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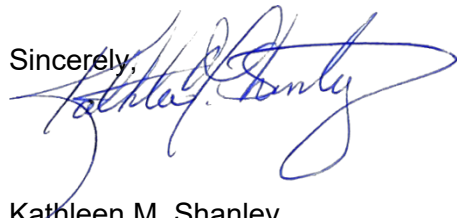
Re: Petition No. 1527 Stevenson to Pootatuck Rebuild Project

Dear Ms. Bachman,

This letter provides an original and 15 copies of the response to the requests for information listed below:

Response to CSC-01 Interrogatories dated October 28, 2022
Set 03 - Questions 33-39

Sincerely,



Kathleen M. Shanley
Manager – Transmission Siting

Date Filed: November 17, 2022

Request from: Connecticut Siting Council

Question: 33

What is the current status of project coordination with UIs project in Docket No. 3B?

Response:

Eversource is working in close coordination with United Illuminating (UI) with regards to construction and outage sequencing for the rebuild of the 1560 Line. The 1560 Line is a triple-circuit line between Stevenson Substation to Pootatuck Substation to Ansonia Substation with the circuits established as follows:

- 1560-1: Stevenson Substation to Derby Junction, owned by Eversource.
- 1560-2: Derby Junction to UI-owned Pootatuck Substation, owned by Eversource.
- 1560-3: Derby Junction to UI-Owned Ansonia Substation, owned by UI.

Circuits 1560-1 and 1560-2 are part of the Stevenson to Pootatuck Rebuild Project. The rebuild of circuit 1560-3 is part of UI's Docket No. 3B, which was approved by the Connecticut Siting Council on October 27, 2022.

Due to the outage sequence for the work to be undertaken by both companies, the Eversource tap structure at Derby Junction is scheduled to be completed prior to UI's start of construction to support UI reconductoring to structures 19624 and 19624A, located at Derby Junction on the 1560 and 1808 lines, respectively, and will avoid the need to implement a temporary construction solution which would be required if UI does not have the ability to tap into the Derby Junction structure.

Date Filed: November 17, 2022

Request from: Connecticut Siting Council

Question: 34

Referencing Response to Interrogatory No. 7:

- a. when was the right-of-way (ROW) for the 1580 Line established?;
- b. was the ROW expanded to accommodate the 1560/1808 Line? When?
- c. what modifications to the 1580 Line ROW, aside from the referenced replacement of Structure No. 1347 in 2014, were required to construct the 1560/1808 Lines?; and
- d. what public utility uses/rights are identified under the easements along the existing ROW?

Response:

Please see response below:

- a. Records show that the ROW for the 1580 Line was established on or around 1923, shortly before construction of the present 1580 Line. Please refer to the response to Question 7 for additional information on structure construction dates.
- b. The original ROW width acquired on or around 1923 was approximately 110 feet. Additional ROW was not acquired for constructing the 1560/1808 Lines.
- c. No modifications to the ROW were required to construct the 1560/1808 Lines.
- d. The easements state that Eversource has the right to, "enter upon said land to erect, inspect, operate, replace, repair, and patrol and permanently maintain on said right of way, poles and towers, with necessary conductors, wired, cross arms, guy wired and other usual fixtures and appurtenances used or adapted for the transmission of electric current for light, heat, power or any other purpose and used or adapted for telephone purposes."

Date Filed: November 17, 2022

Request from: Connecticut Siting Council

Question: 35

Referencing Map Sheet 3, near Thoreau Drive, specifically Structure Nos. 19655, 19655A, and 19254, describe the feasibility and associated costs of the following to reduce visibility from residences:

- a. relocating the structures farther to the north across Wetland 6 along the hillside;
- b. installing the 1560/1808 Lines on a double-circuit structure rather than two single-circuit structures (Nos. 19655 and 19655A); and
- c. any other feasible designs.

Response:

Please see response below:

- a. Eversource evaluated a location approximately 30 feet north of the wetland W6 boundary. The location is not ideal with respect to the engineering practice of balancing span lengths where possible, but it would meet Eversource standards for clearance and blowout. This location is at the bottom of a steep hill with exposed ledge. A significant amount of civil/earth work would be required to construct a level work pad and access roads suitable for erecting structures. A permanent, tiered construction pad and access from the north and south would be required, resulting in an increase of permanent upland disturbance of 33,050 square feet (approximately 0.76 acre). Also, Structure 19654 would need a more robust (increased pole diameter) direct-embed structure than currently proposed. No change in structure height would be required; however, due to the extensive nature of the required civil construction at this location, the estimated project cost would increase by approximately \$1 million.
- b. Replacement of single circuit Structures 19655 and 19655A with a double circuit structure is feasible but would require modification to the conductor pull plan. The responses to Questions 16 and 29 address Eversource's reasoning for proposing single-circuit dead-end structures and pull pad locations. If Structure 19655 is revised to be a double-circuit structure, then the conductor pulling location and associated single-circuit dead-end monopoles would not be possible at this location. The single-circuit dead-end monopoles would need to be relocated to a new location, such as at Structure 19654, revising this structure's design from the currently proposed double-circuit monopole to two single-circuit dead-end monopoles. This design change would potentially increase the visual impact to other abutters in proximity to Structure 19654, such as LL200A-311 and LL200A-312.

c. Other feasible designs considered:

1. Locating Structures South of Thoreau Drive

It is feasible with respect to engineering and construction to locate the poles south of Thoreau Drive, as proposed in Question 29c. This location was not preferred by Eversource as it would require location of structures within a regulated wetland, resulting in permanent wetland impacts. The selection of new, mid-span structures within a wetland, when a viable upland alternative is present, is not consistent with CT DEEP and U.S. Army Corps of Engineers General Permit, Condition 3a that states that “*Activities shall be designed and constructed to avoid and minimize adverse effects, both temporary and permanent to waters of the U.S. to the maximum extent practicable at the project site (i.e., on site).*” Eversource would also not have reliable access to this structure for future maintenance, which would hamper emergency efforts, unless permanent access road sections were also constructed. In addition to direct wetland impacts, installation of structures within W7 may also result in secondary impacts from displacement and/or redirection of overland flows (i.e., seasonal and stormwater flows), which are conveyed from surrounding areas to W7 and the culvert at Thoreau Drive. Secondary impacts may also include creation of channelized flows due to structure placement and grading, which may lead to erosion. The additional cost of shifting the structure south of Thoreau Drive would be approximately \$424,000.

2. Removal of Midspan and Acquisition of Additional Easements

Removal of the midspan structures as outlined in the response to Question 19, with the pull location and associated single-circuit dead-end monopoles moved to Structure 19654, is a feasible option for engineering. However, this option would require abutters to grant the necessary additional aerial rights in the span, between Structures 19256/19657 and 19253/19654. Please refer to the response to Question 19 for information on additional easements if midspan structures were not installed. At a minimum, additional aerial rights would be required from abutters-LL200A-306, LL200A-314, LL200A-313, LL200A-314, LL200A-315, LL200A-316, LL200A-317, LL200A-318, LL200A-319, LL200A-320. To minimize required additional ROW width, Eversource could also propose to construct (midspan) Structures 19255 and 19656, which were previously removed (see Note in Question 18), minimizing the span length. While this alternative would result in an overall increase in the Project cost, an accurate estimate of the increase cannot be determined at this time because the costs associated with acquisition of additional blowout rights is subject to negotiations with the underlying property owners and varies by property.

Date Filed: November 17, 2022

Request from: Connecticut Siting Council

Question: 36

Referencing Map Sheet 8, near Plum Tree Lane, specifically Structure Nos. 19628 and 19227, describe the feasibility and associated costs of the following to reduce visibility from residences:

- a. relocating the structures farther to the north;
- b. relocating the structures into Wetland 19; and
- c. any other feasible designs.

Response:

Please see responses below:

- a. Eversource considered structure shifts for these structures of approximately 110 feet, 375 feet, and 480 feet to the north of the currently proposed locations.

A shift of 110 feet to the north is feasible with respect to the overhead line design. Required blowout and project clearances would be met. As a result of this shift, Eversource would propose changing Structures 19227 and 19628 to engineered structures on drilled shaft concrete foundations, as opposed to direct-embed structures. This change would require larger, deeper structure foundations, due to the typically reduced strength of wetland soils. No overall structure height increase or change in pole count or insulator configuration would be required. The structures would then be moved to a new location on adjacent parcel LL200A-190, which is scrub-shrub wetland on land owned by the City of Shelton. However, due to the constraints in this new location, this proposed redesign would inhibit future access to the structure for maintenance and emergency needs, unless Eversource installed a permanent access road and work pad (110 feet x 100 feet) within Wetland 19.

Eversource has estimated that installation of a permanent road and maintenance pad at this location would result in approximately 4,935 square feet of permanent wetland impact. Installation of the structures would require an additional 6,035 square feet of temporary wetland impact to accommodate construction vehicles and equipment. The impacts to Wetland 19 may require Eversource to obtain additional permits from the Connecticut Department of Energy and Environmental Protection and the Army Corps of Engineers, which may impact the construction schedule. The additional cost of this alternative would be approximately \$699,000.

Eversource also considered shifting Structures 19227 and 19628 approximately 375 feet to the north of the currently proposed locations. The structures would be located near the northern edge of Wetland W19, but they would remain approximately 30 to 40 feet from

the edge of Plum Tree Lane. Similar to the alternative explained above, this location would be feasible with respect to overhead line design. Vertical and blowout clearance requirements would be met. The Structures would need to be changed to custom engineered type and would require drilled shaft foundations. Structure 19628 would also require an increase in structure height of approximately 5 feet, to maintain required insulator swing clearances. The relocated poles would be highly visible to passing traffic and visible to abutters at 11 and 12 Plum Tree Lane. The additional cost of this alternative would be approximately \$653,000.

Eversource also considered shifting Structures 19227 and 19228 approximately 480 feet to the north. The poles would be located on the north side of Plum Tree Lane, avoiding wetland impacts. The poles would be located approximately 25 feet north of the north side edge of the roadway. The resulting span lengths would be very unbalanced, at approximately 805 feet and 155 feet, respectively, and compliance with blowout clearance requirements would be at risk. Also, the magnitude of this proposed shift toward angle structures 19228 and 19629 would increase the transverse load on Structures 19227 and 19628, triggering a change to custom engineered structures on drilled-shaft foundations. In addition, this location was not considered a preferred alternative due to the resulting visual impacts as follows:

- i. It results in a greater impact to the property owner at LL200A-192. The proposed replacement structures 19228, 19629 and 19629A are currently adjacent to this property. This alternative would result in the location of a new set of mid-span poles within the same property.
- ii. The structures would be visible to the property owner at LL200A-191 and residents not abutting the ROW that have frontage on this road.
- iii. And finally, the proximity to a public road may require temporary road closures needed to facilitate construction activities along this street, which is the sole ingress/egress to several residents along this cul-de-sac.

The additional cost of to shift the structures would be approximately \$560,400. Please note, however, that this estimate represents the costs associated with the engineering and construction design alternative only. The total additional cost would likely be higher than \$560,400 because Eversource anticipates the restoration/mitigation costs associated with customer impacts would be considerable. The cost of restoration/mitigation cannot be estimated at this time, as Eversource has not discussed this alternative with the adjacent customers and restoration/mitigation needs are subject to negotiations with the property owners.

- b. Please see the response to part (a) of this question.
- c. The midspan structures 19227 and 19628 could be removed if approximately 15 feet of additional easements were acquired on each side of the ROW in this area. Due to the

number of subdivision property boundaries in close proximity to the existing ROW in this area, additional survey efforts would be required to determine which abutters would need to grant easements. Due to the increased blowout from the hypothetical 960-foot span, these additional easements would need to be cleared of vegetation for new construction and for vegetation management in the future. All additional easement rights would need to be acquired, which would impact the Project schedule. If that additional clearing were completed, some abutters, such as LL200A-194, would have clearer views of the structures and conductors. While this alternative would result in an overall increase in the project cost, an accurate estimate cannot be determined at this time because the costs associated with acquisition of additional blowout rights is subject to negotiations with the underlying property owners and varies by property.

Date Filed: November 17, 2022

Request from: Connecticut Siting Council

Question: 37

If the structures were relocated across Wetland 6 as identified in Interrogatory No. 34(a) and into Wetland 19 as identified in Interrogatory No. 35(b), describe wetland mitigation measures.

Response:

Relocation of structures across from Wetland 6, as identified in Interrogatory No. 35(a), would not result in a direct temporary or permanent impact to the wetland or associated watercourse (S6). However, due to steeply sloping topography, extensive civil construction would be required in an upgradient area north of these regulated features to facilitate construction. Preliminary engineering design and calculations suggest that an approximate 33,050 square foot (approximately 0.76 acre) area may be cleared of vegetation and graded for installation of access from the north and south and a two-tier work pad, located within Webb Mountain Park (LL200A-320), owned by the Town of Monroe, and within New England Cottontail focus areas.

Reinforced slope protection would also be required in these steeply sloping areas to help limit hillside erosion and downgradient sedimentation into the nearby regulated resources. Reinforced slope stabilization would likely require extensive use of riprap. This extensive civil work would also be permanent and would have a larger visual impact to several abutters in addition to the structures being located at a higher elevation.

Eversource designed the proposed Project to comply with General Condition 3.a. of the Department of the Army Regional General Permit for the State of Connecticut dated December 15, 2021. Installation of structures and associated access and work areas within Wetland 19 may not be eligible for Self-Verification under the USACE and would require consultation with USACE and CTDEEP to determine permit requirements, such as a Pre-Construction Notification or Individual Permit, which would include an agreement regarding compensatory wetland mitigation.

Errata: In the Question above, Interrogatory 34(a) should be stated as Interrogatory 35(a) and Interrogatory 35(b) should be Interrogatory 36.

Date Filed: November 17, 2022

Request from: Connecticut Siting Council

Question: 38

Has Eversource developed a Protection Plan for Wetlands and Vernal Pools in its construction plans for the project? If so, please submit the plans. If not, when would the plans be developed?

Response:

Wetlands and vernal pool protection measures have been incorporated into Eversource's construction plans. Eversource's Best Management Practices Manual for Massachusetts and Connecticut (BMP Manual) focuses on the protection of environmental resource areas including wetlands and vernal pools. Vernal pool measures can be found in Section 3.7 of the BMP Manual. The Project Vernal Pool Report details vernal pool avoidance and mitigation measures. The Stormwater Pollution Control Plan (SWPCP), which has been approved by CT DEEP, details the erosion and sediment control measures that the project will implement to protect wetlands and vernal pools.

As required by the Connecticut *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities*, dated December 31, 2020 and Project SWPCP, prior to commencement of any construction activity, Eversource will conduct a preconstruction meeting with the qualified professional who designed the Project, the qualified inspector who will be conducting inspections, and all site contractors and subcontractors to be involved in construction. The meeting will convey the design, stormwater control measures, erosion and sediment controls, plan implementation and routine site inspections, and contract requirements for the project prior to earth disturbance. The meeting will also include a site walk of the project site and review of the required wetland and vernal pool protection measures. A contractor certification shall be signed by all contractors and subcontractors that will perform construction activities on the site that indicates that they have read and understand the terms and conditions of the SWPCP permit.

Prior to Project commencement, construction personnel will also be provided with mandatory environmental compliance training by a qualified wildlife biologist for measures that will be implemented for the protection of vernal pool habitat, vernal pool species, and state-listed species within the Project area. The wildlife biologist will be onsite to oversee and guide implementation of required physical protection measures and will be available for consultation throughout construction.

Throughout construction, compliance with all the protection measures will be monitored a minimum of weekly by a qualified inspector pursuant to the Connecticut Stormwater General Permit and Eversource standard practice.

As recommended in the Vernal Pool Report, the following Project specific vernal pool protection BMPs have been incorporated in the Project construction plan and will be implemented during construction:

- Where practicable, in areas proximate to vernal pools, Eversource will avoid or minimize construction activities during periods of peak migration, breeding and larval development.
- For Project activities that must occur adjacent to vernal pools during amphibian migration periods, Eversource will implement measures on a location-specific basis as necessary to facilitate unencumbered amphibian access to and from vernal pools, such as elevated construction matting. Mitigation measures have been identified after considering site-specific conditions, including the type of construction activity in proximity to each vernal pool, the amphibian species known to occur in the vernal pool, and seasonal conditions.
- Eversource will minimize the removal of low-growing vegetation surrounding vernal pools. If low growing woody vegetation (shrubs) will be removed, the cut vegetation (slash) will be left in place to provide cover and promote the development of coarse woody debris and detritus.
- Where possible, the stumps of cut woody debris will be left in place to minimize soil disturbance.
- Woody shrub cover will remain intact to the maximum extent practicable.
- Erosion control measures have been designed in a manner that allows unencumbered amphibian access to vernal pools and migratory pathways. Such measures may include but are not limited to; syncopated silt fencing and/or straw wattles in the immediate vicinity of vernal pools and aligning erosion and sedimentation controls to avoid bisecting vernal pool habitat.
- Appropriate erosion and sediment controls will be installed around distinct work sites and access roads to minimize the potential for sediment deposition into vernal pools and wetlands and such controls will be removed promptly after final site stabilization.
- Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including amphibians. No permanent erosion control products or reinforced silt fence will be used. Temporary erosion control products will be composed of processed fibers mechanically bound together to form a continuous matrix (netless) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.
- Temporary timber mat access roads will be installed in lieu of constructing gravel access roads where possible to minimize the loss of vegetated areas within vernal pool envelopes.
- Bridging will be used when installing timber mats to provide for access under timber mat roads.
- Removal of shrub cover associated with work pad and access road construction within 25 feet of vernal pools will be minimized.
- Permanent access road crossings will be constructed in a manner that maintains wetland hydrology and prevents surface water impoundment.

- Access road grading or improvements necessary to accommodate project construction vehicles will eliminate any existing depressions or ruts that may be functioning as decoy vernal pools.
- No temporary sediment traps are proposed near vernal pools as they may function as decoy pools.

Date Filed: November 17, 2022

Request from: Connecticut Siting Council

Question: 39

Referencing Response to Council Interrogatory No. 29(a) please submit and/or describe the planting plans offered to the property owners identified on Map Sheet 3 at LL200A-316 (96 Thoreau Drive) and LL200A-318 (100 Thoreau Drive).

Response:

Eversource and its landscape designer met with the property owners located at 96 Thoreau Drive and 100 Thoreau Drive on August 1, 2022 to discuss possible planting plans. As a result of that discussion, it was agreed the landscape designer will develop a visual mitigation plan comprised of compatible plant species. The plan will be developed during construction of the Project and shared with the property owners for their feedback. Finalization of the plan will occur once construction is completed on the properties. The plantings would be installed during project restoration, typically the first planting season after construction completion.