requesting a waiver for including past terrain disturbance in the measurement of contiguous disturbed area included in this W179 Line AoT application. No known future disturbance, beyond the scope of W179 line rebuild project, described in this application, is known at this time.</p>	
<p>Waiver Timeline</p> <p>Permanent</p>	
<p>Proposed Alternative</p> <p>Existing terrain alteration associated with past transmission line maintenance within the W179 ROW is minimal. Any existing trails or access roads that may have been created within the last 10 years will be utilized and/or improved as part of this project and have been included in the current calculations within this application. Future structure maintenance may occur within the W179 ROW. Eversource, through consultation with NHDES, will evaluate whether future terrain disturbances within the W179 ROW will be permitted with an amendment to this application or subject to a new, separate application.</p>	
<p>Compliance with Env-Wq 1503.12 (d)(1&2)</p> <p>The project proposes to improve access routes and work pads around utility structures for the purpose of maintaining and replacing existing utility infrastructure. This project is necessary to maintain the safety and reliability of the electrical infrastructure. Proposed disturbances anticipated for 2023-2024 within the W179 ROW are included in this application and shown on Figures 3 and 4. Project disturbances included in this application and subsequent permit approvals will be considered if future structure maintenance is proposed within the W179 ROW. Eversource respectfully requests a waiver from including past disturbance in this application. Future disturbances within the W179 ROW will be evaluated and discussed with NHDES and permit amendments or new permit applications will be submitted, if necessary.</p>	

E. SIGNATURES

 <hr style="border: 0; border-top: 1px solid black; margin: 0;"/> <p>Applicant/Owner, Jeremy Fennell, Public Service Company of New Hampshire d/b/a Eversource Energy</p>	<p style="text-align: center;"><u>February 17, 2023</u></p> <p style="text-align: center;">Date</p>
 <hr style="border: 0; border-top: 1px solid black; margin: 0;"/> <p>Applicant/Owner Agent, Tom Tetreau, Stantec Consulting Services Inc.</p>	<p style="text-align: center;"><u>February 17, 2023</u></p> <p style="text-align: center;">Date</p>

Alteration of Terrain Waiver Request

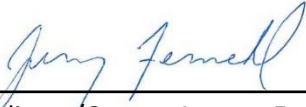
RSA/Rule: RSA 485-A:17, Env – WQ 1500

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

A. PROJECT INFORMATION		
W179 Transmission Line Rebuild Project Project Name		
Existing W179 Right-of-Way Street Address		
Berlin, Milan, Dummer City/Town	Multiple Zip Code	
Multiple – see attached plans Tax Map/Lot Number		
B. APPLICANT/OWNER INFORMATION		
Jeremy First Name	Fennell Last Name	
Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource) Organization		
13 Legends Drive Street Address		
Hooksett City/Town	New Hampshire State	03106 Zip Code
Jeremy.fennell@eversource.com Email	603-634-3396 Telephone Number	
C. APPLICANT/OWNER AGENT INFORMATION		
Tom First Name	Tetreau Last Name	
Stantec Consulting Services Inc. Organization		
30 Park Drive Street Address		
Topsham City/Town	Maine State	04086 Zip Code
tom.tetreau@stantec.com Email	207-504-7231 Telephone Number	

D. WAIVER REQUESTS	
Env-Wq 1503.21 (d)(6&7) Rule Section Waiver Request	Notification; Certification Name of Rule
<p>Reason for Waiver Request</p> <p>Eversource is requesting a waiver for deviations from the approved plans without applying for an amended permit or a new permit if shifts in the proposed project layout occur. Changes in project layout are sometimes identified during construction by Eversource and their contractors and may be necessary to safely perform the work or avoid rare species locations identified during field surveys or biological monitoring. The need for additional permit applications can impact construction schedules and incur costly delays.</p>	
<p>Waiver Timeline</p> <p>Permanent</p>	
<p>Proposed Alternative</p> <p>Allow for the access road centerlines to be relocated during construction, if necessary, up to a distance equal to the approximate width of the ROW (approximately 150 to 250 feet on the W179 line). Shifts would not create greater than 5% increase in disturbed area along the individual access segment, which is assumed to be the length of the access road and associated work pads between designated access points from public or private roads.</p> <p>Allow for the center point of the parking area, assumed to be the structure replacement work pads for transmission line projects, to be relocated during construction, if necessary, up to a distance equal to half the approximate width of the ROW (approximately 75 to 125 feet on the W179 line). Shifts would not create greater than 5% increase in disturbed area at each work pad.</p> <p>This would allow contractors to avoid steep terrain or other hazardous areas, or areas that may require significant grading or earthwork that may not have been identified during initial constructability reviews. Landowners may also request layout changes be made after project permitting is complete. Avoidance of rare species may also necessitate shifts. In most cases this shift is done to reduce the amount of disturbed area. Increased wetland impacts, or impacts to new wetlands, would not be allowed under this waiver.</p>	
<p>Compliance with Env-Wq 1503.21 (d)(6&7)</p> <p>The project proposes to improve access routes and work pads around utility structures for the purpose of maintaining existing utility infrastructure. This project is necessary to maintain the safety and reliability of the electrical infrastructure. Proposed disturbances shown on Figures 3 and 4 of the AoT application are the result of avoidance and minimization measures and constructability reviews. Layout changes and shifts will be limited to the proposed alternative above. A reduction in disturbed area is often the result. All other Best Management Practices will be utilized to protect wetlands from erosion, sedimentation, or other environmental degradation as originally proposed. Eversource respectfully requests a waiver from limiting shifts of the project road centerlines and parking areas to 20 feet.</p>	

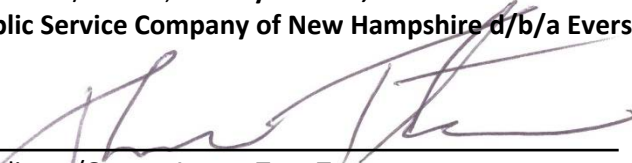
E. SIGNATURES



Applicant/Owner, **Jeremy Fennell**,
Public Service Company of New Hampshire d/b/a Eversource Energy

February 17, 2023

Date



Applicant/Owner Agent, **Tom Tetreau**,
Stantec Consulting Services Inc.

February 17, 2023

Date

Alteration of Terrain Waiver Request

RSA/Rule: RSA 485-A:17, Env – WQ 1500

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

A. PROJECT INFORMATION		
W179 Transmission Line Rebuild Project Project Name		
Existing W179 Right-of-Way Street Address		
Berlin, Milan, Dummer City/Town	Multiple Zip Code	
Multiple – see attached plans Tax Map/Lot Number		
B. APPLICANT/OWNER INFORMATION		
Jeremy First Name	Fennell Last Name	
Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource) Organization		
13 Legends Drive Street Address		
Hooksett City/Town	New Hampshire State	03106 Zip Code
Jeremy Fennell@eversource.com Email	603-634-3396 Telephone Number	
C. APPLICANT/OWNER AGENT INFORMATION		
Tom First Name	Tetreau Last Name	
Stantec Consulting Services Inc. Organization		
30 Park Drive Street Address		
Topsham City/Town	Maine State	04086 Zip Code
tom.tetreau@stantec.com Email	207-504-7231 Telephone Number	

D. WAIVER REQUESTS	
<p>Env-Wq 1504.09</p> <p>Rule Section Waiver Request</p>	<p>Stormwater Drainage Report; Drainage Area Plans; Hydrologic Soil Group Plans</p> <p>Name of Rule</p>
<p>Reason for Waiver Request</p> <p>Eversource is requesting a waiver for preparing a Stormwater Drainage Report, Drainage Area Plans and Hydrologic Soil Group Plans for proposed access improvements and work pad grading associated with the rebuild of the existing W179 Transmission Line. The proposed access and work pad improvements for the transmission line rebuild work will not result in new impervious surfaces. As a result, stormwater treatment practices are not proposed.</p>	
<p>Waiver Timeline</p> <p>Permanent</p>	
<p>Proposed Alternative</p> <p>The proposed access and work pad improvements will not result in new impervious surfaces. Therefore, there is no proposed alternative to substitute the requirements of Env-Wq 1504.09.</p>	
<p>Compliance with Env-Wq 1504.09</p> <p>The project proposes to improve access routes and work pads around utility structures for the purpose of maintaining existing utility infrastructure. This project is necessary to maintain the safety and reliability of the electrical infrastructure. Access and work pad improvements will be completed using stone and gravel; therefore, stormwater drainage should not be affected by the proposed project. In addition, it is not anticipated that stormwater drainage area plans would show significant differences between existing and proposed conditions. A NRCS Web Soil Survey report was generated to show general soil information within the project area. Since there is no new impervious surface area proposed, and stormwater drainage is not anticipated to be affected by the proposed project, it is not anticipated that soils will be significantly impacted by the project.</p> <p>Best Management Practices will be utilized to protect wetlands from erosion, sedimentation, or other environmental degradation. In addition, gravel work pads will be coated with seed and mulch to allow vegetation growth on the surface, further minimizing and preventing erosion and sedimentation. As a result, Eversource respectfully requests a waiver from providing a Stormwater Drainage Report, Drainage Area Plans, and Hydrologic Soil Group Plans for the purposes of the proposed utility line maintenance project.</p>	

E. SIGNATURES



 Applicant/Owner, **Jeremy Fennell,**
Public Service Company of New Hampshire d/b/a Eversource Energy

February 17, 2023

 Date



 Applicant/Owner Agent, **Tom Tetreau,**
Stantec Consulting Services Inc.

February 17, 2023

 Date