

STATE OF NEW HAMPSHIRE

Intra-Department Communication

DATE: October 7, 2022

AT (OFFICE): NH Dept. of Energy

FROM: Gary Raymond GMR
Utility Analyst IV – Division of Enforcement

SUBJECT: CRE 2022-022 Eversource Energy
Application for License to Construct and Maintain Electric Lines Over and
Across Public Waters in Bedford and Manchester, New Hampshire
Staff Recommendation

TO: Jared Chicoine, Commissioner, Department of Energy
Christopher Ellms, Jr., Deputy Commissioner, Department of Energy

CC: Thomas Frantz, Director of Regulatory Support Division
Paul Kasper, Director, Enforcement Division
Elizabeth Nixon, Director-Electric Regulatory Support Division
Andrew Harmon, Hearings Examiner, Enforcement Division

Review by the Division of Enforcement (DOE) of the above application consisted of the following elements:

- Application contents, replacement application contents, and history;
- Applicable State statutes;
- Review of the existing crossing(s) previously licensed by the PUC, if any;
- Review of land ownership of existing pole structures;
- Review of NESC code requirements as described in Puc 300;
- Review of public need and public impact, including applicability of other State regulations; and
- Conclusions and Recommendations.

1. Application contents and history.

On September 16, 2022, Public Service New Hampshire d/b/a Eversource Energy (Eversource, ES or the Company) filed an application for a license pursuant to RSA 371:17 to construct and maintain the Eversource 3142 Line, an existing 34.5kV distribution line, over and across public waters in Bedford and Manchester, New Hampshire.

On October 4, 2022, Eversource filed a replacement application as requested by staff to account for clarification and amendments to the original application.

As part of its ongoing asset condition inspection program, Eversource determined that the existing wood structures at the public waterbody crossing that are the subject of this application need to be replaced promptly to continue to function safely and reliably. Structures 117 and 118 at the Merrimack River crossing span will be replaced with weathering steel equivalents that will be located within 10' of the structure locations. The three existing phase conductors and the existing neutral wire at the crossing span shall remain unchanged in the course of performing the structure replacements. The specifications and configuration of those existing wires are shown on the Cable Schedule and Structure Details on Exhibit 2.

The conductor cable clearance requirements were met using the National Electrical Safety Code (NESC) based on the design conditions at 120 deg F. for the crossing within this application. This scenario was the governing condition, which yielded the greatest sag and lowest clearance. Only 25.5 feet clearance is required by the NESC Table 232-1 for water areas suitable for sail boating including lakes, ponds, reservoirs, tidal waters, rivers, streams, and canals with an unobstructed surface area of over 20 to 200 acres. Staff verified the computed sags with SAG 10 commercial software using inputs as stated in the application.

Wire specifications and loading conditions to establish maximum sag for the crossing spans that are the subject of this application are as indicated on Profile View and Cable Schedule of Exhibit 2 submitted by ES. The water clearances are taken from the projected 100-year flood levels. This is more conservative than the 10-year flood levels allowed by the NESC (note 18 to Table 232-1). The 100-year flood elevation for the subject portion of the Merrimack River was derived from FEMA's National Flood Hazard Layer Firmette, 01/16/2020

The location of the public water crossing, which is the subject of this application, is depicted on the Overview Map attached hereto as Exhibit 1 submitted by ES and DOE Map attached to this recommendation.

The 3142 Line crosses the public waters of the Merrimack River in the towns of Bedford and Manchester between Structures 117 and 118, commencing approximately 325 feet southeast from the southeastern corner of the Eversource Bedford Substation, located at the end of Station Road in Bedford, NH. The waterbody crossing extends east approximately 519 feet to the eastern bank of the Merrimack River, located approximately 180 feet west from where the line crosses Winston Street in Manchester approximately 700 feet west from the intersection of Winston Street and Gay Street in Manchester, NH.

The location of Structures 117 to 118 creates a total span of 800.4 feet, with a span of 519.2 feet over and across the Merrimack River.

The following table provides the summary of this application with the crossing to include structure numbers, types, spans, ES design criteria, and NESC compliance.

Department of Energy Enforcement Division Summary Table

Eversource 3142 Line - Public Water Crossing Details						
Structure	Type	Span (Pole to Pole)	Distance (feet)	Minimum NESC Table 232-1 Clearance (ft.)	ES Vertical Design Clearance (ft.)	Complies with NESC Table 232-1 (Y/N)
117	Three Pole Dead End, Steel Pole	117-118	800.4	25.5	30.0	Y
118	Three Pole Dead End, Steel Pole					

2. New Hampshire statute referenced in application (as modified by N.H. House Bill 1258 on August 22, 2022).

371:17 Licenses for New Poles – Whenever it is necessary, in order to meet the reasonable requirements of service to the public, that any public utility should construct a pipeline, cable, or conduit, or a line of poles or towers and wires and fixtures thereon, over, under or across any of the public waters of this state, or over, under or across any of the land owned by this state, modify a previously licensed installation, or license a previously constructed installation, it shall apply to the department of energy for a license to construct and maintain the same. For the purposes of this section, “public waters” are defined to be all ponds of more than 10 acres, tidewater bodies, and such streams or portions thereof as the department of energy may prescribe. Every corporation and individual desiring to cross any public water or land for any purpose herein defined shall apply to the department of energy for a license in the same manner prescribed for a public utility. The department of energy may condition any license issued under this paragraph in any manner necessary to assure that the license may be exercised without substantially affecting the public rights in public waters or state-owned lands. Using a non-adjudicative process, the department of energy may reject incomplete or improperly filed applications, and shall, also using non-adjudicative process, issue or deny the license within 90 days of receiving a complete application and all information subsequently requested of an applicant.

371:17 Licenses for New Poles (eff. Aug. 20, 2022)

3. Review of existing license(s) and permissions previously granted by the PUC for this location over public waters in Bedford and Manchester, New Hampshire.

The public water crossing at the Merrimack River that is included in this application was previously licensed in 1976 under DE 76-22 (Order No. 12,219), when the line was re-built.

From the juncture of Pemigewasset and Winnepesaukee Rivers in Franklin, NH, the Merrimack River in Bedford, New Hampshire is listed under the category “Public Rivers and Streams” in

the Official List of Public Waters (OLPW). The entire list of public waters can be accessed through the following web link:

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/olpw.pdf>

Eversource asserts that a New Hampshire Department of Environmental Services (NHDES) Statutory Permit by Notification (SPN) in the town of Bedford and a Shoreland Permit Notification (PBN) for the Merrimack River will be required for temporary impacts associated with the structure replacements and will be obtained prior to commencement of construction.

The U.S. Army Corps of Engineers (ACOE) does regulate the subject portion of the Merrimack River as navigable waters and the scope of work discussed in this application at the subject public water crossing will be licensed via Self-Verification under the ACOE New Hampshire Programmatic General Permit #4 and which licensing will be accomplished prior to commencement of the maintenance project.

4. Review of land ownership of proposed pole structures.

In its application, Eversource specifies that the new poles to be licensed pursuant to this application, will be located across public waters in Bedford and Manchester, New Hampshire. The structure replacement work will be accomplished within existing Eversource easements thereby mitigating impacts and concerns of property owners affected by the project scope.

5. Review of NESC code requirements as described in Puc 300.

The Enforcement Division staff reviewed the specifications related to the structure replacement of this crossing project as described in the application, attachments, and all supplemental support documents and corrections filed by the Company and found them to be in conformance with N.H. Admin. Rule Puc 306 and applicable sections of NESC C2-2012.

6. Review of public need and public impact.

The 3142 Line is an integral part of Eversource's existing electric distribution system in New Hampshire. The crossing location identified in the application is located in the towns of Bedford and Manchester, New Hampshire. The Company asserts in its application that the existing crossing will be exercised without substantially affecting public rights in the identified public waters in New Hampshire.

The Enforcement Division staff verified that minimum safe line clearances above the public waters will be maintained at all times and determined that public use and enjoyment of the public water will not be diminished in any material respect as a result of the proposed pole replacement project.

7. Enforcement Division Recommendation:

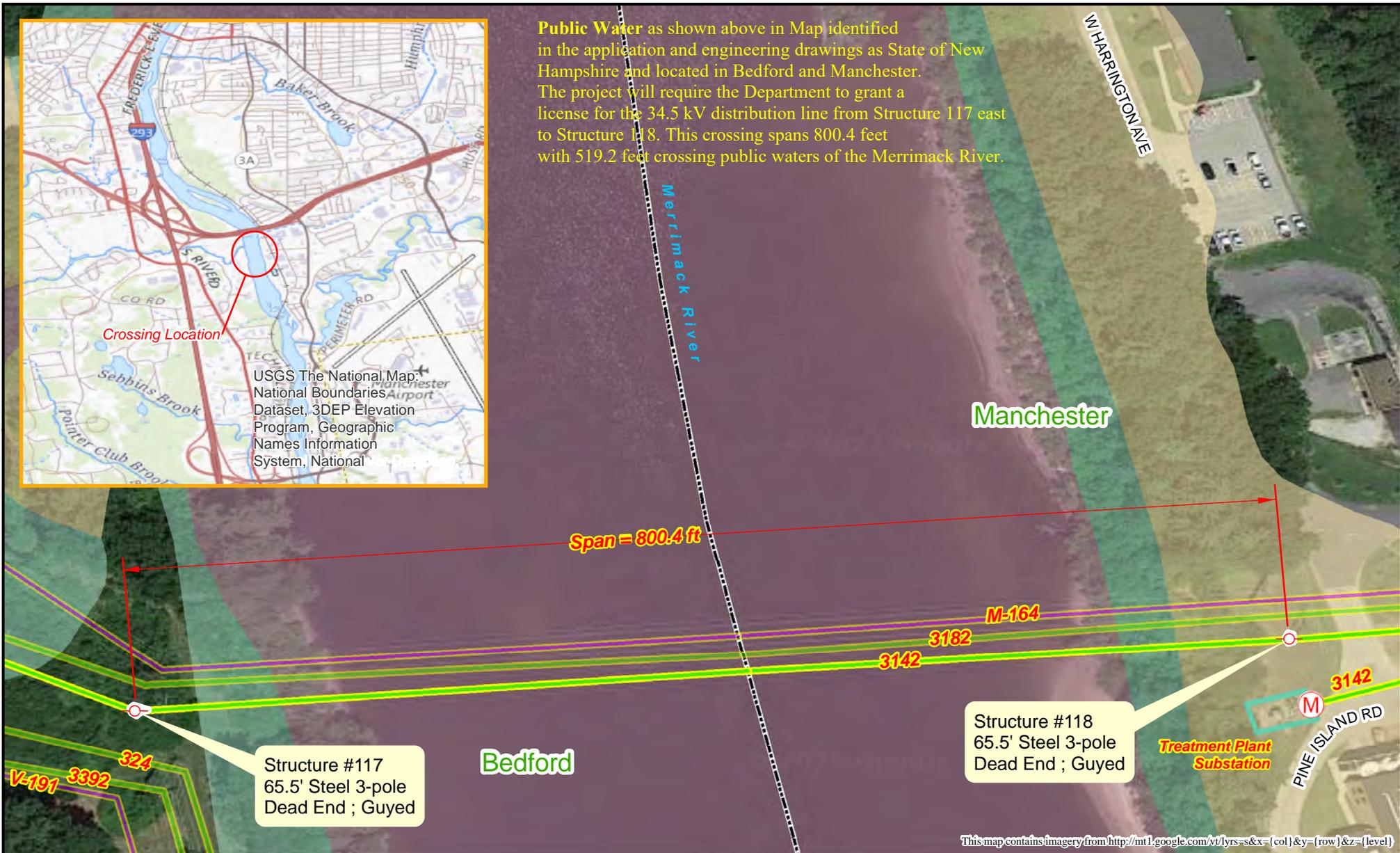
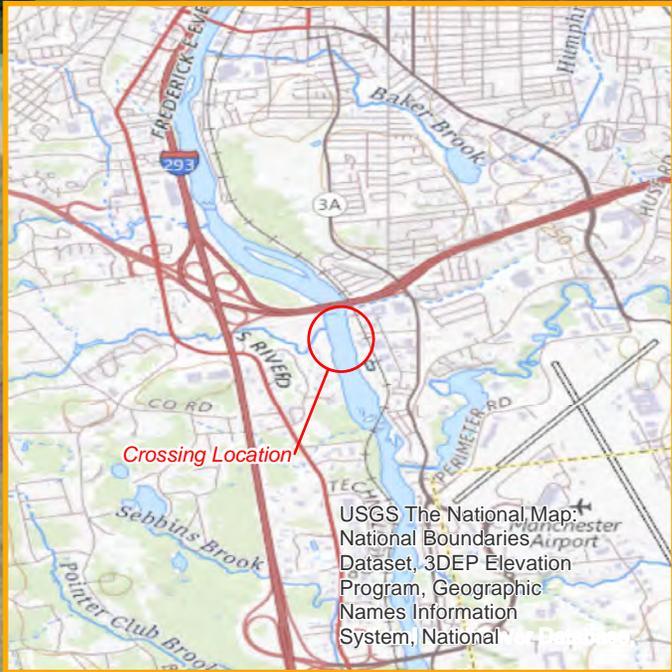
Based on the results of its review of the application, attachments, and all other supporting documents, the Enforcement Division recommends that the Department:

- 1) Find that the license Eversource requests in this docket may be exercised without substantially affecting the public rights over and across public waters; and
- 2) Grant Eversource a license to construct and maintain electric lines pursuant to RSA 371:17 and Puc 306.01, over and across public waters in Bedford and Manchester, New Hampshire as specified in the application.

Attachments:

Merrimack River - CRE 2022-022 Eversource Crossing

Public Water as shown above in Map identified in the application and engineering drawings as State of New Hampshire and located in Bedford and Manchester. The project will require the Department to grant a license for the 34.5 kV distribution line from Structure 117 east to Structure 118. This crossing spans 800.4 feet with 519.2 feet crossing public waters of the Merrimack River.



This map contains imagery from <http://mt1.google.com/vt/lyrs=s&x={col}&y={row}&z={level}>

	Utility Structure		Regulatory Floodway
	Metering Point		1% Annual Chance Flood Hazard
	115 kV Line		0.2% Annual Chance Flood Hazard
	34.5 kV Line		



	Prepared by: NH Department of Energy Enforcement Division Safety Bureau	