

TOWN OF DURHAM
8 NEWMARKET RD
DURHAM, NH 03824-2898
603/868-8064
www.ci.durham.nh.us

APPLICATION FOR PERMITTED USE
in the Wetland Conservation Overlay District or the Shoreland Protection Overlay district

This form and all required information per Durham's Zoning Ordinance (Article XIII, Section 175-60. B. and/or Article XIV, Section 175-71. B.) must be filed with the Planning Department at least 20 days prior to the meeting of the Planning Board. Note that a meeting with the Conservation Commission to review the criteria is required prior to final Planning Board action. This form is required only where Planning Board approval is required.

Property Location:

Street Address: *Existing Eversource 3162/F107 ROW East of Durham Point Road*

Tax Map #: 20 Lot #: 14-1, 13-1, 13-2, 12-5, 15-0 & See Maps/Plans Zoning District: RC

Owner(s):

Name: *Kurt Nelson, Public Service Company of New Hampshire d/b/a Eversource Energy*

Mailing Address: *13 Legends Drive, Hooksett, NH 03106*

Phone: (603) 714-3031

Email: *kurt.nelson@eversource.com*

Professional Preparing Plans:

Name of individual and company: *William McCloy, NHCWS/PWS, Normandeau Associates, Inc.*

Mailing Address: *25 Nashua Road, Bedford, NH, 03110*

Phone: (802) 861-7038

Email *wmccloy@normandeau.com*

Proposed Activity: *Eversource is proposing to modify four (4) existing distribution structures and install three (3) new distribution structures within the Wetland Conservation Overlay District. Proposed new structures will not be located in wetlands or streams. See letter for additional details.*

Please attach a written description and plans of the proposal and address the required criteria.

I certify that all of the information provided is true, to the best of my knowledge.

Signature of professional: *William McCloy* Date 11/8/2019

If I am an agent for the owner, I certify that I am authorized to submit this application.

Signature of owner (or agent): *[Signature]* Date 11/8/2019



November 8, 2019

Michael Behrendt
Town Planner
8 Newmarket Road
Durham, NH 03824

Re: Application for Permitted Use in the Wetland Conservation Overlay District
Eversource 3162 Distribution Line Upgrade Project – East of Durham Point Road

Mr. Behrendt:

On behalf of Eversource Energy (Eversource), Normandeau Associates, Inc. (Normandeau) is submitting an application for "Permitted Use B," pursuant to Article XIII, 175-60(B), in the Wetland Conservation Overlay District (WCOD) for Eversource's 3162 Distribution Line Upgrade Project (or Project). The Project involves the modification of four existing distribution poles and installation of three new distribution poles within the existing Eversource right-of-way (ROW) in the Town of Durham (see Attachment 1 for Locus Map). Work within the WCOD is proposed between Durham Point Road and an existing driveway located approximately 2,425 feet to the southeast along the ROW. This is the same ROW where the on-going Seacoast Reliability Project (SRP) Project is under construction.

Structure Modifications

The proposed pole modifications do not involve any ground disturbance and work will be completed near the top of the existing poles. The modifications will entail the installation of fiberglass out-rigged crossarms, approximately 10 feet in length and braced with fiberglass brace supports (see Attachment 2). The purpose of the outrigged crossarms is to provide a safe offset from the SRP F107 line structures during construction and following completion of the SRP work in the ROW. Two of the poles where modifications are proposed are located in wetland areas and two are located in the Wetland Conservation Overlay District (WCOD) 100-foot buffer.

New Distribution Structures

Three (3) new distribution poles are proposed to be located within the WCOD 100-foot buffer. The three proposed poles will be 35 feet in height above the ground which is similar in height or lower than what was previously in the right of way. If required by the construction schedule, three temporary distribution poles will be placed in the approximate location of the three proposed new distribution poles. These temporary poles will have a concrete block base for stability and placed on timber matting to protect WCOD buffer areas. These temporary poles are required to allow for continual and reliable service to Eversource customers associated with this distribution line and the area cannot be fed in another way. The temporary poles will be removed when the permanent poles are installed. Following installation of the three new poles and the pole modifications, the new conductor will be installed. The conductor will utilize a single-phase Hendrix configuration. This is aesthetically similar to recent and on-going work along Durham Point Road however there will only be two wires in a vertical configuration rather than 4 wires arranged in a diamond-shape.

Wetland Delineations, Mapping and Town Coordination

Normandeau New Hampshire Certified Wetland Scientists (NHCWS) delineated wetlands and streams and reviewed prior delineations within the F107 line ROW where upgrades/structure replacements are proposed in 2019. Normandeau also coordinated with the Town of Durham to determine what type of permit would be appropriate for the proposed project. Michael Behrendt, Durham Town Planner confirmed that a Permitted Use B permit would be required for the Project in the WCOD as per Article XIII, 175-60(B)(4), which allows for “temporary crossings for the maintenance of utility pipes or lines or for other utility structures.”

The locations of the proposed structure modifications and new replacement structures are included on the *3162 Distribution Line Upgrade Project – Project WCOD Map* (see Attachment 3). The mapping includes the locations of existing and proposed distribution poles, SRP structures, wetlands, streams and buffers, approximate parcel boundaries and landowner/parcel information as determined from publically available data sources and other background information. The maps also include the location of temporary timber matting and access roads associated with the SRP. A review of the Natural Heritage Bureau (NHB) database (NHB19-3594) for rare, threatened, or endangered species indicated that no known plants, wildlife or natural communities are located within the project area. Due to the confidential nature of this information, it has not been included, per the request of NHB and New Hampshire Fish and Game (NHF&G).

Natural Resource Avoidance and Impact Minimization

There will be no direct permanent wetland impacts associated with this Project; all proposed impacts will be temporary in nature. Eversource will utilize the temporary timber matting and access roads that have been/or will be installed to support the SRP to further minimize impacts to wetlands and the WCOD buffer areas (see Attachment 3). At this time, no additional timber matting will be required to access the poles associated with this Project. One stream will be crossed utilizing a temporary timber mat bridge and the channel will not be impacted.

Construction Methodology

Construction methodology will involve:

1. Pole modification and/or installation locations will be evaluated and the appropriate erosion controls will be installed (staked straw wattles or haybales) based on the slopes and proximity to wetlands;
2. The drilling/auguring of holes for the new poles will generate a minimal amount of spoils that are typically spread on the ground in upland areas or removed from the site;
3. The new pole is installed and the void around the pole is backfilled per the applicable standards for the pole being installed;
4. If required, 10-inch (typically) or 14-inch helical anchors (screw-like installation without excavation) will be installed to serve as attachment points for guy wires that are necessary for supporting poles;
5. All electrical and other wires/cables will be installed on the new/modified poles, and;
6. The area around the new and old poles will be stabilized with mulch and seeded with a compatible upland seed mix.

Temporarily impacted areas where on-going SRP-related construction activities are occurring will be restored according to the applicable and very stringent restoration methods required as part of the SRP.

Attachment 2.

Diagram of Typical Out-rigged Crossarm Pole Configuration

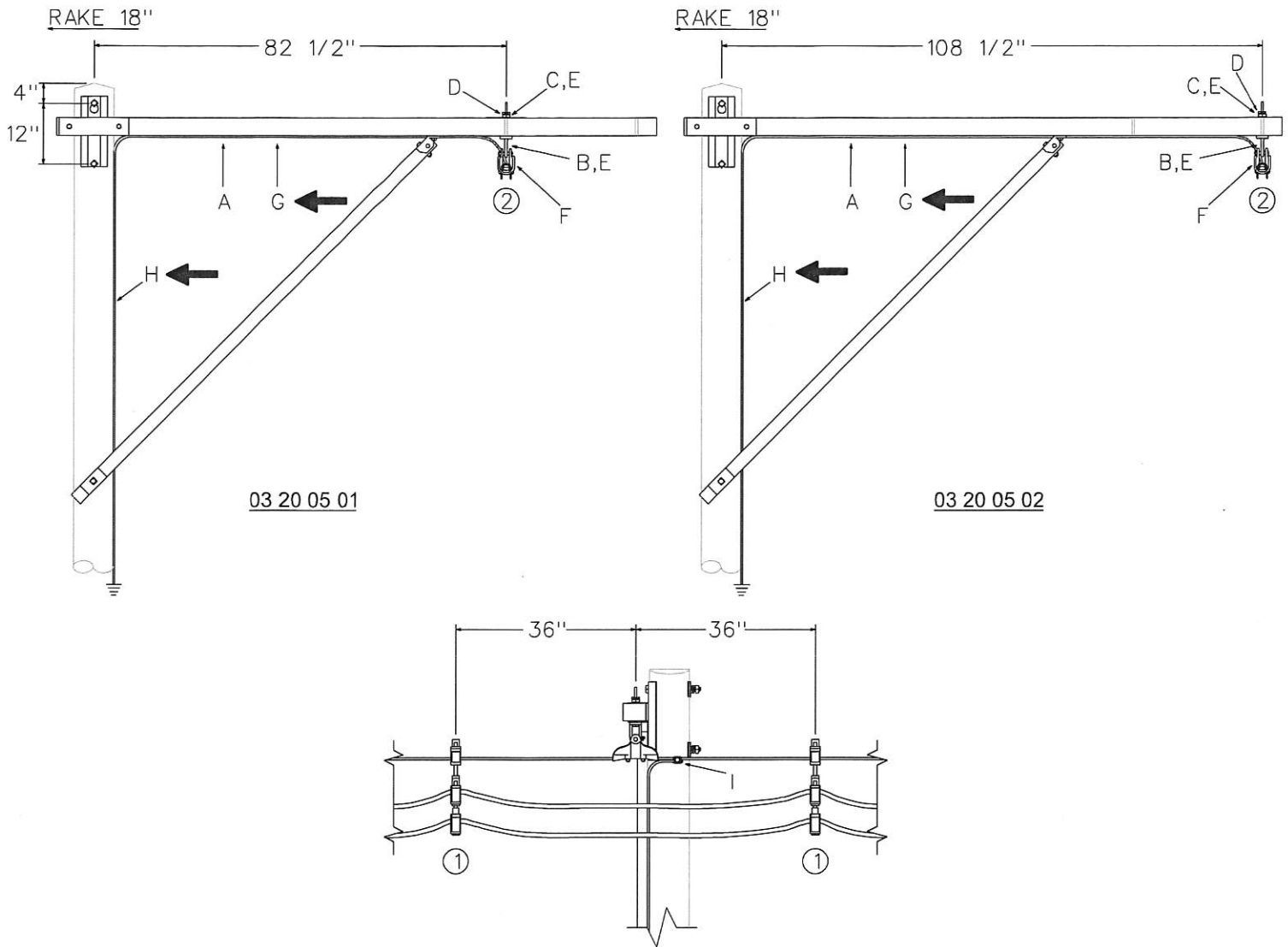
CONFIGURATIONS

15kV & Below – Spacer Cable

Single Circuit – Tangent Structure – Alley Arm Configuration

03 20 05 **

Sheet 1 of 1



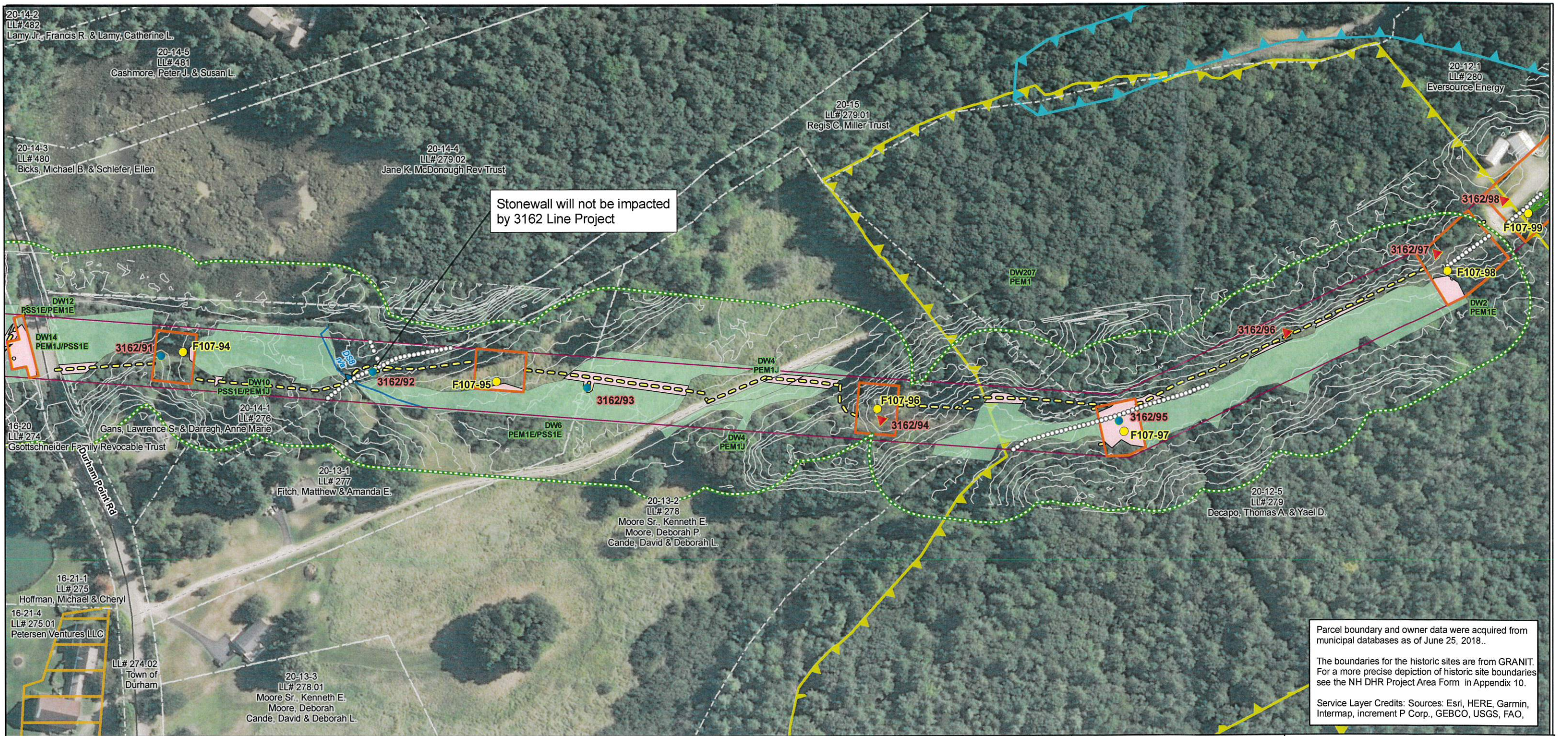
	Std. / Stk. No.	Description	03 20 05 **	01	02
	A	04 00 41 18	10' FG Alley Arm Assembly	1	1
	B	23 59 005	Eyelet, NM, 5/8"	1	1
	C	23 52 061	Bolt, Mach., 5/8" x 8"	1	1
	D	23 65 043	Nut, Lock, 5/8"	1	1
	E	23 66 132	Washer, Square, Galv. 4" x 4" x 3/16" w/ 13/16" hole	2	2
	F	23 18 342	Clamp, Suspension (conductor Range: 0.312" – 0.62")	1	1
	G	23 68 746	Clip, Electrical, Grd.	1	1
@	H	12 00 10 **	Grounding Unit, 7#10 Copperweld	1	1
	I	17 51 032	Connector, PG, Pole Ground to Messenger	1	1

NOTES

1. Install spacers 3' from crossarm in each direction. See DCS 07 20 01 01 for spacer installation between poles.
2. Vertical load limited to 1500 lbs. Max spans are: 1/0 span = 258', 477 span = 167', and 795 span = 132'.

Attachment 3.

3162 Distribution Line Upgrade Project WCOD Map



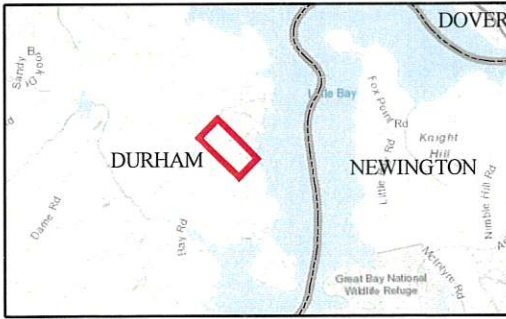
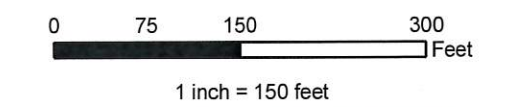
Parcel boundary and owner data were acquired from municipal databases as of June 25, 2018..

The boundaries for the historic sites are from GRANIT. For a more precise depiction of historic site boundaries see the NH DHR Project Area Form in Appendix 10.

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO,

Drawn By: wmcloy
Date: 1/18/2019
Project No.: 22860_003

<ul style="list-style-type: none"> ● Modify Existing Structure (Proposed) ▲ New Distribution Structure (Proposed) ● SRP Structure (Permitted) Wetland Prime Wetland WCOD 100-Foot Wetland Buffer SRP Permitted Wetland Impact (TEMP) SRP Permitted Wetland Impact (PERM) 	<ul style="list-style-type: none"> Work Pad (SRP Permitted) Access Route (SRP Permitted) ~ Stream Centerline ~ Stream Top of Bank ◆ Temporary Mat Bridge (SRP Permitted) Historical Sites Stonewall (Rev. 8-2019) 	<ul style="list-style-type: none"> ~ Railroad Approximate Parcel Boundary PSNH Fee 2ft Contour Town Boundary Conservation Lands 	<ul style="list-style-type: none"> ~ Roads ~ Local ~ Not Maintained ~ Private ~ State ~ 100 Year Floodplain
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	<h2>3162 Distribution Line Upgrade Project</h2> <h3>Project WCOD Maps</h3>

Best Management Practices Manual

Utility Maintenance in and Adjacent to

Wetlands and Waterbodies in New Hampshire



New Hampshire Department of
Natural & Cultural Resources

March, 2019

Best Management Practice 8: Swamp Mats



Swamp mats with coir logs wrapped in filter fabric to create a temporary curb.
Turtle Town Pond, Concord, NH. Credit: Karl Benedict

