

STATE OF NEW HAMPSHIRE

Intra-Department Communication

DATE: July 11, 2022

AT (OFFICE): NH Dept. of Energy

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

SUBJECT: CRE 2022-017 Eversource Energy
Petition for License to Construct and Maintain Electric Lines over and across
Public Waters in Merrimack and Litchfield and State-Owned Land in
Londonderry, New Hampshire

Division of Enforcement, **Safety Bureau 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

The Division of Enforcement's review of the above petition consisted of the following elements:

- Petition contents, replacement petition contents, and history.
- Applicable State statute.
- 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. Petition contents and history

On July 1, 2022, Public Service New Hampshire d/b/a Eversource Energy (Eversource, ES or the Company) filed a petition for a license pursuant to RSA 371:17 to construct and maintain the Eversource T155 Line, which is an existing 115kV transmission line, over and across public waters in Merrimack and Litchfield and State-owned land in Londonderry, New Hampshire.

As part of its ongoing asset condition inspection program, Eversource has determined that the existing wood structures at the state land and public waterbody crossings need to be replaced promptly to continue to function safely and reliably. The structures at the State-owned land and the Merrimack River crossing will be replaced with weathering steel equivalents that will be located within 10' of the original structure location.

The locations of the public water and State-owned land crossings, which are the subject of this petition, are depicted on the Overview Map attached hereto as Exhibit 1 submitted by ES and DOE Maps 1 & 2 attached to this recommendation.

The T155 Line crosses State-owned land in the town of Londonderry between Structures 1 and 3, which span commences at Structure 1, located approximately 75 feet southwest from the southwest fence line from the Eversource Watts Brook Substation. The Watts Brook Substation is located approximately 900 feet southeast from the end of Iroquois Circle in the town of Londonderry. The crossing continues approximately 855 feet northwest to the property boundary of Map 11, Lot 20-105, located approximately 1,922 feet south from where the T155 line crosses Litchfield Road, which crossing location is approximately 250 feet east from the intersection of Litchfield Road and Sandybrook Lane.

The T155 Line crosses the Merrimack River between Structures 14 and 15 in the towns of Litchfield and Merrimack. The waterbody crossing span commences at Structure 14 in Litchfield, approximately 375 feet west from where the T155 Line crosses Brown Ave (aka State Route 3A) in Manchester which is approximately 800 feet south from the intersection of River Bend Way and Brown Ave. The crossing continues approximately 382 feet west to Structure 15 in Merrimack at the westerly side of the Merrimack River, which is approximately 460 feet east from where the T155 Line crosses Monadnock Lane, which crossing location is approximately 215 feet northeast from the intersection of Monadnock Lane and Kinsman Lane.

At both the State-owned land and Merrimack River crossing spans that are the subject to this petition, the current T155 Line maintenance project scope also includes the replacement of one existing pole top shield wire with OPGW communication wire with the specifications and configuration shown on the Cable Schedules and Structure Details on Exhibits 2 and 3 submitted by ES. The three existing phase conductors at both crossing spans that are the subject of this petition shall remain unchanged. Wire specifications and loading condition to establish maximum sag for the crossing span that is the subject of this petition are as indicated on the Profile View and Cable Schedule of Exhibits 2 and 3 submitted by ES.

The location of Structures 1, 2, and 3, in this petition creates a total span of 957.7 feet with a span of 855.5 feet crossing State-owned land.

The location of Structures 14 and 15 creates a total span of 673.8 feet, with a span of 382.8 feet over and across public water.

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

Department of Energy Safety Bureau Summary Table

Eversource T155 Line - State Land and 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)
1	3-Pole DE Angle Type ADL-1	1-2	275.5	20.1	32.8	Y
2	ST-1, Class H9					
3	ST-1, Class H9	2-3	682.1	20.1	27.0	Y
14	ST-1, Class H9	14-15	673.8	30.1	37.6	Y
15	ST-1, Class H9					

2. New Hampshire statute referenced in petition

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, it shall petition 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 petition the department of energy for a license in the same manner prescribed for a public utility.

371:17 Licenses for New Poles (2021, 91:260, eff. July 1, 2021)

3. Review of existing license(s) and permissions previously granted by the PUC for these locations over and across public water in Merrimack and Litchfield and State-owned land in Londonderry, New Hampshire.

The public water crossing at the Merrimack River that is included in this petition was previously licensed in 1976 under DE-76-22 (Order No. 12,219). The line was more recently re-built in 2002 and the line was not relicensed owing to an apparent oversight. The State-owned land crossing in Londonderry was not previously licensed also owing to oversight. This petition contains all the state land and waterbody crossings along the entire T155 Line which runs between the North Merrimack Substation and Watts Brook Substation.

From the Bedford/ Merrimack Town line to the New Hampshire/Massachusetts state line, in Merrimack and Litchfield, the Merrimack River 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) wetland Statutory Permit by Notification (SPN) and Shoreland Permit By Notification (PBN) 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 petition 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 petition, Eversource specifies that the new poles and conductors to be licensed pursuant to this petition, will be located across public waters in Merrimack and Litchfield and State-owned land in Londonderry, 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 Safety Bureau reviewed the specifications related to the design and re-construction of this crossing project as described in the petition, 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 T155 Line is an integral part of Eversource’s existing electric transmission system in New Hampshire. The crossing locations identified in the petition are in the towns of Merrimack, Litchfield and Londonderry, New Hampshire. The Company asserts in its petition that the existing crossings will be exercised without substantially affecting public rights in the identified State-owned land and public waters.

The Safety Bureau verified that minimum safe line clearances above the State-owned land and public water will be maintained at all times and determined that public use and enjoyment of the State-owned land and public water will not be diminished in any material respect as a result of the proposed overhead line crossings.

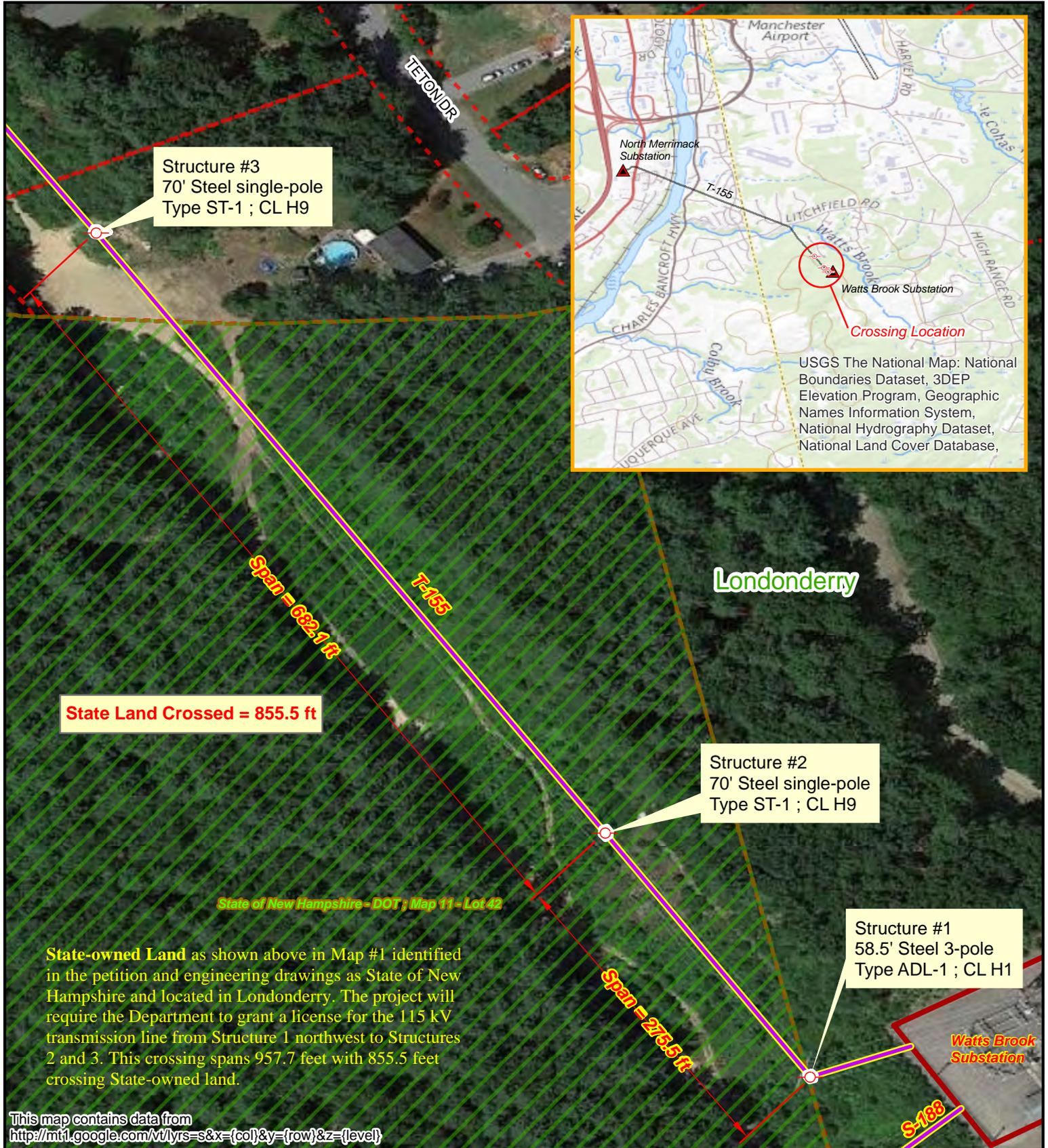
7. Safety Bureau Recommendation:

Based on the results of its review of the petition, attachments, and all other supporting documents, the Safety Bureau recommends that the Department:

- 1) Find that the license Eversource requests in this docket may be exercised without substantially affecting the public rights in State-owned land and public waters; and
- 2) Grant Eversource a license to construct, install, operate, and maintain electric lines and communication cables pursuant to RSA 371:17 and Puc 306.01, over and across public waters in Merrimack and Litchfield and State-owned land in Londonderry, New Hampshire as specified in the petition.

Attachments:

State Land (NHDOT) - CRE 2022-017 Eversource Crossing - Map 1



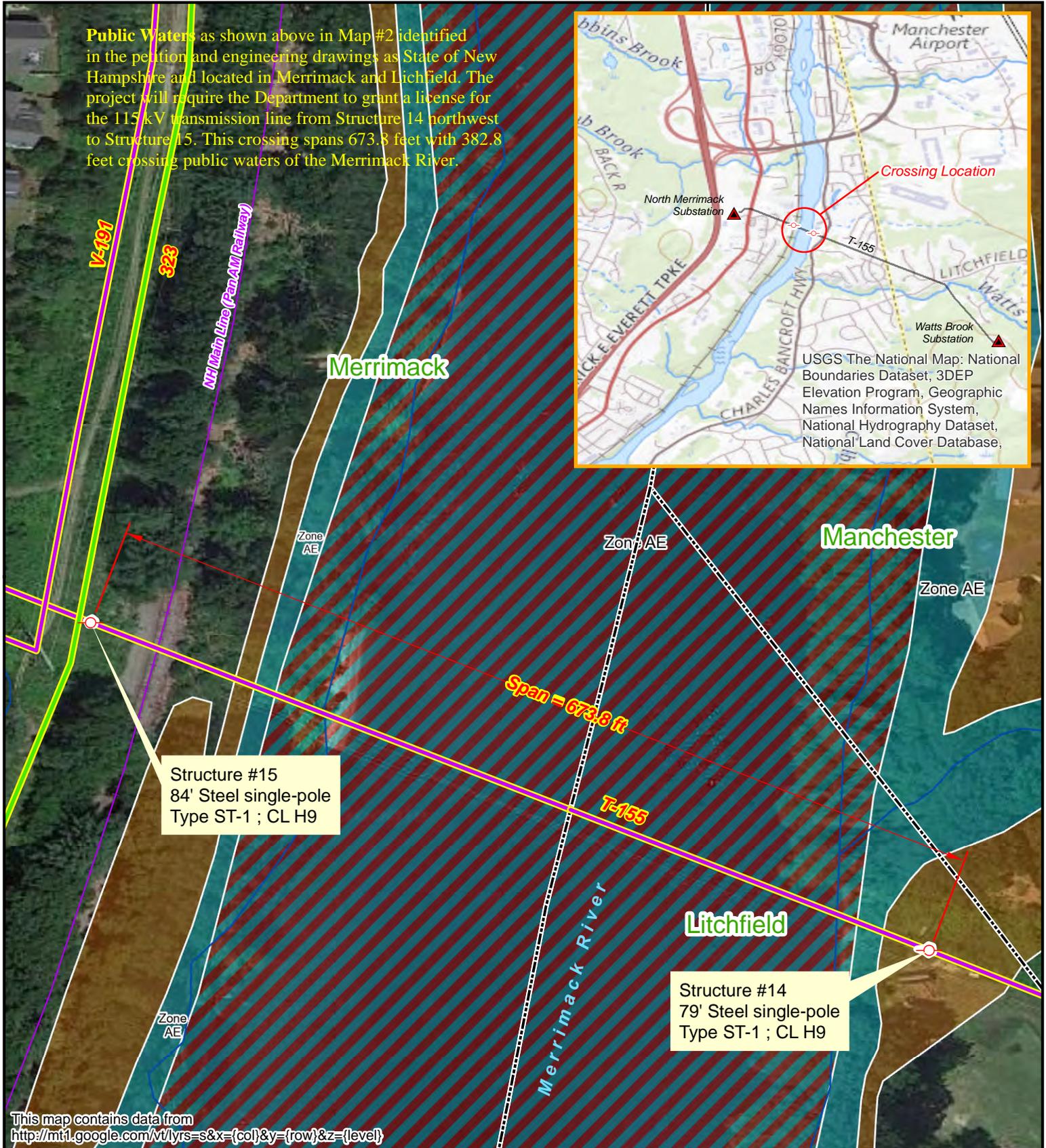
	Utility Structure		State Land Parcel
	115 kV Line		Town Parcel



Prepared by:
NH Department of Energy
Enforcement Division
Safety Bureau

Merrimack River - CRE 2022-017 Eversource Crossing - Map 2

Public Waters as shown above in Map #2 identified in the petition and engineering drawings as State of New Hampshire and located in Merrimack and Litchfield. The project will require the Department to grant a license for the 115 kV transmission line from Structure 14 northwest to Structure 15. This crossing spans 673.8 feet with 382.8 feet crossing public waters of the Merrimack River.



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

	Utility Structure		Area of Undetermined Flood Hazard
	34.5 kV Lines		0.2% Annual Chance Flood Hazard
	115 kV Lines		Future Conditions 1% Annual Chance Flood Hazard
	1% Annual Chance Flood Hazard		Area with Reduced Risk Due to Levee
	Regulatory Floodway		Area with Risk Due to Levee
	Special Floodway		



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Feet