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February 9, 2024

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

Re: East Haddam Junction to Hunts Brook Junction Reliability Project

Dear Ms. Bachman:

The Connecticut Light and Power Company doing business as Eversource Energy (“Eversource”) is requesting a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to two existing 345-kilovolt transmission lines, the East Haddam Junction to Hunts Brook Junction Reliability Project (“Project”) in the Towns of East Haddam, Lyme, East Lyme, and Montville, Connecticut (“Petition”).

Prior to submitting this Petition, representatives from Eversource briefed East Haddam, Lyme, East Lyme and Montville municipal officials about the Project. Eversource provided written notice of the proposed work to all abutters and of the filing of this Petition with the Connecticut Siting Council (“Council”). Maps and line lists identifying the abutting property owners who were notified of the Project are provided in the Petition as Attachment A: East Haddam Junction to Hunts Brook Junction Reliability Project – Map Sheet.

Eversource is submitting this filing electronically and will deliver an original and fifteen (15) copies along with a check in the amount of \$625 for the required filing fee to the Council.

Sincerely,



Deborah Denfeld
Team Lead, Transmission Siting

Enclosure

cc: Irene Haines, First Selectwoman, Town of East Haddam
David Lahm, First Selectman, Town of Lyme
Kevin A. Seery, First Selectman, Town of East Lyme
Ronald K. Mc Daniel, Mayor, Town of Montville

THE CONNECTICUT LIGHT AND POWER COMPANY

doing business as

EVERSOURCE ENERGY

PETITION TO THE CONNECTICUT SITING COUNCIL
FOR A DECLARATORY RULING OF
NO SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT
FOR THE PROPOSED MODIFICATIONS TO THE EXISTING
348 and 364 LINES IN THE TOWNS OF EAST HADDAM, LYME, EAST LYME AND
MONTVILLE, CONNECTICUT

1. Introduction

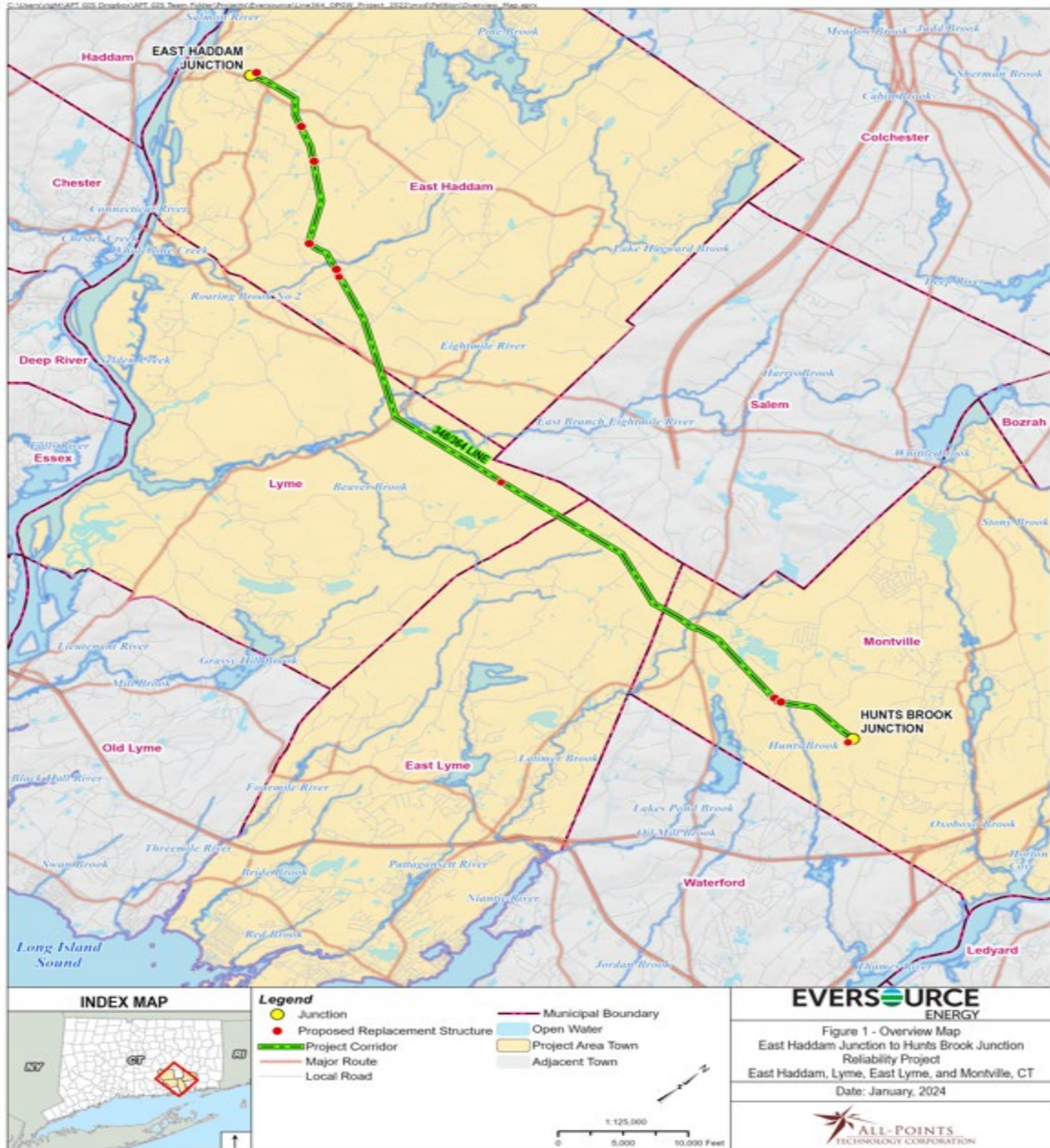
The Connecticut Light and Power Company doing business as Eversource Energy (“Eversource” or the “Company”) hereby petitions the Connecticut Siting Council (“Council”) for a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need (“Certificate”) is required pursuant to Section 16-50g et seq. of the Connecticut General Statutes for the modifications to the 348 and 364 transmission lines, two 345-kilovolt (“kV”) lines located within an existing transmission line right-of-way (“ROW”) in the Towns of East Haddam, Lyme, East Lyme and Montville, Connecticut, known as the East Haddam Junction to Hunts Brook Junction Reliability Project (“Project”). Eversource submits that a Certificate is not required because the proposed modifications would not have a substantial adverse environmental effect.

2. Purpose of the Project

The purpose of the Project is to replace the existing alumoweld static shield wire with optimal ground wire (“OPGW”) on the 348 and 364 transmission lines, however: nine wood structures require replacement due to structural loading issues resulting from the proposed upgrade. All work will take place within an approximate 16.1-mile section of existing ROW

between East Haddam Junction (Town of East Haddam) and Hunts Brook Junction (Town of Montville). Figure 1 illustrates the general location of the proposed structure replacements.

Figure 1: Project Overview Map



3. Existing Project Area

The 348 Line runs from Haddam Substation in Haddam to Millstone Substation in Waterford. The 362 Line runs from Haddam Neck Substation in Haddam to Montville Substation in Montville. The Project area ROW from East Haddam Junction to Hunts Brook Junction is approximately 16.1-miles of existing Eversource-owned property and private property subject to Eversource easements. The width of this section of the existing ROW is approximately 325 feet throughout with vegetation routinely maintained its entire width. This ROW segment was established in 1970.

The 348 Line is supported primarily on wooden poles installed in 1974. Some of the structures in this segment were replaced in 2017, 2019 and 2023 due to asset condition (wood rot and woodpecker damage).¹ The 348 line is supported by a mix of structure design consisting of weathering steel H-frame and 3-pole type structures. The conductor on this segment of the 348 Line is 954 “Rail” Aluminum Conductor Steel Reinforced (“ACSR”) along with 7/8-inch alumoweld static shield wire. The conductor is in good shape and will not be replaced as part of the Project.

The 364 Line is supported primarily on wood poles installed in 1970. Some of the structures in this segment were replaced in 2019 and 2023 due to asset condition (wood rot and woodpecker damage). The 364 line is supported by a mixed design of weathering steel H-frame and 3-pole type structures. The conductor on this segment of the 364 Line is 954 “Rail” ACSR along with 7/8-inch alumoweld type static wire. The conductor is in good shape and will not be replaced as part of the Project.

¹ Refer to Sub-Petition 1293-EHLMW, Sub-Petition 1293-HEHLELMW-01 and Amendment to Sub-Petition 1293 HEHLELMW-01.

4. Project Description

The Project scope consists of replacing nine structures (seven wood H-frame and two 3-pole wood structures) on the 348 and 364 lines to address structural loading issues associated with the planned installation of OPGW. The proposed structure replacements will be located within 16 feet of the existing structures and will not require expansion of the ROW. OPGW will be installed on the 348 and 364 lines the full length of the Project area.

Details of the proposed scope of work for the structure replacements are summarized as follows:

- Replace two 3-pole wood structures with two 3-pole weathering steel angle structures on each of the 348 and 364 lines;
- Replace seven wood H-frame structures with seven weathering steel H-frame structures on the 348 (Structures 9271 and 9764) and 364 Lines (Structures 5438, 5444, 5464, 5555 and 5557);
- Replace the existing 7/8 alumoweld static shield wire with 0.646-inch diameter 96F OPGW and install hardware, as needed; and
- Transfer the existing conductor from the existing structures to the replacement structures.

The heights of the nine existing structures range from approximately 52 feet to 92.5 feet. The heights of the new structures range from 62 feet to 97 feet. The average height increase is 4.4 feet. One replacement structure is decreasing in height, and two replacement structures (Structures 5555 and 5557) will remain the same height as the existing structures they are

replacing. Height increases are driven by the need to adhere to current clearance standards. Refer to Attachment B – “List of Structure Replacements” for detailed structure information.

Locations of existing and proposed structures, work pads, access roads, wetland areas and other Project elements are depicted in Attachment A: “East Haddam Junction to Hunts Brook Junction Reliability Project - Map Sheet” (“Attachment A”).

Cross-section drawings in Attachment C: “East Haddam Junction to Hunts Brook Junction - Cross-Sections” depict changes between the existing and proposed structures.

5. Existing Environment, Environmental Effects and Mitigation

The Project would be constructed within Eversource’s ROW, or its fee owned properties between East Haddam Junction to Hunts Brook Junction. Two new off ROW access roads are needed to provide alternative access routes to Project work areas (See Attachment A, Map Sheets 1 and 4). The Project would not have a substantial adverse environmental effect for the reasons explained below.

Land Use

The Project ROW extends in a southeast direction across the municipalities of East Haddam, Lyme, East Lyme, and Montville. Most land in the vicinity of the Project consists of undeveloped forest and some abutting low-density residential properties.

All Project work would occur within Eversource’s property and/or existing ROW, which is dedicated to long-term use as an electric transmission line corridor. Access to the locations of each proposed replacement structure is required for the Project. As a result of historical line maintenance activities on the ROW, most access roads are already established and Eversource would utilize these existing access roads to the extent possible.

Vegetation Removal

The Project ROW is generally 325 feet wide. Some limited tree removal, and vegetation management will be required in select areas to allow for the safe passage of construction vehicles and equipment and also to accommodate the new off ROW access roads.

Removal of incompatible vegetation species, and side tree trimming along the edge of the Project ROW may also be required. In general, ground vegetation will be mowed or cut to a height of 6-8 inches.

Scenic, Recreational and Cultural Resources

The Project is not anticipated to have an adverse impact to scenic, recreational, or cultural resources.

The Project ROW does not traverse any state and/or local designated scenic roadway².

A desktop review of Connecticut Department of Energy and Environmental Protection (“CT DEEP”) and Connecticut Forest & Park Association (“CFPA”) GIS data was conducted to identify designated open space properties and trails within or near the Project area. The Project area neither crosses nor is proximate to any CFPA Blue-blazed hiking trails but does transect a portion of the Roaring Brook Preserve in East Haddam (See Attachment A: Map Sheet 4). This preserve, established in 2013, is a +/- 98-acre parcel owned and maintained by the Town of East Haddam and offers public access for a variety of outdoor recreational activities.³ While some of the work associated with the Project may temporarily affect public

² Connecticut Department of Transportation (CTDOT), Scenic Roads Interactive Map, Updated January 11, 2022, accessed March 23, 2023. URL: <https://connecticut-ctdot.opendata.arcgis.com/apps/scenic-roads-interactive-map/explore>. The Towns of East Haddam, East Lyme, Lyme, and Montville do not have any municipally listed scenic roads in proximity to the Project.

³ The Project does not cross any town trails in Lyme, East Lyme or Montville.

use of this resource, it would not prevent access. Eversource would coordinate with the Town of East Haddam to develop and implement measures to maintain public safety during Project construction, while also avoiding or minimizing short-term impacts on users and/or patrons. Once construction is complete, Eversource would perform ROW restoration, as needed, in accordance with the protocols specified in the BMPs.

A Cultural (archaeological and historical) Resource Assessment Survey (“Phase 1A Cultural Resource Assessment” or “Phase 1A”) of the proposed Project ROW was conducted by Heritage Consultants, LLC (“Heritage”) in September 2023. This review consisted of an initial desktop archaeological and historical resource review and pedestrian survey.

The Phase 1A survey identified one National Register of Historic Places (“NRHP”) listed district (i.e., ‘Working Girls’ Vacation Society Historic District), and no State or local Register of Historic Places listed properties. There are no previously identified archaeological sites located within 500 feet of the Project area. Heritage concluded that the structure replacement near the Working Girls’ Vacation Society Historic District would not directly or indirectly impact the NRHP listed district. Additionally, no further archaeological investigation of the Project area is warranted.

The results of the Phase 1A survey have been provided to the State Historic Preservation Office (“SHPO”) and the Tribal Historic Preservation Offices of the Connecticut Tribe of Mohegan Indians, the Wampanoag Tribe of Gay Head (Aquinnah) and the Mashantucket Pequot Tribal Nation for their review and concurrence. SHPO reviewed the results of the cultural assessment and provided written concurrence with the findings in a letter to Heritage dated October 4, 2023. No tribal correspondence has been received by the Project at the time of this Petition filing.

Water Resources

Water resources found in the Project area include inland wetlands, watercourses (perennial and intermittent streams), vernal pools, and Federal Emergency Management Agency (“FEMA”) Flood Zones and/or Aquifer Protection Areas. Eversource identified and delineated regulated wetland and watercourse resources in the Project area in (see Attachment D: Wetlands and Watercourses Report). The wetlands, watercourses and flood zones in the Project area are further identified on mapping in Attachment A.

Project work activities will result in both permanent and temporary impacts to water resource areas. All Project work in or near these areas would be conducted in accordance with Eversource’s *April 2022 Construction & Maintenance Environmental Requirements, Best Management Practices Manual for Massachusetts, and Connecticut* (“BMPs” or “BMP Manual”) and would meet all applicable terms and conditions of the Department of the Army Regional General Permits for the State of Connecticut. The Project is anticipated to be eligible for Self-Verification under General Permits 6 and 21. Eversource would submit the required permits and accompanying materials to the U.S. Army Corps of Engineers (“ACOE”) - New England District and the CT DEEP in advance of Project construction.

Details regarding each of these water resource areas are provided below.

Wetlands

A total of 26 wetlands were identified and delineated in the structure replacement areas (See Attachment A) in accordance with industry standard methodology. Of these, 10 wetland areas occur proximate to the structure replacements and access roads associated with the structure replacement locations.

The structure replacement work would result in some permanent effects. Proposed Structure 9660 (an H-Frame structure) would have one pole located within Wetland 26 (W26 – Attachment A, Map Sheet 9). The permanent effects of the installation of one pole of Structure 9660 would be 80 square feet.⁴ Eversource is unable to move this structure away from the wetland due to clearance issues from the conductors to Structure 9961 and constructability constraints around the topography of the existing and proposed structure locations. Additionally, one existing in-ROW access road would require the installation of a new stone ford crossing and shoring up the hard bottom of an existing stone ford crossing of Wetland 21 (W21 – Attachment A, Map Sheet 6). The installation of the new stone ford crossing, required to access Structure 5555 will result in approximately 246 square feet of permanent effects.

Temporary impacts to wetlands associated with placement of temporary construction mats to accommodate access to proposed replacement structures total approximately 17,998 square feet (0.41 acres). Erosion & sedimentation (“E&S”) controls would be installed as necessary before the commencement of any improvements to or development of work areas and/or access roads in or proximate to a wetland resource. All temporary construction mats would be removed as part of the restoration phase of the Project and affected wetland areas would be restored as needed in accordance with Eversource’s BMPs.

Watercourses

A total of five watercourses were identified and delineated within the proposed structure replacement areas. Of these, one watercourse (S5 – Attachment A, Map Sheet 9) is located

⁴ To minimize disturbance to the wetlands, existing wooden pole structures would be cut just above existing grade. The below ground portion of these footings/structures are likely extensive and therefore, full or partial removal would result in excess wetland disturbance.

proximate to the replacement work associated with Structure 5555; however, the work will not impact the watercourse itself. No permanent or temporary effects to watercourses would occur due to the Project structure replacement work. Table 5-1 below summarizes the Project's effects to water resources.

Table 5-1: Summary of Project Effects to Wetlands and Watercourses				
Town	Wetland Watercourse ID	Petition Map Sheet No.	Wetland/Watercourse Effects (+/- square feet)	
			Temporary	Permanent
East Haddam	W12	4	1,122	NA
Lyme	W14	5	4,613	NA
Montville	W21	6	NA	246
Montville	W26	9	12,263	80
	Totals		17,998	326
			(0.41 acres)	(0.007 acre)

Vernal Pools

The areas where structure replacement work will take place were surveyed for vernal pool habitat in July and October of 2022, and January, April, June, and July of 2023. Vernal pool habitat areas were identified based primarily on the presence of suitable physical and hydrologic indicators, such as the presence of seasonally to semi-permanently flooded wetlands, presence of vernal pool indicator species⁵, and other indicators such as concave and unvegetated surfaces. The survey resulted in the identification of nine confirmed vernal pools proximate to the structure

5 Indicator species include spotted salamander, wood frog, marbled salamander, blue-spotted salamander, Jefferson salamander, and fairy shrimp.

replacement work. Three additional potential vernal pools were identified but were located outside the work area limits and so were not assessed due to their locations. These resources and their respective envelopes (i.e., areas within 100 feet of a vernal pool depression; vernal pool envelope ["VPE"]) are further identified on mapping in Attachment A while the survey results are provided in Attachment E: Vernal Pool Survey. No replacement structures or temporary construction matting would be located within a vernal pool depression.

Replacement Structure 9660 would have one pole of the three-pole H-Frame constructed within the VPE of Vernal Pool 8 (VP8 – Attachment A, Map Sheet 9). Expansion of an existing gravel work pad is required to create a safe level workspace and necessary within the VPE due to steep terrain.⁶

Additionally, three existing access roads are located within VPEs (See Attachment A, Map Sheets 1, 5, and 6.). Work within these VPEs would be limited to vegetation management. The existing access roads would not be widened or altered, and no new gravel will be added in these areas.

Recommended protection measures for these resource areas are provided in Attachment E – Vernal Pool Survey. To minimize potential effects to vernal pools, Eversource would implement the recommended protection measures which detail additional habitat and species protection that will be implemented during construction. These measures include, but are not limited to, avoiding civil construction to the maximum extent practicable near vernal pools during high sensitivity periods for the observed vernal pool indicator species, avoiding permanent habitat alteration to

⁶ The existing gravel work pad would be expanded by approximately 1,295 square feet.

the extent feasible within vernal pool envelopes, protection of compatible vegetation within 25 feet of a vernal pool depression and the installation of E&S controls.

FEMA Flood Zones

The Project ROW extends across a 100-year flood zone associated with Roaring Brook in East Haddam (refer to Attachment A, Map sheet 4), however; none of the proposed work will occur in this area. There are no 500-year FEMA flood zones located within the Project area.

Water Supply

Based on Aquifer Protection Areas (“APA”) mapping maintained by the CT DEEP, the Project area is not located within an APA. The Project area is located proximate to the Lake Konomoc Reservoir System, Great Swamp Diversion, water supply watershed (See Attachment A, Map Sheet 6), however no work is proposed within the APA watershed.

Eversource would require its contractors to employ best management practices for the proper storage, secondary containment, and handling of diesel fuel, motor oil, grease, and other lubricants, to protect water quality within the Project area. Construction activities would conform to Eversource’s BMPs.

Wildlife and Habitat

Wildlife habitats within the Project area are generally comprised of upland and wetland shrubland, meadow, and unvegetated or sparsely vegetated ledge outcroppings. The Project ROW, which Eversource manages in low-growing vegetation consistent with overhead transmission line operation, provides habitat for a variety of early successional dependent species. Early successional dependent species are reliant upon old fields, meadows or shrublands, such as those that develop due to ongoing maintenance of the ROW, which precludes tree growth in favor

of dense woody shrubs and herbaceous plants. This represents a critical habitat type in Connecticut that supports a wide range of species, including various pollinator species (birds, butterflies, moths), most of which are declining across the State due to habitat loss associated with land development as well as the loss of farmland.

The portions of Eversource's managed ROW that are dominated by herbaceous plants often provide beneficial habitat for pollinators and other species. For example, portions of the ROW are within known habitat for the New England Cottontail ("NEC"). During Project restoration, Eversource would incorporate additional habitat enhancements within sensitive areas (such as New England Cottontail Focus Areas and Critical Habitat Areas). These enhancements may include reducing the size of the gravel work pad in NEC focus areas where feasible and restoring gravel work pad areas (partially or entirely) with either stockpiled native topsoil or fine processed stone and seeding with a mix of native grasses and forbs to minimize potential effects to NEC habitat in accordance with Eversource's 2021 New England Cottontail BMPs.

Pollinator species such as moths, butterflies, and other insects benefit from shrub lands like those promoted by Eversource's ROW vegetation management program. Specifically, ROWs often include plant stands/communities that serve as hosts for such species. Eversource will minimize vegetation disturbance within the ROW, to the extent practical, during Project construction and will restore the ROW consistent with standard practices to continue to promote low-growing shrubland/meadows which support pollinator habitat.

Based on the most recent CT DEEP Bureau of Natural Resources Wildlife Division's Natural Diversity Data Base ("NDDDB") mapping, dated June of 2023, portions of the Project area are near documented state listed species or significant natural communities. Eversource submitted a NDDDB Review Request to CT DEEP on October 13, 2023, for information pertaining to protection of listed species and natural communities within the Project area. Eversource anticipates that a

formal NDDDB Determination regarding the Project will be received in the near future. However, based on previous knowledge of the ROW Eversource anticipates that certain federal or state listed species may be present in the general Project vicinity.⁷ Eversource would implement species-specific protection and mitigation measures to avoid impacts to any identified listed species and their habitats during Project construction.

Invasive Species

Eversource has evaluated the Project area for existing invasive species consistent with Eversource's BMPs and has identified invasive species within both upland and wetland areas. Eversource would follow the practices outlined in Section 3.10 of the BMP Manual, to address working in these areas, including the following actions to control the potential spread of invasive species:

- Clean vehicles, equipment, materials (including matting), gear, footwear or clothing of all visible soil and plant material on site in the infested area, or as near as practical to the infested area, prior to leaving a work area.
- Cleaning may be accomplished using a brush, broom, or hand tools, by shaking or dropping mats in a controlled manner to dislodge attached soil and debris, or compressed air.

⁷ To protect the state listed rare, threatened and special concern species and their habitats, no details are included in this Petition regarding species/habitat types, names or locations.

Visual Effects

Due to the limited number of structure replacements, consistency of structure design with the existing structures being replaced and the use of weathering steel, instead of wood, Eversource does not believe that the Project would result in a significant change to the visual character of the lines. The average height increase is approximately 4.4 feet and is not anticipated to be visually discernable from the existing structure heights.⁸

While generally taller than the existing structures, the replacement structures would be located as close as possible to the existing structures they are replacing. The weathering steel to be used for the replacement structure will be comparable visually to the existing wood structures and will help the replacement structures continue to blend in with the generally forested landscape surrounding the ROW. Consequently, the Project would not result in significant changes to visual effects.

Noise

The construction of the Project would result in short-term and localized noise, as is typical of any similar construction project, from the operation of equipment and other vehicles. Once installed, the replacement structures would not result in any changes to noise levels.

Air Quality

Short-term, localized effects from the Project construction on air quality may result, primarily from fugitive dust and equipment emissions. To minimize the amount of dust generated by construction activities, the extent of exposed/disturbed areas at any one time would be minimized.

⁸ Replacement H-Frame Structure 5438 will have pole height increases of 18 feet and 13.5 feet due to terrain. (Refer to Attachment A)

Vehicle emissions would be limited by requiring contractors to properly maintain construction equipment and vehicles, and by minimizing the idling time of equipment and vehicles, including diesel construction equipment, in accordance with Connecticut regulatory requirements.⁹ The potential for tracking dirt onto local paved roads will be monitored by Project personnel. Any such tracking will be promptly swept and removed. To further minimize dust, water may be used to wet down disturbed soils or work areas with heavy tracking as needed.

Radio and Television Interference; Sound

There would be no increase in radio interference or audible noise from the structure replacements.

6. Transportation and Traffic Management

Construction-related vehicular and equipment movements would utilize public roads to access the ROW. However, the Project-related traffic is generally expected to be temporary and highly localized in the vicinity of the ROW access points and at the staging area described in the following section. Due to phasing of construction work, Project-related traffic is not expected to significantly affect transportation patterns or levels of service on public roads.

To safely move construction vehicles and equipment onto and off of the ROW while minimizing disruptions to vehicular traffic along public roads, Eversource or its Project contractor would work with the affected towns and the Connecticut Department of Transportation to develop and implement traffic management procedures, as needed. The construction contractor typically would be responsible for posting and maintaining construction warning signs along public roads

⁹ Regulations of Connecticut State Agencies (RCSA) Section 22a-174-18(b)(3)(C) prohibits the idling of motor vehicles for more than three consecutive minutes when not in motion.

near work sites and for coordinating the use of flaggers or police personnel to direct traffic, as required.

Construction vehicles and equipment to be used for the work may include pickup trucks, bucket trucks, flat-bed trucks, excavator, concrete trucks, drill rigs, front loaders, reel trailers, bulldozers, woodchippers, brush hogs/mower, forklifts, side booms, dump trucks and cranes. Pullers and tensioners would be used for the line work. Bat wing trucks and guard trucks would be used for protection of roads during the line work.

7. Construction Sequence

Project construction would include the following activities:

Establishing Staging Area

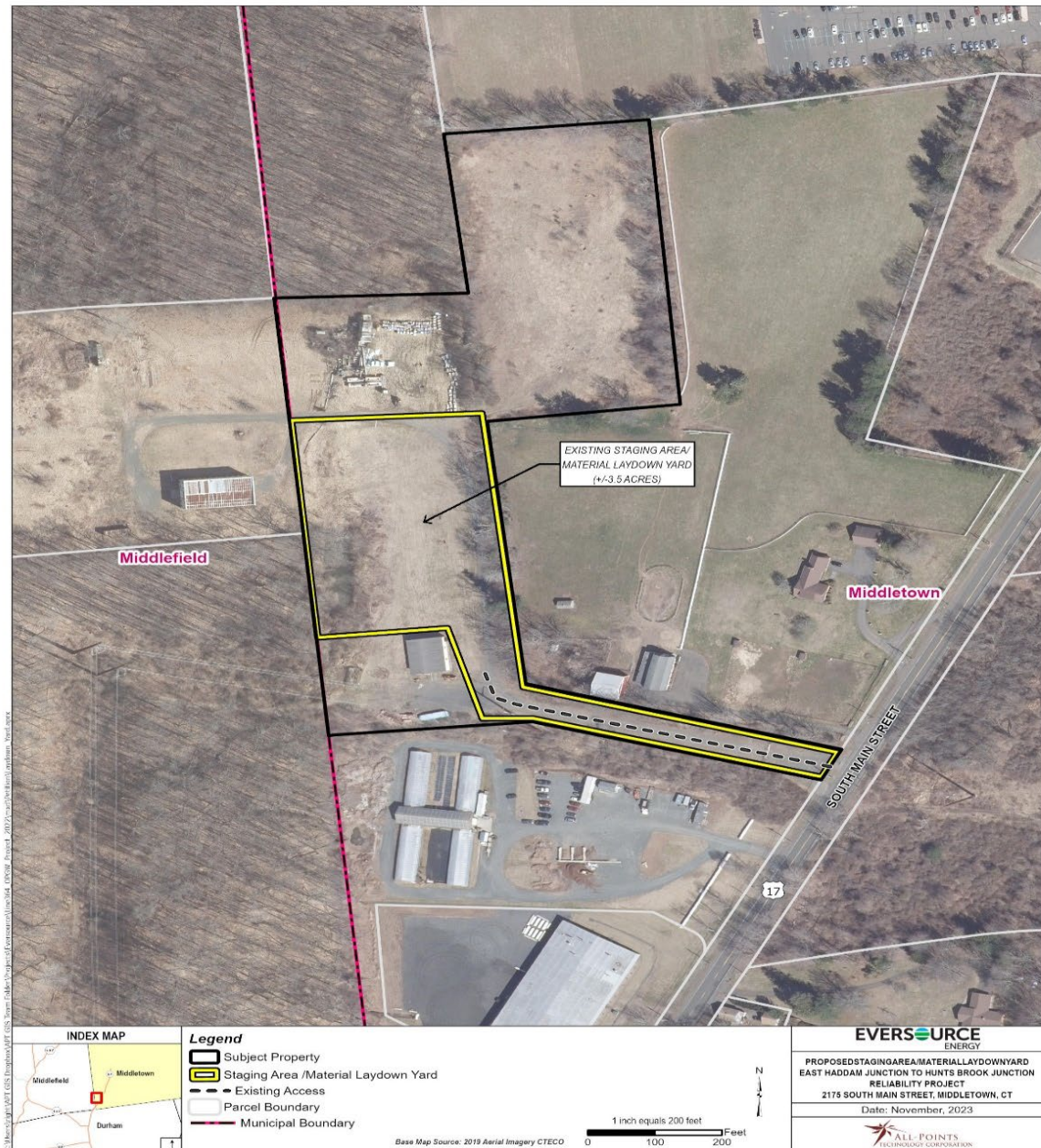
Eversource proposes to establish a staging area for the Project at 2175 South Main Street in Middletown. The staging area is depicted below in Figure 2 and is currently being utilized by Eversource as a staging area for general maintenance-related work on the transmission system.¹⁰

The staging area would be utilized by the Project for surface storage of construction materials, equipment, tools, and supplies (including cable reels, insulators, hardware, poles and mats). One office trailer and Conex storage containers may also be located at the staging area. Components removed during the work (structures, hardware and insulators) may be temporarily accumulated and stored at the staging area prior to removal off-site for salvage and/or disposal. In addition, the staging area may also be used by construction crews for parking personal vehicles as well as for construction vehicles and equipment storage, and for performing minor maintenance, when

¹⁰ The picture was taken in May 2023. This location is currently being used as a staging area.

needed, on construction equipment. No refueling of vehicles or equipment will take place at the staging area. Appropriate E&S controls are currently installed at the staging area and will be maintained until completion of all work in accordance with Eversource's BMPs.

Figure 2: Staging Area Map



Vegetation Management Methods

Vegetation removal work would be accomplished using mechanical methods. This work typically requires the use of flat-bed trucks, mowers, brush hogs, or other types of mowing equipment, skidders, forwarders, bucket trucks for canopy trimming, and chippers. In resource sensitive areas, Eversource would require the contractor to use low-impact methods to remove brush vegetation to protect wetlands, vernal pools, watercourses and state-listed species and their habitats. Low-impact methods incorporate a variety of approaches, techniques, and equipment to minimize site disturbance. Eversource would require the contractor to use some or all of the following low impact methods, depending on the specific settings and situations:

- Consider soil and weather conditions when scheduling vegetation removal activities such as during periods of heavy rainfall;
- Maximize the use of uplands for clearing access routes;
- Utilize hand clearing methods for vegetation removal work within sensitive wetland and vernal pool areas;
- Use appropriately sized equipment for site conditions, where possible, to minimize impacts; and
- Where practical, cut brush close to the ground, leaving root systems and slumps, to retain soil stability.

Temporary construction mats would be used to provide a stable base for equipment to cross wetlands where hand clearing work is not feasible. Such temporary mats would minimize disturbances to wetland soils, and the mats would be removed after the activities are

completed. Work activities in wetlands would be conducted in accordance with Eversource's BMPs.

After construction is completed, Eversource would perform ROW restoration in accordance with the protocols specified in the BMPs and based on consultations with any property owners affected by the Project.

Soil Erosion and Sediment Control Installation

Project construction would conform to best management practices for E&S control, including those provided in the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* ("*Connecticut Guidelines*") and Eversource's BMPs.

Typical E&S control measures include, but are not limited to, straw blankets, straw bales, silt fencing, rock construction entrances, soil and slope protection, water bars, check dams, berms, swales, plunge pools, and sediment basins. Silt fence would be installed as needed to intercept and retain sediment and/or construction materials from disturbed areas and minimize the potential for sedimentation outside of the Project area. Temporary E&S control measures would be maintained and inspected for the duration of the Project to ensure their integrity and effectiveness and for compliance with the Eversource BMPs. Following the installation of the structure replacements, seeding and mulching or hydroseeding would be completed to permanently stabilize the areas disturbed by the construction activities. The temporary E&S control measures would remain in place and routinely inspected until the Project work is complete and all disturbed areas are stabilized.

Access Roads and Work Pads

The Project will utilize existing access roads to the extent possible. Construction matting will be utilized to install temporary access roads through wetland areas to reach certain structure locations. The access roads expected to be used for the Project are depicted in Attachment - A.

Existing access roads may need to be improved (graded, widened, and/or reinforced) with additional stone material in order to accommodate the safe passage of construction vehicles and equipment¹¹. Access road improvements typically include trimming adjacent vegetation and widening roads, as needed, to provide a minimum travel surface that is approximately 16 feet wide (additional width may be needed at turning or passing locations).

Access roads would typically be graveled; however, where access roads traverse streams or wetlands, timber construction mats or temporary bridges would be used. At one location where an existing access road crosses a wetland resource (See Attachment A: Map Sheet 6), a stone ford crossing would be installed. An existing hard bottom crossing would be shored up at a second location. Appropriate E&S controls would be installed as necessary before the commencement of any improvements to or development of access roads.

Existing gates, pole barriers and signage are currently utilized to discourage all-terrain vehicles from accessing the ROW utilizing existing access roads. It is standard work practice for Eversource crews to close and lock all gates at the end of the workday. In addition, for any new access points that currently do not have gates or pole barriers installed, Eversource will install these measures upon request by the property owner during and/or after construction.

¹¹ Existing access roads within vernal pool envelopes will not be improved.

At each structure replacement location, a work pad would be required to stage material for final on-site assembly and/or removal of existing structures, and to provide a safe, level work base for the construction equipment. Typical work pads would be approximately 100 feet by 100 feet.

Typical work pad preparation involves several steps: (1) removal of vegetation, and (2) grading to create a level work area. The removed topsoil would be stockpiled and stabilized within the ROW, typically near the new work pad or access road. A rock base, which allows drainage, may be layered on top of filter fabric, if necessary. Additional layers of rock with dirt/rock fines (processed gravel) are typically placed over the rock base. To facilitate future transmission line maintenance, gravel work pads would be left in place, unless the property owner requests their removal.

The locations and configuration of the work pads are shown on Attachment A.

Foundation Installation

The proposed structures would be either directly embedded or have drilled (caisson) foundations. This work would require the use of equipment such as mechanical excavator (drill rigs), pneumatic hammers, augers, drill rigs, and dump trucks. If groundwater is encountered, pumping (vacuum) trucks or other suitable equipment would be used to pump water from the excavated areas as the shaft is being drilled or as the structure is being set. The water would then be discharged in accordance with Eversource BMPs.

Excavated soils that are generated during construction activities would not be stored or stockpiled in wetlands, vernal pools, or watercourses. Excavated soils from the Project that cannot be used as backfill would be regraded into adjacent uplands within the ROW and stabilized in accordance with Eversource BMPs. Any excavated soils that cannot be reused on the property from which it

was excavated would be transported from the Project area and properly managed off-site in accordance with Eversource BMPs and applicable regulations.

Depending on site-specific soil conductivity, supplemental grounding would be installed. A quad “ditch-witch” plow-cable trencher, or equivalent would be used to install the counterpoise.

Structure Assembly/Installation

Structure sections, structure components and hardware would be delivered to the individual structure locations using flat-bed trucks and assembled on-site using a crane and bucket trucks. After assembly, the area around the directly embedded structures would be backfilled with processed gravel. The existing conductor will be transferred to the replacement structures.

The removal of the existing shield wire and the installation of the OPGW would occur after the new structures are installed. Helicopters may be used for the work. In the event the helicopters are utilized, advanced notification to the affected municipality and property owners would be provided.

Existing Structure Removal

After the replacement structures are in place, the conductor transferred to the replacement structures, and the OPGW installed, the existing structures would be removed. To minimize disturbance to the wetlands, existing wooden pole structures (e.g., Structure 9660) would be cut just above existing grade/water line and left in place. The existing poles and hardware would be removed from the ROW and reused, recycled, or otherwise disposed of properly in accordance with governing regulation and Eversource disposal procedures and recycling protocols.

Restoration

ROW restoration activities would include the removal of construction debris, signage, flagging, and temporary fencing, as well as the removal of construction mats and structure work pads that are designated for removal. Areas affected by construction would be re-graded as practical and stabilized using revegetation or other measures before removing temporary E&S controls. Eversource would perform ROW restoration in accordance with the protocols specified in the BMPs and applicable permit conditions.

For work within environmentally sensitive areas, such as NEC focus areas, work pad restoration measures will be implemented to mitigate impacts, which includes the amendment of the work pad surface with stockpiled topsoil or fine process gravel (whichever is applicable), application of a native seed mix, and installation of temporary erosion and sediment controls (e.g., straw mulch, and net-less environmental controls to limit wildlife entanglement, compost filters, biodegradable erosion control blankets, etc.), which will be regularly inspected and maintained until final stabilization has been achieved.

All installed/improved gravel work pads will remain to facilitate future access to the transmission facility. If an individual property owner requests, Project representatives will work with the property owner on mitigation options for the gravel work pad. Where required, stockpiled topsoil adjacent to a specific work location will be used for restoration and revegetation of the work pads.

Waste Management

Waste materials, such as structure components (i.e., wood and steel from the removed structures, shield wire, associated hardware, etc.) and any other construction debris would be reclaimed through the Eversource investment recovery system and/or managed/disposed of in accordance

with Eversource's BMPs, applicable regulations or recycled consistent with applicable regulations and Eversource policies.

8. Electric and Magnetic Fields

The structure replacements will only slightly affect levels in electric and magnetic fields ("EMF") in the immediate vicinity of the structure replacements. The Project work will not alter the configuration of the existing conductors. As a result, measured EMF will change only slightly, resulting from the shift in location of the conductors with changes occurring primarily underneath the locations of the existing and replacement structures. At and beyond the edges of the ROW, any changes to the fields will be almost immeasurable.

9. Construction Schedule and Work Hours

Eversource proposes to begin construction in the second quarter of 2024. Normal work hours would be Monday through Saturday from 7:00 AM to 7:00 PM. Work may occur outside of these standard hours, as necessary, to comply with environmental permit inspection requirements. In addition, during winter, snow plowing and deicing activities will typically commence, when necessary, prior to 7:00 AM to ensure a safe environment for construction personnel prior to the start of the workday. On occasion, Sunday work hours may also be necessary due to delays caused by inclement weather and/or outage constraints. The applicable Town and affected abutters to any location planned for Sunday work would be provided advance notice of the proposed Sunday work hours.

The Project is currently scheduled to be completed in December of 2025. Multiple construction crews may work concurrently on different sections of the line.

10. Municipal and Property Owner Outreach

In September 2023, Eversource consulted with the towns of East Haddam, Lyme, East Lyme, and Montville to brief municipal officials on the proposed Project.

In September 2023, Eversource also conducted outreach to property owners located adjacent to structure replacements. In conjunction with the submission of this Petition, all abutting property owners were provided written notice of the filing and provided information on how to obtain additional information on the Project, as well as how to submit comments to the Council (see Attachment F: Letter to the Abutters and Affidavit). To date, no comments or concerns have been made.

Eversource Project representatives will continue to be in contact with adjacent property owners to provide advance notification as to the start of construction activities and will continue to update property owners throughout construction and restoration and respond to any inquiries or concerns.

Based on the foregoing, Eversource respectfully submits that the proposed modifications would not result in a substantial adverse effect on the environment, nor would they impact existing scenic, historical, or recreational values. Accordingly, Eversource requests that the Council issue a declaratory ruling that the proposed modifications would have no substantial adverse environmental effect.

Communications regarding this Petition for a Declaratory Ruling should be directed to:



Deborah Denfeld

Team Lead – Transmission Siting
Eversource Energy
deborah.denfeld@eversource.com

List of Attachments

Attachment A: East Haddam Junction to Huntsbrook Junction Reliability Project - Map Sheets
Attachment B: List of Structure Replacements
Attachment C: Cross Sections
Attachment D: Wetlands and Watercourses Report
Attachment E: Vernal Pool Survey
Attachment F: Letter to the Abutters and Affidavit

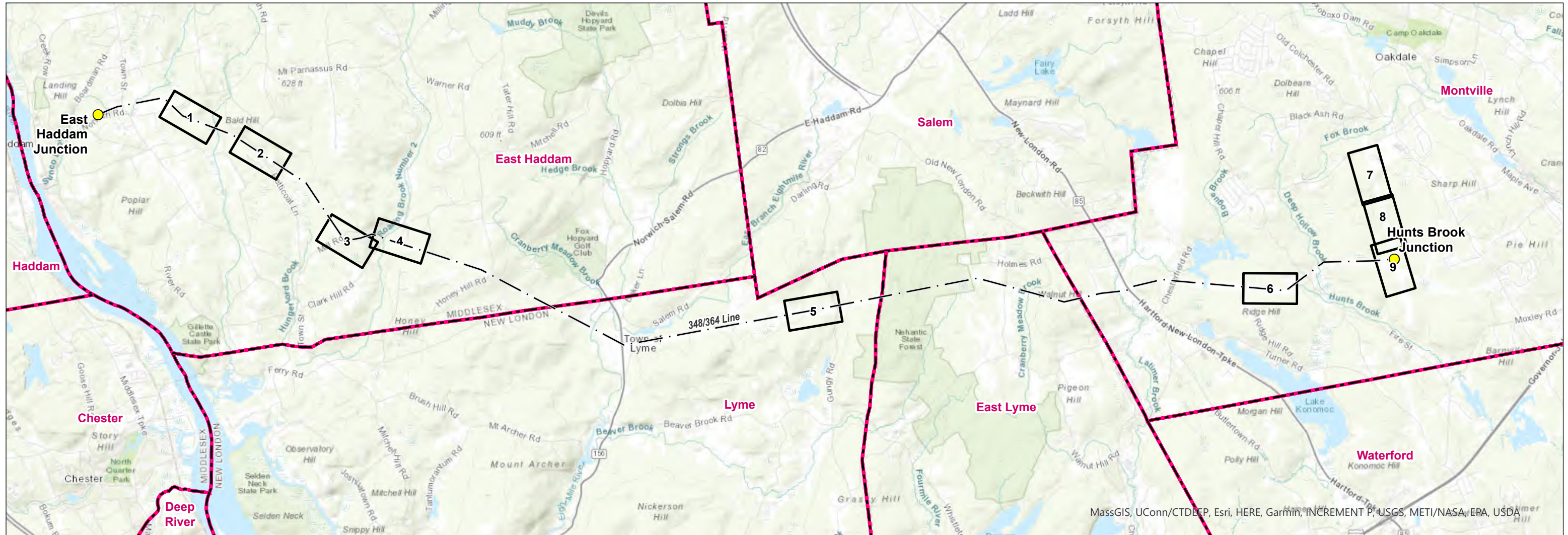
Attachment A:
East Haddam Junction to Hunts Brook Junction Reliability
Project - Map Sheets

East Haddam Junction to Hunts Brook Junction Reliability Project

East Haddam, Lyme, East Lyme, and Montville, CT

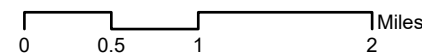
Petition Map Set

Date: January 30, 2024



Legend

- Junction
- Overhead Eversource Line
- Map Sheet
- Municipal Boundary



PREPARED FOR:



107 Selden Street
Berlin, CT 06037

INDEX OF FIGURES

Title Sheet / Index Map
Abutter Tables and Map Sheets 1-9

PREPARED BY:



567 Vauxhall Street Extension – Suite 311
Waterford, CT 06385

MassGIS, UConn/CTDEEP, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

MAP SHEET 1 OF 9

East Haddam Junction to Hunts Brook Junction Reliability Project

East Haddam, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Agricultural
- Natural Diversity Database (“NDDB”) Area
- New England Cottontail (“NE Cottontail”) Focus Area
- FEMA 100-Year Flood Zone

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- NDDB Area
- NE Cottontail Focus Area

Water Resources

- Wetlands – W1, W2, W3, W4, and W5
- Wetland Cover Types – PEM and PSS
- Watercourses – none
- Vernal Pools – VP1

Wetland and Watercourse Crossings

- none

Right-of-Way Vegetation

- Existing Gravel
- Scrub-shrub

Access

- Structure 5438– Old Mount Parnassus Road No 1

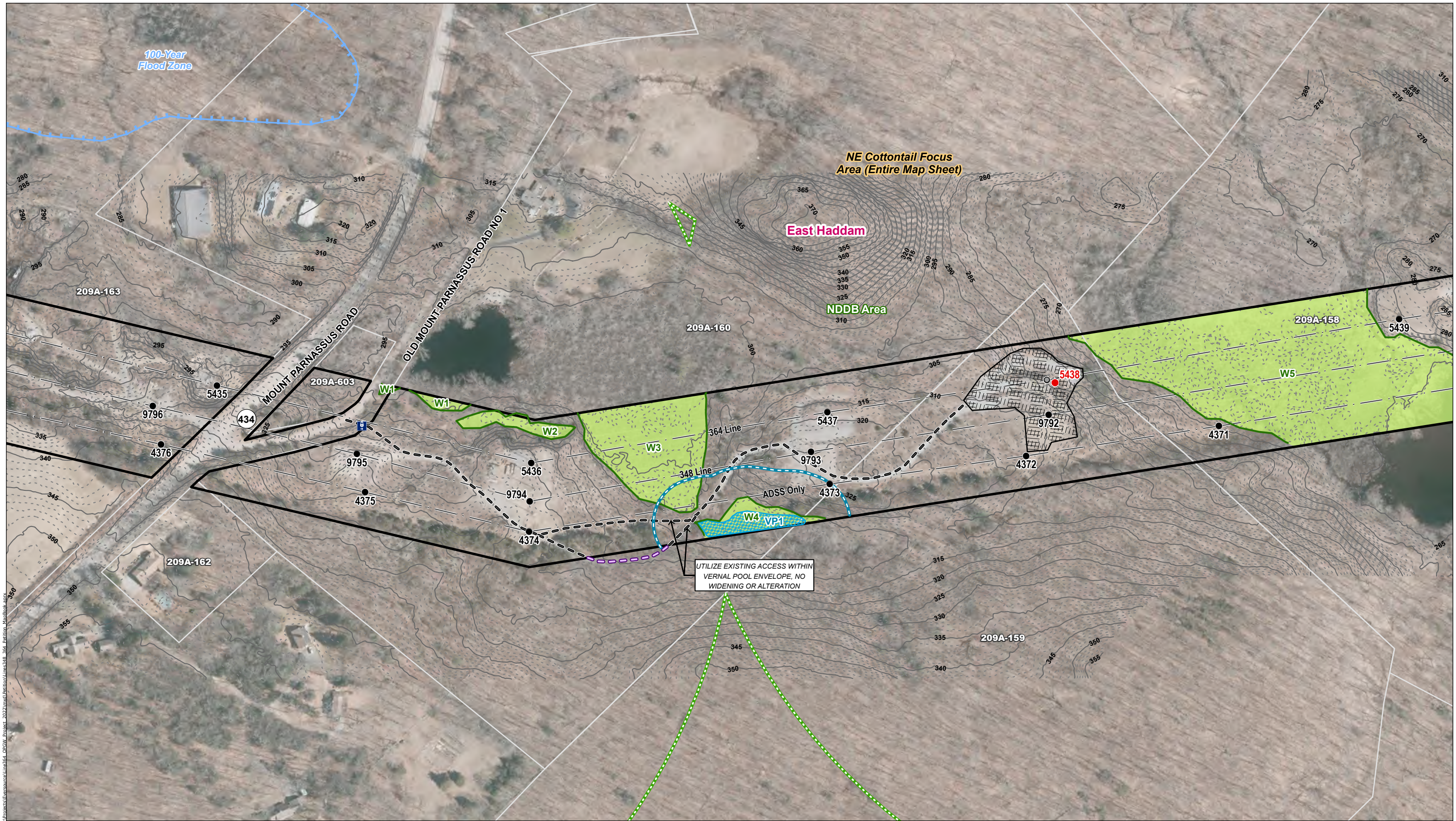
Road Crossings

- Mount Parnassus Road (CT. Rt. 434)
Old Mount Parnassus Road No 1

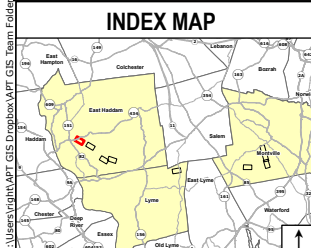
Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

- 325-Feet / 0-Feet

<u>LINE LIST NUMBER</u>	<u>PARCEL ADDRESS</u>	<u>CITY</u>	<u>STATE</u>	<u>OWNER NAME</u>
209A-158	81 PETTICOAT LN	EAST HADDAM	CT	FREDERIK J DERAAD & GYSBERDINA DERAAD CO-TRUSTEE
209A-159	PETTICOAT LN	EAST HADDAM	CT	PATRICIA M STRICKER & DARIN STRICKER
209A-160	72 MT PARNASSUS RD	EAST HADDAM	CT	72 OLD MT PARNASSUS ROAD LLC C/O DAVID CHAMBERLAIN
209A-162	48 PARNASSUS RD	EAST HADDAM	CT	CARL M & NICHOLE A LEWIS
209A-163	21 MT PARNASSUS RD	EAST HADDAM	CT	BUD AND BOBBY ENTERPRISES LLC
209A-603	MT PARNASSUS RD	EAST HADDAM	CT	BUD AND BOBBY ENTERPRISES LLC



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Legend	
● Proposed Structure	● Culvert
● Existing Structure	Ⓜ Gate
○ Existing Structure to be Removed	— Existing Access
— Overhead Eversource Line	— Off-ROW Access Pending Rights
— Existing Right-of-Way (ROW)	— Proposed Access
— 5' Contour Line	— Hiking Trail
— 2' Contour Line	□ Stone Work Pad
▨ Temporary Construction Matting	▨ Existing Gravel
— Delineated Perennial Watercourse; No	— Delineated Intermittent Watercourse
— Field Delineated Wetland Boundary Outline	— Field Delineated Wetland
— Potential Vernal Pool Extent	— Confirmed Vernal Pool Extent
— 100' Vernal Pool Envelope	— FEMA 100-Year Flood Zone
— Critical Habitat (CTDEEP, 2019)	— NE Cottontail Focus Area
	— Public Water Supply Watershed
	— Eversource Owned Property
	— Parcel Boundary
	— Municipal Boundary
	— Map Sheet Matchline

Map Notes:
 This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.

Wetlands and vernal pools field delineated by APT/DE 2017-2018 with 2022-2023 field verification. Parcel and ROW boundaries are approximate. Existing Gravel digitized from aerial imagery.

Aerial Base Map Source: CTECO 2019

1:2,400 Feet
 0 100 200

NO.	DATE	REVISIONS

EVERSOURCE ENERGY

East Haddam Junction to Hunts Brook Junction Reliability Project

East Haddam, CT Map Sheet 1 of 9

Date: January, 2024

Map Author: N. Castro

ALL-POINTS TECHNOLOGY CORPORATION

MAP SHEET 2 OF 9

East Haddam Junction to Hunts Brook Junction Reliability Project

East Haddam, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Natural Diversity Database (“NDDB”) Area
- New England Cottontail (“NE Cottontail”) Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- NDDB Area
- NE Cottontail Focus Area

Water Resources

- Wetlands – W6 and W7
- Wetland Cover Types – PEM and PSS
- Watercourses – none
- Vernal Pools – VP2

Wetland and Watercourse Crossings

- none

Right-of-Way Vegetation

- Existing Gravel
- Scrub-shrub

Access

- Structure 5444– Shanaghans Road

Road Crossings

- Shanaghans Road

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

- 325-Feet / 0-Feet

<u>LINE LIST NUMBER</u>	<u>PARCEL ADDRESS</u>	<u>CITY</u>	<u>STATE</u>	<u>OWNER NAME</u>
209A-145	181 PETTICOAT LN	EAST HADDAM	CT	SCOTT & MELISSA ZIOBRON
209A-146	SHANAGHAN RD	EAST HADDAM	CT	AVERUM J SPRECHER
209A-147	SHANAGHAN RD	EAST HADDAM	CT	SCOTT E & MELISSA H ZIOBRON
209A-154	18 ACORN DR	EAST HADDAM	CT	BRIAN KELLEHER
209A-156	SHANAGHAN RD	EAST HADDAM	CT	TOWN OF EAST HADDAM
209A-605	4 ACORN DR	EAST HADDAM	CT	DAVID SMITH & REBECCA MALINGUAGGIO

MAP SHEET 3 OF 9

East Haddam Junction to Hunts Brook Junction Reliability Project

East Haddam, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Eversource Owned Property
- New England Cottontail (“NE Cottontail”) Focus Area
- FEMA 100-Year Flood Zone

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Residential
- Eversource Owned Property
- NE Cottontail Focus Area

Water Resources

- Wetlands – W8 and W9
- Wetland Cover Types – PEM and PSS
- Watercourses – none
- Vernal Pools – none

Wetland and Watercourse Crossings

- none

Right-of-Way Vegetation

- Existing Gravel
- Scrub-shrub

Access

- Structure 5458– Mill Road

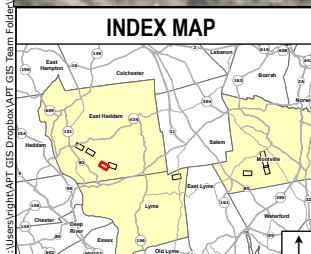
Road Crossings

- Mill Road

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

- 325-Feet / 0-Feet

<u>LINE LIST NUMBER</u>	<u>PARCEL ADDRESS</u>	<u>CITY</u>	<u>STATE</u>	<u>OWNER NAME</u>
209A-126	127 CLARK HILL RD	EAST HADDAM	CT	DANIEL CAVENAGH
209A-129	100 MILL RD	EAST HADDAM	CT	MICHAEL P & BONNIE D FIALA
209A-130	96 MILL RD	EAST HADDAM	CT	ROBERT & RITA FIALA
209A-131	90 MILL RD	EAST HADDAM	CT	ROBERT & RITA FIALA
209A-132	86 MILL RD	EAST HADDAM	CT	ROBERT & RITA FIALA
209A-133	64 MILL RD	EAST HADDAM	CT	JOSEPH L MAGGI
209A-134	MILL RD	EAST HADDAM	CT	CONNECTICUT LIGHT AND POWER COMPANY
209A-135	66 MILL RD	EAST HADDAM	CT	DAVID C NELSON
209A-136	65 MILL RD	EAST HADDAM	CT	WILLIAM B WATKINS
209A-137	81 MILL RD	EAST HADDAM	CT	ROBERT E & SUSAN FREUND BORDEN
209A-138	MILL RD	EAST HADDAM	CT	ROBERT & RITA FIALA
209A-140	PETTICOAT LN	EAST HADDAM	CT	ROBERT & RITA FIALA



Legend	
● Proposed Structure	● Culvert
● Existing Structure	Ⓜ Gate
○ Structure to be Removed	— Existing Access
· Overhead Eversource Line	— Off-ROW Access Pending Rights
— Existing Right-of-Way (ROW)	— Proposed Access
— 5' Contour Line	— Hiking Trail
— 2' Contour Line	□ Stone Work Pad
▨ Temporary Construction Matting	▨ Existing Gravel
— Delineated Perennial Watercourse; No 100' Vernal Pool Envelope	— Delineated Intermittent Watercourse
— Field Delineated Wetland Boundary Outline	— Field Delineated Wetland
— Potential Vernal Pool Extent	— Confirmed Vernal Pool Extent
— FEMA 100-Year Flood Zone	— Natural Diversity Database Area (Dec. 2023)
— Critical Habitat (CTDEEP, 2019)	— NE Cottontail Focus Area
	— Public Water Supply Watershed
	— Eversource Owned Property
	— Parcel Boundary
	— Municipal Boundary
	— Map Sheet Matchline

Map Notes:
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 Wetlands and vernal pools field delineated by APT/DE 2017-2018 with 2022-2023 field verification. Parcel and ROW boundaries are approximate. Existing Gravel digitized from aerial imagery.
 Aerial Base Map Source: CTECO 2019

NO.	DATE	REVISIONS

East Haddam Junction to Hunts Brook Junction Reliability Project
 East Haddam, CT Map Sheet 3 of 9
 Date: January, 2024
 Map Author: N. Castro

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MAP SHEET 4 OF 9

East Haddam Junction to Hunts Brook Junction Reliability Project

East Haddam, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Agriculture
- Natural Diversity Database (“NDDDB”) Area
- New England Cottontail (“NE Cottontail”) Focus Area
- FEMA 100-Year Flood Zone

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Agriculture
- NDDDB Area
- NE Cottontail Focus Area
- FEMA 100-Year Flood Zone

Water Resources

- Wetlands – W10, W11, W12, and W13
- Wetland Cover Types – PEM and PSS
- Watercourses – S1 (Roaring Brook) and S2
- Vernal Pools – VP3

Wetland and Watercourse Crossings

- Matted Access Road for Structure 5464 (W12)

Right-of-Way Vegetation

- Existing Gravel
- Scrub-shrub
- Agriculture

Access

- Structure 5464– Mill Road (pending off-ROW access rights), otherwise Florida Road
- Structure 9764 – Florida Road

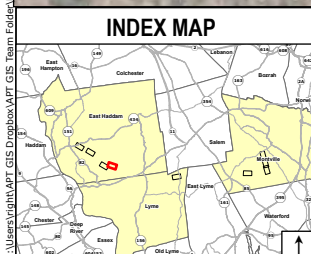
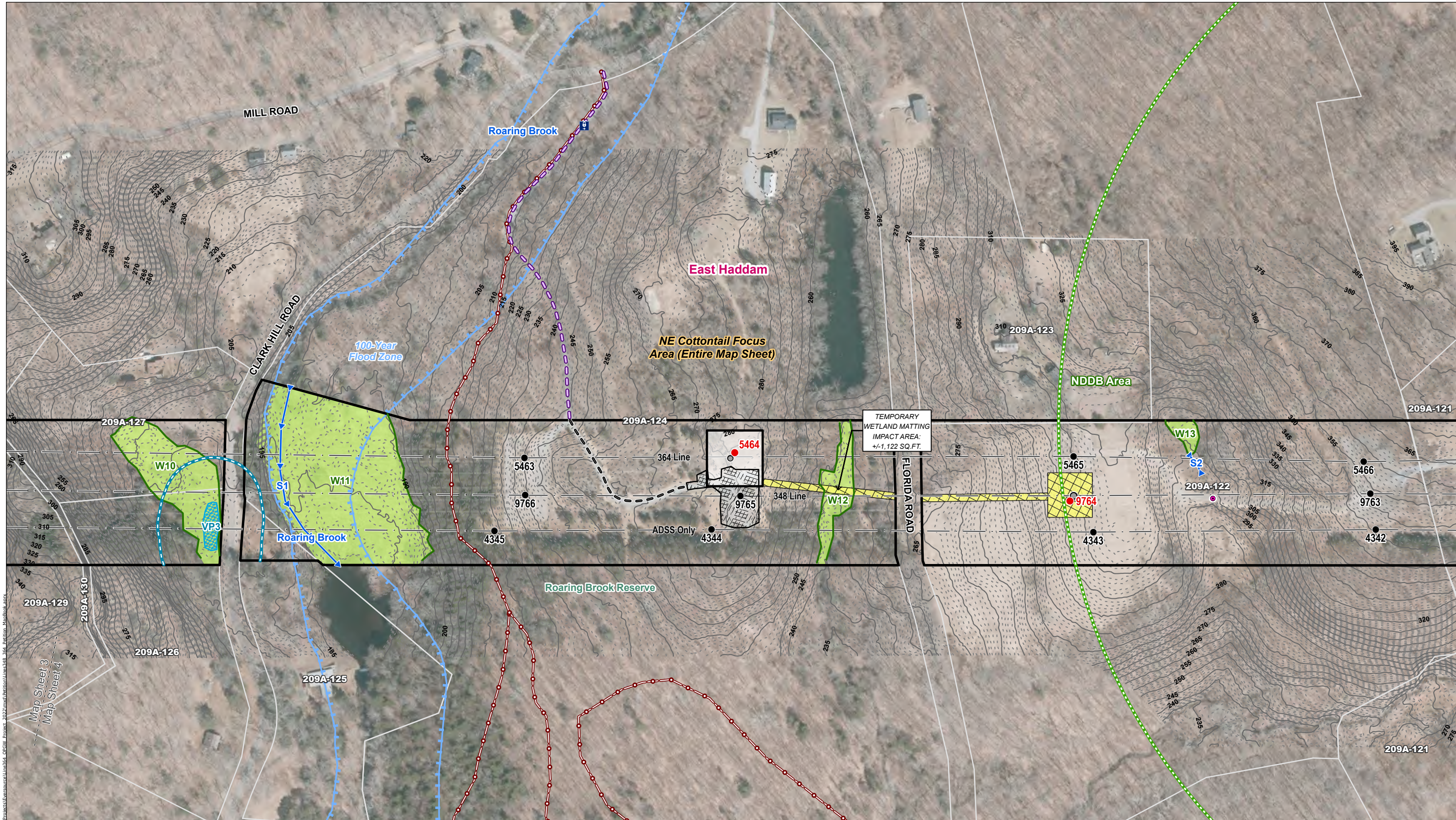
Road Crossings

- Clark Hill Road
- Florida Road

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

- 325-Feet / 0-Feet

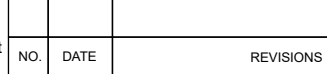
<u>LINE LIST NUMBER</u>	<u>PARCEL ADDRESS</u>	<u>CITY</u>	<u>STATE</u>	<u>OWNER NAME</u>
209A-121	9 ROLLING HILL RD	EAST HADDAM	CT	JAMES W JR & DONNA C HILTON
209A-122	FLORIDA RD	EAST HADDAM	CT	GINO VONA
209A-123	6 FLORIDA RD NORTH	EAST HADDAM	CT	HAROLD B KOLBE
209A-124	CLARK HILL RD	EAST HADDAM	CT	TOWN OF EAST HADDAM
209A-125	128 CLARK HILL RD	EAST HADDAM	CT	HARRY D JR & JOYCE MCCUTCHEON
209A-126	127 CLARK HILL RD	EAST HADDAM	CT	DANIEL CAVENAGH
209A-127	135 CLARK HILL RD	EAST HADDAM	CT	WADE E MARTELL
209A-129	100 MILL RD	EAST HADDAM	CT	MICHAEL P & BONNIE D FIALA
209A-130	96 MILL RD	EAST HADDAM	CT	ROBERT & RITA FIALA



Legend	
● Proposed Structure	● Culvert
● Existing Structure	Ⓜ Gate
○ Existing Structure to be Removed	— Existing Access
— Overhead Eversource Line	— Off-ROW Access Pending Rights
— Existing Right-of-Way (ROW)	— Proposed Access
— 5' Contour Line	— Hiking Trail
— 2' Contour Line	□ Stone Work Pad
▨ Temporary Construction Matting	▨ Existing Gravel
▨ Field Delineated Wetland	▨ Potential Vernal Pool Extent
▨ Field Delineated Wetland Boundary Outline	▨ Confirmed Vernal Pool Extent
▨ Critical Habitat (CTDEEP, 2019)	▨ 100' Vernal Pool Envelope
▨ NE Cottontail Focus Area	▨ FEMA 100-Year Flood Zone
▨ Public Water Supply Watershed	▨ Natural Diversity Database Area (Dec. 2023)
▨ Eversource Owned Property	▨ Critical Habitat (CTDEEP, 2019)
▨ Parcel Boundary	▨ Municipal Boundary
▨ Map Sheet Matchline	

Map Notes:
 This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.
 Wetlands and vernal pools field delineated by APT/DE 2017-2018 with 2022-2023 field verification. Parcel and ROW boundaries are approximate. Existing Gravel digitized from aerial imagery.
 Aerial Base Map Source: CTECO 2019

NO.	DATE	REVISIONS



EVERSOURCE ENERGY

East Haddam Junction to Hunts Brook Junction Reliability Project

East Haddam, CT Map Sheet 4 of 9

Date: January, 2024

Map Author: N. Castro

ALL-POINTS TECHNOLOGY CORPORATION

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MAP SHEET 5 OF 9

East Haddam Junction to Hunts Brook Junction Reliability Project

Lyme, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Natural Diversity Database (“NDDDB”) Area
- New England Cottontail (“NE Cottontail”) Focus Area
- Critical Habitat (Lyme Powerline Medium Fen & Sand Barren)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- NDDDB Area
- NE Cottontail Focus Area
- Critical Habitat (Lyme Powerline Medium Fen & Sand Barren)

Water Resources

- Wetlands – W14, W15, W16, and W17
- Wetland Cover Types – PEM and PSS
- Watercourses – none
- Vernal Pools – VP4 and VP5

Wetland and Watercourse Crossings

- Matted Access Road for Structure 9721 (W14)

Right-of-Way Vegetation

- Existing Gravel
- Scrub-shrub

Access

- Structure 9721– Gungy Road

Road Crossings

- Gungy Road

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

325-Feet / 0-Feet

<u>LINE LIST NUMBER</u>	<u>PARCEL ADDRESS</u>	<u>CITY</u>	<u>STATE</u>	<u>OWNER NAME</u>
209A-095	GUNGY ROAD	LYME	CT	TOWN OF LYME
209A-097	122 GUNGY ROAD	LYME	CT	MARK S BAUWENS
209A-098	GUNGY ROAD	LYME	CT	TOWN OF LYME
209A-099	GUNGY ROAD	LYME	CT	KEVIN C DEBORAH MAZER
209A-100	GUNGY ROAD	LYME	CT	DEBORAH MAZER
209A-101	GUNGY ROAD	LYME	CT	LUCIUS D STARK ETAL
209A-102	131-2 SALEM ROAD	LYME	CT	EDWARD M BOMBACI

MAP SHEET 6 OF 9

**East Haddam Junction to Hunts Brook Junction Reliability Project
Montville, Connecticut**

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential
- Natural Diversity Database (“NDDB”) Area
- New England Cottontail (“NE Cottontail”) Focus Area
- Lake Konomoc Reservoir, Great Swamp Div., Water Supply Watershed

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- NDDB Area
- NE Cottontail Focus Area
- Lake Konomoc Reservoir, Great Swamp Div., Water Supply Watershed

Water Resources

- Wetlands – W18, W19, W20, W21, and W22
- Wetland Cover Types – PEM, PSS and PFO
- Watercourses – S3
- Vernal Pools – VP6

Wetland and Watercourse Crossings

- Stone Ford Crossing for Structures 5555 and 5557 (W21)

Right-of-Way Vegetation

- Existing Gravel
- Agriculture
- Scrub-shrub

Access

- Structures 5555 - 5557– Ridge Hill Road

Road Crossings

- Ridge Hill Road

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing
325-Feet / 0-Feet

<u>LINE LIST NUMBER</u>	<u>PARCEL ADDRESS</u>	<u>CITY</u>	<u>STATE</u>	<u>OWNER NAME</u>
209A-071	550 FIRE ST	OAKDALE	CT	JAMES F ORLANDO
209A-072	RIDGE HILL RD	OAKDALE	CT	MEYERS CARL A & LAURIE & LOWELL W JR HILMEN JUDITH & SALVO PAMELA ET AL C/O HILMEN JUDITH & SALVO PAMELA ET AL
209A-073	239 RIDGE HILL RD	OAKDALE	CT	MICHAEL S NAHORNICK
209A-075	CHESTERFIELD RD	OAKDALE	CT	CITY OF NEW LONDON WATER DEPT C/O DEPT OF PUBLIC UTILITIES
209A-622	279 RIDGE HILL RD	MONTVILLE	CT	JOYCE O SULLIVAN

MAP SHEET 7 OF 9

East Haddam Junction to Hunts Brook Junction Reliability Project

Montville, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Residential/ School
- Eversource Owned Property
- Natural Diversity Database (“NDDB”) Area
- New England Cottontail (“NE Cottontail”) Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Eversource Owned Property
- NDDB Area
- NE Cottontail Focus Area

Water Resources

- Wetlands – none
- Wetland Cover Types – n/a
- Watercourses – none
- Vernal Pools – none

Wetland and Watercourse Crossings

- none

Right-of-Way Vegetation

- Existing Gravel
- Scrub-shrub

Access

- Chesterfield Road to Structure 9660

Road Crossings

- Chesterfield Road

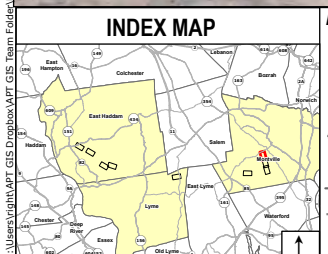
Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

n/a

<u>LINE LIST NUMBER</u>	<u>PARCEL ADDRESS</u>	<u>CITY</u>	<u>STATE</u>	<u>OWNER NAME</u>
009-117	OLD COLCHESTER RD	OAKDALE	CT	CONNECTICUT LIGHT AND POWER COMPANY



Map Sheet 7
Map Sheet 8



Legend	
● Proposed Structure	● Culvert
● Existing Structure	Ⓜ Gate
⊖ Existing Structure to be Removed	⊖ Existing Access
⋯ Overhead Eversource Line	⋯ Off-ROW Access Pending Rights
— Existing Right-of-Way (ROW)	— Proposed Access
— 5' Contour Line	— Hiking Trail
--- 2' Contour Line	□ Stone Work Pad
▨ Temporary Construction Matting	▨ Existing Gravel
— Delineated Perennial Watercourse; No	— Delineated Intermittent Watercourse
— Field Delineated Wetland Boundary Outline	— Field Delineated Wetland
⊕ Potential Vernal Pool Extent	⊕ Confirmed Vernal Pool Extent
⊕ 100' Vernal Pool Envelope	⊕ FEMA 100-Year Flood Zone
⊕ Natural Diversity Database Area (Dec. 2023)	⊕ Critical Habitat (CTDEEP, 2019)
⊕ NE Cottontail Focus Area	⊕ Public Water Supply Watershed
⊕ Eversource Owned Property	⊕ Parcel Boundary
⊕ Municipal Boundary	⊕ Map Sheet Matchline

Map Notes:
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Wetlands and vernal pools field delineated by APT/DE 2017-2018 with 2022-2023 field verification. Parcel and ROW boundaries are approximate. Existing Gravel digitized from aerial imagery.
Aerial Base Map Source: CTECO 2019

NO.	DATE	REVISIONS

East Haddam Junction to Hunts Brook Junction Reliability Project
 Montville, CT Map Sheet 7 of 9
 Date: January, 2024
 Map Author: N. Castro

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MAP SHEET 8 OF 9

East Haddam Junction to Hunts Brook Junction Reliability Project

Montville, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Eversource Owned Property
- Natural Diversity Database (“NDDB”) Area
- New England Cottontail (“NE Cottontail”) Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Eversource Owned Property
- NDDB Area
- NE Cottontail Focus Area

Water Resources

- Wetlands – W23, W24, and W25
- Wetland Cover Types – PEM, PSS and PFO
- Watercourses – S4
- Vernal Pools – PVP1 and VP7

Wetland and Watercourse Crossings

- none

Right-of-Way Vegetation

- Existing Gravel
- Scrub-shrub

Access

- Structure 9660 - Chesterfield Road

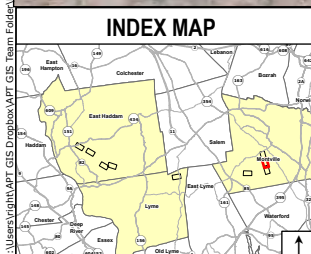
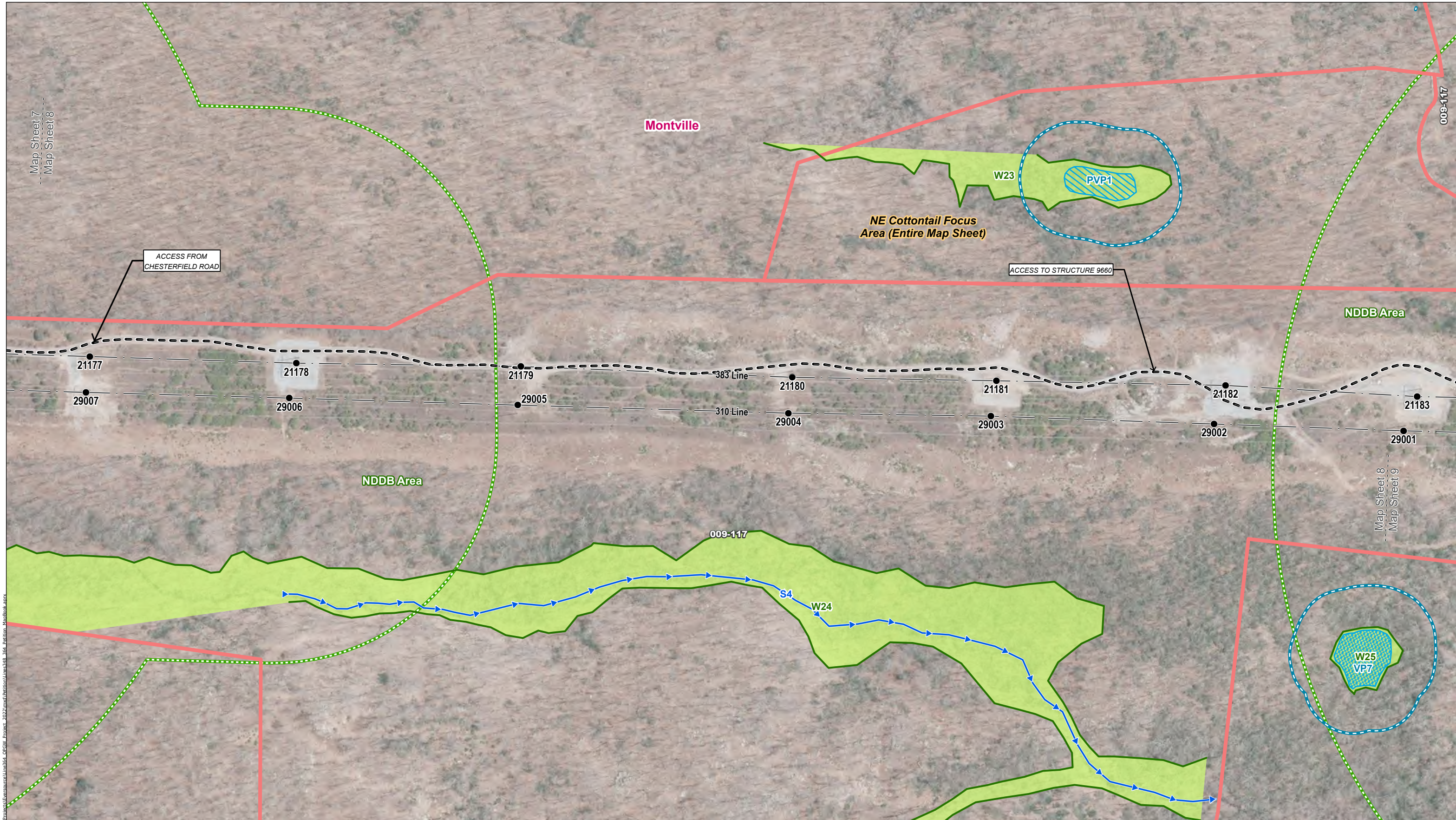
Road Crossings

- none

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

n/a

<u>LINE LIST NUMBER</u>	<u>PARCEL ADDRESS</u>	<u>CITY</u>	<u>STATE</u>	<u>OWNER NAME</u>
009-117	OLD COLCHESTER RD	OAKDALE	CT	CONNECTICUT LIGHT AND POWER COMPANY



Legend	
● Proposed Structure	● Culvert
● Existing Structure	Ⓜ Gate
○ Existing Structure to be Removed	— Existing Access
— Overhead Eversource Line	— Off-ROW Access Pending Rights
— Existing Right-of-Way (ROW)	— Proposed Access
— 5' Contour Line	— Hiking Trail
— 2' Contour Line	□ Stone Work Pad
▨ Temporary Construction Matting	▨ Existing Gravel
— Delineated Perennial Watercourse; No	— Delineated Intermittent Watercourse
— Field Delineated Wetland Boundary Outline	— Field Delineated Wetland
○ Potential Vernal Pool Extent	○ Confirmed Vernal Pool Extent
— 100' Vernal Pool Envelope	— FEMA 100-Year Flood Zone
— NE Cottontail Focus Area	— Public Water Supply Watershed
— Eversource Owned Property	— Parcel Boundary
— Municipal Boundary	— Map Sheet Matchline
— Critical Habitat (CTDEEP, 2019)	

Map Notes:
 This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.
 Wetlands and vernal pools field delineated by APT/DE 2017-2018 with 2022-2023 field verification. Parcel and ROW boundaries are approximate. Existing Gravel digitized from aerial imagery.
 Aerial Base Map Source: CTECO 2019

NO.	DATE	REVISIONS

East Haddam Junction to Hunts Brook Junction Reliability Project
 Montville, CT Map Sheet 8 of 9
 Date: January, 2024
 Map Author: N. Castro

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MAP SHEET 9 OF 9

East Haddam Junction to Hunts Brook Junction Reliability Project

Montville, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, Forest
- Eversource Owned Property
- Natural Diversity Database (“NDDB”) Area
- New England Cottontail (“NE Cottontail”) Focus Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Eversource Owned Property
- NDDB Area
- NE Cottontail Focus Area

Water Resources

- Wetlands – W24, W25, and W26
- Wetland Cover Types – PEM, PSS and PFO
- Watercourses – S4 and S5
- Vernal Pools – VP7, VP8, VP9, PVP2, PVP3

Wetland and Watercourse Crossings

- Matted Work Pad for Structure 9660 (W26)

Right-of-Way Vegetation

- Existing Gravel
- Scrub-shrub

Access

- Chesterfield Road to Structure 9660

Road Crossings

- none

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

325-Feet / 0-Feet

<u>LINE LIST NUMBER</u>	<u>PARCEL ADDRESS</u>	<u>CITY</u>	<u>STATE</u>	<u>OWNER NAME</u>
009-117	OLD COLCHESTER RD	OAKDALE	CT	CONNECTICUT LIGHT AND POWER COMPANY

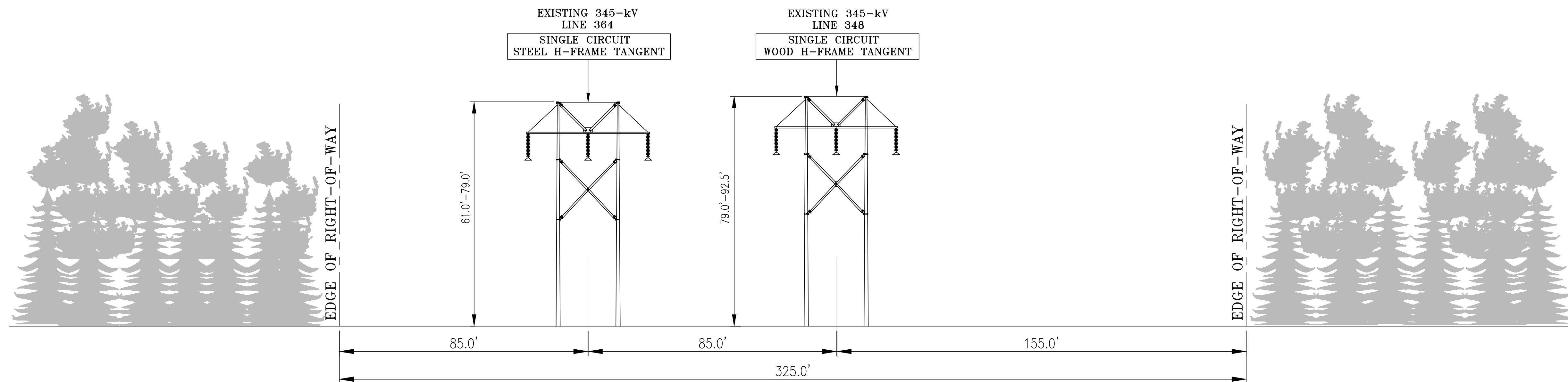
Attachment B:

List of Structure Replacements

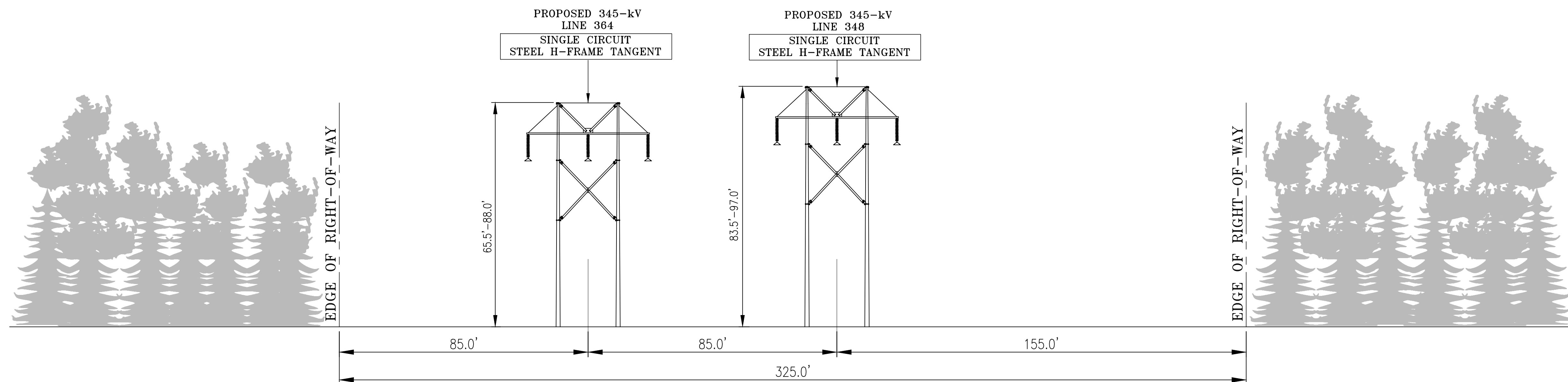
East Haddam Junction to Huntsville Junction Reliability Project (348 - 364 345-kV Lines)		Existing Structure Height (feet)	Replacment Structure Height (feet)	*Increase in Structure Height (feet)	Existing Structure Design (3-Pole, Single Circuit H-frame)	Replacement Structure Design (3-Pole Angle, Single Circuit H-Frame)	Existing Structure Material	Proposed Structure Material
Structure #	Line							
5438	364	70-74.5	88-88	18-13.5	SCHF	SCHF	wood	weathering steel
5444	364	70-74.5	79-83.5	9-9	SCHF	SCHF	wood	weathering steel
5458	364	70-70-70	79-79-79	9-9-9	3-pole	3-pole	wood	weathering steel
5464	364	61-61	65.5-65.5	4.5-4.5	SCHF	SCHF	wood	weathering steel
5555	364	79-79	79-79	0-0	SCHF	SCHF	wood	weathering steel
5557	364	79-79	79-79	0-0	SCHF	SCHF	wood	weathering steel
9660	348	52-65.5-65.5	62-70-70	9-4.5-4.5	3-pole	3-pole	wood	weathering steel
9721	348	92.5	97-97	4.5	SCHF	SCHF	wood	weathering steel
9764	348	92.5	83.5-83.5	-9.0	SCHF	SCHF	wood	weathering steel
Total No. of Structures:		9 each						
		Average Height Increase:		4.42				
		* increase is based on the average of each pole per structure						

Attachment C:

Cross Sections



EXISTING R.O.W. CONFIGURATION
LOOKING FROM EAST HADDAM JCT TOWARD HUNTS BROOK JCT
IN THE TOWNS OF EAST HADDAM, LYME, EAST LYME & MONTVILLE, CT
LINE 364 STRS #5438, #5444, #5464, #5555, #5557, LINE 348 STRS #9721, #9764



PROPOSED R.O.W. CONFIGURATION
LOOKING FROM EAST HADDAM JCT TOWARD HUNTS BROOK JCT
IN THE TOWNS OF EAST HADDAM, LYME, EAST LYME & MONTVILLE, CT
LINE 364 STRS #5438, #5444, #5464, #5555, #5557, LINE 348 STRS #9721, #9764

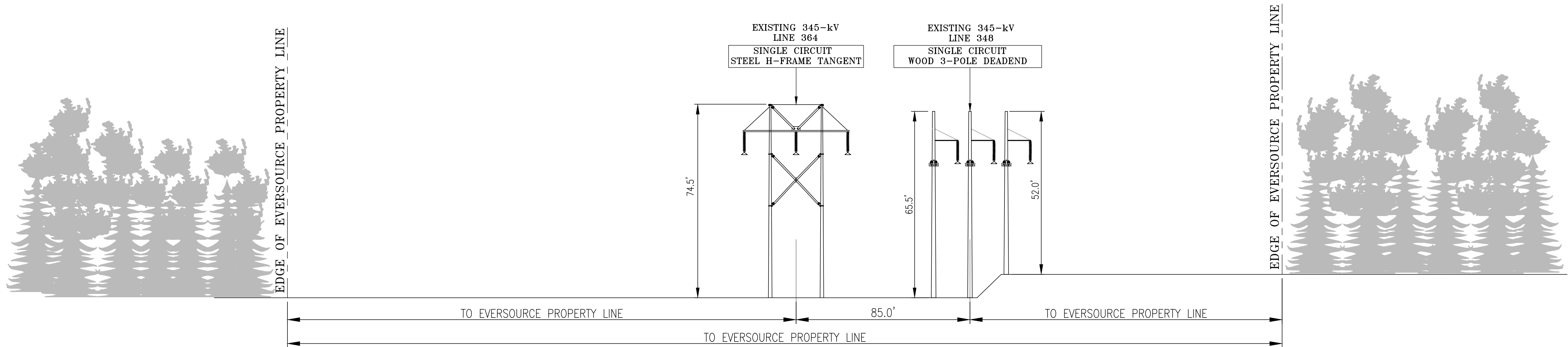
**XS-1: TYPICAL
H-FRAME REPLACEMENT**

REVISIONS DURING CONSTRUCTION					
A	09/20/23	ISSUED FOR 70% REVIEW WO #80343359	MMM	MMM	GEL
B	10/13/23	ISSUED FOR USE	MMM	MMM	GEL
C	11/14/23	ISSUED FOR USE WO #80343359	MMM	MMM	GEL
D	01/12/24	ISSUED FOR USE WO #80343359	MMM	MMM	GEL

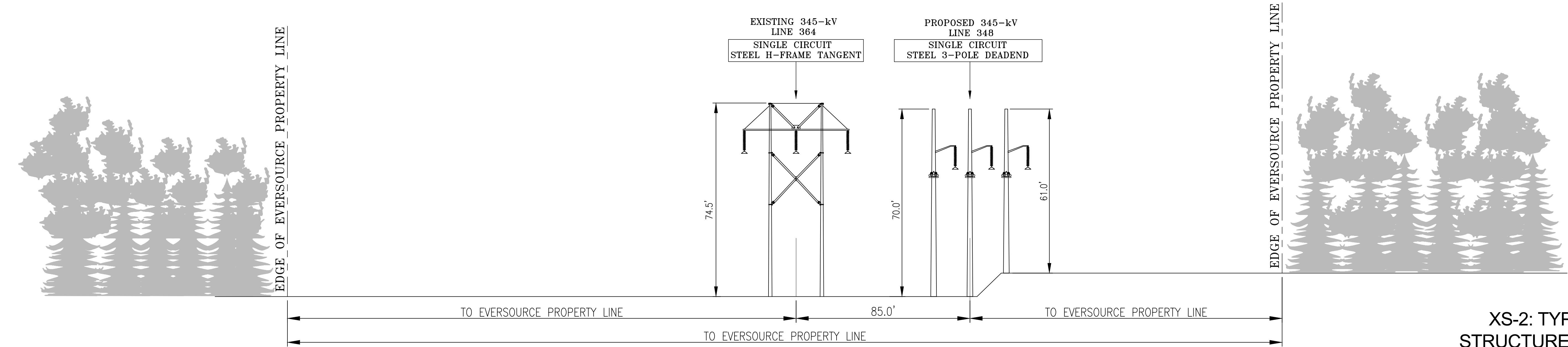
EVERSOURCE
ENERGY

EAST HADDAM JCT. - HUNTS BROOK JCT. RELIABILITY PROJECT
 345-kV TRANSMISSION LINE
 RIGHT OF WAY CROSS SECTION
 EAST HADDAM, LYME, EAST LYME, & MONTVILLE, CONNECTICUT

BY	CHKD	APP	DATE	DATE	DATE
MMM/TRC	GEL/TRC	APP	9/19/23	9/19/23	9/19/23
H-SCALE		V-SCALE		FIELD BOOK & PAGES	
N.T.S.		D		R.E. DWG	
N.T.S.		V.S.		R.E. DWG	
R.E. PROJ. NUMBER			80343359		DWG NO. 01089-SK01



EXISTING R.O.W. CONFIGURATION
LOOKING FROM EAST HADDAM JCT TOWARD HUNTS BROOK JCT
IN THE TOWNS OF EAST HADDAM, LYME, EAST LYME & MONTVILLE, CT
LINE 364 STR #5458, LINE 348 STR #9660



PROPOSED R.O.W. CONFIGURATION
LOOKING FROM EAST HADDAM JCT TOWARD HUNTS BROOK JCT
IN THE TOWNS OF EAST HADDAM, LYME, EAST LYME & MONTVILLE, CT
LINE 364 STR #5458, LINE 348 STR #9660

**XS-2: TYPICAL 3-POLE
STRUCTURE REPLACEMENT**

REVISIONS DURING CONSTRUCTION					
A	11/14/23	ISSUED FOR USE WO #80343359	MMM	MMM	GEL
B	01/12/24	ISSUED FOR USE WO #80343359	MMM	MMM	GEL

EVERSOURCE ENERGY

EAST HADDAM JCT. - HUNTS BROOK JCT. RELIABILITY PROJECT
345-kV TRANSMISSION LINE
RIGHT OF WAY CROSS SECTION
EAST HADDAM, LYME, EAST LYME, & MONTVILLE, CONNECTICUT

BY	CHKD	APP	DATE	DATE	DATE
MMM/TRC	GEL/TRC	APP	9/19/23	9/19/23	9/19/23

H-SCALE	V-SCALE	SIZE	FIELD BOOK & PAGES
N.T.S.	N.T.S.	D	

R.E. PROJ. NUMBER: 80343359 DWG NO.: 01089-SK02

Attachment D:
Wetlands and Watercourses Report

Wetland and Watercourse Delineation Report

East Haddam Junction to Uncasville Substation Reliability Project

Haddam, East Haddam, Lyme, East Lyme,
and Montville, Connecticut

Prepared for:

EVERSOURCE
ENERGY

56 Prospect Street
Hartford, Connecticut 06103

Prepared by:

 **ALL-POINTS**
TECHNOLOGY CORPORATION

567 Vauxhall Street Ext., Suite 311
Waterford, Connecticut 06385

Date(s) of Investigations: July and October 2022, January, April, June and July 2023

Wetland/Watercourse Delineation Methodology:

- Connecticut Inland Wetlands
- Connecticut Tidal Wetlands
- Massachusetts Wetlands
- U.S. Army Corps of Engineers

The wetlands inspection was performed by:

Matthew Gustafson, Registered Soil Scientist

September 18, 2023

Table of Contents

Wetland and Watercourse Delineation Report

Wetland Delineation.....1
 Introduction 1
 Regulatory Requirments 1
 Results..... 2
 Wetland Descriptions..... 2

Attachments

Attachment	Description
A	Wetland Field Data Forms
B	Photographic Documentation

Wetland Delineation

This document provides a summary of a wetland and watercourse investigation and delineation performed in accordance with the Connecticut Inland Wetlands and Watercourses Act ("Act"; Section 22a-36 through 22a-45 of the Connecticut General Statutes) and Federal wetlands regulated by the U.S. Army Corps of Engineers ("USACE").

Introduction

All-Points Technology Corp., P.C. ("APT") Connecticut Registered Soil Scientists Matthew Gustafson and Emily Perko delineated the Connecticut and Federal jurisdictional wetlands on July 13 & 14, 2022, October 17, 2022, January 11, 2023, April 11, 12 & 20, 2023, June 9, 2023, and July 27 & 28, 2023. The limits of the delineation area consisted of the 364 and 348 Transmission Line right-of-way ("ROW"), between Uncasville Substation in Montville and Haddam Neck Switching Station in Haddam, referred to hereafter as the "Project Area". The Project Area is located in the Towns of Haddam, East Haddam, Lyme, East Lyme and Montville, Connecticut.

The Project Area is located within the Southern New England Coastal Plains and Hills ecoregion (source: U.S. Environmental Protection Agency]. This region covers most of Connecticut, Rhode Island, and southeastern Massachusetts, and is diverse in its characteristics and habitats. The landforms of the ecoregion are irregular plains with low hills and some open high hills with relief of about 100 to 400 feet. Elevations range up to about 1000 feet, with the highest elevations found in western Connecticut. Bedrock types are mostly granites, schist, and gneiss, although some soft marble occurs in western Connecticut. Surface materials are mostly glacial till, with some stratified outwash deposits in low-lying valleys. Soil patterns are complex and heterogeneous where the numerous, till-covered bedrock hills rise above the outwash valleys. Coarse-loamy and sandy, mesic Inceptisols and some Entisols are typical. A variety of dry to mesic successional oak and oak-pine forests cover the region today, along with some elm, ash, and red maple that are typical of southern New England's forested wetlands.

Regulatory Requirements

Connecticut inland wetlands and watercourses are regulated under the Inland Wetlands and Watercourses Act while Federal wetlands are regulated by the U.S. Army Corp of Engineers (USACE). A summary of the regulatory language for each jurisdictional body are described below:

The Connecticut jurisdictional wetlands and watercourses delineation was conducted by a soil scientist according to the requirements of the Connecticut Inland Wetlands and Watercourses Act (C.G.S. §22a-38). Inland wetlands include soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey as may be amended from time to time, of the National Resources Conservation Service (NRCS). Watercourses means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent. Intermittent watercourses shall be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) Evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation.

Federal wetlands were delineated in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0, January 2012). According to this method, three parameters must be satisfied for an area to be mapped as a wetland. These are wetland soils, hydrophytic vegetation, and wetland hydrology.

Methods

Soils, vegetation and hydrology were examined per the aforementioned regulatory requirements. Along each wetland boundary, a hand auger was used to investigate the soil profiles to a minimum depth of 20 inches. This was necessary to determine the U.S. Department of Agriculture drainage class (per State requirements) as well as the presence of hydric soil indicators per the USACE requirements (e.g., reduced matrix, redoximorphic features). Soil profiles were reviewed approximately every 15-30 feet along the boundary, typically digging one hole on either side of the defining boundary to confirm the wetland limit. This information was coupled with observed hydrology (or the presence of hydrologic indicators) as well as the presence of hydrophytic vegetation to determine the final location of the placement of each wetland flag. As is typically the case with most Connecticut wetlands, the boundary of State and Federal jurisdictional wetlands was identical. Wetland boundaries were field demarcated with pink plastic flagging tape labeled "Wetland Delineation". The wetland flag locations were field located using a GPS survey receiver capable of sub-meter accuracy and depicted on the Petition Mapping.

Results and Wetland Descriptions

In total, 26 wetlands and 5 watercourses were delineated in the Project Area as summarized in Table 1 and illustrated on the Project mapping. Table 1 indicates the Map Sheet location, as well as the wetland vegetation type and hydrology observed.

Table 1: Delineated Wetlands and Watercourses within the Project Area

Aerial Map Sheet No.	Wetland No.¹	Dominant NWI Class²	Other NWI Classes	Dominant Water Regime	Associated Watercourse³	Associated Potential Vernal Pool⁴
1	W1	PSS	PEM	Seasonally Saturated-seepage	---	---
1	W2	PSS	PEM	Seasonally Saturated-seepage	---	---
1	W3	PSS	PEM	Seasonally Saturated-seepage	---	---
1	W4	PSS	PEM	Seasonally Flooded	---	VP1
1	W5	PSS	PEM	Seasonally Flooded		
2	W6	PSS	PEM	Seasonally Flooded		VP2
2	W7	PSS	PEM	Seasonally Flooded		
3	W8	PEM	PSS	Seasonally Saturated-seepage	---	---
3	W9	PSS	PEM	Seasonally Saturated-seepage	---	---
4	W10	PSS	PEM	Seasonally Flooded	---	VP3
4	W11	POW	PSS	Semipermanently Flooded	S1 (Roaring Brook)	---
4	W12	PSS	PEM	Seasonally Saturated-seepage	---	---
4	W13	PSS	PEM	Seasonally Saturated	S2 (Intermittent)	
5	W14	PEM	POW	Permanently Flooded		

Aerial Map Sheet No.	Wetland No.¹	Dominant NWI Class²	Other NWI Classes	Dominant Water Regime	Associated Watercourse³	Associated Potential Vernal Pool⁴
5	W15	PSS	PEM	Seasonally Saturated-seepage	---	---
5	W16	PEM	PSS	Seasonally Flooded	---	VP4 – Lyme Powerline Medium Fen
5	W17	PEM	PSS	Permanently Flooded		VP5
6	W18	PSS	PEM	Seasonally Saturated-seepage	---	---
6	W19	PSS	PEM	Seasonally Saturated-seepage	---	---
6	W20	PSS	PEM	Seasonally Flooded	---	VP6
6	W21	PEM	PSS	Seasonally Saturated-seepage	---	---
6	W22	POW	PEM	Intermittently Flooded	S3 (Hunts Brook)	---
8	W23	PSS	PFO	Seasonally Flooded	---	PVP1
8 & 9	W24	PSS	PFO	Seasonally Flooded	S4	
8 & 9	W25	PSS	PEM	Seasonally Flooded	---	VP7
9	W26	PSS	PEM	Semipermanently Flooded	S5 (Intermittent)	VP8 and VP9 and PVP 2 and PVP 3

¹Wetland No. refers to the number generated during the 2022 and 2023 field surveys. This Wetland No. is keyed to those depicted on the 200 scale Aerial Maps (Attached to the Petition).

²Wetlands classified according to Cowardin et al 1979; PEM = Palustrine Emergent Wetland; PFO = Palustrine Forested Wetland; PSS = Palustrine Scrub-Shrub Wetland; POW = Palustrine Open Water.

³Associated Watercourse refers to the identification number assigned during the [year] field surveys to identify watercourses.

⁴Vernal pools were identified in spring of 2023 by APT

Wetlands consist predominantly of groundwater slope wetlands and groundwater depression wetlands situated in glacial till. The predominate wetland hydrology observed was seasonally saturated. Wetlands with a seasonally saturated hydrology have a substrate that is saturated for extended periods

during the growing season, but standing water is rarely present. Wetlands with vernal pools have a seasonally flooded hydrology. Wetlands with a seasonally flooded hydrology are flooded for extended periods during the growing season, but usually no surface water by the end of the growing season

The dominant vegetative cover type is palustrine scrub-shrub ("PSS"), due to the fact that the ROW is maintained to exclude trees in favor of low woody shrubs and herbaceous vegetation. Most wetlands continue beyond the maintained ROW, where they are typically palustrine forested ("PFO") communities. Due to the biogeography of the Project area along the northerly limits of the Coastal Zone, wetlands are predominantly headwater wetlands, many of which include 1st order perennial streams draining to coastal streams and rivers. The remainder of the wetlands are small locally isolated groundwater depression wetlands.

Wetland soil types observed consist of the Ridgebury, Leicester, and Whitman complex, Timakwa and Natchaug complex. The Ridgebury, Leicester and Whitman complex, is an undifferentiated mapping unit consisting of two poorly drained (Ridgebury and Leicester) and one very poorly drained (Whitman) soil developed on glacial till in depressions and drainageways in uplands and valleys. Their use interpretations are very similar, and they typically are so intermingled on the landscape that separation is not practical. The Ridgebury and Leicester series have a seasonal high water table at or near the surface (0-6") from fall through spring. They differ in that the Leicester soil has a more friable compact layer or hardpan, while the Ridgebury soils have a dense to very dense compact layer. The Whitman soil has a high water table for much of the year and may frequently be ponded.

The Timakwa series consists of very deep, very poorly drained soils formed in woody and herbaceous organic materials over sandy deposits in depressions on lake plains, outwash plains, till plains, moraines, and flood plains. These soils have moderate to very rapid permeability in the organic material and rapid to very rapid permeability in the sandy material.

The Natchaug series consists of very deep, very poorly drained soils formed in woody and herbaceous organic materials overlying loamy deposits in depressions on lake plains, outwash plains, till plains, moraines, and flood plains. These soils have moderate to very rapid permeability in the organic material and moderately slow to moderately rapid permeability in the loamy material.

Wetland Delineation Field Form

Wetland I.D.:	W1, W2, W3, W4, W5, W6, W7, W8, W9, W10, W12, W13, W14, W15, W16, W17, W18, W19, W20, W20, W21, W22, W25, W26
---------------	---

WETLAND HYDROLOGY:

Intermittently Flooded <input checked="" type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input checked="" type="checkbox"/>
Semipermanently Flooded <input checked="" type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated/seepage <input checked="" type="checkbox"/>	Seasonally Saturated/perched <input checked="" type="checkbox"/>
Comments: Primarily seasonally saturated wetlands resulting from hillside seepage draining into topographic low positions. In addition to areas of densic contact from historic disturbance have resulted in a compacted surface and perched water table.		

WETLAND TYPE:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: None		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: Hungerford Brook and Cedar Pond Brook		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: 'Cryptic'	
Comments: VP1, VP2, VP3, VP9 (Lyme Powerline Medium Fen), VP10, VP18 and VP19	

SOILS:

Soil Types: Ridgebury, Leicester, and Whitman complex, Timakwa and Natchaug complex

DOMINANT PLANTS:

Blue Flag Iris (<i>Iris versicolor</i>)	Fox Sedge (<i>Carex vulpinoidea</i>)
Common Reed* (<i>Phragmites australis</i>)	Joe Pye Weed (<i>Eupatorium maculatum</i>)
Marsh Marigold (<i>Caltha palustris</i>)	Meadowsweet (<i>Spiraea latifolia</i>)
Mugwort* (<i>Artemisia vulgaris</i>)	Multiflora Rose* (<i>Rosa multiflora</i>)
Pennsylvania Sedge (<i>Carex pensylvanica</i>)	Purple Loosestrife* (<i>Lythrum salicaria</i>)
Reed Canarygrass* (<i>Phalaris arundinacea</i>)	Sensitive Fern (<i>Onoclea sensibilis</i>)
Skunk Cabbage (<i>Symplocarpus foetidus</i>)	Soft Rush (<i>Juncus effuses</i>)

* denotes Connecticut Invasive Species Council invasive plant species

GENERAL COMMENTS:

These wetlands are dominated by emergent vegetation with sparse scrub-shrub areas intermixed due to right-of-way clearing limit restrictions. Notable features within this vegetative class is the Lyme Powerline Medium Fen, Hungerford Brook and Cedar Pond Brook which drain through the delineated resources.

Wetland Delineation Field Form

Wetland I.D.:	W11, W14, W22
---------------	---------------

WETLAND HYDROLOGY:

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input checked="" type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input checked="" type="checkbox"/>	Seasonally Saturated/seepage <input checked="" type="checkbox"/>	Seasonally Saturated/perched <input type="checkbox"/>
Comments: These wetlands consist of open water areas of permanent flooding with bordering seasonal to permanent saturation.		

WETLAND TYPE:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input checked="" type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: None		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: Roaring Brook, Hunts Brook		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Soil Types: Succor Brook, Latimer Brook, and Deep Hollow Brook
--

DOMINANT PLANTS:

Duckweed (<i>Spirodela polyrhiza</i>)	Marsh Marigold (<i>Caltha palustris</i>)
Common Reed* (<i>Phragmites australis</i>)	Pickerelweed (<i>Pontedaria cordata</i>)
Purple Loosestrife* (<i>Lythrum salicaria</i>)	Reed Canarygrass* (<i>Phalaris arundinacea</i>)
Sensitive Fern (<i>Onclea sensibilis</i>)	Tussock Sedge (<i>Carex stricta</i>)
Skunk Cabbage (<i>Symplocarpus foetidus</i>)	Soft Rush (<i>Juncus effuses</i>)

* denotes Connecticut Invasive Species Council invasive plant species

GENERAL COMMENTS:

Unnamed open water features with seasonally saturated bordering vegetated wetlands and perennial streams located within both complexes. Bordering vegetation consisting of predominately emergent species.
--

Wetland Delineation Field Form

Wetland I.D.:	W1, W2, W3, W4, W5, W6, W7, W8, W9, W10, W11, W12, W13, W15, W16, W17, W18, W19, W20, W21, W23, W24, W25, W26
---------------	---

WETLAND HYDROLOGY:

Intermittently Flooded <input checked="" type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input checked="" type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input checked="" type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input checked="" type="checkbox"/>	Seasonally Saturated/seepage <input checked="" type="checkbox"/>	Seasonally Saturated/perched <input type="checkbox"/>
Comments: A predominance of seasonal saturation was present throughout these wetland complexes with interior vernal pools consisting of intermediate to seasonally flooding and watercourses exhibiting a range of flooding classes and bordering pockets of inundation to permanent saturation.		

WETLAND TYPE:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input checked="" type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: These wetlands are characterized by a dominance of scrub-shrub vegetation with smaller interior pockets of emergent vegetation and select complexes of open water resources areas.		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: Succor Brook, Latimer Brook, and Deep Hollow Brook		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: 'Cryptic'	
Comments: VP4, VP6, VP14, VP15, VP17, VP20, VP21, VP22	

SOILS:

Soil Types: Ridgebury, Leicester, and Whitman complex, Timakwa and Natchaug complex

DOMINANT PLANTS:

Bebb Willow (<i>Salix bebbiana</i>)	Common Reed* (<i>Phragmites australis</i>)
Highbush Blueberry (<i>Vaccinium corymbosum</i>)	Mountain Laurel (<i>Kalmia latifolia</i>)
Multiflora Rose* (<i>Rosa multiflora</i>)	Silky Dogwood (<i>Cornus amomum</i>)
Buttonbush (<i>Cephalanthus occidentalis</i>)	Northern Arrow-wood (<i>Viburnum recognitum</i>)
Spicebush (<i>Lindera benzoin</i>)	Sweet Pepperbush (<i>Clethra alnifolia</i>)
Black Willow (<i>Salix nigra</i>)	

* denotes Connecticut Invasive Species Council invasive plant species

GENERAL COMMENTS:

Multiple intermittent and perennial watercourses including named watercourses Succor Brook, Latimer Brook and Deep Hollow Brook drain through the right-of way limits. Vegetation is limited to scrub-shrub and emergent plants due to routine management associated with electrical clearance restrictions. Hydrologic classification ranges from seasonally saturated to permanently inundated.

Attachment B

Photographic Documentation



Photo 1: View of Wetland 3.



Photo 2 View of Wetland 26/Vernal Pool 8.

Attachment A

Wetland Field Data Forms



Photo 3: View of Wetland 26/Vernal Pool 9 .



Photo 4: View of Wetland 6/ Vernal Pool 2.



Photo 5: View of Wetland 26 .



Photo 6: View of Wetland 11.



Photo 7: View of spotted salamander egg masses at Vernal Pool 9.



Photo 8: View of wood frog tadpoles at Vernal Pool 8.

Attachment E:
Vernal Pool Survey

Vernal Pool Assessment

East Haddam Junction to Uncasville Substation Reliability Project

Haddam, East Haddam, Lyme, East Lyme,
and Montville, Connecticut

Prepared for:



56 Prospect Street
Hartford, Connecticut 06103

Prepared by:



567 Vauxhall Street Ext., Suite 311
Waterford, Connecticut 06385

Date(s) of Investigations: July and October 2022, January, April, June and July 2023

Wetland/Watercourse Delineation Methodology:

- Connecticut Inland Wetlands
- Connecticut Tidal Wetlands
- Massachusetts Wetlands
- U.S. Army Corps of Engineers

The vernal pool survey was performed by:
Matthew Gustafson, Wetland Scientist

September 18, 2023

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Attachment	Description
A	Wetland Field Data Forms
B	Photographic Documentation

Vernal Pool Survey

This document provides a summary of a vernal pool survey that was performed in accordance with methodologies recognized by State and Federal wetland regulatory agencies.

Introduction

All-Points Technology Corp., P.C. ("APT") wetland scientists Matthew Gustafson and Emily Perko conducted vernal pool surveys on July 13 & 14, 2022, October 17, 2022, January 11, 2023, April 11, 12 & 20, 2023, June 9, 2023, and July 27 & 28, 2023. The limits of the vernal pool survey consisted of the 364 and 348 Transmission Line right-of-way ("ROW") between Uncasville Substation in Montville and Haddam Neck Switching Station in Haddam, referred to hereafter as the "Project Area". The Project Area is located in the Towns of Haddam, East Haddam, Lyme, East Lyme, and Montville, Connecticut.

Geographic Setting

The Project area is located within the towns of Haddam, East Haddam, Lyme, East Lyme, and Montville. The Project limits extend from Haddam Neck Switching Station in Haddam and continues west/southwest to the Uncasville Substation in Montville.

From a biogeographical perspective, the Project area is located within the southern limits of the *Southern New England Coastal Plains and Hills* Ecoregion, just north of the transition from the *Long Island Sound Coastal Lowlands* Ecoregion (source: U.S. Environmental Protection Agency).

The *Southern New England Coastal Plains and Hills* ecoregion covers much of Connecticut, Rhode Island, and southeastern Massachusetts, and is diverse in its characteristics and habitats. The landforms of the ecoregion are irregular plains with low hills and some open high hills with relief of about 100 to 400 feet. Elevations range up to about 1000 feet, with the highest elevations found in western Connecticut. Bedrock types are mostly granites, schist, and gneiss, although some soft marble occurs in western Connecticut. Surface materials are mostly glacial till, with some stratified outwash deposits in low-lying valleys. Soil patterns are complex and heterogeneous where the numerous till-covered bedrock hills rise above the outwash valleys. Coarse-loamy and sandy, mesic Inceptisols and some Entisols are typical of these areas. A variety of dry to mesic successional oak and oak-pine forests cover the region today, along with some elm, ash, and red maple that are typical of southern New England's forested wetlands.

Vernal Pool Definition

Vernal pools are ephemeral waterbodies that provide critical breeding habitat for forest-dwelling amphibians, particularly mole salamanders (*Ambystoma spp.*) and wood frog (*Lithobates sylvaticus*) as well as a variety of aquatic insects.

Many vernal pool definitions have been developed by both regulatory agencies as well as conservation organizations. While these definitions vary slightly, they all include the same common critical characteristics.

In Northeastern U.S., a recognized source utilized by both the Connecticut Department of Energy and Environmental Protection, as well as the U.S. Army Corp of Engineers New England District ("ACOE") regarding the classification and protection of vernal pools is a document developed by Calhoun and Klemens (2002), entitled: *Best Development Practices: Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States* (the "BDP Manual", hereinafter). The BDP Manual provides the following operational definition of vernal pools:

"Vernal pools are seasonal bodies of water that attain maximum depths in the spring or fall, and lack permanent surface water connections with other wetlands or water bodies. Pools fill with snowmelt or runoff in the spring, although some may be fed primarily by groundwater sources. The duration of surface flooding, known as hydroperiod, varies depending upon the pool and the year; vernal pool hydroperiods range along a continuum from less than 30 days to more than one year. Pools are generally small in size (<2 acres), with the extent of vegetation varying widely. They lack established fish populations, usually as a result of periodic drying, and support communities dominated by animals adapted to living in temporary, fishless pools. In the region, they provide essential breeding habitat for one or more wildlife species including Ambystomid salamanders (*Ambystoma spp.*), called "mole salamanders" because they live in burrows), wood frogs (*Rana sylvatica*), and fairy shrimp (*Eubranchipus spp.*)"

The ACOE Connecticut General Permit (effective December 15, 2021) defines vernal pools as follows:

"Vernal pools are depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending upon landscape position and parent material(s). In most years, Vernal pools support one or more of the following obligate indicator species: wood frog, spotted salamander, blue-spotted salamander, marbled salamander, Jefferson's salamander and fairy shrimp. However, they should preclude sustainable populations of predatory fish."

The physical characteristics of a vernal pool (e.g., landform, hydrology, vegetation) can vary widely, but can generally be classified into two types - "classic" or "cryptic". Classic vernal pools are natural

isolated depressions in forested uplands with no hydrologic connection to other wetland systems. They are generally well-defined (i.e., have an abrupt wetland-upland boundary) and are typically concentric or oblong in shape.

Cryptic vernal pools are depressions or impoundments embedded within larger wetlands. Cryptic vernal pools are the most common type of pool in Connecticut, and often occur within seasonally flooded portions of red maple (*Acer rubrum*) dominated forested wetlands.”

Vernal Pool Indicator Species

Several species of amphibians depend on vernal pools for reproduction and development. These species are referred to as “indicator species” (Calhoun and Klemens, 2002). In Connecticut, indicator species include:

Mole Salamanders

- Blue-spotted salamander (*Ambystoma laterale*)
- Spotted salamander (*Ambystoma maculatum*)
- Jefferson salamander (*Ambystoma jeffersonianum*)
- Marbled salamander (*Ambystoma opacum*)

Frogs

- Wood frog (*Lithobates sylvaticus*)

Invertebrates

- Fairy shrimp (*Branchiopoda anostraca*)

The wood frog and the spotted salamander are the two most common indicator species in Connecticut, occurring statewide. Fairy shrimp also occur statewide but are relatively uncommon. The marbled salamander is relatively common statewide but is rare or absent from higher elevation areas of the state found within the northwest uplands and highlands as well as the northeast hills ecoregions. (Klemens, et. al. 2021). Less common indicator species include three State-listed species: the blue-spotted salamander (complex and pure diploid) and Jefferson salamander. These species are habitat specialists that have a more limited distribution in the State than other mole salamanders as described in Klemens et. al. 2021. These species do not occur in the vicinity Project Area.

In addition to indicator species, vernal pools also support what are referred to as “facultative vernal pool species”. These are species that utilize but do not necessarily require vernal pools for reproductive success. Examples of facultative species include spotted turtle (*Clemmys guttata*) and four-toed salamander (*Hemidactylium scutatum*). These species may breed or feed in vernal pools but are also capable of carrying out all phases of their life cycle in other types of wetlands or waterbodies. Evidence of breeding by facultative species alone is not considered indicative of a vernal pool.

Seasonal Activity Periods of Indicator Species

Table 1 summarizes the seasonal activity of vernal pool amphibian indicator species. Most vernal pool indicator species breed in the late winter through early spring (March-April), with newly metamorphosed amphibians emerging from pools in June-July, and dispersal into the adjacent forest continuing into October. The exception to this is the marbled salamander which breeds in late summer and early fall (August-September), with metamorph emergence occurring from May through July. Table 1 also notes the seasonal periods in which vernal pools and vernal pool wildlife are particularly susceptible to impact from construction related activities that occur within or near (i.e., within approximately 100') vernal pools. These seasonal periods, noted as periods of "high sensitivity", include the migration/breeding period and the metamorph emergence/early dispersal periods. During these times, amphibians occur at higher density within or immediately adjacent to the pool. Thus, the risk of impact either via direct mortality or disruption of migration and breeding is greater during the high sensitivity periods.

Table 1: Seasonal activity periods for vernal pool indicator species

SPRING BREEDERS		
Wood Frog, Spotted Salamander, Jefferson Salamander, and Blue-spotted Salamander Complex		
NOVEMBER - FEBRUARY	Pools are dormant	
MARCH - APRIL	Migration, breeding and egg deposition	
APRIL - JUNE	Egg hatching and larval development	
JUNE - OCTOBER	Metamorphosis and juvenile dispersal	
HIGH SENSITIVITY PERIOD 0-100FT	MARCH - APRIL	High densities of adults migrating to and from breeding pools
	JUNE - JULY	High densities of metamorphs disperse from breeding pools into the adjacent forest
FALL BREEDERS		
Marbled Salamander		
AUGUST - SEPTEMBER	Migration, breeding and egg deposition	
NOVEMBER - MAY	Egg hatching and larval development	
MAY - JULY	Metamorphosis and juvenile dispersal	
HIGH SENSITIVITY PERIOD 0-100FT	AUGUST-SEPTEMBER	Adults migrate to breeding pools
	MAY - JULY	High densities of metamorphs disperse from breeding pools into the adjacent forest

Terrestrial (Non-Breeding) Habitat

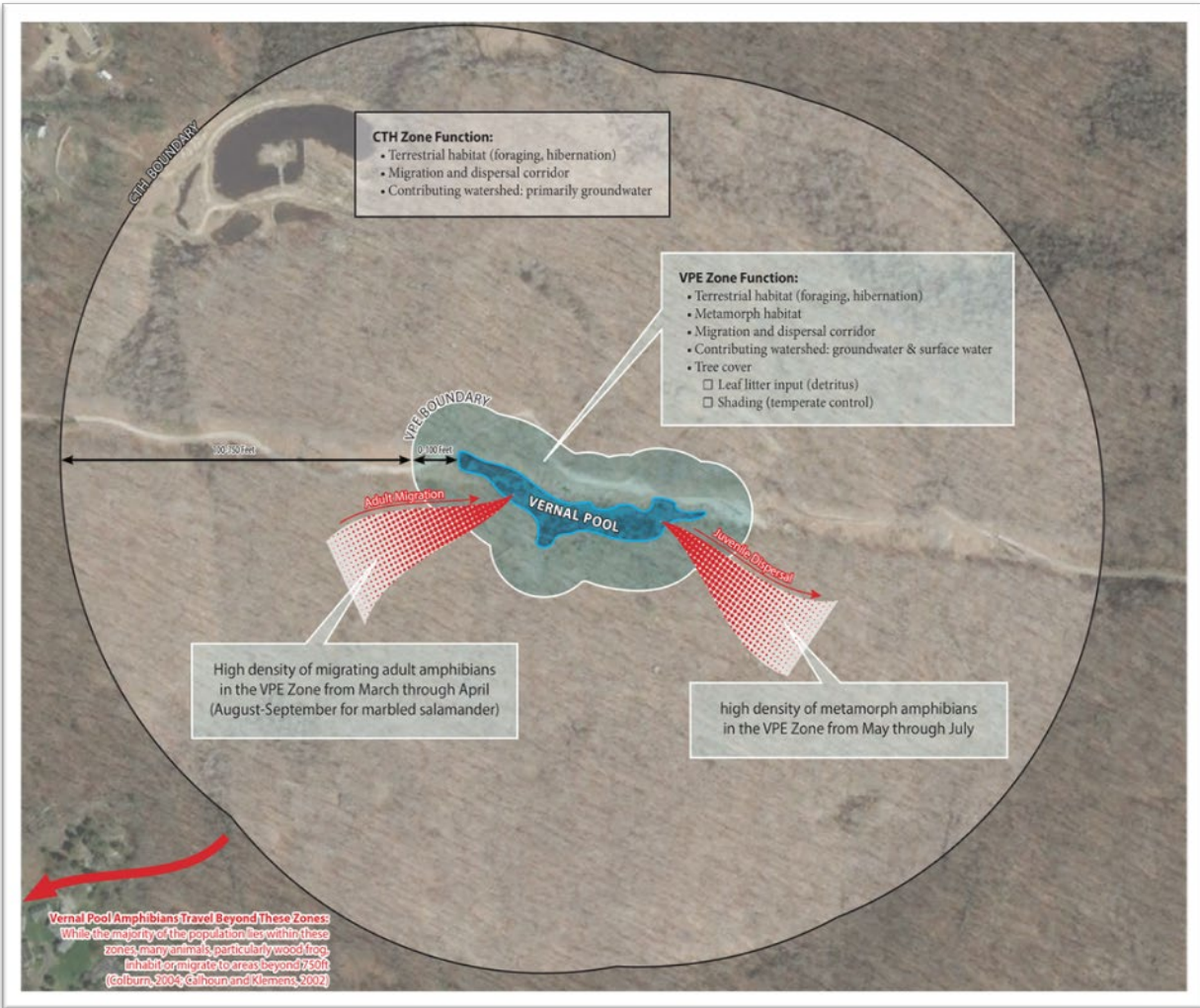
Vernal pool wildlife favor terrestrial forested habitat adjacent to vernal pools during the non-breeding period (Colburn, 2004). These habitats are where they shelter and feed beneath surficial cover objects (e.g., rocks, logs) or in fossorial small mammal burrows. Forests not only provide habitat, but the trees adjacent to vernal pools are critical to vernal pool ecology as they contribute to the food web (via detritus inputs), help maintain cool water temperatures, and affect pool hydrology (Colburn, 2004).

Vernal pool amphibians disperse a significant distance into terrestrial forests surrounding the pool. A number of studies have documented dispersal distances of indicator species (Colburn 2004, Windmiller 1996, Semlitsch 1998). The BDP Manual utilized data from these and other sources to develop a two-zoned management area extending a total distance of 750' surrounding from the vernal pool. These zones are illustrated on Figure 1. The first zone, referred to as the Vernal Pool Envelope includes lands within 100' of the pool's spring high water mark. The spring high water mark is the limit of peak flooding during the late winter or early spring. The second zone, referred to as the Critical Terrestrial Habitat encompasses an area 100'-750' from the pool's spring high water mark.

These management zones provide several ecosystem support functions for vernal pools as illustrated on Figure 1. These include:

- Terrestrial habitat for amphibians
- Juvenile (i.e., newly metamorphosed) dispersal and staging habitat
- Migration and dispersal corridor
- Tree cover which provides
 - Leaf litter inputs as a source for detritus-based food web
 - Shading and hydroperiod influence
 - Contributing watershed (groundwater and surface water input)

Figure 1: Illustration of vernal pool management zones



Survey Methods

Survey methods were designed to document breeding by amphibian indicator species. Egg masses were located and inventoried in the case of spring breeders (e.g., wood frog), and larvae identified for the fall breeding marbled salamander. This work was done via visual and aural observations, and inventory of organisms inhabiting the water column and benthic habitat using a fine mesh (<1/4 inch) dipnet. Work was conducted under sunny skies wearing polarized sunglasses to maximize detection of egg masses and larvae. Surveys were timed based on seasonal weather patterns that trigger breeding migration. The appropriate timing is based on observations of vernal pools in the region and across the State during late February-early March. Capture and identification of breeding adults was not deemed necessary at this Site, as definitive identification of the breeding species by egg mass was straightforward based on the species that are known to occur in this region. Physical capture of breeding adults is a critical survey method for certain regions of the State where the potential exists for the presence of blue-spotted salamander complex or Jefferson salamander complex, as differentiation of egg masses of these species from the common spotted salamander is not definitive. At such sites, the capture of breeding adults is warranted.

Examination of the physical characteristics of the pools included mapping the extent of the pool, characterizing pool hydrology (maximum depth and hydroperiod) and documenting the vegetative characteristics. The extent of the pool, or vernal pool basin boundary, is determined in the late winter-early spring during maximum flooding. This is determined by field locating the “spring high water mark” (Calhoun and Klemens 2002), which consists of demarcating the seasonally flooded portions of the wetland that are directly connected to observed egg masses. This boundary is mapped in the field using a Trimble GPS Unit capable of sub-meter accuracy, then plotted in ArcGIS as illustrated on the Map Set.

Results

In total, 26 of wetlands were delineated in the Project Area, all of which were investigated for their potential to provide vernal pool habitat. Wetlands with a hydrology ranging from seasonally flooded to semi-permanently flooded were the focus of the detailed vernal pool investigation, as they would have the potential to support full development of amphibian larvae. Field investigations were conducted by APT wetland scientists Matthew Gustafson and Emily Perko on April 11, 12, 20 and June 9, 2023.

Vernal pool surveys were conducted within suitable wetland areas under sunny conditions, wading through the wetland and visually searching for egg masses and larval amphibians with polarized

sunglasses. A fine mesh dipnet was used to sample the water column for larval and adult amphibians. Surveys were systematic, with the entire area of suitable habitat inspected for signs of indicator species.

In total, 9 vernal pools and 3 potential vernal pools were identified. The location of these pools is summarized below in Table 1 and are illustrated on the Project mapping.

Table 1: Vernal Pools Identified within the Project Area

Aerial Map Sheet No.	Wetland No.	Vernal Pool	Indicator Species	Non-indicator breeding species
1	W4	VP1	4 spotted salamander egg masses 50+ wood frog tadpoles	
2	W6	VP2	6 spotted salamander egg masses	
4	W10	VP3	12 spotted salamander egg masses 4 wood frog egg masses and 50+ tadpoles	
5	W16	VP4	50+ wood frog larva	
5	W17	VP5	50+ wood frog tadpoles	
6	W20	VP6	7 wood frog egg masses 12 spotted salamander egg masses	
8	W23	PVP1	*outside project limits, did not survey	
8 & 9	W25	VP7	*outside project limits, did not survey	
9	W26	VP8	16 spotted salamander egg masses	Eastern newt Painted turtle Green frog larva
9	W26	PVP2 and PVP 3	*outside project limits, did not survey	
9	W26	VP9	40+ spotted salamander egg masses	
<i>Note: "~" indicates approximate egg mass counts of large communal masses where discerning individual masses can be difficult.</i>				

Several of the Project Area wetlands have a sufficient hydroperiod – seasonally flooded, intermittently flooded or temporarily flooded, and therefore are capable of providing vernal pool habitat. Two indicator species were observed breeding in the various confirmed pools, the wood frog and spotted salamander. Large numbers of wood frog egg and spotted salamander masses were observed in many of the pools.

Potential Project Impacts and Protection Measures

Of the 9 vernal pools, activity is only proposed near VP8 located in Wetland 26. Existing access roads occur in proximity to vernal pools 1, 4, and 6 which will not require any widening or new disturbance within the vernal pool envelope habitat zone (the “VPE”- area within 100 ft. of a vernal pool). Matting at Structure 9660 will occur within 100-feet of vernal pool 8. Recent modifications to the work areas have avoided activity within the vernal pool depression, but construction activities including the installation of temporary construction matting are unavoidable within the VPE. Therefore, the following measures are recommended to avoid or minimize impacts during construction:

1. Active construction within the VPE should be avoided during the amphibian breeding season (approximately March 1 – June 1).
2. Vegetation removal within the VPE should be avoided to the maximum extent practicable during the amphibian breeding season (March 1 – June 1).
3. Permanent alteration of habitat should be avoided within the VPE. This includes road construction or permanent habitat alteration, or any activities that could alter drainage patterns.
4. Minimize the removal of low growing vegetation within 25’ of the vernal pool depression. During vegetation removal, compatible species within the VPE should be protected to the maximum extent practicable. If vegetation must be removed it should be done selectively either by hand or with equipment that can reach in and cut and remove it. Cut vegetation may be left in place within the VPE.
5. Install and maintain erosion and sedimentation controls as necessary to protect water quality and to limit the potential for soil deposition into the vernal pool.

Attachment A

Wetland Field Data Forms

Wetland Delineation Field Form

Wetland I.D.:	W1, W2, W3, W4, W5, W6, W7, W8, W9, W10, W12, W13, W14, W15, W16, W17, W18, W19, W20, W20, W21, W22, W25, W26
---------------	---

WETLAND HYDROLOGY:

Intermittently Flooded <input checked="" type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input checked="" type="checkbox"/>
Semipermanently Flooded <input checked="" type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated/seepage <input checked="" type="checkbox"/>	Seasonally Saturated/perched <input checked="" type="checkbox"/>
Comments: Primarily seasonally saturated wetlands resulting from hillside seepage draining into topographic low positions. In addition to areas of densic contact from historic disturbance have resulted in a compacted surface and perched water table.		

WETLAND TYPE:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: None		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: Hungerford Brook and Cedar Pond Brook		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: 'Cryptic'	
Comments: VP1, VP2, VP3, VP9 (Lyme Powerline Medium Fen), VP10, VP18 and VP19	

SOILS:

Soil Types: Ridgebury, Leicester, and Whitman complex, Timakwa and Natchaug complex

DOMINANT PLANTS:

Blue Flag Iris (<i>Iris versicolor</i>)	Fox Sedge (<i>Carex vulpinoidea</i>)
Common Reed* (<i>Phragmites australis</i>)	Joe Pye Weed (<i>Eupatorium maculatum</i>)
Marsh Marigold (<i>Caltha palustris</i>)	Meadowsweet (<i>Spiraea latifolia</i>)
Mugwort* (<i>Artemisia vulgaris</i>)	Multiflora Rose* (<i>Rosa multiflora</i>)
Pennsylvania Sedge (<i>Carex pensylvanica</i>)	Purple Loosestrife* (<i>Lythrum salicaria</i>)
Reed Canarygrass* (<i>Phalaris arundinacea</i>)	Sensitive Fern (<i>Onoclea sensibilis</i>)
Skunk Cabbage (<i>Symplocarpus foetidus</i>)	Soft Rush (<i>Juncus effuses</i>)

* denotes Connecticut Invasive Species Council invasive plant species

GENERAL COMMENTS:

These wetlands are dominated by emergent vegetation with sparse scrub-shrub areas intermixed due to right-of-way clearing limit restrictions. Notable features within this vegetative class is the Lyme Powerline Medium Fen, Hungerford Brook and Cedar Pond Brook which drain through the delineated resources.

Wetland Delineation Field Form

Wetland I.D.:	W11, W14, W22
---------------	---------------

WETLAND HYDROLOGY:

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input checked="" type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input checked="" type="checkbox"/>	Seasonally Saturated/seepage <input checked="" type="checkbox"/>	Seasonally Saturated/perched <input type="checkbox"/>
Comments: These wetlands consist of open water areas of permanent flooding with bordering seasonal to permanent saturation.		

WETLAND TYPE:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input checked="" type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: None		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: Roaring Brook, Hunts Brook		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Soil Types: Succor Brook, Latimer Brook, and Deep Hollow Brook
--

DOMINANT PLANTS:

Duckweed (<i>Spirodela polyrhiza</i>)	Marsh Marigold (<i>Caltha palustris</i>)
Common Reed* (<i>Phragmites australis</i>)	Pickerelweed (<i>Pontedaria cordata</i>)
Purple Loosestrife* (<i>Lythrum salicaria</i>)	Reed Canarygrass* (<i>Phalaris arundinacea</i>)
Sensitive Fern (<i>Onclea sensibilis</i>)	Tussock Sedge (<i>Carex stricta</i>)
Skunk Cabbage (<i>Symplocarpus foetidus</i>)	Soft Rush (<i>Juncus effuses</i>)

* denotes Connecticut Invasive Species Council invasive plant species

GENERAL COMMENTS:

Unnamed open water features with seasonally saturated bordering vegetated wetlands and perennial streams located within both complexes. Bordering vegetation consisting of predominately emergent species.
--

Wetland Delineation Field Form

Wetland I.D.:	W1, W2, W3, W4, W5, W6, W7, W8, W9, W10, W11, W12, W13, W15, W16, W17, W18, W19, W20, W21, W23, W24, W25, W26
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WETLAND HYDROLOGY:

Intermittently Flooded <input checked="" type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input checked="" type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input checked="" type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input checked="" type="checkbox"/>	Seasonally Saturated/seepage <input checked="" type="checkbox"/>	Seasonally Saturated/perched <input type="checkbox"/>
Comments: A predominance of seasonal saturation was present throughout these wetland complexes with interior vernal pools consisting of intermediate to seasonally flooding and watercourses exhibiting a range of flooding classes and bordering pockets of inundation to permanent saturation.		

WETLAND TYPE:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input checked="" type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: These wetlands are characterized by a dominance of scrub-shrub vegetation with smaller interior pockets of emergent vegetation and select complexes of open water resources areas.		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: Succor Brook, Latimer Brook, and Deep Hollow Brook		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: 'Cryptic'	
Comments: VP4, VP6, VP14, VP15, VP17, VP20, VP21, VP22	

SOILS:

Soil Types: Ridgebury, Leicester, and Whitman complex, Timakwa and Natchaug complex

DOMINANT PLANTS:

Bebb Willow (<i>Salix bebbiana</i>)	Common Reed* (<i>Phragmites australis</i>)
Highbush Blueberry (<i>Vaccinium corymbosum</i>)	Mountain Laurel (<i>Kalmia latifolia</i>)
Multiflora Rose* (<i>Rosa multiflora</i>)	Silky Dogwood (<i>Cornus amomum</i>)
Buttonbush (<i>Cephalanthus occidentalis</i>)	Northern Arrow-wood (<i>Viburnum recognitum</i>)
Spicebush (<i>Lindera benzoin</i>)	Sweet Pepperbush (<i>Clethra alnifolia</i>)
Black Willow (<i>Salix nigra</i>)	

* denotes Connecticut Invasive Species Council invasive plant species

GENERAL COMMENTS:

Multiple intermittent and perennial watercourses including named watercourses Succor Brook, Latimer Brook and Deep Hollow Brook drain through the right-of way limits. Vegetation is limited to scrub-shrub and emergent plants due to routine management associated with electrical clearance restrictions. Hydrologic classification ranges from seasonally saturated to permanently inundated.

Attachment B

Photographic Documentation



Photo 1: View of Wetland 4.



Photo 2 View of Wetland 26/Vernal Pool 8.



Photo 3: View of Wetland 26/Vernal Pool 9 .



Photo 4: View of Wetland 6/ Vernal Pool 2.



Photo 5: View of Wetland 26 .



Photo 6: View of Wetland 11.



Photo 7: View of spotted salamander egg masses at Vernal Pool 9.



Photo 8: View of wood frog tadpoles at Vernal Pool 8.

Attachment F:
Letter to the Abutters and Affidavit

February 9, 2024

Dear Neighbor,

At Eversource, we're always working to serve you better. We are submitting a Petition to the Connecticut Siting Council (CSC) for a proposed electric reliability project in your area.

Proposed Project Information

The Project, called the **East Haddam Junction to Hunts Brook Junction Reliability Project**, is one of several projects designed to support the continued reliability of the transmission system in your region. The Project work would be located within the existing Eversource right-of-way (powerline corridor) on or near your property in the towns of East Haddam, Montville, Lyme, and East Lyme.

The proposed Project includes:

- Replacing nine existing wood transmission structures with new steel structures and removing the old structures from the right of way.
- Replacing existing shield wire on the structures with Optical Ground Wire (OPGW) to improve electric reliability by enabling communication between substations. The OPGW will be installed on structures within the right of way between the East Haddam Junction off Town Street in East Haddam and Hunts Brook Junction off Chesterfield Rd in Montville.
- Conducting vegetation management within the right of way to comply with updated electrical clearance standards.

What You Can Expect

Pending receipt of the necessary approvals for this proposed work, construction is expected to begin by the second quarter of 2024.

Contact Information

Eversource is committed to being a good neighbor and doing our work with respect for you and your property. For more information, please call our Projects Hotline at 1-800-793-2202 or send an email to ProjectInfo@eversource.com and refer to the above-named project.

If you would like to send comments regarding Eversource's Petition to the CSC, please send them via email to siting.council@ct.gov or send a letter to the following address: Melanie Bachman, Executive Director, Connecticut Siting Council, Ten Franklin Square, New Britain, CT 06051.

Sincerely,

Brendan Avery

Brendan Avery
Project Manager – Eversource Energy