

PARTIAL DEVELOPMENT AND MANAGEMENT PLAN

for the

1768 LINE LATTICE TOWER REPLACEMENT PROJECT

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Prepared by:

The Connecticut Light and Power Company doing business as Eversource Energy

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1. INTRODUCTION

1.1 PROJECT NEED AND PLANNED FACILITIES

To improve the reliability of the regional transmission system, The Connecticut Light and Power Company doing business as Eversource Energy (Eversource or the Company) plans to upgrade its existing 115-kilovolt (kV) 1768 Line, which extends through portions of northern Hartford County, Connecticut into southern Massachusetts. Referred to as the 1768 Line Lattice Tower Replacement Project (Project), the upgrades will involve reconductoring the 1768 Line, replacing the existing optical shield wire with optical ground wire (OPGW), and replacing existing lattice tower transmission structures in both Connecticut and Massachusetts.¹ The Connecticut portion of the Project extends for approximately 7 miles from East Granby Junction in the Town of East Granby, through the Town of Suffield, to the Connecticut-Massachusetts border (refer to Figure 1). All Project work will be performed within Eversource's existing right-of-way (ROW) and fee-owned parcels.



Figure 1: Project Overview Map

Project Background.

The existing 1768 Line is co-located with Eversource's 345-kV 3216 Line, within an approximately 300-foot-wide ROW. Along the ROW in the vicinity of the 1768 and 3216 lines, Eversource manages

¹ The 1768 Line connects, via East Granby Junction, Eversource's Southwick Substation in the Town of Southwick, Massachusetts to its South Agawam Substation in the Town of Agawam, Massachusetts. A portion of the 1768 Line replacement and reconductoring work will be performed in Massachusetts, between the Connecticut-Massachusetts border and South Agawam Substation. This document addresses the Connecticut portion of the Project.

vegetation in low-growth species compatible with the operation and maintenance of the overhead transmission lines.

In Connecticut, the 1768 Line currently consists of 68 double-circuit lattice towers with 556-kcmil aluminum conductor steel-supported (ACSS) (bundled across the towers to operate as a single circuit) and one Alum weld shield wire. The lattice towers, which were originally installed in 1924, do not conform to current National Electrical Safety Code (NESC) standards, show signs of age-related deterioration, and are not designed to support the selected replacement conductors or OPGW. As a result, Eversource determined that the existing conductors, shield wire, and lattice structures must be replaced to maintain the reliability of the transmission system. The replacement of the degraded lattice structures will reduce the risk of age-related failures, mitigate safety concerns associated with additional construction loads on tower arms during routine maintenance and emergency work and ensure that both the structures and conductor meet the latest NESC and Eversource design standards.

Project Description

The Project will involve replacing the existing lattice towers and reconductoring the 7-mile segment of the 1768 Line to conform to current NESC standards, as follows:

- Replace the 68 double-circuit steel lattice structures with single-circuit weathering steel monopoles. The new 1768 Line structures will typically be in a delta configuration, except that existing angle structures will be replaced with two-pole structures. Structures will range in height from 70 to 108 feet above ground level.
- Replace the existing bundled 556 kcmil ACSS with a single 1272 kcmil ACSS conductor.
- Replace the existing Alumoweld overhead shield wire with two new 48-fiber OPGW, which will increase communication bandwidth and security.
- Install new hardware, insulators, lightning arresters, and counterpoise.

The Project will require improvements to existing access roads, the installation of new temporary or permanent access roads and work pads, as well as selective vegetation removal (i.e., mowing, tree trimming) as needed for construction or to provide appropriate clearance between the new conductors and vegetation.

1.2 PURPOSE AND ORGANIZATION OF THE PLAN

On August 26, 2020, Eversource submitted to the Connecticut Siting Council (Council, CSC) a Petition for a Declaratory Ruling (Petition) that no Certificate of Environmental Compatibility and Public Need (Certificate) is required for the Project (CSC Petition No. 1429). After considering the Petition, the CSC ruled on December 17, 2020 that the Project would not require a Certificate, providing that Eversource complied with seven Project-specific conditions. Condition 1 of the CSC's ruling² specifies that Eversource prepare a Partial Development and Management (Partial D&M) Plan (or Partial Plan) that conforms to Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies (RCSA: *Requirements for a D&M Plan, Elements of a D&M Plan, Reporting Requirements*), and that the Plan must specifically address:

² The other six conditions of the CSC ruling relate to procedural matters; refer to Table 8-2 in Section 8.

- a) Detailed site plans that clarify construction within wetlands, watercourses and at culvert crossings, including structure locations and temporary and permanent impacts related to work pads and construction access, and methods to reduce such impacts, including, but not limited to, the potential use of silt sox for erosion and sedimentation control; and
- b) Details of construction-related dewatering.

Accordingly, this Partial Plan summarizes information regarding the Project, focusing on Eversource's detailed plans for construction in and near water resources, including regulatory requirements, special plans, and mitigation measures. Pursuant to RCSA Sections 16-50j-60 through 16-50j-62, the Partial Plan also identifies processes for reporting to the Council concerning the Project and notifying and requesting approval from the Council for changes to the Petition and this Partial D&M Plan. Section 8 provides a directory of the Partial D&M Plan requirements and the location in this Partial Plan where each is addressed.

Details regarding Project construction plans are provided in appendices, which include the following:

• Appendix A:

- Cross-section drawings.
- Aerial-based map sheets (at a scale of 1"=100') showing wetland and watercourse boundaries (including vernal pools), access roads, work pads, property boundaries, and the locations of the existing and planned 1768 Line structures.³
- Detail Sheets that contain protocols for erosion and sedimentation controls; wetland, watercourse/waterbody and vernal pool avoidance and impact minimization; wetland restoration; and wetland invasive species control best management practices (BMPs).

• Appendix B

- Eversource's spill prevention and control plan.
- Appendix C:
 - Snow removal and de-icing procedures, respectively.
- Appendix D:
 - Incorporates, by reference (web site links), Eversource's 2016 BMP Manual: Construction and Maintenance Environmental Requirements for Massachusetts and Connecticut.

³ Appendix A includes 25 1"=100' map sheets illustrating the entire Project ROW. Of these, wetlands or watercourses extend across or are located within the ROW on all but three maps (sheet Nos. 7, 14, and 15).

2. REGULATORY APPROVALS AND CONSULTATIONS

This Partial D&M Plan conforms to the specifications of Sections 16-50j-60 through 16-50j-62 of the RCSA (*Requirements for a D&M Plan, Elements of a D&M Plan, Reporting Requirements*), incorporates Eversource's commitments as contained in Petition No. 1429, and reflects adherence to the conditions of the Council's Declaratory Ruling regarding the Project as well as consultations with and approvals from other regulatory agencies (refer to Table 2-1). For activities within regulated water resource areas (wetlands and watercourses), authorizations are required from the United States Army Corps of Engineers (USACE) New England District and the Connecticut Department of Energy and Environmental Protection (CT DEEP). The results of Eversource's consultations with regulatory agencies regarding water resources are reflected on the Project-specific protocols listed on the Detail Sheets in Appendix A.

Agency	Ruling, Permit, Approval or Confirmation	Activity Regulated / Status	
FEDERAL			
USACE, New England	Section 404 Clean Water Act (CWA) – Self- Verification (SV) (requires conformance with	Discharge of dredge or fill material into waters of the U.S. (wetlands or watercourses)	
District	National Historic Preservation Act (NHPA), Section 106; see SHPO, below)	SV submitted to USACE January 6, 2021	
USFWS	Coordination regarding endangered / threatened species (Northern Long-eared bat)	USFWS determination, dated August 31, 2020 - no unacceptable effects on Northern Long-eared bat	
CONNECTICUT			
csc	Declaratory Ruling (Petition 1429) Partial D&M Plan approval	Transmission line modifications, construction, environmental compatibility, safety, operation / maintenance and ROW management. Petition submitted August 26, 2020; CSC ruling December 17, 2020. Partial D&M Plan approval pending.	
CT DEEP	401 Water Quality Certification	Conformance to Section 401 of the CWA (part of USACE SV process, see above)	
	General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities; Project-Specific Stormwater Pollution Control Plan (SWPCP)	Stormwater management during construction; Notice of Intent and SWPCP filed in August 2020; the CT DEEP determined that the Project is compliant with the General Permit and issued Permit No. GSN003628 for the Project on December 7, 2020	
	Natural Diversity Data Base: Threatened, Endangered, and Special Concern Species	Rare species coordination / mitigation – CT DEEP Determination July 11, 2020, #202007010 Eversource will comply with NDDB protection measures.	
State Historic Preservation Office (SHPO)	Consistency with the NHPA; comments during Council and USACE processes	Construction and operation activities that may affect archaeological or historic resources; SHPO correspondence dated October 27, 2020 concurs with Eversource's planned mitigation (avoidance) measures for one potential site.	

 Table 2-1: Environmental Permits, Reviews, and Approvals Required for the Project

3. GENERAL CONSTRUCTION PROCEDURES

This section describes the typical construction procedures and plans for the Project, which will involve a sequential, phased work approach. The information in this Section and in Section 5 is supplemented by data in the appendices. For example, the Appendix A maps include site-specific information regarding new and existing structure locations; work pads and access roads; environmental features along the ROW (including wetlands, streams, and vernal pools); property owners, and the areas where special resource protection measures will be implemented. In addition, Detail Sheets included in Appendix A describe construction procedures to minimize impacts to environmental resources, whereas Appendices B and C present the Project's *Spill Prevention and Control Plan, Snow Removal and De-icing Procedures*. Appendix D incorporates by reference Eversource's *Best Management Practices (BMP) Manual: Construction and Maintenance Environmental Requirements for Connecticut*.

3.1 CONSTRUCTION MANAGEMENT, CONTRACTOR CONTACT INFORMATION, AND STAGING AREAS

As identified in the Petition, the contractor yard / staging area for the Project will be located in Agawam, Massachusetts. Project construction activities will be overseen by Eversource and its designated representatives.

Eversource's contractor for the civil portion of the Project work is BluRoc, LLC, whose contact information is provided below. BluRoc will be responsible for vegetation removal, the installation/maintenance of access roads and pads (in uplands and across wetlands/water resources), and the installation and maintenance of erosion and sedimentation controls. Eversource will retain other contractors who will be responsible for structure installation (including foundation drilling), electrical work (conductor and OPGW installation), and structure / conductor removal; some of these activities will involve work in wetlands, including dewatering. Contact information regarding these contractors will be provided to the CSC after contracts are issued.

Contractor Name / Address	Name / Title	Telephone	E-mail
BluRoc LLC	Shane Norton, Superintendent	413-387-3724	shane.norton@bluroc.com

The Project construction contractors will be required to comply with all applicable environmental regulatory requirements, as well as with this Plan. Eversource will require construction contractors' management personnel to attend training regarding Project-specific requirements, including the specifications of this Plan.

3.2 CONSTRUCTION PROCEDURES

3.2.1 General Construction Sequence

Eversource will construct the Project in several stages, some overlapping in time. The following summarizes the general sequence of construction activities:

- Prepare the construction staging / laydown yard (and any other approved storage, staging and laydown areas) as needed to support the construction effort.
- Survey and stake the ROW boundaries (where necessary), vegetation management boundaries, and new structure locations.
- Mark (or re-mark) the boundaries of previously delineated wetlands and watercourses, vernal pools, and other environmentally-sensitive areas to be avoided or otherwise protected (e.g., as needed, habitats for threatened, endangered, or special concern species); and locations where special construction considerations will apply (e.g., areas that require particular construction treatment pursuant to landowner agreements).
- Mow / remove vegetation.
- Install erosion and sedimentation controls.
- Improve existing access roads and construct new access roads, including the installation of temporary timber mats for access in wetlands and across watercourses;
- Prepare level work pads at structure and conductor pulling sites, including temporary timber mat pads in wetlands (and, later, guard structure or equivalent sites).
- Install (erect and assemble) new monopole structures (including foundations [caissons] for drilled shaft structures, or directly embedding structures)
- Install new shield wires and conductors, as well as structure grounding systems, including counterpoise (where needed).
- Dismantle the existing 1768 Line facilities (i.e., remove conductors, shield wires, structures and associated hardware).
- Remove temporary roads and construction debris and restore disturbed sites.
- Maintain temporary erosion and sediment controls until vegetation is re-established or areas affected by construction are otherwise stabilized.

3.2.2 Vegetation Management and Erosion / Sedimentation Controls

<u>Vegetation Management and Resource Boundary Marking.</u> Along the existing 1768 Line ROW, Eversource presently manages vegetation to promote low-growing species, consistent with overhead transmission line operational requirements. As a result, most of the vegetation that will be removed for the Project will consist of shrub-scrub and herbaceous species. The limited areas along the ROW where forest vegetation removal will be required are identified on the Appendix A map sheets.

However, the construction of one temporary work pad on Eversource property in wetland W1A (at East Granby Junction) will require the removal of approximately 0.07 acre of palustrine forested wetland. After the work pad is removed, the wetland will revegetate as a palustrine scrub shrub wetland, representing a long-term change to wetland vegetative cover type but not permanent loss of wetlands.⁴

⁴ A minor amount (less than approximately 0.4 acre) of upland forest vegetation also will be removed, including near existing Structures 17093 and 17094 on Line 3216 (Suffield, Appendix A, Map sheet 21). In addition, danger and hazard trees will be trimmed or removed along access roads and the ROW as needed to maintain clearance from the new conductors.

Vegetation removal will be performed in accordance with Eversource procedures and American National Standards Institute A300 Standards. Low-impact clearing methods will be used, including to protect wetlands, vernal pools, watercourses, and other environmentally sensitive resource areas.

During the vegetation removal phase of construction, flagging, exclusion fencing, or other types of boundary markings will typically be installed or replaced, as necessary. The purpose of the markings will be to clearly demarcate sensitive environmental resource areas (including wetlands, vernal pools, and watercourses) during all construction phases.

Erosion and Sedimentation Controls. Temporary erosion and sedimentation controls, consisting of silt fence, straw bales, wattles, filter (silt) socks, etc., may be installed before or after vegetation removal, depending on site-specific characteristics. Typically, such controls will be installed as needed around access roads and work pads in or near wetlands, along water resources, and near vernal pools, as well as near steep slopes leading to water resources. (Refer to the typical drawings of erosion and sedimentation control measures as presented in Appendix A - maps and Detail Sheets - and in Appendix D, Eversource's BMP Manual.)

Permanent erosion and sedimentation controls, such as broad-based dips, water bars, rock swales, and plunge pools, also may be installed along on-ROW access roads. Both permanent and temporary erosion and sedimentation control measures will be maintained, and enhanced, as necessary, throughout Project construction.

3.2.3 Access Roads and Work Pads

<u>Access Roads</u>. On-ROW access roads will provide the principal means for equipment and material to reach new and existing transmission line structure locations. The locations of existing and planned on-ROW access roads, including temporary timber mat accessways across wetlands, are illustrated on the Appendix A maps.

To support the heavy construction equipment required to install the new structure foundations and structures and to remove the existing structures, all access roads must be sufficiently wide, with a stable base and grades that typically must be 10% or less. Access roads will have a typical 16-foot-wide travel way (additional width may be needed at turning or passing locations). However, access road widths will vary depending on site-specific conditions (principally slope and presence of wetlands) and on factors such as the amount of grading (cutting and filling) required and on whether a particular section of road must accommodate equipment turning radii and/or equipment passing/turn-out locations.

For the Project construction, Eversource will use, to the extent practical, existing in-ROW access roads in upland areas; such accessways already are used for the Company's maintenance of the existing 1768 and 3216 lines and will be upgraded and widened, as necessary, to support Project construction. Access road improvements typically will include removing adjacent vegetation, resurfacing with gravel, and widening as needed to provide a minimal travel width (additional width will be necessary as discussed above).

However, along the ROW, temporary access will be required across 15 wetlands and eight streams. In these areas, special construction procedures will include the use timber mats, or equivalent (for further information, refer to Section 5.2 and Appendix A, Detail Sheets). Within and near wetlands and

watercourses, erosion and sedimentation controls will be installed as necessary to avoid or minimize potential impacts during the improvement, development, and subsequent use of access roads. The Project will not involve any permanent fill in wetlands or streams. All temporary wetland and watercourse crossings will be removed as part of Project ROW restoration.

Project construction activities (particularly tasks involving erosion/sedimentation controls and work in or near water resources) will be monitored by a qualified stormwater inspector, pursuant to Eversource's General Stormwater Permit from CT DEEP and Project SWPCP. The monitoring will be performed weekly until restoration is deemed to be successful, which typically is defined as suitable revegetation or other stabilization of areas affected by construction. Access road and work pad conditions will also be monitored during this Project ROW inspection effort; based on field conditions, additional erosion and sedimentation control measures may be warranted.

Work Pads. At each new transmission line structure location, a work pad will be required to stage structure components for final on-site assembly and to provide a safe, level base for the construction equipment used to install foundations and erect the structure. Work pads also will be needed to remove the existing 1768 Line lattice towers and associated components. In addition, pulling pads will be required for conductor and OPGW installation. The Appendix A maps illustrate the Project work pad locations involving wetlands or watercourses.

The size and dimensions of the work pad at each structure site will vary based on site-specific conditions. Typical work pad dimensions are 100 feet by 100 feet; however, given the terrain and spacing between the existing and proposed structures, the work pads vary in size and may be up to approximately 110 feet by 120 feet. In areas where machinery is needed for pulling conductors through an angled structure, work pads of approximately 130 feet by 80 feet are required.

Pulling work pads, which will be required in certain locations along the ROW for conductor and OPGW installation, typically will be 100 feet by 200 feet, but can be as large as 100 feet by 300 feet. Pulling work pads will be constructed using similar techniques to those described for the work pads at structure locations.

Work pads in wetlands will consist of temporary timber mats (or equivalent), whereas work pads in uplands will be gravel. All work pads or portions of work pads in wetlands will be removed and the affected wetlands restored, pursuant to Project permits and approvals.

3.2.4 Structure Installation

Foundation Types and Excavation. The new 1768 Line monopoles will be either direct embedded or drilled shaft foundations. The tangent structures will typically be direct embedded. Angle and dead-end structures will typically have a drilled shaft foundation.

Excavations for structure foundations are expected to be accomplished using mechanical excavators (drill rigs) and pneumatic hammers; blasting is not expected to be required. During non-working hours, fencing or other barricades will be placed around and on top of open foundation excavations for structures.

Excavated material will either be reused on-site or disposed off-site in accordance with standard Eversource specifications and applicable regulatory requirements.

If groundwater is encountered in excavations, the water will be pumped from the excavated area and discharged in accordance with applicable requirements. The water may be discharged on-site into an appropriate sediment control basin in an upland area; into a dewatering bag; or pumped into a tanker truck or temporary fractionization (frac) tank for appropriate disposal off site. Residual silt/sediment collected at the bottom of the frac tanks or other BMPs will be disposed in appropriate upland areas within the ROW (i.e., not in protected resource areas) or at an appropriately designated disposal facility. Where the ROW intersects public roads containing stormwater systems, catch-basin inlet protection will be installed if needed to block sedimentation or construction debris from entering storm sewers.

Structure Installation. Structures (weathering steel monopoles and arms) will be delivered to work pads in sections, then assembled and installed with a crane. Insulators, connecting hardware, and conductor pulling blocks will be installed on most structures at this time.

Structure Grounding. In addition to the natural grounding of the transmission line structures that is provided by their foundation contacts with earth, a ground ring and ground rods will be buried around each foundation. The ground ring will be installed after the completion of the foundation and the installation of the structure, but before shield wires are installed. The need for and location of counterpoise or additional ground rods (forms of supplemental grounding for transmission line structures) will be determined based on soil resistivity and/or footing resistance testing, which will be performed as part of the construction process.

Where required, counterpoise wires will extend longitudinally from the ground rings around the transmission line structures; the counterpoise typically extends for 200 feet – 100 feet in either direction from the ground ring, parallel to the overhead conductor. Small equipment (e.g., a ditch witch, small excavator, or equivalent) will typically be used to bury the counterpoise wires; the small equipment will excavate a narrow (approximately 12 inches wide) trench, into which the counterpoise wire will be fed. Ground rods, which may be used in conjunction with counterpoise, will typically be buried between or near the ground rings.

3.2.5 Conductor and OPGW Installation

The installation of the overhead line conductors and shield wires will require the use of pulling and tensioning equipment, and reels of conductor, which will be positioned at pre-determined locations (temporary pulling work pads) at intervals along the ROW. Helicopters may be used to install these components of the Project. To maintain clearance at road and other crossings during conductor and OPGW installation, boom trucks will be positioned adjacent to the crossings. Temporary pulling work pad are illustrated on the Appendix A maps.

3.2.6 Structure, Hardware, and Conductor/Static Wire Removal

The existing transmission line structures, hardware, conductors and shield wires will be removed as part of the project after the replacement transmission line facilities are installed. Eversource may remove the existing 1768 Line conductor and static wire in conjunction with the installation of the new 1768 Line and

OPGW because the existing conductors and shield wire may l be used as pulling lines, to the extent possible. Thereafter, the old conductor and shield wire would be removed.

To minimize impacts to water resources, the foundations of the existing lattice steel towers located in wetlands will removed to a depth of approximately 12 inches below grade. However, because the belowground footings are extensive, full removal would require more substantial disturbance to the wetlands. Wetland soils will be replaced over the remaining foundation materials. Eversource expects to recycle virtually all the existing structures and miscellaneous hardware, components, conductors, and shield wire removed as part of the Project.

3.2.7 Cleanup and Restoration

Project cleanup and restoration activities will include the removal from the ROW of construction debris, signs, flagging, and fencing, as well as temporary access roads and temporary work pads (including all such roads and pads in wetlands. Access roads and work pads in uplands will remain permanently unless the landowner requests that they be removed. Areas affected by construction will be re-graded as practical and stabilized using revegetation or other measures.

Supplemental erosion and sedimentation controls (e.g., erosion control blankets, mulch, filter socks) will be used as appropriate based on site-specific conditions and the time-of-year in which final grading is performed. As needed, along access roads and at permanent work pads, permanent erosion and sedimentation controls, such as water diversion bars or crushed stone, will be installed as appropriate. Any such previously installed permanent erosion controls adversely affected by Project construction will be repaired.

Wetland areas affected by construction will be stabilized, if necessary, with annual rye grass, a wetland seed mix, or an equivalent mix (40 pounds/acre, unless standing water is present), which will provide a temporary vegetative cover until wetland species become reestablished. No fertilizer, lime, or mulch will be applied in wetlands.

Temporary erosion and sedimentation controls will be left in place and maintained until final stabilization is achieved pursuant to the Project SWPCP and Eversource BMPs. Steep areas may be hydroseeded and/or stabilized with bio-degradable, pre-made erosion and sedimentation control fabric containing seed, mulch, and fertilizer, or the equivalent.

Flagging (or equivalent) denoting wetlands, streams, and other environmentally sensitive resource avoidance or protection areas will be maintained (and reflagged or marked as needed), typically until the completion of ROW restoration activities.

Restoration typically will be deemed successful based on the effectiveness of stabilization measures as defined in the Project SWPCP. Based on the results of SWPCP inspections of ROW stabilization, Eversource will determine the appropriate time frame for removing temporary erosion controls.

Within the areas affected by temporary construction activities, vegetative species compatible with the use of the ROW for transmission line purposes are expected to regenerate naturally over time. Over the long-

term, Eversource will promote the re-growth of desirable species along the areas affected by the Project by implementing its standard integrated vegetation management practices to control tall-growing trees within the ROW, and where practicable, undesirable invasive species; this approach will promote colonization by native plants.

4. CONSTRUCTION SCHEDULE, OUTAGES, AND WORK HOURS

Project Schedule.

The 1768 Line reconductoring and replacement work is scheduled to begin in early 2021, with a planned in-service date in the second quarter of 2021. Some ROW restoration activities (e.g., the removal of temporary work pads and timber matting from wetlands, final revegetation and stabilization) will extend beyond the in-service date. Based on the current Project schedule, ROW restoration is expected to be completed in the summer-fall 2021.

Outages on the 1768 Line will be required for the Project construction. Outages for the Project have been approved by the Connecticut Valley Electric Exchange and are from February 16, 2021 through June 15, 2021.

Work Hours

Normal construction work hours will be between 7:00 AM and 7:00 PM, Monday through Saturday. No work will typically be performed on Sundays, except if warranted to complete specific tasks.

During the typical Monday-Saturday work shifts, construction will generate noise, which will vary depending on the type of activity performed. Construction personnel may arrive for and leave work at the staging area / laydown yard outside of the normal work shift times. For example, construction crews may arrive early at construction trailers prior to 7:00 AM Monday-Saturday to plan for the day's work.

On occasion, certain tasks will involve work during non-typical hours, in some cases on a continuous basis (24/7) and/or on Sundays. If such additional work hours are required, Eversource will notify, in advance, the Council staff, the affected town(s), and abutters.

Further, during winter, snow plowing and de-icing activities at the contractor yard and along on- and off-ROW access roads and at work pads will typically commence, when necessary, prior to 7 AM to assure a safe environment for construction personnel prior to the start of the workday. Snow plowing and de-icing will be performed pursuant to the procedures listed in Appendix C.

5. SPECIAL CONSTRUCTION PROTOCOLS AND PROCEDURES

This section provides protocols and procedures applicable to Project construction activities in or near wetlands, watercourses and culverts, and vernal pools, as well as methods for dewatering in areas where groundwater is encountered in structure foundations. Specific methods to protect wetlands, watercourses and waterbodies, and vernal pools are included on the Appendix A Detail Sheets. Appendices include additional requirements for the protection of water resources that will (e.g., *Spill Prevention and Control Plan*, Appendix B; *Snow Removal and De-Icing Plan* (Appendix C); and Eversource BMPs, incorporated by referenced in Appendix D).

5.1 EROSION AND SEDIMENTATION CONTROLS

During Project construction, Eversource will install erosion and sedimentation controls to avoid or minimize the potential for surface water runoff, erosion, and sedimentation to occur outside of work limits. These measures will comply with the 2002 Connecticut Guideline for Erosion and Sediment Control, as well as with Eversource's BMPs (refer to Appendix D); the Project-specific SWPCP; and general CT DEEP and USACE permit conditions. Eversource's BMPs incorporate and are consistent with the 2002 Connecticut Guideline for Erosion and Sediment Control (refer to the BMPs, Appendix E, p. 1-4 for a list of the guidance documents used in preparing Eversource's BMPs).

Appendix A includes typical drawings regarding erosion and sedimentation control measures (refer to Detail Sheets). The Appendix A aerial-based maps also include topographic contours, indicating areas of steep slopes and higher erosion potential.

Pursuant to CGS Section 22a-430b, construction activities, such as the Project, that will result in the disturbance of 1 or more total acres of land area must comply with the CT DEEP's *General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities* ([General Permit]). Pursuant to the requirements of this General Permit, in August 2020, Eversource submitted to CT DEEP a Registration Form (Notice of Intent) and a Project-specific SWPCP that addresses the soil erosion and sedimentation controls that will be applied during construction. On December 7, 2020, CT DEEP approved the SWPCP and issued a Project-specific General Permit. Eversource's Project construction contractor will be required to adhere to the SWPCP. In accordance with the General Permit and the Project-specific SWPCP, a qualified stormwater inspector will monitor conformance to these requirements.

5.2 WATER RESOURCES

5.2.1 Surface Water Resource Crossings and Impact Summary

As shown on the Appendix A maps and summarized below, various water resources are located along or near the Project ROW.

<u>Wetlands</u>. As summarized in Table 5-1 and shown on the Appendix A maps, 22 wetlands are located along the Project ROW. However, of these, only 15 will be affected by Project construction activities as follows:

- Temporary access roads and work pads, comprised of timber mats or equivalent, will be in wetlands where no upland alternatives are available. In total, approximately 5.41 acres of wetlands will be temporarily affected by such construction activities.
- Nine existing 1768 Line structures are presently located in wetlands: Structure Nos. 3181 and 3182 in wetland W1; 3193 in wetland W7; 3203 in Wetland W9; 3231 in wetland W17; 3236, 3237 and 3238 in Wetland W19; and 3247 in Wetland W22). The new monopoles for two of these structures (3193 and 3231) will be placed in adjacent uplands, thereby avoiding permanent fill in these wetlands. However, the new monopoles that will replace the seven remaining structures must unavoidably be in wetlands, resulting in permanent wetland impacts (fill) of approximately 560 square feet (0.013 acre). To minimize disturbance to these wetlands, the existing concrete footings of the lattice structures will be left in place, with the existing foundation removed to 12 inches below grade, where feasible.

Wetland /	Appendix A Map	Wetland / Watercourse Effects (approx. square feet)			
Watercourse ID (Town)	sheet #	Temporary (Matting)	Permanent (Structure Foundations)	Secondary (Selective Tree Removal)	
Town of East Granby					
W1A	01	35,585	0	2,849	
W1B	01	-	-	-	
W1C	01	-		-	
W1	01/02	59,778	160 (Str. 3181. 3182)	0	
W2	02/03	745	0	0	
W3	03	7,416	0	0	
W4	04	-	-	-	
W5/S3	04/05	375	0	0	
W6	05	-	-	-	
W7	05/06	5,976	0	0	
W8	08	-	-	-	
Town of Suffield					
W9	09/10	11,956	80 (Str. 3203)	0	
W10	10/11	-	-	-	
W11	11	503	0	0	
W12/S6	11/12	-	-	-	
W13	12	-	-	-	
W14/S8	16	230	0	0	
W15	17	-	-	-	
W16	17/18	-	-	-	
W17/S10/S11	19/20	13,332	0	0	
W18	20	4,618	0	0	
W19	21/22	64,266	240 (Str. 3236, 3237, 3238)	0	
W20	22	7,205	0	0	
W21	23/24	7,969	0	0	
W22/S12	25	16,032	80 (Str. 3247)	0	
TOTAL		235,757 (5.41 acres)	560 (0.013 acre)	2,849 (0.07 acre)	

Table 5-1: Summary of Project Effects to Wetlands and Watercourses

Notes: 1. Indicates wetland within ROW, but not affected by Project construction.

Watercourses. As shown on the Appendix A maps and summarized in Table 5-2, the Project ROW encompasses 12 un-named watercourses (six perennial streams and six intermittent streams). Of these, four

will not be affected by any Project activities. Construction access across the remaining eight streams will be via existing in-ROW roads that already have culverted crossings or by the installation of temporary timber mats to span the small streams. No new culverts will be installed for the Project.

Wetland /	Appendix A	Crossing Method		
Watercourse ID	Map sheet #	Timber Mat Span	Existing Culvert	
(Town)			(in Upland or Wetland)	
Town of East Granby				
S1	01			
S1B	01	x	Х	
			(culverts on either side of crossing)	
S2	02			
S3	05	x		
		(within W5)		
S4	08		Х	
			(upland along existing access road)	
Town of Suffield				
S5	09			
S6	11		Х	
			(upland along existing access road near	
			W12)	
S7	13		Х	
			(upland along existing access road)	
S8	16		Х	
			(upland along existing road across W14)	
S9	17			
S10	19	x		
		(within W17)		
S11	19	x		
		(within W17)		
S12	25	X		
		(within W22; stream located within		
		a portion of temporary timber mat		
		work pad for Structure 3247)		

 Table 5-2:
 Summary of Watercourses within Project ROW and Crossing Methods

Notes: Indicates watercourse within ROW, but not affected by Project construction.

5.2.2 Water Resource Crossing Techniques

All crossings of water resources and other construction activities in wetlands and watercourses will be performed pursuant to the procedures identified in this Partial D&M Plan, which reflects the methods identified in the Project's CSC Petition, the Project SWPCP, the conditions of USACE and CT DEEP permits, and Eversource's BMPs. Details regarding these procedures, which will be implemented by Eversource's contractors to avoid or minimize potential water resource impacts, are identified on the Detail Sheets in Appendix A, which also provide water resource restoration measures and wetland invasive species control BMPs.

In addition, the installation of temporary timber mats for access roads/work pads in two wetlands will conform to CT DEEP-specified timing restrictions and Eversource protocols to protect a state-listed species.⁵ These timing restrictions and protocols have been conveyed to Eversource's civil contractor for

⁵ Exact location information for state-listed species habitat along the ROW is not provided for public review, to protect the species.

the Project; Eversource's other Project contractors will similarly be apprised of the species protection protocols.

The Appendix A maps identify the locations of water resource crossings and indicate where temporary mat spans or equivalent will be installed. The construction techniques to be used at each water crossing will depend on site conditions at the time of construction and will be determined by Eversource or its construction management representative. Temporary timber mats, or equivalent, will be used for all access across wetlands, as well as for the construction of any work pads that must unavoidably be located, in whole or in part, in wetlands.

All stream crossings will be spanned. At stream crossings where existing culverts are not in place, temporary crossings (e.g., consisting of timber mats or equivalent) will be placed to maintain water flows and avoid flooding. Appropriate erosion and sedimentation control measures will be employed to avoid and/or minimize impacts at all watercourse crossings. All temporary crossing materials will be removed following the completion of construction.

After the 1768 Line structures and conductors are replaced and the existing transmission line facilities are removed, all temporary timber mats also will be removed from wetlands and from watercourse spans. Wetlands affected by construction activities then will be restored to pre-construction conditions to the extent practical. The Project will not result in the creation of any new permanent access roads across wetlands.

5.2.3 Flood Zones

The Project ROW extends across 100-year flood zones, as designated by the Federal Emergency Management Agency (FEMA), associated with two un-named perennial watercourses (S3 and S12). The ROW also crosses the FEMA-designated 500-year floodplain associated with three un-named intermittent watercourses (S3, S10, and S11). However, as illustrated on the Appendix A maps, none of the new 1768 Line structures will be located in either 100-year or 500-year floodplains.

5.2.4 Aquifer Protection

The Project ROW does not cross any Aquifer Protection Areas, as identified by CT DEEP. The ROW is not located within a public water supply watershed and no public supply reservoirs or public water supply wells are located within the Project area. To protect water quality during construction, Eversource will require its contractors to employ best practices for the proper storage, secondary containment, and handling of diesel fuel, motor oil, grease and other lubricants, as well as to adhere to the Company's BMPs, the Project *Spill Prevention and Control Plan* (Appendix B), and the Project SWPCP.

5.3 VERNAL POOLS

As shown on the Appendix A maps and summarized in Table 5-3, eight vernal pools are located within the Project ROW or adjacent to off-ROW access roads planned for use during construction. Three of these vernal pools will not be affected by the Project. The procedures that Eversource will require its contractor(s) implement to avoid or minimize impacts to vernal pools are described in the vernal pool protocols included on Detail Sheet 2 in Appendix A and summarized below:

- 1. Avoid and/or minimize construction activities in vernal pools where feasible.
- 2. Avoid permanent alteration of habitat within vernal pool envelopes (i.e., areas within 100 feet of identified vernal pools).
- 3. Use temporary matting for access roads and work pads near vernal pools.
- 4. Avoid or minimize tree clearing should occur within vernal pool envelopes.
- 5. Minimize, to the extent practical, the removal of shrub cover associated with work pad and access road construction within 25 feet of vernal pools. Leave cut woody debris (slash) in place to provide amphibian cover and promote the development of coarse woody debris and detritus.
- 6. Install and maintain erosion and sedimentation controls along existing access roads and work pads near vernal pools as necessary to protect water quality and to limit the potential for soil deposition into vernal pools. Erosion control measures will be designed to allow unencumbered amphibian access to vernal pools. Such measures may include, but not be limited to; syncopated silt fencing and/or straw wattles, and aligning erosion and sedimentation controls to avoid bifurcating vernal pool habitat.
- 7. Do not use plastic netting, which may be found in a variety of erosion control products (e.g., erosion control blankets, straw wattles, and reinforced silt fence.
- 8. Promptly remove temporary erosion and sedimentation control devices upon final revegetation and stabilization of the ROW.

Vernal Pool ID (Town)	Wetland (#) Associated with Vernal Pool	Appendix A map sheet #	Project Facilities in Relation to Vernal Pool		
Town of East	st Granby				
VP1	W1A	01	Vernal pool adjacent to temporary timber matting at East Granby Junction (Structures 11053, 3179, 17039); matting within vernal pool envelope		
VP2	W1/S1	02	Direct impacts to vernal pool and stream avoided; work pad will be within the vernal pool envelope		
VP3	W1	02			
VP4	W4	04			
VP5	W7	05/06	Adjacent to work pad for Structure 3193; work pad is within vernal pool envelope; replacement structure will be moved farther away from vernal pool and outside wetland W7		
Town of Su	Town of Suffield				
VP6	W17	19	Adjacent to temporary work pad for Structure 3230; temporary work pad and timber mat access road within vernal pool envelope		
VP7	W17	19	Along northern border of ROW, northwest of timber mat access road; vernal pool envelope encompasses timber mat access road		
VP8	W21	24	South of work pad for Structure 3243; vernal pool envelope encompasses work pad		

 Table 5-3: Summary of Project Effects to Vernal Pools

Note: Indicates vernal pool within ROW, but not affected by Project construction.

5.4 **DEWATERING**

Groundwater (if encountered during structure drilling activities) will be handled and disposed of in accordance with regulatory requirements (depending on the type of material) and Eversource's BMP procedures. If encountered in excavations, groundwater will be pumped from the excavated area and discharged to an upland area in a location that does not result in a discharge to wetlands, waterbodies, vernal pools, or watercourses. The water may be discharged on-site into an appropriate sediment control basin, filter bag, pumped into a temporary fractionization (frac) tank and then discharged into an appropriate

upland area, or pumped into a tanker truck for disposal at an appropriate upland site or, if permitted, a municipal wastewater treatment facility.

No dewatering discharges will be directly into wetlands, watercourses, or vernal pools. If dewatering activities inadvertently cause sedimentation into water resources, Eversource's contractor will stop the dewatering operation until a means of controlling the turbidity is determined and approved by Eversource.

If obvious polluted or contaminated groundwater is encountered, it must be reported to Eversource and handled in accordance with the appropriate regulatory requirements.

5.5 CONSTRUCTION EQUIPMENT / VEHICLE WASHING

Except for concrete trucks, no construction equipment or vehicle washing will be allowed on the ROW. Concrete truck wash-out will be allowed only in upland areas, on-ROW locations that will be situated to avoid or minimize the potential for impacts to water resources. All wash-out areas will include measures to control and contain wash-water and to collect the cement wash-off for off-site disposal.

Erosion and sedimentation controls deployed at wash-out areas will conform to the relevant provisions of the 2002 Connecticut Guideline for Soil Erosion and Sediment Control (as amended), Eversource's BMP Manual, the Project SWPCP, and the CT DEEP's General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities.

As required pursuant to the wetland invasive species control BMPs (refer to Appendix A, Detail Sheet 1), construction vehicles, equipment, and mats also must be cleaned to prevent the transport of invasive wetland species. The cleaning protocol will typically involve the use of shovels, brooms, and/or compressed air to remove visible dirt from construction equipment, vehicles, and timber mats.

5.6 WINTER WORK, ROW STABILIZATION, AND ROW MONITORING PROTOCOL

Project construction will occur, in part, during winter months. Winter work will be conducted to minimize or avoid adverse environmental impacts, including to wetlands and watercourses. Snow removal and the use of de-icing procedures at construction sites will be in accordance with the *Snow Removal and De-Icing Procedures* (Appendix C).

If, after the re-energization of the 1768 Line, some ROW clean-up or restoration work is completed too late in the season to initiate or complete permanent stabilization of disturbed areas (e.g., work pads or access road shoulders that require further reseeding), temporary erosion and sedimentation controls will be left in place and augmented if necessary. These measures will be periodically inspected and maintained until permanent site stabilization can be completed, likely during the spring-early summary of 2022.

All erosion and sedimentation control practices and over-winter monitoring will be in accordance with the Project SWPCP, Eversource's BMP Manual, the CT DEEP's *General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities*, and the CT DEEP and USACE water resource permit conditions.

6. CSC NOTICES AND PROJECT CHANGES

6.1 NOTICES TO COUNCIL STAFF

Pursuant to Condition 4 of the CSC's ruling regarding the Project, within 45 days after the completion of construction, Eversource will provide written notification to the CSC that the Project is finished.

6.2 NOTICE OF PROJECT CHANGES

In accordance with RCSA Section 16-50j-61(d), notice of a filing of changes to the Petition or to this Partial D&M Plan that require Council staff approval will be provided to the service list and the property owner of record, if applicable, at the time that the filing is made to the Council staff.

6.2.1 Changes Requiring Notice to the Council Staff

Pursuant to RCSA Section 16-50j-62(b)(2), the Council staff must pre-approve any <u>significant</u> changes to this Partial D&M Plan or to the Petition. Eversource will identify, track, and approve <u>all</u> changes, whether significant or insignificant. *No changes to the D&M Plan will be implemented without such documented approvals*.

Eversource will provide the Council staff with advance written notice whenever a significant change of the approved Plan is necessary. If advance written notice is impractical, Eversource will provide immediate verbal notice to the Council, followed by written notice no later than 48 hours after the verbal notice.

RCSA Section 16-50j-62(b)(2) defines a "significant" change as including, but not limited to, Project modifications that entail a change in:

- The location of a wetland or watercourse crossing.
- The location of an accessway or structure in a regulated wetland or watercourse area.
- The construction or placement of any temporary structures or equipment.
- Transmission line structure type or location including, but not limited to, towers, guy wires, associated equipment, or other structures.
- Use of additional mitigation measures or elimination of mitigation measures.

In addition to the above criteria, Eversource proposes to define a "significant" Project change as one that would substantially reduce the amount of protection to the environment, substantially increase potential public concern, or would otherwise potentially result in a meaningful effect on the environment, the public, or other Project permits and approvals.

6.2.2 Project Change Approval Process

A request for a Project change may originate from Eversource, its construction contractors, or others. The following procedures will be used to identify, track, and obtain CSC staff approval, if required, for Project changes.

- 1. <u>Identify Proposed Project Change</u>. A proposed change is identified and described by the change originator and provided to Eversource. Data to be provided to Eversource by the change originator may include, for example:
 - Description of the change (location, type);
 - Rationale / need for the change;
 - Date by which the change is required (timing);
 - Project schedule and cost implications (if applicable); and
 - Effects (if any) on the environment, cultural resources, and the public.

The Project change request will be supported by maps and drawings, as appropriate.

- 2. <u>Assess Significance of Proposed Change</u>. Eversource will evaluate each proposed change to determine whether it either:
 - Qualifies as a significant change to the approved Plan and thus requires advance notification to and approval by Council staff; or
 - Constitutes a minor change requiring only Eversource approval.
- 3. <u>Significant Changes Requiring Notice to and Prior Approval by CSC Staff.</u> After Eversource determines that a proposed change represents a significant change to the Plan requiring notification to the Council staff and the Council staff's pre-approval, Eversource will categorize each proposed change as either "urgent" or "non-urgent", based on the following:
 - *Urgent.* A Project change will be considered "urgent" if waiting until the next regularlyscheduled Council meeting to obtain approval of the change would have a negative impact on Project construction costs or scheduling, or if the provision of written notice is impractical for other reasons. For "urgent" changes, Eversource will provide verbal notification of the change to Council staff and will request expeditious approval. Eversource will promptly implement the Plan change in accordance with the CSC staff's expedited approval (verbal or written). Not later than 48 hours after the provision of verbal notice of the change request to the Council staff, Eversource will submit written notice to the Council. If the Council staff elects not to act on the proposed Plan change request pursuant to the urgent (verbal) notice, Eversource will provide the Council staff with written notice of the proposed Project Change within 48 hours and will defer any construction activities related to the change request pending the Council staff's determination.
 - *Non-Urgent.* If Eversource determines that a Project change request is "non-urgent", Eversource will provide written notice to the Council staff, seeking the staff's consideration of the proposed change in a timely manner.
- 4. **Non-Significant Plan Change: No Council Pre-Approval Required.** Minor Project changes will require Eversource approval prior to implementation, as well as Project documentation. Documentation of minor changes will be provided in the monthly construction progress reports that will be submitted to the Council.

Figure 6-1 provides a flow chart illustrating this change approval process.



7. PUBLIC REVIEW AND OUTREACH

As part of the Project planning process, Eversource briefed the officials of the towns of East Granby and Suffield about the Project and provided written notice to all abutters of the proposed structure replacement / reconductoring work and the submission of the Petition to the Council. During the meetings with the municipal officials, Eversource provided information regarding the general construction process, addressing topics such as construction sequence; vegetation management; the size of work pads; access roads and work pads; use of anti-tracking pads at intersections of the ROW and construction access roads with public roads; structure design and spacing along the ROW; planned work hours; and schedule for construction in each town.

In conjunction with the submission of this Partial D&M Plan to the Council, Eversource will post the filed Plan on its Project web site and will provide the Plan to East Granby and Suffield officials, as well as to the service list for the Project (Council Petition No. 1429). The Project website is accessible from the Eversource homepage (<u>www.Eversource.com</u>). From this homepage, Project information can be accessed by clicking the "About" tab and then the "Major Projects and Infrastructure" tab to view a list of the Company's ongoing and proposed projects, including this Project. Included on the website is an e-mail address (<u>transmissioninfo@eversource.com</u>) and a telephone number (800-793-2202) to contact Eversource for more Project information or to provide comments about the Project.

Eversource representatives will be available to brief residents and businesses affected by Project construction activities and other interested stakeholders regarding the construction process, key construction stages, and expected construction timeline. Project representatives will also contact adjacent and nearby residents and businesses to notify them of upcoming construction activities and will be reachable throughout the construction process to address any specific questions or concerns.

8. PARTIAL D&M PLAN DIRECTORY

Table 8-1: Partial D&M Plan: Project Compliance with RCSA Sections 16-50j-60, -61 and -62(as amended through September 7, 2012)

R.C.S.A Section	Description	Partial D&M Plan (Plan) (Section Reference, as Applicable)
16-50j- 60	Requirements for a D&M Plan	
(a)	Purpose. The Council may require the preparation of full or partial D&M Plans for proposed energy facilities, modifications to existing energy facilities, or where the preparation of such a plan would help significantly in balancing the need for adequate and reliable utility services at the lowest reasonable cost to consumers with the need to protect the environment and the ecology of the state.	This Plan applies to the installation of the1768 Line Lattice Tower Replacement Project.
(b)	When required. A partial or full D&M plan shall be prepared in accordance with this regulation and shall include the information described in RCSA Sections 16-50j-61 to 16-50j-62, inclusive, for any proposed energy facility for which the Council issues a certificate of environmental compatibility and public need, except where the Council provides otherwise at the time it issues the certificate. Relevant information in the Council's record may be referenced.	This Plan includes information applicable to construction activities involving water resources, including dewatering (per CSC Declaratory Ruling, Condition 1)
(c)	Procedure for preparation . The D&M plan shall be prepared by the certificate holder or the owner or operator of the proposed facility or modification to an existing facility. The preparer may consult with the staff of the Council to prepare the D&M plan.	This Plan was prepared by Eversource.
(d)	Timing of plan. The D&M plan shall be submitted to the Council in one or more sections, and the Council shall approve, modify, or disapprove each section of the plan not later than 60 days after receipt of it. If the Council does not act to approve, modify or disapprove the plan or a section thereof within 60 days after receipt of it, the plan shall be deemed approved. Except as otherwise authorized by the Council, no clearing or construction shall begin prior to approval of applicable sections of the D&M plan by the Council.	This Plan addresses the requirements for the Project pertaining to water resources.
16-50j- 61	Elements of D&M Plan	
(a)	Key Map, 1"=2,000' USGS topographic map	Appendix A
(b)	Plan Drawings , 1"=100' or larger, and supporting documents, which shall contain the following information:	Appendix A
1.	Edges of the proposed site and any existing site contiguous to or crossing the site, portions of the site owned by the company in fee, and the identity of property owners of record of the portions of the site not owned by the company in fee	Appendix A
2.	Public roads and public land crossings or adjoining the site	Appendix A
3.	Approximate location of 50' contours along the site	Appendix A
4.	Probable location, type, and height of the proposed facility and components (including each new transmission structure, position of guys, description of foundations, and locations of any utility or other structures to remain on the site or to be removed	Appendix A maps and cross-sections.
5.	Probable points of access to the site, and the route and likely nature of accessways, including alternatives	Appendix A

R.C.S.A Section	Description	Partial D&M Plan (Plan) (Section Reference, as Applicable)
6.	Edges of existing and proposed clearing areas, the type of proposed clearing along each part of the site, and the location and species identification of vegetation that would remain for aesthetic and wildlife value	Appendix A, Section 3, and Eversource standard vegetation management procedures (Appendix D)
7.	Identification of sensitive areas and conditions within and adjoining the site, including but not limited to:	
	A. Wetland and watercourse areas regulated under CGS Chapter 440 and any locations where construction may create drainage problems	Section 5.2; Appendix A
	B. Areas of high erosion potential	Section 5.1, Appendix A
	C. Critical habitats or areas identified as having rare, endangered, or threatened, or special concern plant or animal species listed by the state or federal government	Refer to Petition and Appendix A
	 D. Location of known underground utilities or resources to be crossed (electric line, fuel line, drainage systems and natural or artificial public or private water resources) 	Appendix A
	E. Residences or businesses within or adjoining the site that may be disrupted during construction	Appendix A
	F. Significant environmental, historic and ecological features (significantly large or old trees, buildings, monuments, stone walls or features of local interest)	N/A
(c)	Supplemental Information	
1.	Plans (if any) to salvage marketable timber, restore habitat and maintain snag trees within or adjoining the site	N/A
2.	All construction and rehabilitation procedures with reasonable mitigation that shall be taken to protect areas and conditions identified in 7(b), above, including but not limited to:	
	1. Construction techniques at wetland and watercourse crossings	Section 5.2; Appendix A, Appendix D (Eversource BMP Manual)
	2. S & E control and rehabilitation procedures, consistent with the CT Guideline for Soil Erosion and Sediment Control, as updated and amended for areas of high erosion potential	Section 3, Section 5.1; Appendix A, BMPs
	3. Precautions and all reasonable mitigation measures to be taken in areas within or adjoining the site to minimize any adverse impacts of such actions or modifications endangered, threatened, or special concern plant or animal species listed by federal or state agencies and critical habitats that are in compliance with federal and state recommended standards and guideline, as amended	Appendix A maps, Petition
	4. Plans for modification and rehabilitation of surface, drainage, and other hydrologic features	Section 5.2; Appendix D, BMPs
	5. Plans for watercourse bank restoration in accordance with Chapter 440 of the C.G.S.	Section 5.2; Appendix A
	6. Plans for the protection of historic and archaeological resources with review and comment from a state historic preservation officer of the CT	Refer to Petition

Department of Economic and Community Development (DECD) or its successor agency 3. Plans for the method and type of vegetation clearing and maintenance to be used within or adjacent to the site Section 3, Appendix D 4. Location of public recreation areas or activities known to exist or being proposed in or adjacent to the site, together with copies of agreements between the company and public agencies authorizing the public recreation use of the site to the extent of the company's rights thereto. Appendix A maps 5. Plans for ultimate disposal of excess excavated material, stump removal, and periodic maintenance of the site Sections 3 and 5 6. Locations of areas where blasting is anticipated None anticipated	lan) as
3. Plans for the method and type of vegetation clearing and maintenance to be used within or adjacent to the site Section 3, Appendix D 4. Location of public recreation areas or activities known to exist or being proposed in or adjacent to the site, together with copies of agreements between the company and public agencies authorizing the public recreation use of the site to the extent of the company's rights thereto. Appendix A maps 5. Plans for ultimate disposal of excess excavated material, stump removal, and periodic maintenance of the site Sections 3 and 5 6. Locations of areas where blasting is anticipated None anticipated	
 4. Location of public recreation areas or activities known to exist or being proposed in or adjacent to the site, together with copies of agreements between the company and public agencies authorizing the public recreation use of the site to the extent of the company's rights thereto. 5. Plans for ultimate disposal of excess excavated material, stump removal, and periodic maintenance of the site 6. Locations of areas where blasting is anticipated 	
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6. Locations of areas where blasting is anticipated None anticipated	
7. Rehabilitation plans, including but not limited to reseeding and topsoil restoration Section 3	
8. Contact information for the personnel of the contractor assigned to the project Section 3	
9. Such site-specific information as the CSC may require N/A	
(d) Notice Section 6 A copy, or notice of the filing, of the D&M Plan, or a copy, or notice of the filing of any changes to the D&M Plan, or any section thereof, shall be provided to the service list and the property owner of record, if applicable, at the same time the plan, or any section thereof, is submitted to the CSC Section 6	
(e) Changes to the Plan The CSC may order changes to the D&M plan, including but not limited to vegetative screening, paint color, or fence design at any time during the preparation of the plan	
16-50j- Supplemental Reporting Requirements 62	
(a) Site Testing and Staging Areas The certificate holder, or facility owner or operator, shall provide the CSC with written notice of the location and size of all areas to be accessed or used for site testing or staging areas. If such an area is to be used prior to approval of the D&M plan, the CSC may approve such use on terms as it deems appropriate. Refer to Petition for stag	ging
(b) Notice	
1. The certificate holder, or facility owner or operator, shall provide the CSC, in writing with a minimum of two weeks advance notice of the beginning of: Section 6.1 summarizes notification procedures	
A. Clearing and access work in each successive portion of the site, and B. Facility construction in that same portion	
 2. The certificate holder, or facility owner or operator, shall provide the CSC with advance written notice whenever a significant change of the approved D&M plan is necessary. If advance written notice is impractical, verbal notice shall be provided to the CSC immediately and shall be followed by written notice not later than 48 hours after the verbal notice. Significant changes to the approved D&M plan changes to the approved D&M plan changes to the approved D&M plan changes. A. The location of wetland or watercourse crossing 	ge
B. The location of an accessway or structure in a regulated wetland or	

R.C.S.A Section	Description	Partial D&M Plan (Plan) (Section Reference, as Applicable)
	C. The construction or placement of any temporary structures or equipment	
	D. A change in structure type or location including, but not limited to, towers, guy wires, associated equipment or other facility structures	
	E. Utilization of additional mitigation measure, or elimination of mitigation measures. The CSC or its designee shall promptly review the changes and shall approve, modify, or disapprove the changes in accordance with subsection (d) of Section 16-50j-60 of the RCSA	
3.	The certificate holder, or facility owner or operator, shall provide the CSC with a monthly construction progress report or a construction progress report at intervals determined by the CSC or its designee, indicating changes and deviations from the approved D&M Plan. The CSC may approve changes and deviations, request corrections, or require mitigation measures.	Section 6.3
4.	The certificate holder, or facility owner or operator, shall provide the CSC with written notice of completion of construction and site rehabilitation.	Section 6.1
(c)	Final Report The certificate holder, or facility owner or operator, shall provide the CSC with a final report for the facility not later than 180 days after completion of all site construction and site rehabilitation. The report shall identify:	
1.	All agreements with abutters or other property owners regarding special maintenance precautions	
2.	Significant changes of the D&M plan that were required because of property rights of underlying and adjoining owners for other reasons	
3.	The location of construction materials which have been left in place including, but not limited to, culverts, erosion control structures along watercourses and steep slopes, and corduroy roads in regulated wetlands	Section 6.3
4.	The location of areas where special planting and reseeding have been done	
5.	The actual construction cost of the facility, including but not limited to the following costs:	
	B. Construction of the facility and associated equipment	
	C. Rehabilitation; and	
(d)	D. Property acquisition for the site or access to the site Protective Order	N/A
	The certificate holder, or facility owner or operator, may file a motion for protective order pertaining to commercial or financial information related to the site or access to the site.	

Condition		Partial D&M Plan
Number	Declaratory Ruling Condition Description	Section Reference (as applicable)
(1)	The Petitioner shall prepare a Partial Development and Management (D&M) Plans in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies for the portions of the facility construction that will occur within wetlands and watercourses. The Partial D&M Plan shall be submitted to and approved by the Council prior to the commencement of facility construction and shall include: a. Detailed site plans that clarify construction within wetlands, watercourses, and	Refer to this Plan
	at culvert crossings, including structure locations and temporary and permanent impacts related to work pads and construction access, and methods to reduce such impacts, including but not limited to, the potential use of silt sox for erosion and sediment controls; andb. Details of construction-related dewatering.	
(2)	Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as practical .	N/A
(3)	Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the Towns of East Granby and Suffield.	N/A
(4)	Within 45 days after completion of construction, the Council shall be notified in writing the construction has been completed.	Refer to Section 6
(5)	The Certificate Holder shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under CGS §16-50v.	N/A
(6)	This Declaratory Ruling may be transferred, provided the facility owner/operator/transferor is current with payments to the Council for annual assessments and invoices under CGS §16-50v and the transferee agrees to comply with the terms, limitations and conditions in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under CGS §16-50v.	N/A
(7)	If the facility owner/operator is a wholly-owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or another entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer.	N/A
Page No.	Council Staff Report (December 17, 2020)	
7	Approval of Project changes to be delegated to Council staff.	Section 6

Table 8-2: Summary of CSC Project-Specific Conditions (Petition 1429 Ruling)

9. ACRONYMNS AND GLOSSARY OF TERMS

Access Road:	A road that provides access along or to the ROW.
BMP:	Best Management Practice
CGS:	Connecticut General Statute
Conductor:	A metallic wire, busbar, rod, tube or cable which serves as a path for electric current flow.
CT DOT:	Connecticut Department of Transportation
Council or CSC:	Connecticut Siting Council
CWA:	Clean Water Act
CT DEEP:	Connecticut Department of Energy and Environmental Protection
Counterpoise:	Part of grounding system.
D&M Plan:	Development and Management Plan
dBA:	Decibel, on the A-weighted scale.
Deadend Structure:	A line structure that is designed to have the capacity to hold the lateral strain of the
Direct Embed:	Structure installation type in which the bottom section of each pole is placed in an
	excavated hole. Does not require the use of foundations or concrete. H-frame and guyed
	pole structures are typically direct embedded.
Drilled Shaft:	Structure foundation type involving the use of drilling rigs and pneumatic hammers to
	excavate an area for the structure foundation. Concrete is used for the foundation.
Construction:	Construction refers to Project activities commencing with work site / staging area
	preparation through final restoration and site stabilization.
Electric Transmission:	The facilities (69 kV+) that transport electrical energy from generating plants to
	distribution substations.
Eversource:	Also "the Company": The Connecticut Light and Power Company doing business
	as Eversource Energy.
FEMA:	Federal Emergency Management Agency
Frac Tank:	Fractionization tank, used to temporarily hold water pumped from Project excavations or
	otherwise used during Project construction activities
Grounding System:	Ground rings, placed around transmission line poles and counterpoise as required.
Ground Wire:	Cable/wire used to connect wires and metallic structure parts to the earth. Sometimes used
	to describe the lightning shield wire.
H-Frame Structure:	A wood or steel structure constructed of two upright poles with a horizontal cross-arm and
	bracings.
kV:	Kilovolt, equals 1,000 volts
kW:	Kilowatt, equals 1,000 watts
Lightning Shield Wire:	Electric cable located to prevent lightning from striking transmission circuit conductors.
Line:	A series of overhead transmission structures which support one or more circuits; or in the
	case of underground construction, a duct bank housing one or more cable circuits.
NDDB:	Connecticut Natural Diversity Data Base (CT DEEP)
NRCS:	National Resources Conservation Service (U.S. Department of Agriculture)
NRHP:	National Register of Historic Places
NWI:	National Wetlands Inventory
OPGW:	Optical ground wire (a shield wire containing optical glass fibers for communication
	purposes)
PEM:	Palustrine emergent marsh (wetlands)
Petition:	CSC Petition No. 1429 for this Project
PFO:	Palustrine forested (wetlands)
Phases:	Transmission (and some distribution) AC circuits are comprised of three phases that have
	a voltage differential between them.
Project:	1768 Line Lattice Tower Replacement Project
PSS:	Palustrine scrub-shrub (wetlands)
PUB:	Palustrine unconsolidated bottom (wetlands)
PURA:	Public Utilities Regulatory Authority (part of CT DEEP)
RCSA:	Regulations of Connecticut State Agencies
Rebuild:	Replacement of an existing overhead transmission line with new structures and conductors
	generally along the same route as the existing line.

Reconductor:	Replacement of existing conductors with new conductors, but with little if any replacement or modification of existing structures
ROW:	Right-of-Way
SHPO:	State Historic Preservation Office (Connecticut)
SPCP:	Spill Prevention and Control Plan
Substation:	Part of the electric transmission system, a high-voltage electrical facility with a fenced-in yard containing switches, transformers, line-terminal structures, and other equipment enclosures and structures to regulate and distribute electrical energy.
SWPCP:	Stormwater Pollution Control Plan
Transmission Line:	Any line operating at 69,000 or more volts.
USACE:	United States Army Corps of Engineers
USDA:	United States Department of Agriculture
USFWS:	United States Fish and Wildlife Service
USGS:	United States Geological Survey (U.S. Department of the Interior).
Vegetation Removal:	Removal of forest vegetation, as well as mowing or cutting of scrub-shrub vegetation.
Watercourse:	Rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water, natural or artificial, public or private.
Wetland:	Area consisting of soil that is saturated with moisture, such as a swamp, marsh, or bog. CT DEEP and the USACE have formal definitions of state and federal jurisdictional wetlands, respectively.
XS:	Cross section (drawing)

APPENDICES

- A Map Sheets, Cross-Sections, and Detail Sheets
- B Spill Prevention and Control Plan
- C Snow Removal and De-Icing Procedures
- D Eversource's 2016 BMP Manual: Construction and Maintenance Environmental Requirements for Massachusetts and Connecticut (*incorporated by reference*)

APPENDIX A

MAP SHEETS, CROSS-SECTIONS, AND DETAIL SHEETS



1768 LINE LATTICE TOWER REPLACEMENT EAST GRANBY, AND SUFFIELD **CONNECTICUT**



TRANSMISSION LINE PARTIAL DEVELOPMENT AND **MANAGEMENT PLAN VOLUME 1**

JANUARY, 2021






CROSS SECTION SHEETS

CROSS SECTIONS DESCRIPTION

- XS-1 STRUCTURE 3180 TO STRUCTURE 3190
- XS-2 STRUCTURE 3191 TO STRUCTURE 3201
- XS-3 STRUCTURE 3202 TO STRUCTURE 3221
- XS-4 STRUCTURE 3222 TO STRUCTURE 3223
- XS-5 STRUCTURE 3224 TO STRUCTURE 3247

MAPSHEETS

MAPSHEETS DESCRIPTION

INDEX MAP USGS 1:40,000 FT SCALE

SHEETS 1-25 1768 LINE LATTICE TOWER REPLACEMENT PARTIAL DEVELOPMENT & MANAGEMENT PLAN

DETAIL SHEETS

SHEET DESCRIPTION

- 1 PERMITTED WATER RESOURCE IMPACTS & WETLAND INVASIVE SPECIES CONTROL BMPS
- 2 WETLAND, WATERCOURSE, WATERBODY, AND VERNAL POOL PROTOCOLS
- 3 GENERAL AND EROSION AND SEDIMENTATION CONTROL NOTES 4 ACCESS ROAD & WORKPAD TYPICAL DETAILS
- 5 STREAM CROSSING TYPICAL DETAILS
- 6 EROSION AND SEDIMENTATION CONTROL TYPICAL DETAILS
- 7 EROSION AND SEDIMENTATION CONTROL TYPICAL DETAILS









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REVISIONS	BY	снк	APP	APP		TECHNOLOGY CORPORATION						



1. NOTEY EVERSOURCE ENVIRONMENTAL PRIOR TO WORKING IN EACH WETLAND TO IDENTIFY SITE SPECIFIC PROTECTION MEASURES AND BEST MANAGEMENT PRACTICES. 2. VEGETATION REMOVAL IN/NEAR WETLANDS WILL OCCUR WITHIN THE LIMITS OF DISTURBANCE AS SHOWN. ADDITIONALLY, DANGER OR HAZARD TREE REMOVAL MAY BE REQUIRED OUTSIDE OF THE LIMITS OF DISTURBANCE.

3. ALL PROJECT CONSTRUCTION ACTIVITIES IN WETLANDS WILL BE CONTAINED WITHIN THE DEPICTED LIMITS OF DISTURBANCE (MATTING).

4. THE LIMITS OF DISTURBANCE AS SHOWN DEFINE AREAS WHERE VEGETATION REMOVAL AND GRUBBING, GRADING, AND EXCAVATION MAY OCCUR. MINOR DEVIATIONS MAY BE REQUIRED OUTSIDE OF WETLANDS IN SOME LOCATIONS. 5. ALL WORK WILL BE CONDUCTED IN ACCORDANCE WITH THE RELEVANT PORTIONS OF EVERSOURCES BMP MANUAL: CONNECTICUT CONSTRUCTION AND MAINTENANCE ENVIRONMENTAL REQUIREMENTS (BMP MANUAL), UNLESS MORE STRINGENT PROJECT-SPECIFIC MEASURES APPLY. 6. ALL WORK WILL BE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF REGULATORY APPROVALS/AUTHORIZATIONS FROM THE CONNECTICUT SITING COUNCIL, THE U.S. ARMY CORPS OF ENGINEERS AND THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION,

AND WITH ALL PROJECT PROTOCOLS. 7. EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE INSTALLED DURING CONSTRUCTION, AS REQUIRED, TO COMPLY WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, AND EVERSOURCE'S BMP MANUAL, AND APPLICABLE REGULATORY APPROVALS.

8. ALL TEMPORARY ACCESS ROADS IN UPLANDS ARE DEEMED TO BE PERMANENT UNLESS OTHERWISE NOTED 9. EXISTING CULVERTS WILL BE PROTECTED AS DEEMED NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION

10. WETLAND INVASIVE SPECIES CONTROL BMS APPLY TO WOOKK WITHIN ALL WETLANDS WITH INVASIVE SPECIES. SEE DETAIL SHEET 2. 11. VERNAL POOL BMPS ARE REQUIRED WITHIN INDICATED AREAS AS DIRECTED BY THE ENVIRONMENTAL MONITOR. SEE DETAIL SHEET 2.



12. RETAINING WALLS ARE DEPICTED IN SOME LOCATION ON THE PARTIAL DEVELOPMENT AND MANAGEMENT PLAN IN ORDER TO PROVIDE A LEVEL WORK AREA WHERE STEEP TOPOGRAPHY, LIMITED ROW, AND ENVIRONMENTALLY SENSITIVE AREAS EXIST. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF RETAINING WALLS, DESIGN OF RETAINING WALL, METHOD OF CONSTRUCTION, AND SAFETY MEASURES UTILIZED. RETAINING WALLS MAY BE REQUIRED IN ADDITIONAL LOCATIONS NOT DEPICTED ON THE PLANS.

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Riprap

Plunge Pool

Eversource Owned Property

Approximate Parcel Boundary

1 inch = 100 fee

NO. DATE

State-Owned Property

Existing Tree Line

------ Drainage Swale

- Proposed 10' Contour Line

- Proposed 2' Contour Line

Temporary Timber Mat Retaining Wall

- Silt Fence or Approved Alternative

Open Water

Delineated Intermittent Watercourse Delineated (June 2020)

- Delineated Perennial Watercourse Highly Erodible Soils

---- 100' Vernal Pool Envelope

Confirmed Vernal Pool Extent

- · - Eversource Overhead Line

10' Contour Line

- 2' Contours

• 📰 • 🖁 Trail

X=X=X Fence

Existing Right-of-Way (ROW)

O
 O
 Proposed Access

Stone Work Pad

Temporary Construction Matting

 \boxtimes

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Plunge Pool

Eversource Owned Property

Approximate Parcel Boundary

1 inch = 100 fee

DATE

NO.

State-Owned Property

- Proposed 2' Contour Line

------ Drainage Swale

- Silt Fence or Approved Alternative

Existing Structures to be removed	Existing Access
 Eversource Overhead Line 	OProposed Access
 Existing Right-of-Way (ROW) 	Stone Work Pad
— 10' Contour Line	

- 2' Contours

• 📰 • 🖁 Trail

X=X=X Fence

 \boxtimes





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1 inch = 100 fee

NO DATE

Approximate Parcel Boundary

• 📰 • 🖁 Trail

X=X=X Fence

Highly Erodible Soils

------ Drainage Swale

Delineated Perennial Watercourse

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7. EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE INSTALLED DURING CONSTRUCTION, AS REQUIRED, TO COMPLY WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, AND EVERSOURCE'S BMP MANUAL, AND APPLICABLE REGULATORY APPROVALS.

8. ALL TEMPORARY ACCESS ROADS IN UPLANDS ARE DEEMED TO BE PERMANENT UNLESS OTHERWISE NOTED 9. EXISTING CULVERTS WILL BE PROTECTED AS DEEMED NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION



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Eversource Owned Property

Approximate Parcel Boundary

1 inch = 100 fee

DATE

NO.

State-Owned Property

Temporary Timber Mat Retaining Wall

------ Drainage Swale

- Silt Fence or Approved Alternative

Confirmed Vernal Pool Extent

Highly Erodible Soils

 \boxtimes

- 2' Contours

• 📰 • 🖁 Trail

X=X=X Fence

Temporary Construction Matting

Delineated Perennial Watercourse

Delineated Intermittent Watercourse Delineated (June 2020)

					1768 Line Lattice Tower Replacement Partial Development and Management Plan							
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					1768 Line Lattice T	1768 Line Lattice Tower Replacement						
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Map Shee		ROCK CONSTRUCTION ENTRANCE (RCE) SEE DETAIL SHEET 5	ALBERT G LAWSON
17062 HARRIS AND DARLENE M & TIMOTHY C HARRIS L/U	DRIVEWAY ACCESS WILL BE MAINTAINED DURING CONSTRUCTION	1768 Line 3204 3216 Line 1700	
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Team Foi	INDEX M	AP	Proposed Structure			FEMA 100-Year Flood Zone		Aerial Map Source: CTECO 2019 ———— Municipal Boundary				EVERS	
APT GIS	-	Agaram	Existing Structure	Gate Existing Culvert	Delineated Wetland Boundary Outline	500 Year Flood Zone	S Outlet Protection					1768 Line Lattice	Tower Replacement
PT GISJ	A CONTRACT		Existing Structures to be removed Eversource Overhead Line	d = = • Existing Access	Field Delineated Federal Wetland	Limit of Disturbance Existing Tree Line	Engineered Slope Protection					Partial Development	and Management Plan
xodqc		Suffield 100	Existing Right-of-Way (ROW)	Stone Work Pad	100' Vernal Pool Envelope	Proposed 10' Contour Line Proposed 2' Contour Line	Plunge Pool	Z Z				Suffield, CT	Map Sheet 10 of 25
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SOME LOCATION ON THE PARTIAL DEVELOPMENT AND MANAGEMENT PLAN IN ORDER TO PROVIDE A LEVEL WORK AREA DW, AND ENVIRONMENTALLY SENSITIVE AREAS EXIST. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING LLS, DESIGN OF RETAINING WALL, METHOD OF CONSTRUCTION, AND SAFETY MEASURES UTILIZED. RETAINING WALLS TIONS NOT DEPICTED ON THE PLANS.



 Existing Right-of-Way (ROW) Stone Work Pad - 10' Contour Line \boxtimes

- 2' Contours

• 📰 • 🖁 Trail

X=X=X Fence

Temporary Construction Matting Delineated Intermittent Watercourse DDB Area (June 2020)

Delineated Perennial Watercourse

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1 inch = 100 fee DATE NO.

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GENERAL NOTES

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Temporary Timber Mat Retaining Wall

------ Drainage Swale

- Silt Fence or Approved Alternative

State-Owned Property

Approximate Parcel Boundary

1 inch = 100 fee

DATE

NO.

 \boxtimes

- 2' Contours

• 📰 • 🖁 Trail

X=X=X Fence

Temporary Construction Matting

Delineated Perennial Watercourse

Delineated Intermittent Watercourse Delineated (June 2020)

Highly Erodible Soils

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GENERAL NOTES

1. NOTIFY EVERSOURCE ENVIRONMENTAL PRIOR TO WORKING IN EACH WETLAND TO IDENTIFY SITE SPECIFIC PROTECTION MEASURES AND BEST MANAGEMENT PRACTICES. 2. VEGETATION REMOVAL IN/NEAR WETLANDS WILL OCCUR WITHIN THE LIMITS OF DISTURBANCE AS SHOWN. ADDITIONALLY, DANGER OR HAZARD TREE REMOVAL MAY BE REQUIRED OUTSIDE OF THE LIMITS OF DISTURBANCE. 3. ALL PROJECT CONSTRUCTION ACTIVITIES IN WETLANDS WILL BE CONTAINED WITHIN THE DEPICTED LIMITS OF DISTURBANCE (MATTING).

4. THE LIMITS OF DISTURBANCE AS SHOWN DEFINE AREAS WHERE VEGETATION REMOVAL AND GRUBBING, GRADING, AND EXCAVATION MAY OCCUR. MINOR DEVIATIONS MAY BE REQUIRED OUTSIDE OF WETLANDS IN SOME LOCATIONS. 5. ALL WORK WILL BE CONDUCTED IN ACCORDANCE WITH THE RELEVANT PORTIONS OF EVERSOURCES BMP MANUAL: CONNECTICUT CONSTRUCTION AND MAINTENANCE ENVIRONMENTAL REQUIREMENTS (BMP MANUAL), UNLESS MORE STRINGENT PROJECT-SPECIFIC MEASURES APPLY.

6. ALL WORK WILL BE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF REGULATORY APPROVALS/AUTHORIZATIONS FROM THE CONNECTICUT SITING COUNCIL, THE U.S. ARMY CORPS OF ENGINEERS AND THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION,

AND WITH ALL PROJECT PROTOCOLS. 7. EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE INSTALLED DURING CONSTRUCTION, AS REQUIRED, TO COMPLY WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, AND EVERSOURCE'S BMP MANUAL, AND APPLICABLE REGULATORY APPROVALS. 8. ALL TEMPORARY ACCESS ROADS IN UPLANDS ARE DEEMED TO BE PERMANENT UNLESS OTHERWISE NOTED 9. EXISTING CULVERTS WILL BE PROTECTED AS DEEMED NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION

10. WETLAND INVASIVE SPECIES CONTROL BMS APPLY TO WOOKK WITHIN ALL WETLANDS WITH INVASIVE SPECIES. SEE DETAIL SHEET 2. 11. VERNAL POOL BMPS ARE REQUIRED WITHIN INDICATED AREAS AS DIRECTED BY THE ENVIRONMENTAL MONITOR. SEE DETAIL SHEET 2.



12. RETAINING WALLS ARE DEPICTED IN SOME LOCATION ON THE PARTIAL DEVELOPMENT AND MANAGEMENT PLAN IN ORDER TO PROVIDE A LEVEL WORK AREA WHERE STEEP TOPOGRAPHY, LIMITED ROW, AND ENVIRONMENTALLY SENSITIVE AREAS EXIST. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF RETAINING WALLS, DESIGN OF RETAINING WALL, METHOD OF CONSTRUCTION, AND SAFETY MEASURES UTILIZED. RETAINING WALLS MAY BE REQUIRED IN ADDITIONAL LOCATIONS NOT DEPICTED ON THE PLANS.

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GIS)	2 Los Andrew		 Existing Structures to be removed 	Existing Access	Field Delineated Federal Wetland	Limit of Disturbance	Engineered Slope Protection	r					Partial Developmen	t and Management Plan
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i m	crashy I		10' Contour Line		Confirmed Vernal Pool Extent	——— Proposed 2' Contour Line		*						
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Approximate Parcel Boundary

------ Drainage Swale

DATE

NO.

Delineated Perennial Watercourse
 Highly Erodible Soils

X=X=X Fence

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State-Owned Property

Approximate Parcel Boundary

1 inch = 100 fee

DATE

NO.

- Silt Fence or Approved Alternative

------ Drainage Swale

- 2' Contours

• 📰 • 🖁 Trail

X=X=X Fence

— Delineated Intermittent Watercourse Delineated Intermittent Watercourse

- Delineated Perennial Watercourse Highly Erodible Soils

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Temporary Timber Mat Retaining Wall

------ Drainage Swale

- Silt Fence or Approved Alternative

State-Owned Property

Approximate Parcel Boundary

1 inch = 100 fee

DATE

NO.

- 2' Contours

• 📰 • 🖁 Trail

X=X=X Fence

Delineated Intermittent Watercourse DDB Area (June 2020)

Delineated Perennial Watercourse

Highly Erodible Soils

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Riprap

Plunge Pool

Eversource Owned Property

Approximate Parcel Boundary

1 inch = 100 fee

DATE

NO.

State-Owned Property

	•	Existing Structure	•	Existing Culvert
Taned	0	Existing Structures to be removed		 Existing Access
	— ·	 Eversource Overhead Line 	00	Proposed Access
		 Existing Right-of-Way (ROW) 		Stone Work Pad
		— 10' Contour Line	$\overline{\mathbf{X}}$	Temporary Construct
II R J		2' Contours	\sim	temporary construct

o 🔜 o 🖁 Trail

X=X=X Fence





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Plunge Pool

Eversource Owned Property

Approximate Parcel Boundary

1 inch = 100 fee

DATE

NO.

State-Owned Property

sting Structures to be removed	 Existing Access
ersource Overhead Line	OProposed Access
sting Right-of-Way (ROW)	Stone Work Pad

 \boxtimes

Temporary Construction

Delineated Intermitte

- Exi

• 📰 • 🖁 Trail

X=X=X Fence

10' Contour Line

- 2' Contours

	Open Water
	100' Vernal F
on Matting	<u> </u> Confirmed Verna
nt Watercourse	NDDB Area (June



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PERMITTED WATER RESOURCE IMPACTS

		WETLAND/WATERCOURSE EFFECTS (± SQUARE FEET / ACRES)						
WETLAND / WATERCOURSE ID	D&M MAP SHEET	TEMPORARY (MATTING)	PERMANENT (STRUCTURES)	SECONDARY (SELECTIVE TREE REMOVAL)				
W1A	01	35,585	0	2,849				
W1	01, 02	59,778	160	0				
W2	02	745	0	0				
W3	03	7,416	0	0				
W5/S3	04, 05	375	0	0				
W7	05, 06	5,976	0	0				
W9	09, 10	11,956	80	0				
W11	11	503	0	0				
W14/S8	16	230	0	0				
W17/S10/S11	19, 20	13,332	0	0				
W18	20	4,618	0	0				
W19	21, 22	64,266	240	0				
W20	22	7,205	0	0				
W21	23, 24	7,969	0	0				
W22/S12	25	16,032	80	0				
ΤΟΤΑ	4	235,757	560	2,849				
TOTAL		(5.41 acres)	(0.013 acre)	(0.07 acres)				

WETLAND INVASIVE SPECIES CONTROL BMPS

WETLAND INVASIVE SPECIES CONTROL BMPS

TO CONTROL THE SPREAD OF WETLAND INVASIVE PLANT SPECIES, EVERSOURCE WILL REQUIRE CONSTRUCTION CONTRACTORS TO IMPLEMENT THE PROCEDURES DESCRIBED BELOW, AS APPROPRIATE TO THE CONSTRUCTION ACTIVITY BEING PERFORMED:

- A. ALL CONSTRUCTION EQUIPMENT, VEHICLES, AND MATERIALS (E.G., EQUIPMENT MATS) MUST BE CLEAN AND FREE OF EXCESS SOIL, DEBRIS, AND VEGETATION BEFORE BEING MOBILIZED TO THE PROJECT ROWS.
- B. TIMBER MATS OR EQUIVALENT (E.G., CORDUROY ROADS) WILL BE USED IN WETLANDS DURING CLEARING OPERATIONS TO MINIMIZE SPREAD OF INVASIVE SPECIES WITHIN A WETLAND BY THE CLEARING EQUIPMENT ITSELF.
- C. TO MINIMIZE THE POTENTIAL FOR SPREADING INVASIVE PLANT SPECIES FROM WETLAND TO WETLAND ALONG THE ROW, ANY EQUIPMENT WORKING IN OR TRAVERSING A WETLAND CONTAINING INVASIVE PLANT SPECIES WILL BE CLEANED PRIOR TO RELOCATING TO ANOTHER WORK SITE. CLEANING OF VEHICLES AND OTHER EQUIPMENT (INCLUDING THE TRACKS AND TIRES) WILL INVOLVE REMOVAL OF VISIBLE DIRT, DEBRIS AND VEGETATION THROUGH THE USE OF BROOMS, SHOVELS, AND, IF NEEDED, COMPRESSED AIR.
- D. TIMBER MATS OR EQUIVALENT WILL BE USED AT WETLAND CROSSINGS SO CONSTRUCTION VEHICLES THAT FREQUENTLY TRAVEL ALONG ON ROW ACCESS ROADS, SUCH AS PICKUPS CARRYING PERSONNEL OR MATERIAL DELIVERY TRUCKS, CAN AVOID DIRECT WETLAND INTERACTION.
- E. MATS USED IN WETLANDS CONTAINING INVASIVE SPECIES WILL BE CLEANED PRIOR TO RELOCATION TO OTHER WORK AREAS OR WETLANDS. CLEANING OF MATTING WILL INVOLVE DROPPING MATS ONE ON TOP OF ANOTHER TO SHAKE LOOSE ANY SEDIMENT AND DEBRIS.
- F. FINAL RESTORATION OF THE ROW IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT VERSION OF THE EVERSOURCE BEST MANAGEMENT PRACTICES MANUAL CONSTRUCTION AND MAINTENANCE ENVIRONMENTAL REQUIREMENTS. IF "HAY BALE" EROSION CONTROLS ARE REQUIRED ON SITE, THE CONTRACTOR WILL BE REQUIRED TO USE ALTERNATIVE MEASURES, TO THE EXTENT PRACTICABLE AND IF LOCAL SOURCES ARE AVAILABLE, UTILIZE STRAW BALES, WATTLES, COCONUT ROLLS, WOOD CHIP BAGS OR SILT FENCE IN LIEU OF TRADITIONAL HAY BALES WHICH MAY CONTAIN NOXIOUS OR INVASIVE SED STOCK OR PLANT MATTER. THIS IS ESPECIALLY IMPORTANT WHEN EROSION CONTROLS ARE INSTALLED ADJACENT TO WETLANDS.EFFORTS WILL BE MADE DURING CONSTRUCTION, TO THE EXTENT PRACTICABLE, TO MINIMIZE EQUIPMENT MOBILITY IN AREAS CONTAINING INVASIVE SPECIES SO AS TO AVOID DRAGGING INVASIVE PLANT MATERIAL BACK AND FORTH FROM ESTABLISHED STANDS INTO OTHER WETLANDS.

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WETLAND, WATERCOURSE, WATERBODY, AND VERNAL POOL PROTOCOLS

WETLAND AVOIDANCE AND MINIMIZATION MEASURES

- A. COMPLY WITH RELEVANT PORTIONS OF EVERSOURCE'S BEST MANAGEMENT PRACTICES MANUAL FOR MASSACHUSETTS AND CONNECTICUT PREPARED BY TIGHE&BOND, SEPTEMBER 2016
- COMPLY WITH THE CONDITIONS OF THE COUNCIL'S CERTIFICATE AND FEDERAL AND STATE PERMITS RELATED TO WETLANDS, INCLUDING THE IMPLEMENTATION OF WETLAND INVASIVE SPECIES CONTROL MEASURES В. DURING CONSTRUCTION. REFER TO WETLAND INVASIVE SPECIES CONTROL BMP
- C. USE LOW-IMPACT EQUIPMENT AND INSTALL TEMPORARY TIMBER MATS (OR EQUIVALENT) TO MINIMIZE RUTTING DURING VEGETATION REMOVAL ACTIVITIES IN WETLANDS.
- MINIMIZE THE REMOVAL OF STUMPS WITHIN WETLANDS. STUMPS WILL ONLY BE REMOVED IF INTACT D. STUMPS POSE A SAFETY CONCERN FOR THE INSTALLATION OF ACCESS ROADS, WORK PADS, OR STRUCTURES: THE MOVEMENT OF EQUIPMENT: OR THE SAFETY OF PERSONNEL
- INSTALL EROSION AND SEDIMENTATION CONTROLS AROUND WORK SITES IN OR NEAR WETLANDS TO DEFINE THE LIMITS OF CONSTRUCTION ACTIVITY AND TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENTATION. NO CONSTRUCTION ACTIVITIES WILL BE ALLOWED IN WETLANDS OUTSIDE OF THE WORK LIMITS DEFINED BY THE EBOSION AND SEDIMENTATION CONTROLS
- INSPECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROLS THROUGHOUT CONSTRUCTION. SEDIMENT THAT ACCUMULATES BEHIND THESE CONTROLS WILL PERIODICALLY BE REMOVED AND PLACED IN UPLAND AREAS, IN A MANNER THAT WILL PRECLUDE THE POTENTIAL FOR SUBSEQUENT DEPOSITION INTO WATERCOURSES OR OTHER WATERS OF THE U.S., OR WILL OTHERWISE BE DISPOSED OF OFF-SITE.
- G. INSTALL TEMPORARY CONSTRUCTION MATTING (TIMBER MATS OR EQUIVALENT) FOR ACCESS ROADS ACROSS WETLANDS OR TO ESTABLISH SAFE AND STABLE CONSTRUCTION WORK AREAS / WORK PADS WITHIN WETLANDS, WHERE NECESSARY
- H. AVOID OR MINIMIZE ACCESS THROUGH WETLANDS, WHERE POSSIBLE. WHERE ACCESS ROADS MUST BE IMPROVED OR DEVELOPED, THE ROADS WILL BE DESIGNED, WHERE PRACTICAL, SO AS NOT TO INTERFERE WITH SURFACE WATER FLOW OR THE WETLAND FUNCTIONS.
- IMPLEMENT PROCEDURES TO AVOID OR MINIMIZE THE POTENTIAL FOR SPILLS INTO WETLANDS (REFER TO THE PROJECT SPILL PREVENTION AND CONTROL PLAN. NO FUEL WILL BE STORED OR EQUIPMENT REFUELED WITHIN 25 FEET OF ANY WETLAND, EXCEPT UNDER THE FOLLOWING CIRCUMSTANCE: EQUIPMENT THAT IS NOT READILY MOBILE OR MUST REMAIN ON-SITE FOR PROLONGED PERIODS TO SAFELY COMPLETE A CONSTRUCTION TASK (E.G., DRILLING RIGS OR CRANES FOR STRUCTURE INSTALLATION) MAY BE REFUELED IN WETLANDS, PROVIDING PROPER TEMPORARY SPILL PREVENTION, CONTROL, AND CONTAINMENT PROCEDURES ARE FOLLOWED.
- PROHIBIT VEHICLES OR EQUIPMENT FROM BEING PARKED OVERNIGHT ON ACCESS ROADS OR WORK PADS IN WETLANDS, EXCEPT FOR EQUIPMENT THAT CANNOT BE PRACTICALLY MOVED, SUCH AS CRANES OR DRILL RIGS
- PROHIBIT MIXING, TESTING, STORAGE, OR DISPOSAL OF CONCRETE (USED FOR SOME STRUCTURE FOUNDATIONS) WITHIN 25 FEET OF WETLANDS.
- PROHIBIT STOCKPILING OF EXCESS SOIL GENERATED AS A RESULT OF STRUCTURE / FOUNDATION Ι. INSTALLATION WORK WITHIN WETLANDS, EXCEPT THAT SOILS OR OTHER EXCAVATED MATERIAL MAY BE TEMPORARILY STOCKPILED AND CONTAINED ON THE WORK PAD LOCATED WITHIN A WETLAND PRIOR TO TRANSPORT OFF-SITE. EXCESS SOIL WILL BE REMOVED FROM WETLAND WORK AREAS AND SPREAD IN UPI AND AREAS
- M. REMOVE, FOLLOWING THE COMPLETION OF TRANSMISSION LINE WORK, TEMPORARY FILL MATERIALS FROM WORK SITES IN WETLANDS, INCLUDING ALL GEOTEXTILE FABRIC, AND TIMBER MATS USED FOR WORK PADS AND TEMPOBABY ACCESS BOADS
- N. RESTORE WETLANDS, AFTER TRANSMISSION FACILITY CONSTRUCTION, TO PRE-CONSTRUCTION CONFIGURATIONS AND CONTOURS TO THE EXTENT PRACTICABLE AND REVEGETATE WITH ANNUAL RYEGRASS, AN APPROPRIATE WETLAND SEED MIX, OR EQUIVALENT.
- O. INSPECT AND MAINTAIN TEMPORARY EROSION AND SEDIMENTATION CONTROLS UNTIL RESTORATION HAS BEEN DETERMINED TO BE EFFECTIVE AS DEFINED BY CONFORMANCE TO THE CT DEEP GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DEWATERING WASTEWATERS ASSOCIATED WITH CONSTRUCTION ACTIVITIES

WATERCOURSE AND WATERBODY AVOIDANCE AND MINIMIZATION MEASURES

THE FOLLOWING MEASURES WILL BE TAKEN TO AVOID OR MINIMIZE IMPACTS TO WATERCOURSES AND WATERBODIES DURING PROJECT ACTIVITIES. ALL WORK IN OR NEAR WATERCOURSES AND WATERBODIES WILL BE IN ACCORDANCE WITH PROJECT MAPPING, EVERSOURCE'S BMP MANUAL, AND THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL

- A. A.PERFORM UNCONFINED IN-WATER ACTIVITIES DURING LOW-FLOW PERIODS (JUNE 1 THROUGH SEPTEMBER 30), UNLESS PRIOR WRITTEN APPROVAL FROM CT DEEP IS RECEIVED OR MANAGEMENT TECHNIQUES SUCH AS INSTALLATION OF TIMBER MATS TO SPAN THE CROSSING, TEMPORARY FLUME PIPES, CULVERTS COFFERDAMS, ETC. ARE UTILIZED TO MAINTAINS NORMAL FLOWS WITHIN THE STREAM BOUNDARY'S CONFINES SO THE WORK DOES NOT OCCUR IN FLOWING WATERS
- INSTALL AND MAINTAIN TEMPORARY EROSION AND SEDIMENTATION CONTROLS ALONG THE ROW WHERE B. CONSTRUCTION ACTIVITIES DISTURB SOILS NEAR WATERCOURSES. THESE CONTROLS WILL BE INSTALLED AND MAINTAINED TO PREVENT SEDIMENTATION INTO WATER RESOURCES. SEDIMENT THAT ACCUMULATES BEHIND THESE CONTROLS WILL PERIODICALLY BE REMOVED AND PLACED IN UPLAND AREAS. IN A MANNER THAT WILL PRECLUDE THE POTENTIAL FOR SUBSEQUENT DEPOSITION INTO WATERCOURSES OR OTHER WATERS OF THE U.S., OR WILL OTHERWISE BE DISPOSED OF OFF-SITE.
- C. ACCESS ROADS ACROSS WATERCOURSES WILL BE INSTALLED, WHERE PRACTICABLE, SO AS TO AVOID OR MINIMIZE DIRECT ADVERSE IMPACTS TO STREAM BANKS AND STREAM-BOTTOM SEDIMENTS, AS WELL AS TO PROVIDE UNOBSTRUCTED AMBIENT FLOW IN PERENNIAL STREAMS (E.G., SPAN CROSSINGS WILL PROVIDE ADEQUATE CLEARANCE ABOVE THE WATERCOURSE TO CONVEY FLOWS)
- MAJOR CONSTRUCTION EQUIPMENT WILL BE PROHIBITED FROM FORDING STREAMS. HOWEVER, DEPENDING D. ON SITE-SPECIFIC CONDITIONS, EQUIPMENT USED BY VEGETATION CLEARING CREWS MAY NEED TO CROSS SMALL WATERCOURSES TO ACCESS CLEARING AREAS. CLEARING CREWS MAY USE TIMBER MATS, OR CORDUROY, DEPENDING ON SITE SPECIFIC CONDITIONS

- WHERE TEMPORARY CONSTRUCTION WORK PADS MUST BE CONSTRUCTED OVER WATERCOURSES, THE WORK PAD DESIGN WILL INCORPORATE MEASURES DESIGNED TO MAINTAIN FLOWS AND MINIMIZE AQUATIC HABITAT DISTURBANCE DURING THE CONSTRUCTION PERIOD
- EXISTING RIPARIAN VEGETATION ALONG THE ROW WITHIN 25 FEET OF WATERCOURSE BANKS WILL BE MAINTAINED, TO THE EXTENT PRACTICABLE AND CONSISTENT WITH ROW VEGETATION MANAGEMENT REQUIREMENTS
- APPROPRIATE BMPS WILL BE USED, AS DETERMINED BY SITE-SPECIFIC CONDITIONS, TO PREVENT OR G. MINIMIZE THE POTENTIAL FOR SEDIMENTATION INTO WATERCOURSES
- MAT SPANS OR EQUIVALENT ACCESS ACROSS WATERCOURSES WILL BE PERIODICALLY SWEPT, AS H. APPROPRIATE, TO MINIMIZE THE POTENTIAL FOR SOIL DEPOSITION INTO WATERCOURSES AS A RESULT OF VEHICLE / EQUIPMENT MOVEMENTS
- MIXING, TESTING, STORAGE, AND DISPOSAL OF CONCRETE (USED FOR SOME STRUCTURE FOUNDATIONS) SHALL BE CONDUCTED IN A MANNER THAT PREVENTS DISCHARGE TO WATERCOURSES
- EXCEPT FOR EQUIPMENT THAT IS NOT READILY MOBILE OR MUST REMAIN ON-SITE FOR PROLONGED PERIODS TO SAFELY COMPLETE A CONSTRUCTION TASK. CONSTRUCTION VEHICLES AND EQUIPMENT WILL NOT BE J. REFUELED WITHIN 25 FEET OF A WATERCOURSE. FOR REFUELING THAT MUST BE PERFORMED LESS THAN 25 FEET FROM A WATERCOURSE, APPROPRIATE SPILL PREVENTION MEASURES, AS DETAILED IN PROJECT SPILL PREVENTION AND CONTROL PLAN, WILL BE APPLIED.
- NO BULK PETROLEUM PRODUCTS WILL BE STORED WITHIN 25 FEET OF A WATERCOURSE.
- AT THE FINAL PHASE OF CONSTRUCTION, TEMPORARY MAT SPANS ACROSS WATERCOURSES WILL BE REMOVED AND THE AFFECTED AREA OF EACH WATERCOURSE WILL BE RESTORED. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE REMOVED UPON THE STABILIZATION OF EXPOSED SOILS NEAR NATERCOURSES

WETLAND RESTORATION

IF NECESSARY, WETLAND AREAS AFFECTED BY CONSTRUCTION WILL BE STABILIZED WITH ANNUAL RYE GRASS, A WETLAND SEED MIX. OR AN EQUIVALENT MIX AT THE LABEL RECOMMENDED SEEDING RATE. WHICH WILL SERVE TO PROVIDE A TEMPORARY VEGETATIVE COVER UNTIL WETLAND SPECIES BECOME REESTABLISHED

IF FINE GRADING IS NECESSARY, IT SHOULD BE DONE IN THE GROWING SEASON AND IN A MANNER THAT RETAINS THE EXISTING WETLAND TOPSOIL AND ROOT MASS TO THE EXTENT PRACTICABLE. ONCE COMPLETE, DISTURBED AREAS AFFECTED BT GRADING SHOULD BE SEEDED IMMEDIATELY

TEMPORARY EROSION AND SEDIMENT CONTROLS WILL BE LEFT IN PLACE AND MAINTAINED UNTIL FINAL STABILIZATION IS ACHIEVED. RESTORATION TYPICALLY WILL BE DEEMED SUCCESSFUL BASED ON THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER. BASED ON THE RESULTS OF POST-CONSTRUCTION INSPECTIONS OF ROW STABILIZATION, EVERSOURCE WILL DETERMINE THE APPROPRIATE TIMEFRAME FOR REMOVING TEMPORARY EROSION CONTROLS.

VERNAL POOL AVOIDANCE AND MINIMIZATION MEASURES

THE FOLLOWING MEASURES WILL BE TAKEN TO AVOID OR MINIMIZE IMPACTS ON VERNAL POOL (POOL) BREEDING HABITAT DURING CONSTRUCTION. VERNAL POOLS WITHIN THE ROW ARE ILLUSTRATED ON THE MAPS THESE MEASURES WILL BE IMPLEMENTED TO THE EXTENT PRACTICABLE, TAKING INTO CONSIDERATION TERRAIN, SAFETY AND CONSTRUCTION REQUIREMENTS:

- A. DURING TREE CLEARING AND VEGETATION REMOVAL ALONG THE ROW, ACCESS THROUGH POOLS WILL BE AVOIDED
- TREES THAT MUST BE REMOVED FROM THE ROW WILL NOT BE INTENTIONALLY FELLED INTO POOLS. DIRECTIONAL FELLING, EXTENDED CABLE WINCHING, AND OTHER FORESTRY PRACTICES WILL BE USED IF B. APPROPRIATE AND FEASIBLE. IF TREES ARE FELLED INTO A POOL, WHETHER OUT OF NECESSITY OR INADVERTENTLY, AND REMOVAL IS LIKELY TO CAUSE ADVERSE IMPACTS, THE TREES OR PARTS OF THE TREES MAY BE LEFT IN PLACE
- EXCEPT IN AREAS WHERE ACCESS ROADS AND WORK PADS MUST BE INSTALLED, EXISTING SCRUB-SHRUB VEGETATION WITHIN 25 FEET OF POOLS WILL BE MAINTAINED, CONSISTENT WITH ROW VEGETATION MANAGEMENT REQUIREMENTS, JE LOW GROWING (SCRUB-SHRUB) VEGETATION MUST BE REMOVED ADJACENT TO POOLS. THE CUT VEGETATION (SLASH) WILL BE LEFT IN PLACE TO SERVE AS RECRUITMENT FOR LEAF LITTER AND COARSE WOODY DEBRIS
- D. EROSION AND SEDIMENTATION CONTROL BEST MANAGEMENT PRACTICES WILL BE INSTALLED AND MAINTAINED ALONG CONSTRUCTION ACCESS ROADS AND AROUND WORK PADS AS NECESSARY TO PROTECT WATER QUALITY AND TO LIMIT THE POTENTIAL FOR SOIL DEPOSITION INTO POOLS. SEDIMENT BUILT UP AGAINST THESE DEVICES WILL PERIODICALLY BE REMOVED AND PLACED IN UPLAND AREAS, IN A MANNER THAT WILL PRECLUDE THE POTENTIAL FOR SUBSEQUENT DEPOSITION INTO THE POOLS. (NOTE: THE SPECIFIC TYPES OF CONTROLS WILL BE DETERMINED IN THE FIELD. IN ACCORDANCE WITH EVERSOURCE'S BMP MANUAL AND CONSISTENT WITH STORMWATER MANAGEMENT REQUIREMENTS FOR THE PROJECT
- E. PLASTIC NETTING, WHICH MAY BE FOUND IN A VARIETY OF EROSION CONTROL PRODUCTS (E.G., EROSION CONTROL BLANKETS, STRAW WATTLES, AND REINFORCED SILT FENCE), WILL NOT BE USED
- WHERE FEASIBLE, MINIMIZE THE USE OF GRAVEL FILL ASSOCIATED WITH ACCESS ROADS, CONSTRUCTION WORK PADS OR PULL PADS WITHIN POOL ENVELOPES (0-100 FEET
- TO THE EXTENT THAT CIRCUIT OUTAGE AND OTHER CONSTRUCTION TIMING CONSTRAINTS ALLOW, G EVERSOURCE WILL ATTEMPT TO SCHEDULE THE INSTALLATION OF ACCESS ROADS AND WORK PADS IN AND AROUND POOL HABITATS SO AS NOT TO INTERFERE WITH AMPHIBIAN BREEDING AND MIGRATION SEASONS (MARCH THROUGH JUNE FOR ALL POOLS), FOR PROJECT ACTIVITIES THAT MUST OCCUR ADJACENT TO OR WITHIN POOLS DURING AMPHIBIAN MIGRATION PERIODS, (MARCH THROUGH JUNE). MEASURES WILL BE IMPLEMENTED ON A SITE-SPECIFIC BASIS AS NECESSARY TO FACILITATE UNENCUMBERED AMPHIBIAN ACCESS TO AND FROM POOLS. MITIGATION MEASURES WILL BE IDENTIFIED AFTER TAKING INTO CONSIDERATION SITE-SPECIFIC CONDITIONS, INCLUDING THE TYPE OF CONSTRUCTION ACTIVITY IN PROXIMITY TO A POOL. THE AMPHIBIAN SPECIES KNOWN TO OCCUR IN THE POOL. AND SEASONAL CONDITIONS. OPTIONS TO BE EVALUATED TO ALLOW AMPHIBIAN ACCESS TO POOLS MAY INCLUDE, BUT NOT BE LIMITED TO SYNCOPATED SEDIMENTATION CONTROL FENCING OR WATTLES IN THE IMMEDIATE VICINITY OF POOLS; ELEVATED CONSTRUCTION MATTING, AND ALIGNING EROSION AND SEDIMENTATION CONTROLS TO AVOID BIFURCATING POOL HABITAT. INSTALLATION OF ANY MITIGATION DEVICES WILL BE BASED ON FIELD.

ACCESS ABOUND SUCH ABEAS ENTIRELY





ELEVATION VIEW

1768 Line Lattice Tower Replacement							
VERNAL POOL PROTOCOLS							
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AND SEASONAL CONDITIONS, AND WILL DEPEND ON SPECIES-SPECIFIC REQUIREMENTS. FURTHER, IN SOME CASES, THE OBJECTIVE MAY BE TO FENCE OFF CONSTRUCTION AREAS NEAR POOLS, ALLOWING AMPHIBIAN

H. EROSION AND SEDIMENTATION CONTROL DEVICES WILL BE PROMPTLY REMOVED UPON FINAL REVEGETATION AND STABILIZATION OF THE ROW

ELEVATED ANIMAL CROSSING

GENERAL NOTES

GENERAL AND EROSION AND SEDIMENTATION CONTROL NOTES

EROSION AND SEDIMENTATION CONTROL NOTES

- 1. THE LIMITS OF DISTURBANCE AS SHOWN DEFINE AREAS WHERE VEGETATION REMOVAL AND GRUBBING, GRADING, AND EXCAVATION MAY OCCUR. MINOR DEVIATIONS MAY BE REQUIRED IN SOME LOCATIONS.
- 2. ALL WORK WILL BE CONDUCTED IN ACCORDANCE WITH THE RELEVANT PORTIONS OF EVERSOURCE'S BEST MANAGEMENT PRACTICES MANUAL FOR MASSACHUSETTS AND CONNECTICUT PREPARED BY TIGHE&BOND, SEPTEMBER 2016 (BMP MANUAL) AND THE CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL, UNLESS MORE STRINGENT PROJECT-SPECIFIC MEASURES APPLY.
- 3. EXISTING CULVERTS WILL BE PROTECTED AS DEEMED NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION
- 4. WETLAND INVASIVE SPECIES CONTROL BMPS APPLY TO WORK WITHIN ALL WETLANDS WITH INVASIVE SPECIES.
- 5. VERNAL POOL BMPS ARE REQUIRED WITHIN INDICATED AREAS AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
- 6. RETAINING WALLS ARE DEPICTED IN SOME LOCATION ON THE STORMWATER POLLUTION CONTROL PLAN IN ORDER TO PROVIDE A LEVEL WORK AREA WHERE STEEP TOPOGRAPHY, LIMITED ROW, AND ENVIRONMENTALLY SENSITIVE AREAS EXIST. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF RETAINING WALLS, DESIGN OF RETAINING WALL, METHOD OF CONSTRUCTION, AND SAFETY MEASURES UTILIZED. RETAINING WALLS MAY BE REQUIRED IN ADDITIONAL LOCATIONS NOT DEPICTED ON THE PLANS
- 7. PROPERTY LINES AND EVERSOURCE ROW INFORMATION DEPICTED ON THE PLANS ARE APPROXIMATE. CONSTRUCTION SHALL BE CONFINED TO EVERSOURCE ROW AND PROPERTY UNLESS RIGHTS HAVE BEEN OBTAINED BY EVERSOURCE.

SOIL EROSION AND SEDIMENTATION CONTROL

EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES WILL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED THROUGHOUT TO AVOID OR MINIMIZE THE POTENTIAL FOR SURFACE WATER RUNOFF, EROSION, AND SEDIMENTATION TO OCCUR OUTSIDE OF WORK LIMITS. THESE MEASURES WILL COMPLY WITH THE 2002 CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL (HTTP://WWW.CT.GOV/DEEP/LIB/DEEP/WATER_INLAND/SESC /SECS_CHAPTER_1_5.PDF), WITH EVERSOURCE'S BEST MANAGEMENT PRACTICES MANUAL FOR MASSACHUSETTS AND CONNECTIOUT PREPARED BY TIGHE&BOND, SEPTEMBER 2016 (HTTP://WWW.TRANSMISSION-NU.CINSTOM/CONTRACTORS/ PDF/CT_BMP.PDF).

AS WELL AS APPLICABLE PERMIT CONDITIONS. THE FOLLOWING ARE OBJECTIVES OF THE E&S MEASURES:

- A. INSTALLING AND MAINTAINING EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION;
- B. PROTECTING WATER RESOURCE AREAS DURING CONSTRUCTION;
- C. MINIMIZING THE QUANTITY AND DURATION OF SOIL EXPOSURE (STABILIZE EXPOSED SOILS IMMEDIATELY UPON COMPLETION OF GRADING OR STOCKPILING);
- D. INSPECTING THE WORK AREAS AND MAINTAINING EROSION AND SEDIMENT CONTROLS AS NECESSARY UNTIL FINAL STABILIZATION AND INSPECTION ARE ACHIEVED

THE APPLICATION OF THE TECHNIQUES IN THE FIELD WILL BE DETERMINED BY THE CONTRACTOR FIELD CONSTRUCTION PERSONNEL AND WILL DEPEND ON SITE-SPECIFIC CONDITIONS. FACTORS THAT MAY BE CONSIDERED IN THE SELECTION OF EROSION AND SEDIMENT CONTROLS FOR SITE-SPECIFIC AREAS MAY INCLUDE:

- A. SIZE OF THE AREA AFFECTED;
- B. TYPE OF PROPOSED CONSTRUCTION ACTIVITIES;
- C. TYPE AND TEXTURE OF SOIL
- D. AMOUNT OF ROCK PRESENT;
- E. STEEPNESS AND LENGTH OF SLOPE;

F. AMOUNT AND TYPE OF VEGETATIVE COVER;

G. PROXIMITY AND DIRECTION TO WATERCOURSES OR WETLANDS

H. ANTICIPATED WEATHER CONDITIONS AND GROUND CONDITIONS.

- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", CTDEEP BULLETIN NO. 34, AND ALL AMENDMENTS AND ADDENDA THERETO AS PUBLISHED BY THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION.
- 2. LAND DISTURBANCE SHALL BE KEPT TO THE MINIMUM NECESSARY FOR CONSTRUCTION OPERATIONS.
- 3. INSTALL ALL CONTROL MEASURES AS SHOWN ON THE PLANS AND ELSEWHERE AS NECESSARY TO PREVENT SOIL EROSION AND SEDIMENT TRANSPORT TO RESOURCE AREAS. ADDITIONAL CONTROLS, NOT DEPICTED ON THE PLANS, MAY BE NECESSARY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ASSESS THE NEED FOR, AND INSTALL ADDITIONAL CONTROLS THAT ARE WARRANTED BY SITE CONDITIONS.
- 4. IN SOME LOCATIONS, RETAINING WALLS MAY BE NECESSARY TO PROVIDE A LEVEL WORK AREA WHERE STEEP TOPOGRAPHY EXISTS. IT IS THE RESPNSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF RETAINING WALLS, CONSTRUCTION METHODS UTILIZED, AND SAFETY MEASURES DEPLOYED.
- 5. UPON COMPLETION OF CONSTRUCTION, IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE RETAINING WALLS, REGRADE AND STABILIZE SLOPES IN COMPLIANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
- 6. INSPECT AND MAINTAIN CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTIONS SHALL BE CONDUCTED IN ACCORDANCE WITH THE STORMWATER POLLUTION CONTROL PLAN AND THE GENERAL PERMIT.
- 7. SEDIMENT REMOVED SHALL BE PROPERLY DISPOSED OF IN AN APPROPRIATE UPLAND AREA WITHIN THE DEFINED LIMITS OF DISTURBANCE
- 8. STOCKPILE TOPSOIL IN LEVEL UPLAND AREAS AND CONTAIN USING HAY BALES AND/OR SILT FENCE AROUND THE PERIMETER.
- 9. STOCKPILING OF EXCESS SOIL GENERATED AS A RESULT OF STRUCTURE / FOUNDATION INSTALLATION WORK WITHIN WETLANDS IS PROHIBITED, EXCEPT THAT SOILS OR OTHER EXCAVATED MATERIAL MAY BE TEMPORARILY STOCKPILED AND CONTAINED ON THE WORK PAD LOCATED WITHIN A WETLAND PRIOR TO TRANSPORT TO AN UPLAND AREA. TEMPORARILY STOCKPILED IS DEFINED TO AT SUCH TIME WHEN THE STRUCTURE IS IN PLACE.
- 10. EXCESS SOIL GENERATED AS A RESULT OF STRUCTURE/FOUNDATION INSTALLATION WORK CAN BE SPREAD IN AN APPROPRIATE UPLAND AREA WITHIN THE DEFINED LIMITS OF DISTURBANCE AS TO NOT CAUSE ANY FUTURE STORMWATER CONCERNS.
- 11. IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, STABILIZATION OF OPEN SOIL SURFACES WILL BE IMPLEMENTED WITHIN 7 DAYS AFTER GRADING OR CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, UNLESS WEATHER PROHIBITS SEED GERMINATION.
- 12. WHERE NECESSARY, IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, SUITABLE TOPSOIL, SEEDBED PREPARATION, AND WATER SHALL BE PROVIDED FOR EFFECTIVE ESTABLISHMENT OF VEGETATIVE COVER.
- 13. THE CONSTRUCTION CONTRACTOR SHALL KEEP ALL PAVED ROADWAYS CLEAN.
- 14. INSPECT AND MAINTAIN TEMPORARY EROSION AND SEDIMENTATION CONTROLS UNTIL RESTORATION HAS BEEN DETERMINED TO BE EFFECTIVE AS DEFINED BY CONFORMANCE TO THE CT DEEP GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DEWATERING WASTEWATERS ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- 15. PERIMETER CONTROLS SHALL BE EVALUATED IN THE FIELD TO DETERMINE THE NEED FOR ADDITIONAL POTENTIAL J-HOOK, CROSS-CHECKS, HAY BALES, ETC. IN GENERAL, FOR EXISTING SLOPES GREATER THAN 10% GRADE, HAY BALES CHECKS SHALL BE PLACED ALONG SILT FENCE EVERY 100 FEET (MIN.).

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ACCESS ROAD & WORKPAD TYPICAL DETAILS



NOTES: . SUBBASE MAY CONSIST OF NATIVE MATERIALS IF FOUND ACCEPTABLE BY THE ENGINEER. SUBBASE TO BE COMPACTED TO 95% MAX DRY DENSITY

2. SUBBASE IS TO BE FREE FROM DEBRIS AND UNSUITABLE MATERIALS. 3. THE PREFERRED CUT AND FILL SLOPE IS 2:1, HOWEVER THE ENGINEER OF RECORD MAY REVISE THE CUT SLOPE TO 1.5:1 IF CUT SLOPE IS ROCK OR WELL CEMENTED SOIL



NOTES: 1. SUBBASE MAY CONSIST OF NATIVE MATERIALS IF FOUND ACCEPTABLE BY THE ENGINEER. SUBBASE TO BE COMPACTED TO 95% MAX DRY DENSITY 2. SUBBASE IS TO BE FREE FROM DEBRIS AND UNSUITABLE MATERIALS.

3. THE PREFERRED CUT AND FILL SLOPE IS 2:1, HOWEVER THE ENGINEER OF RECORD MAY REVISE THE CUT SLOPE TO 1.5:1 IF CUT SLOPE IS ROCK OR WELL CEMENTED SOIL OR TO MINIMIZE DISTURBANCE. SEE PLANS

GRAVEL WORK PAD



NOTES: 1. TOPSOIL WILL BE REMOVED FROM WORK AREAS BUT REMAIN ON PROPERTY AND WILL BE STOCKPILED OR WINDROWED IN UPLAND AREAS. 2. PROPOSED ACCESS ROADS AND WORK PADS ARE NOT CONSIDERED A PERMANENT IMPROVEMENT AND WILL BE REMOVED AT THE END OF THE PROJECT.

- AT THE END OF THE PROJECT.
 ACTUAL DIMENSIONS OF WORK PADS AND ACCESS ROADS WILL VARY, DEPENDING ON SITE CHARACTERISTICS AND ON THE TYPES OF STRUCTURES TO BE INSTALLED.
 TYPICAL ACCESS ROAD WIDTHS IN UPLANDS ARE 20 TO 25 FEET MAXIMUM WITH SHOULDERS WITH A TRAVEL SURFACE WIDTH OF 16 FEET.
 TYPICAL WORK PAD DIMENSIONS ARE 100 FEET WIDE BY 100 FEET LONG FOR IN-LINE (TANGENT) STRUCTURES, AND 100 FEET WIDTH ON THE DIMENSIONS ARE 100 FEET WIDE DIMENSIONS ARE 100 FEET WIDTH ON THE PROVIDERS.

- FEET BY 200 FEET FOR ANGLE STRUCTURES AND DEADENDS. 6. AFTER REMOVAL OF GRAVEL ROAD, TOPSOIL WILL BE SPREAD OVER WORK AREAS TO PRE-CONSTRUCTION CONTOURS TO THE EXTERNT PRACTICABLE.

- IF ANY PART OF THE PROVIDENCE ROAD WIDTH WITHIN AN AGRICULTURAL AREA, THE ENTIRE ROAD WIDTH SHALL BE CONSTRUCTED AS IF IT WERE IN AN AGRICULTURAL AREA.
 DRAWING IS NOT TO SCALE.

TYPICAL GRAVEL ACCESS ROAD AND WORK PAD CONSTRUCTION IN ACTIVE FARMLAND (TOPSOIL RELOCATION)

SCALE : N.T.S.



SCALE : N.T.S.

DATE

NO.

SET ELEVATION PER PLAN

TIE INTO GRAVEL ACCESS ROAD

DEPTH OF TYPICAL GRAVEL ACCESS ROAD

COMPACTED SUB-GRADE

PROP. 6"-8" CLEAN ANGULAR STONE HARD BOTTOM CROSSING



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STREAM CROSSING TYPICAL DETAILS





SOME DETAILS SHOWN HERE ARE FROM EVERSOURCE'S BEST MANAGEMENT PRACTICES MANUAL FOR MASSACHUSETTS AND CONNECTICUT PREPARED BY TIGHE&BOND, SEPTEMBER 2016

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LONGER-TERM BUT TEMPORARY ACCESS





EROSION AND SEDIMENTATION CONTROL TYPICAL DETAILS



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CONSTRUCTION ENTRANCE TRACK PAD





-2' HIGH CLEAN STONES (d₅₀=6")

TO NATURAL WATER COURS

GROUND SLOPE

HANDLE DEWATE

FILTER BAG, CAPACI OF FILTER BAG SHAI

NOTES . LOCATION OF SEDIMENT TRAP SUBJECT TO APPROVAL OF ENGINEER. 2. SEDIMENT TRAPS OR SETTLING BASINS SHALL BE USED FOR CONSTRUCTION DEWATERING,

DISCHARGE AWAY FROM WORK AREA/DEWATERING AREA.

EROSION AND SEDIMENTATION CONTROL TYPICAL DETAILS



APPENDIX B

SPILL PREVENTION AND CONTROL PLAN

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Attachment A: Spill Report Form

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1. INTRODUCTION

1.1 Purpose of the Plan

This Spill Prevention and Control Plan (SPCP) describes measures to minimize the potential for a spill of petroleum products or a hazardous or toxic substance and, in the event that a spill does occur, to contain and control the release to minimize the effects. Eversource Energy (Eversource) will require all construction contractors to adhere to the procedures presented in this SPCP during the construction of the 1768 Line Lattice Tower Replacement Project (Project). Accordingly, this SPCP describes:

- The identification of petroleum products and materials classified as hazardous or toxic that are likely to be used during Project construction;
- Training, equipment inspection and maintenance, and other procedures designed to minimize the potential for a spill;
- The transport, storage, and disposal procedures for these substances; and
- The procedures to be followed in the event of a release of a petroleum or hazardous / toxic substance to the environment, including a spill reporting protocol. In the event of a spill, construction contractors must complete and submit to Eversource a Spill Report Form (refer to Attachment 1).

The SPCP applies to all elements of the construction of the Project, including the transmission line rightof-way (ROW), off-site access roads, and contractor yards and staging areas managed for Project support.

1.2 Materials Subject to this SPCP

The principal materials used during Project construction that are addressed in this SPCP are petroleum products, such as fuels, lubricants, fluids, and related materials used for the operation of construction vehicles and equipment. Also included are other substances classified as hazardous or toxic that may be used during construction.

Each construction contractor will compile and maintain a list of the petroleum products and hazardous / toxic substances used in the performance of Project work, along with a Safety Data Sheet (SDS) for each such material. The SDSs will be kept on-site (e.g., at the construction contractor's office trailer at the Project construction staging area/yard) or will otherwise be available electronically for the duration of construction. The contractor(s) will make the list of products and associated SDSs available for audit by Eversource or Eversource representatives upon request.

Due to the different types of petroleum products and other regulated materials typically used during construction, different handling and storage procedures may apply. Eversource will require its construction contractors to adhere to all directions and warnings for products used on the Project.

1.3 Designation of Connecticut-Licensed Spill Response and Cleanup Contractor

Prior to the start of construction, each primary Project construction contractor must identify a licensed spill response contractor who can respond promptly, if required, during construction as detailed in Section 3.4 of this SPCP.

Note: Eversource does not anticipate on-site bulk storage of petroleum or other regulated substances during Project construction. However, if a construction contractor elects to maintain large quantities of petroleum products at a Project staging area, then requirements in addition to this SPCP may apply. Specifically, pursuant to Title 40, Section 112 of the Code of Federal Regulations (CFR), a Spill Prevention, Control, and Countermeasure (SPCC) Plan must be prepared if the construction site will have 1,320 gallons of aggregate above-ground storage capacity or more in 55-gallon (or larger) containers, or 42,000 gallons in underground storage not regulated by underground storage tank (UST) rules. Any temporary tanks or fueling trucks parked on site and used to "store" petroleum are subject to the SPCC Plan requirements. If, at any time, a Project construction contractor's cumulative storage capacity exceeds 1,320 gallons on-site, the contractor must prepare a SPCC Plan, signed by a registered professional engineer, in accordance with 40 CFR 112. Copies of the SPCC Plan do not need to be filed with any regulatory agencies but must be maintained at the contractor's Project office and also be provided to Eversource.

2. TRAINING AND MANAGEMENT PRACTICES

Key measures to avoid or minimize the potential for spills during construction include the training of construction personnel in spill prevention techniques, the proper maintenance of construction equipment, the deployment of spill kits on equipment or at work sites, and effective management regarding the storage and use of petroleum and hazardous/toxic substances. If a spill does occur, construction personnel will be trained in the techniques to contain, clean up, and report the spill promptly and properly.

2.1 Training

Prior to the start of a contractor's work on the Project, Eversource (or its representative) will provide training for the Project contractors' management personnel with respect to safety, environmental compliance, and public outreach. As part of this contractor training (and as included in Project documents provided to the contractors), construction personnel will be briefed on the requirements of this SPCP; will be made aware of sensitive resources along and in the vicinity of Project work sites (e.g., ROW, off-ROW access roads, staging areas); and will be informed of the key pollution control laws, rules, and regulations applicable to their work.

Contractors will be required to implement procedures aimed at minimizing the potential for spills and for promptly responding to and reporting spills, should they occur. Examples of such procedures are:

- a. Inspect, operate, and maintain equipment to minimize the potential for the accidental discharge or release of fuel, oil, or lubricants to the environment.
- b. Implement employee training / awareness regarding the handling of fuels and, as applicable, hazardous or toxic materials.
- c. Perform refueling to minimize the potential for a release to the environment.
- d. Maintain adequate supplies of spill response equipment, materials, and supplies in accessible locations for cleanup of a release.
- e. Conform to regulatory requirements and Project specifications regarding equipment operation, refueling, and the use of petroleum products near water resources.
- f. In the event of a spill, promptly respond and follow required reporting procedures.

2.2 Equipment Inspection and Maintenance

To minimize the potential for a spill due to equipment failure, the Project construction contractors will be responsible for:

- a. Routinely inspecting and maintaining construction equipment, including hydraulic lines, valves, and other hoses;
- b. Promptly repairing any equipment leaks or faulty equipment components;
- c. Routinely inspecting and maintaining in good condition all containers, valves, pipes, hoses, and other components of storage areas for fuels and lubricants;
- d. Providing appropriately sized and provisioned spill containment kits to construction crews and replenishing such supplies as needed; and
- e. Maintaining stockpiles of spill cleanup materials at easily accessible locations.

In addition, the construction contractors will be responsible for providing portable toilets at construction sites. The construction contractor will be responsible for properly locating portable toilets in upland areas, away from any water resources, sensitive environmental resources, or other restricted areas, and for arranging for routine cleaning and maintenance of these facilities.

2.3 Fuel and Material Storage

Eversource's construction contractors will be required to implement the following procedures when storing fuels and hazardous / toxic substances. These procedures are intended to limit the potential for spills and to minimize the impact of releases that may accidentally occur:

- a. No bulk quantities of hazardous substances, toxic materials, or petroleum products will be stored, unless approved by Eversource, within 25 feet of any waterbody, wetland, water supply well, spring, or other water resource. Such materials typically will be stored in upland areas;
- b. At Project staging and support sites, contractors will make efforts to store only enough products required to complete the job;
- c. Materials will be stored in a neat, orderly manner, in appropriate containers, and, if possible, under a roof or enclosure;
- d. Chemical and/or petroleum products will be kept in original containers with the original manufacturer's label. Fuels that need to be kept in portable containers will be stored in tightly sealed containers designed to hold such fuels and will be clearly labeled. Preferably, the containers will be stored in a covered truck or trailer that provides secondary containment for the products;
- e. Substances will not be mixed unless approved by the manufacturer;
- f. Whenever possible, all of a product will be used before disposing of the container;
- g. Manufacturer's recommendations for proper use and disposal of a product will be followed; and
- h. If surplus product must be disposed, the manufacturer's or state-recommended methods for proper disposal will be followed.

Any containment area for the storage of petroleum products will have a minimum capacity of 110% (1.1 times) the combined maximum volume of all containers within the containment area. The containment

must have sufficient freeboard to accommodate the maximum precipitation from a 25-year 24-hour storm event.

Storage areas will not have drains unless such drains lead to a containment area or vessel of sufficient size to contain and recover a full release of all stored products. A berm, or other suitable containment device, will be installed around any storage shed housing materials that are potentially hazardous to the environment. Bulk storage tanks having a capacity of more than 55 gallons will be provided with secondary containment consisting of a temporary earthen berm or other means.

After each rainfall, the contractor will inspect all containment areas for excess water.

- If no sheen is visible, the contractor can pump the collected water to the ground in a manner that does not cause scouring.
- > If present, any sheen must be cleaned up prior to discharging the water.
- Otherwise, the contaminated water must be transported and disposed of off-site in accordance with local, state, and federal requirements.

2.4 Equipment Refueling and Parking

Contractors will implement the following measures when refueling equipment and when parking equipment on Project sites:

- a. Generally, fuel will be stored at contractor yards and certain construction equipment will be refueled there. Other equipment, such as cranes and drilling equipment, will be refueled in uplands on the ROW.
- b. Refueling equipment will be manned throughout the refueling operation.
- c. Spill kits will be on hand during all refueling operations.
- d. Equipment refueling will not be performed within 25 feet of any waterbody or wetland, with the following potential exceptions:
 - Areas with steep slopes where movement of equipment outside of such 25-foot buffers would cause excessive disturbance to the work area;
 - Areas where removing equipment from or near a wetland and/or watercourse for servicing or refueling would increase adverse impacts to the water resource;
 - Locations where the water body or wetland is located adjacent to a road crossing (from which the equipment can be fueled): and
 - Refueling of equipment that is not readily mobile or must remain on-site for prolonged periods to safely complete a construction task (e.g., drilling rigs, cranes for structure or splice vault installation).
- e. During refueling, all necessary precautions will be taken to avoid or minimize the potential for an accidental spill. Appropriate spill kits / absorbent materials will be available at all refueling sites. If refueling must occur within a wetland or within 25 feet of a water resource, temporary containment will be provided as appropriate.
- f. Except for equipment that cannot be practically moved (e.g., cranes, drill rigs), construction equipment and vehicles will not typically be serviced or parked overnight on access roads or work

pads within wetlands. If equipment must remain in a wetland overnight, secondary containment will be provided.

3. SPILL EQUIPMENT, RESPONSE, CONTROL, AND CLEANUP

3.1 Spill Containment and Cleanup Equipment

Contractors are required to provide appropriate spill containment and cleanup equipment for use as needed during Project construction. Table 4-1 provides a general list of the basic types of spill containment and cleanup materials to be kept on-hand during construction activities in uplands, near water resources, and at refueling and product storage sites. In response to a spill, the contractor will use equipment and control/cleanup measures appropriate to contain and clean up the spilled material, taking into consideration the environmental characteristics of the area affected by the release.

3.2 Spill Response and Control

If a spill occurs, containment and control of the release are the immediate priorities. Eversource's construction contractor(s) will take immediate action to minimize the impact of the spill (containment) and to implement appropriate cleanup action. Cleanup procedures will begin immediately after a release is contained. In the event of a spill, the contractor will typically take the following actions:

- The spill will be immediately stopped at the source;
- If the spill impacts a water resource, the spill will be contained through the use of appropriately deployed containment materials (e.g., sorbent booms, absorbent pads, constructing dikes) and then will be collected with sorbent materials, skimmed off water surfaces with booms, and/or the contaminated soil will be excavated;
- If the spill occurs in uplands, the contaminated soil will be excavated;
- The waste materials will be properly disposed of by the construction contractor's designated and pre-approved spill response firm; and
- The affected areas will be restored as closely as possible to previous condition.

3.3 Spill Notifications

3.3.1 Notifications to Federal, State, and Local Agencies

In Connecticut, a spill, as defined in Connecticut General Statutes (CGS) Section 22a-450, means the discharge, spillage, uncontrolled loss, seepage, or filtrations of oil or petroleum or chemical liquids or solid, liquid or gaseous products or hazardous waste that poses a potential threat to human health or the environment. <u>All such spills are reportable.</u>

Table 3-1

Typical Spill Containment and Cleanup Equipment and Supplies

For General Construction in Upland Areas:

- Sorbents (e.g., pillows, socks, and wipe sheets) for containment and pick-up of spilled liquids;
- Pre-packaged, self-contained spill kits containing a variety of sorbents for small to large releases;
- (e.g., kits that can be stored on equipment with the capacity of absorbing up to 5 gallons);
- Structures such as gutters, culverts, and dikes for immediate spill containment;
- Shovels, backhoes, etc., for excavating contaminated materials;
- Sumps and collection system; and
- Drums, barrels, and temporary storage bags to clean up and transport contaminated materials.

For General Construction in or Near Water Resource Areas:

All of the above (for upland sites) and the following:

- Oil containment booms and the related equipment needed for rapid deployment; and
- Equipment to remove petroleum-based products from water.

(This equipment will be located near wetlands and water bodies to reduce response time in the event of a release.)

For Storage of Products and Equipment Refueling:

- Sorbent pads and/or mats, containment equipment, or equivalent protective measures (e.g., kiddle pools or basins to be placed on the ground beneath equipment before refueling or maintenance activities). (The quantity and capabilities of the mats will be sufficient to capture the largest foreseeable spill given workspace characteristics, crankcase size, and other fuel vessel capacities.)
- Dedicated sorbent / spill response kits or functional equivalent to be kept on major pieces of construction equipment (e.g., pumps, cranes, drill rigs, hydraulic lifts) that must be routinely refueled or maintained on Project sites because movement of such equipment to designated refueling or maintenance yards is impractical or inefficient.

Eversource requires that <u>ANY release of these materials, in any amount, must be reported to the CT</u> <u>DEEP</u>. Project construction contractor(s) are responsible for providing immediate notification of spills to the CT DEEP and other entities, as required. When notifying CT DEEP, obtain the CT DEEP representative's badge number and record the Spill Identification Number assigned to the incident by CT DEEP.

It is the <u>Project construction contractors</u>' responsibility to report spills of any amount to CT DEEP. Spills must be reported immediately (24/7) to:

CT DEEP Emergency Response and Spill Prevention Division 860-424-3338 or toll free at 866-337-7745 (866-DEPSPIL)

If the above numbers are unavailable for any reason, call 860-424-3333

In the event of any spill, the Project construction contractor shall immediately report the following facts to CT DEEP, pursuant to CGS Section 22a-450¹:

- Location of spill;
- Quantity and type of substance, material, or waste released;
- Date and cause of the incident;
- Name and address of the owner;
- Name and address of the person making the report, and their relationship to the owner.

In addition to the notification to CT DEEP, some spills may be reportable to the Federal government. An oil spill must be reported to the Federal government if the spill is to navigable waters² or the adjoining shoreline; water quality standards could be violated; the spill causes a sheen or discoloration; or the spill causes a sludge or emulsion. Spills of hazardous chemicals must also be reported to the Federal government, depending on the quantity of the material spilled and if the release could threaten human health. The Federal reportable spill quantities for hazardous materials are listed in 40 CFR, Part 302.4 (refer to the table entitled "List of Hazardous Substances and Reportable Quantities")³. Incidents that are required to be reported under the Federal Emergency Planning and Community Right-to-Know Act or other prevailing/applicable Federal law are reportable to:

- The State Emergency Response Commission (CT DEEP at 860-424-3338);
- The National Response Center at 800-424-8802; and,
- The local community emergency coordinator.

¹ Note: Unless specifically requested for a particular incident, CT DEEP does not require a written submission when reporting a spill.

² No waters traversed by the Project ROW are navigable per the federal definition.

³ Available online at: <u>http://www.gpo.gov/fdsys/pkg/CFR-2010-title40-vol27/pdf/CFR-2010-title40-vol27-sec302-4.pdf</u>

A report by the Project construction contractor to the local fire department is also recommended (911 throughout Connecticut).

3.3.2 Notification and Reporting to Eversource

In addition to notifying the CT DEEP, the construction contractor or other Project personnel who first observe a spill will provide immediate verbal notification to the designated Eversource or Project representative⁴. Within 24 hours of a spill, the construction contractor will prepare and submit to Eversource or Eversource's Project representative a *Spill Report Form* (refer to Attachment 1). This form must include the following information regarding the spill, along with any relevant supporting information (such as maps) and representative photographs:

- Date, time, and location of the spill, including name and address (municipality) of the owner of the property where the spill occurred and the nearest transmission line structure number (if on the ROW);
- The quantity and type of the substance, material, or waste spilled;
- Circumstances that caused the spill;
- List of water resources affected or potentially affected by the release (if applicable);
- Statement verifying whether a sheen is present;
- Size of the affected area;
- Estimate of the depth that the material has reached in water or in soil;
- Determination of whether the release has or will migrate off Project work areas (e.g., Eversource property, ROW, staging areas, off-ROW access roads);
- Determination of whether the release is under control;
- Status of the cleanup effort and a description of the methods used (or to be used) to clean up the release;
- Name(s), company affiliation(s), and address(es) of the personnel who identified the release;
- List of any soil and water samples taken;
- Names of contacts made to federal, state, and local agencies, as applicable, and time of report (include, at minimum, CT DEEP representative's badge number and the CT DEEP-assigned spill identification number); and
- Name, address, and company affiliation of the person who completed the *Spill Report Form*.

The designated Eversource Project representative will verify that the construction contractor's *Spill Report Form* is complete and will submit it to Eversource Environmental Affairs.

3.4 Spill Cleanup

Eversource's construction contractors will clean up all spills promptly using appropriate containment and cleanup measures. Spill containment equipment will not be used for storing wastes resulting from cleanup efforts or other contaminated material.

Small spills may be contained and cleaned up by Project construction crews using the on-site spill containment and cleanup materials. In such cases, all contaminated materials will be properly handled, contained, and transported in secure containment to a staging area for pick-up and ultimate disposal by the construction contractor's designated and pre-approved spill response firm.

⁴ Contact information for Eversource and other Project personnel will be provided to construction contractors.

In no case will spills or contaminated materials (including waste oils) be buried or otherwise disposed of on Project sites.

If the Project construction contractor determines that a release cannot be adequately excavated and disposed of by its construction crews alone, the construction contractor will contact the designated spill response firm. Any cleanup must be performed by a licensed spill response contractor, as required by CGS Section 22a-454. The Project construction contractor will work with the spill response contractor(s) and will verify that all excavated wastes are transported to a licensed disposal facility.

3.5 Penalties for Non-Reporting

Any person who fails to report incidents as required by CGS Section 22a-450 may be fined by CT DEEP not more than \$5,000 and the employer of such person not more than \$10,000. Failure to report incidents, as required by the Project, can result in removal from the Project or termination.

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ATTACHMENT 1 Spill Report Form

SPILL REPORT FORM

Date: Time of Spill Occurrence:							
Name/Title of the first observer:							
Regulatory Agencies Notified / Time & Date of Notifica badge number and CT DEEP-assigned spill identification	ation (use reverse side if nee n number):	eded; include CT DEEP representative					
Location of Spill: Parcel NoMunici	pality	(Hartford County)					
Nearest Public Road:Nearest Transm	nission Structure No.:						
Nearest Street Address or landmark:							
Attachments (circle all that apply): map	photographs	other					
Type of material spilled:							
Quantity spilled (circle one): 10 gals. or less	10 - 1,000 gals.	Over 1,000 gals.					
Specify approximate amount spilled:							
Circumstances causing spill:							
Size of area affected by spill: Estimate	depth of spilled material on	water or soil:					
If spill is into water, is a sheen present? (circle one):	YES	NO					
Has spill left Company property or ROW? (circle one):	YES	NO					
Is spill under control? (circle one):	YES	NO*					
*If not, is there a potential for the spill to leave t	he						
ROW or staging area? (circle one):	YES	NO					
Has spill cleanup begun? (circle one): **If so, what methods are being or will be used?	YES**	NO					
Have soil and/or water samples been taken? (circle one) ***If yes, list sample types:	YES***	NO					
Signature of Contractor Representative/Date:	Signature of Designated Pro	oject Representative/Date:					
Print Name/Title:	Print Name/Title:						

APPENDIX C

SNOW REMOVAL AND DE-ICING PROCEDURES

SNOW REMOVAL AND DE-ICING PROCEDURES TABLE OF CONTENTS

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APPENDIX A CT DEEP Best Management Practices for Disposal of Snow Accumulations from Roadways and Parking Lots This page is intentionally left blank.

1. INTRODUCTION

1.1 Applicability

The Connecticut Light and Power Company doing business as Eversource Energy (Eversource) anticipates that some construction activities for the 1768 Line Lattice Tower Replacement Project (Project) will require work during the winter, when periods of ice and snow can be expected. The removal of ice and snow from work sites, including from on- and off- right-of-way (ROW) access roads, work pads, and the staging area/contractor yard, will be critical to allow construction to proceed safely. However, snow removal and de-icing must be performed to protect the environment, in accordance with regulatory requirements.

This document presents the procedures that will apply during construction when snow or ice must be removed from Project work sites. The procedures: (a) Define responsibility for snow removal and disposal (Section 1.2); (b) Identify standard methods for removing snow and ice from work sites safely and in conformance with environmental requirements (Section 2); and (c) Identify protocols for the removal of snow accumulations to appropriate disposal sites, if needed (Section 3).

In addition, snow removal and disposal activities must be in accordance with Eversource's *Best Management Practices Manual for Massachusetts and Connecticut: Construction and Environmental Requirements* (BMP Manual, September 2016) and the applicable provisions of the Connecticut Department of Energy and Environmental Protection's (CT DEEP's) BMPs for disposal of snow accumulations from roadways and parking lots. The CT DEEP BMPs are reproduced in Attachment 1 of this document and can also be found on the CT DEEP website at: <u>www.ct.gov/deep/snowremoval</u>.

Under most circumstances, snow and ice are expected to be removed in accordance with the standard procedures described in Section 2. However, if winter weather conditions result in large snowfall amounts, snow accumulations may have to be relocated to designated disposal sites; in such cases, the procedures identified in Section 3 will be followed.

1.2 Responsibility

The Project contractor(s) will be responsible for implementing these snow removal and de-icing procedures. The contractor must review the locations of potential disposal areas for snow accumulations with Eversource or Eversource's Project representative, prior to use, to verify conformance to this plan. Any proposed deviations from these procedures must be justified by the contractor and will require approval in advance by Eversource.

2. SNOW AND ICE REMOVAL FROM WORK SITES

The following procedures apply to the removal of snow and ice from Project work sites:

- 1. Snow may be removed by plowing (blading) and windrowing, or snow blowing, depending on the amount and type of snow, the area that must be cleared, and the site location.
- 2. Snow may be bladed level (rather than removed) along access roads to improve driving conditions. If appropriate, this technique also may be used at work pads and staging areas.
- 3. When removing or blading snow from access roads or work pads, contractors shall attempt to avoid plowing up topsoil, subsoil, or gravel.
- 4. Any erosion and sedimentation controls damaged during the snow removal process will be repaired or replaced as soon as practical, taking into consideration snow depth and frozen ground. (Note: Winter weather conditions may preclude the re-establishment of damaged erosion and sedimentation controls until a thaw occurs or until spring.)
- 5. Sand, salt, sand/salt mix, or Calcium Magnesium Acetate (CMA) may be applied for traction and de-icing along all access roads, on work pads, and at staging areas / contractor yards.
 - a. Where timber mats (or equivalent) are located in wetlands (e.g., along access roads or as part of work pads) or in other environmentally sensitive habitats, Eversource's contractor will use the minimum amount of sand, salt, sand/salt mix, or CMA necessary to maintain safe working conditions when frozen precipitation represents a safety hazard for construction activities.
 - b. To clear snow from timber mats (or equivalent) placed in wetlands, for any event that results in greater than 4 inches of snow, Eversource's contactor will push or blow clean snow off the timber mats, down to 3 inches. This clean snow will be windrowed along either side of the timber mat access road. The bottom 3 inches of snow will either be carefully plowed into a small stockpile on the mats or will be loaded into a truck or equivalent for removal from the timber mats and transported to an upland area.
 - c. For any event resulting in 4 inches of snow or less, all snow will be either carefully plowed into a small stockpile and contained on the mats or scraped off the timber mats and moved to upland areas.
 - d. CMA will be applied according to product specifications.

During extreme weather events, this protocol may be amended as needed to address immediate worker safety issues or to prevent significant damage to property.

3. SNOW ACCUMULATION DISPOSAL AREAS

3.1 General

Snow will typically be plowed from access roads, work pads, and other work sites pursuant to the procedures described in Section 2. However, in some cases, accumulated snow may need to be removed from work sites (using front-end loaders, trucks, or equivalent equipment) and transported to snow accumulation areas for disposal.

Such snow accumulation disposal areas must be located <u>in uplands</u> along the Eversource ROW or on other Project staging and support sites. The use of any site for accumulated snow disposal must be approved by Eversource in advance. In addition, with the pre-approval of the property owner and Eversource, accumulated snow may be stockpiled on flat, paved, or graveled parking areas, provided the conditions of these procedures are otherwise met.

Accumulated snow will NOT, under any circumstances, be disposed of in the following areas:

- 1. In any water resources (e.g., wetlands, ponds, watercourses, ditches, swales).
- 2. On top of stormwater catch basins or in stormwater drainage swales or ditches.
- 3. Within public wellhead protection areas associated with a public water supply well or within 100 feet of a private well.
- 4. On private property immediately adjacent to a residential area without the prior approval of the property owner.

Snow accumulations placed on pervious surfaces must be located to allow snow melt water to infiltrate into the soil, without causing sedimentation into water resources. Any access road or work pad materials that are inadvertently mixed with the snow accumulations must be collected and removed from the Project area, when possible, after snow melt in the spring.

Snow stored on asphalt or concrete must not be piled on top of manholes or catch basins.

3.2 Typical Snow Accumulation Disposal Areas

Snow accumulation sites typically will be located on Eversource property, at least 25 feet from water resources, in non-environmentally sensitive areas, and/or in Project-approved designated staging areas.

If accumulated snow must be disposed of in off-ROW locations (e.g., municipally approved snow disposal sites), the contractor must obtain and provide documentation to Eversource of all applicable approvals and any conditions relating to the use of the disposal site.

3.3 Snow Disposal Options when Identified Accumulation Areas are Fully Utilized

Depending on snowfall accumulations, it is possible that all snow accumulation disposal areas within the Project ROW could be fully utilized and that additional accumulation sites or other snow disposal options will need to be considered. Under such circumstances, Project contractors must coordinate with Eversource to define the most appropriate option.

New snow accumulation sites must be pre-approved by Eversource and also will likely require prior coordination with and/or approval from private landowners or municipal authorities.

ATTACHMENT 1

Connecticut Department of Energy and Environmental Protection

Best Management Practice for Disposal of Snow Accumulations from Roadways and Parking Lots This page is intentionally left blank.

Connecticut Department of Energy & Environmental Protection

Best Management Practices for Disposal of Snow Accumulations from Roadways and Parking Lots

Purpose: These guidelines have been developed to clarify DEEP recommendations to state and municipal officials, and others regarding the removal and disposal of snow accumulations from roadways and parking lots. For purposes of this guidance snow accumulations refers to snowbanks and snow piles that are removed by front-end loader or by loading on trucks for disposal. This guidance does not apply to normal snow plowing operations that must, inevitably, discharge some snow into wetlands and watercourses.

Implementation: While following these guidelines does not constitute a permit or authorization, the Department recognizes there is a considerable need for flexibility in implementation of this policy, particularly in emergency situations. There is no intent to interfere with snow plowing operations. Where trucking and snow dumping operations are undertaken the Department recommends these guidelines be followed.

Problem: Current road maintenance activities include removal of snow accumulations from bridges, roads and parking areas for the purpose of providing more space for subsequent snow storms and for ease of travel and parking. Sometimes this snow is moved by truck or with a front-end loader and deposited directly into surface waters of the state including streams, wetlands and Long Island Sound. This practice is not recommended due to the presence of dirt, salt, litter and other debris, which are routinely mixed in the accumulated snow.

Under normal conditions of snowmelt, the majority of these contaminants remains on or next to the paved surface or may be captured in stormwater catch basins. These contaminants can then be swept from streets and bridges or vacuumed from catch basin sumps. However, when accumulated snow is collected and dumped into surface waters, this mixture of snow, sand and debris may smother aquatic life in the bottom of streams and rivers and degrade the aesthetics of the surface water with silt plumes and litter. Large quantities of snow (and the sand and debris) may also cause blockage of storm drainage systems, resulting in increased chance for localized flooding.

Recommended Management Practice: Snow accumulations removed from roadways, bridges, and parking lots should be placed in upland areas only, where sand and other debris will remain after snowmelt for later removal. Care must be exercised not to deposit snow in the following areas:

- 1. freshwater or tidal wetlands or in areas immediately adjacent to such areas where sand and debris may be flushed during rainstorms;
- 2. on top of storm drain catch basins;
- 3. in storm drainage swales;
- 4. on stream or river banks which slope toward the water, where sand and debris can get into the watercourse; and
- 5. in areas immediately adjacent (within at least 100 feet) of private or public drinking water well supplies (due to the possible presence of road salt).

For Governmental Entities: In normal winter conditions, governmental entities should follow the recommended management practices outlined above. In extraordinary winter conditions, the commissioner may, upon public notification, offer governmental entities the flexibility of limited in-water disposal. When such flexibility is offered, governmental entities who have determined that extraordinary circumstances exist where all upland, land-based disposal options have been fully exhausted (i.e., disposal capacity is not available) and snow needs to be removed to meet public safety demands (i.e., clear access ways for police, emergency medical and fire responders), may use certain waterways for snow disposal in accordance with the following conditions:

1. Upland storage and disposal of snow (i.e., athletic fields, parks and other flat, open-field sites) and other snow management methods (i.e., snow melting equipment) must be the first alternatives explored and exhausted. Environmentally sensitive areas must be avoided;

- 2. This guidance applies only to snow and ice which is not visibly contaminated with material other than salt and sand from road clearing activities;
- 3. For coastal communities, preference should be given to snow disposal in salt water where available;
- 4. Disposal in rivers or streams must be limited to those water bodies that have adequate flow and mixing and are not prone to ice jams;
- 5. The disposal must occur only in open water in areas that will not interfere with navigation;
- 6. Disposal must be conducted in a manner so as to prevent ice dam formation or damage to bridges, docks or other structures;
- 7. Disposal in ponds and lakes is discouraged;
- 8. There shall be no disposal in coastal or freshwater wetlands, eelgrass beds, vegetated shallows, vernal pools, shellfish beds mudflats, public water supply reservoirs and their tributaries, or other areas designated as being environmentally sensitive;
- 9. The activity must comply with local laws and requirements;
- 10. Precautions must be taken to avoid shoreline or stream bank damage or erosion from truck/equipment activity; and
- 11. Governmental entities must notify the Department by email (address email to <u>kevin.sowa@ct.gov</u>) prior to disposing of snow and ice in waterways or, if advance notification is not possible, then the Department must be contacted as soon as possible after snow disposal has begun.

Notification: Notification can be made by addressing an email to Kevin Sowa at: <u>kevin.sowa@ct.gov</u>. The notification must include the following: (1) the name of the governmental entity making the notification; (2) contact information for the governmental entity including name, email address and phone number; (3) the street address where the snow disposal activity will occur; (4) the name of the waterbody where the snow will be disposed; (5) the estimated quantity of snow to be disposed; (6) the dates during which the disposal activity will occur; and (7) a statement that the governmental entity has exhausted all disposal alternatives and snow management methods and will make best efforts to adhere to these snow disposal guidelines.

Information: For further information please call the Water Permitting and Enforcement Division Engineer of the Day at 860-424-3018.

DEP-PED-GUID-002 Revised 02/04/11

APPENDIX D

EVERSOURCE'S 2016 BMP MANUAL: CONSTRUCTION AND MAINTENANCE ENVIRONMENTAL REQUIREMENTS FOR MASSACHUSETTS AND CONNECTICUT (incorporated by reference)