

STATE OF NEW HAMPSHIRE

Intra-Department Communication

Date: July 21, 2023
At (Office): NH Dept. of Energy

From: Bryan J. Flynn B J F
Compliance Officer IV – Enforcement Division

Subject: **CRE 2023-016** Eversource Energy
Application for License to Construct and Maintain Electric Lines Over and
Across State-Owned Land and Public Waters in Canterbury, Franklin and
Northfield, 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 of Enforcement Division
Elizabeth Nixon, Director of Electric Regulatory Support Division
Andrew Harmon, Hearings Examiner, Enforcement Division

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

- Application contents, revised application contents, and history.
- Applicable State statutes.
- Review of existing crossing(s) previously licensed by the State of New Hampshire, if any.
- Review of land ownership and 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
- Recommendations

1. Application Contents and History

Public Service Company of New Hampshire d/b/a Eversource Energy (ES) submitted an application, pursuant to RSA 371:17, for a license to construct and maintain a portion of the Eversource F139 Line on July 17, 2023. The F139 Line is a 115 kV electric transmission line that crosses State-owned Land in Canterbury and Franklin, as well as public waters in Northfield and Franklin, New Hampshire. Eversource requests that the Department grant a license for the purpose of critical structure and wire replacement at the referenced crossing locations. Enforcement Division staff have reviewed the application, exhibits, and all additional supporting documents.

Through asset condition inspections, Eversource has determined that existing wood structures, specifically Structures 188, 189, and 190, need to be replaced promptly to continue to function safely and reliably. The three existing conductors and static wires will be replaced with new 1272 kcmil ACSS conductors and two optical ground wires (OPGW). Additionally, Eversource is renumbering all structures as part of this project and thus the structures comprising the spans that are the subject of the application will be renumbered from existing structure numbers 241, 243, 280, 281, 348, 349, and 350 to numbers 84, 85, 121, 122, 188, 189, and 190, respectively.

The locations of the State-owned land and public water crossings which are the subject of the application are depicted on the Overview Map (Exhibit 1) submitted in the application, and a more detailed description is as follows:

(Exhibit 2) The F139 Line crosses a State-owned railroad ROW parcel administered by NH Department of Transportation in the Town of Canterbury and is located between renumbered Structures 84 and 85 (existing Structures 241 and 243), which crossing commences approximately 65 feet northwest from where the F139 Line crosses Interstate 93 in Canterbury, which is approximately 1.55 miles north of Exit 18 on Interstate 93. The crossing continues approximately 97 feet northwest to the property boundary between state-owned land and Map 236, Lot 17 in the Town of Canterbury.

- The proposed location of Structures 84 and 85 creates a total span of 651.7 feet, with 97.9 feet crossing State-owned land.

(Exhibit 3) The F139 crosses the Merrimack River and State-owned land in the Town of Northfield and the City of Franklin between renumbered structures 121 and 122 (existing Structures 280 and 281), which span is located southeast of where the line crosses Route 3 in Franklin, approximately 1.00 miles north of the intersection of Route 3 and Stirrup Iron Road in Boscawen. The first State owned land boundary (Map 126, Lot 401) commences along the west bank of the Merrimack River and extends northwest approximately 140' where it abuts another State-owned land, identified as the Northern Rail Trail. The span continues northwest across the second State owned property, encompassing the Northern Rail Trail corridor, which has a width of 88.9'. The Merrimack River crossing occurs within the same span as described above, between Structure 121 and 122. The east bank of the river crossing occurs approximately 0.63 miles west from where the line crosses Fiddlers Choice Road in Northfield and extends approximately 295.2 feet northwest across the river.

- The proposed location of Structures 121 and 122 creates a total span of 737.9 feet, with 295.2 feet crossing the public waters of the Merrimack River and 229 feet crossing two adjacent parcels of State-owned land.

(Exhibit 4) The F139 crosses Chance Pond Brook and State-owned land in the City of Franklin between renumbered Structures 188, 189, and 190 (existing Structures 348, 349, and 350). The Chance Pond Brook crossing commences approximately 20 feet northeast from where the F139 Line crosses Chance Pond Road, which is approximately 190 feet northwest from the intersection of Chance Pond Road and Carr Street. The Chance Pond Brook crossing continues approximately 239 feet to the northeast bank of Chance Pond Brook. The State-owned land crossing, identified as the Northern Rail Trail, commences approximately 185 feet northeast from where the F139 Line crosses Garneau Road, which is approximately 460 feet northwest from the intersection of Garneau Road and Carr Street. The State-owned land crossing continues approximately 136.4 feet northeast where the State-owned land abuts Map 76, Lot 1.

- The proposed location of Structures 188 and 189 creates a total span of 538.8 feet, with 239.4 feet crossing the public waters of Chance Pond Brook.
- The proposed location of Structures 189 and 190 creates a total span of 180 feet, with 136.4 feet crossing State-owned land.

Eversource Energy F139 Line Crossing Design Details Proposed CRE 2023-016						
Structure Number	Structure Type	Measured Span	Distance (Feet)	NESC Table 232-1 Minimum Clearance (Feet)	ES Design Clearance (Feet)	Complies with NESC Table 232-1
84	ES Type T Steel Tangent	84 - 85	652	28.1	66.8	Y
85	ES Type T Steel Tangent					
121	ES Type ADS-1 Steel Dead-end	121 - 122	738	30.1 (Water)	33.2	Y
122	ES Type ADS-1 Steel Dead-end			28.1 (Rail)	43.2	
				20.1 (Land)	28.4	
188	ES Type T Steel Tangent	188 - 189	539	22.1	55.1	Y
189	ES Type ADS Steel Dead-end					
190	ES Type SDE Steel Monopole	189 – 190	180	28.1	44.7	Y

2. New Hampshire statute referenced in application (modified by NH House Bill 1258, 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.

3. Review of existing license(s) and permissions previously granted by the State of New Hampshire, including additional permitting requirements, for these crossings over State-owned land in Canterbury and Franklin, and public waters in Franklin and Northfield, New Hampshire

Originally constructed in 1966, the Eversource F139 Line has been previously licensed at locations under various DE Orders. The State-owned land between existing Structures 241 and 243 was licensed under DE 20-058 (Order No. 26,406), the State-owned land and public water crossing at the Merrimack River between existing Structures 280 and 281 was licensed under DE 21-064 (Order No. 26,479), and the public water crossing at Chance Pond Brook between existing Structures 348 and 349 was previously licensed under DE 87-131 (Order No. 18,782). The State-owned land crossing between existing Structures 340 and 350 was not previously licensed due to either the line being constructed prior to State ownership of the land, or due to oversight. With the approval of the application, the F139 will be licensed in its entirety.

As described in the Comprehensive Shoreland Protection Act (RSA 483-B:4, XVI(c)), the jurisdictional section of the Merrimack River to be licensed in Northfield and Franklin is designated "from the confluence of the Winnepesaukee and Pemigewasset Rivers in Franklin to Garvin Falls in Bow". The Official List of Public Waters (OLPW) can be accessed through the following link:

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

In its application, Eversource states that a New Hampshire Department of Environmental Services (NHDES) Standard Dredge and Fill permit and a shoreland statutory 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 Official List of Public Waters (OLPW) can be accessed through the following link:

4. Review of land ownership at proposed pole structures

The structure replacement project is to be accomplished within existing right-of-way easements thereby mitigating impacts and concerns of property owners affected by the project scope. A list of abutters was provided in the application by Eversource.

5. Review of National Electric Safety Code requirements as described in PUC 300

The wire specifications and loading conditions to establish maximum sag for the crossing spans that are the subject of the application, are as indicated on Profile View and Cable Schedule of Exhibits 2 through 4 submitted by Eversource. The flood elevation used to determine the clearance over the Merrimack River and Chance Pond Brook is as indicated in Note 3 to Exhibits 3 and 4, respectively.

Eversource shall own, maintain, and operate the proposed crossings at a height no less than what is required for 115 kV by the 2012 National Electric Safety Code (NESC) which is 30.1 feet for water areas suitable for sail-boating with an area of over 20 to 200 acres, 28.1 feet for areas with tracks and rails, 22.1 feet for water areas not suitable for sail-boating and less than 20 acres, and 20.1 feet for other areas traversed by vehicles. Actual design clearances are depicted on Eversource Exhibits 2 to 4 and exceed the respective minimum requirements.

Enforcement Division staff reviewed the specifications of the proposed replacement work and proposed structure locations and found them to be in conformance with N.H. admin. Rule PUC 306. The minimum clearance requirements pursuant to the NESC table 232-1, based on the design conditions at 285 deg F, ground elevation, and the 100-year flood level, which is more stringent than the 10-year flood level, have been met. Staff verified the depicted sag clearances using Sag10 commercial software with the data inputs provided in the application.

6. Review of public need and impact

The Eversource 115kV F139 Line supplies necessary power to New Hampshire's transmission system. Eversource attests that the license, if granted, may be exercised without substantially affecting the use and enjoyment of State-owned lands and public waters. The Enforcement Division review of design specifications verified that minimum safe clearances above State-owned land and public waters will be maintained during and after structure replacement; and therefore, determines that public use and enjoyment of said land and water will not be diminished in any respect as a result of the proposed project.

7. Enforcement Division Recommendations

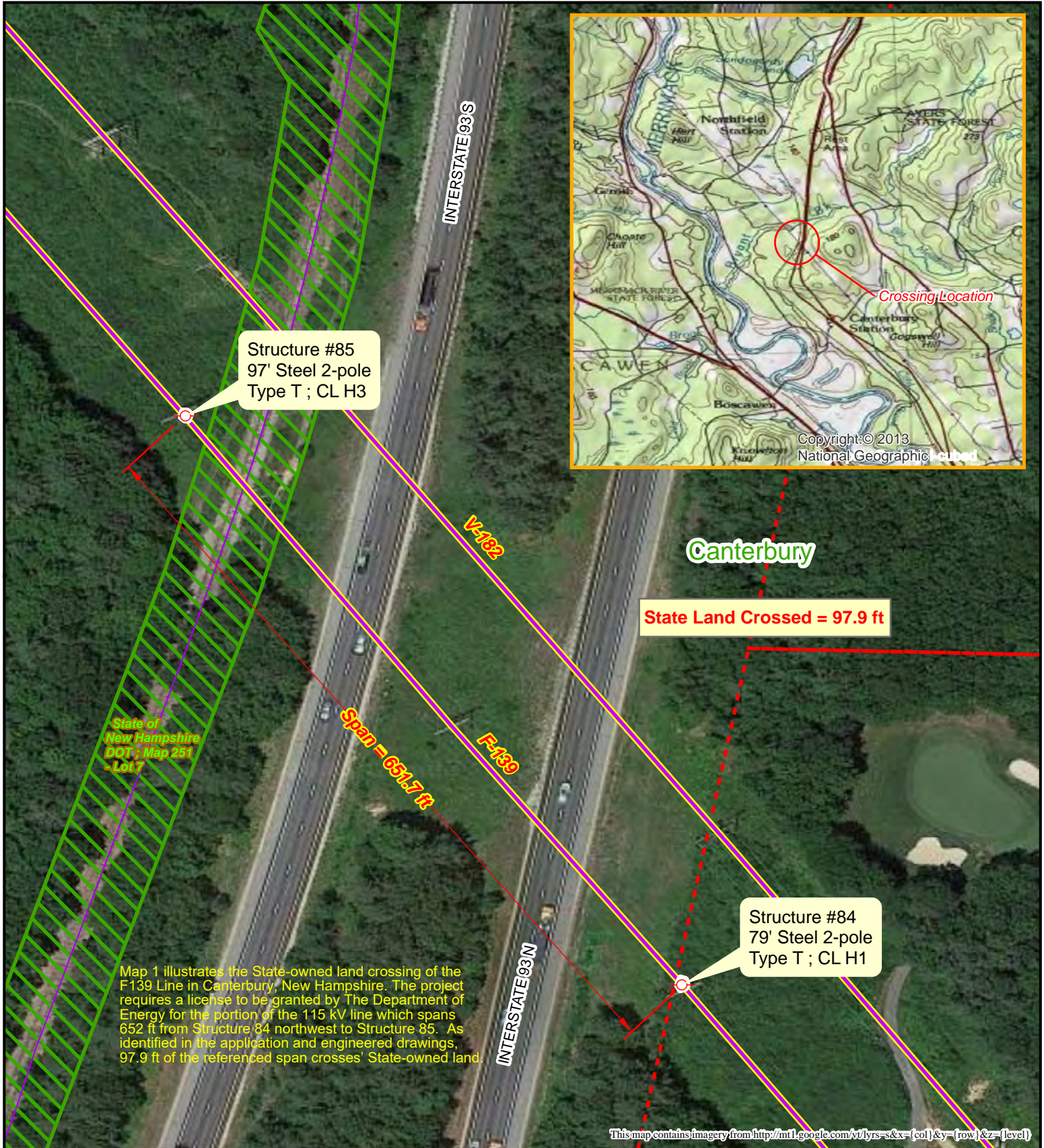
Based on the results of its review of the application, attachments, and all other supporting documents, the Enforcement Division recommends that the Department:

1. Find that the license Eversource requests in the application may be exercised without substantially affecting the public rights on State-owned land or 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 State-owned land in the Towns of Canterbury and

Franklin, and public waters in the Towns of Franklin and Northfield, New Hampshire as specified in the application.

Attachments

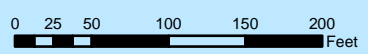
State Land (NHDOT) - CRE 2023-016 Eversource Crossing - Map 1



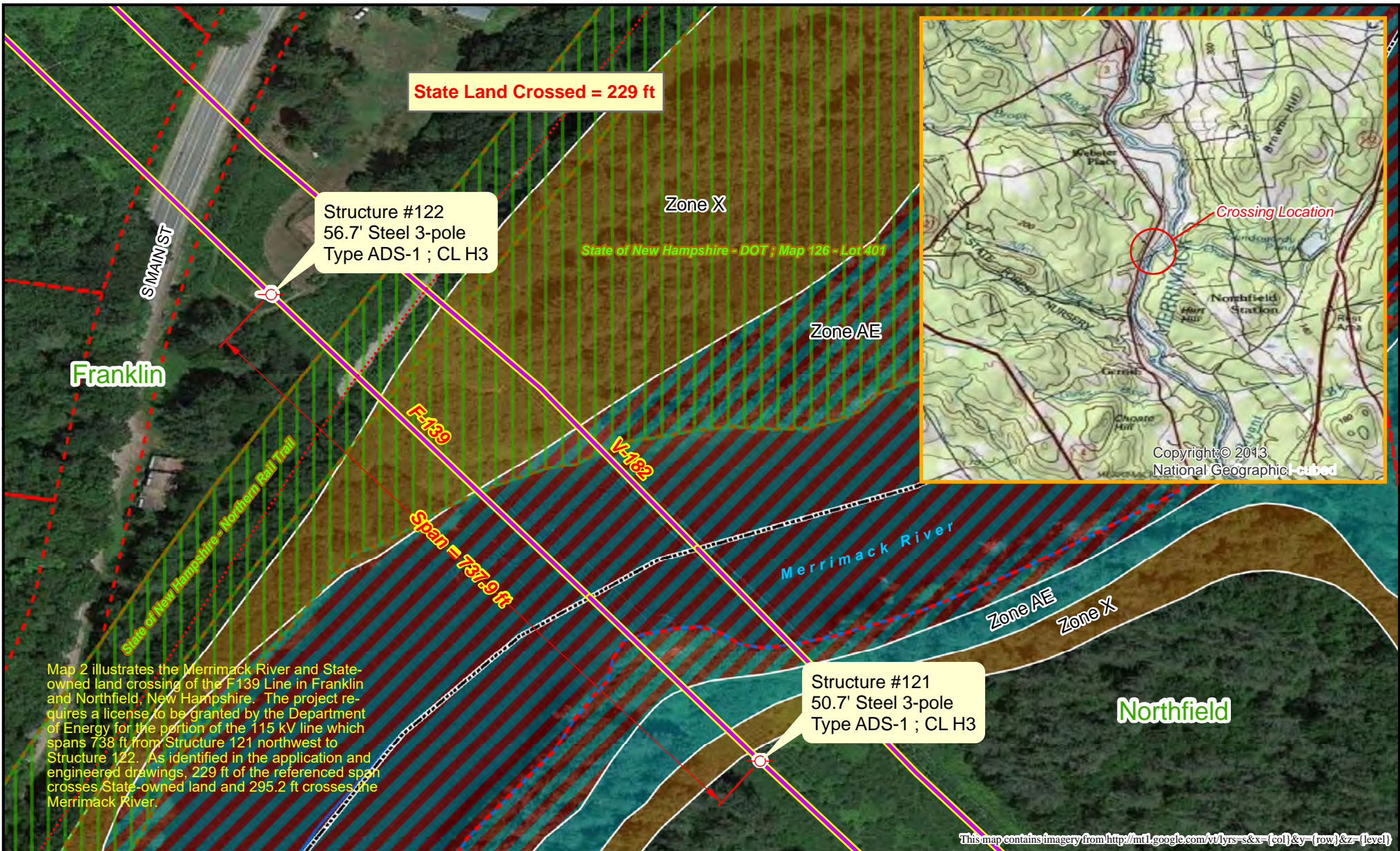
	Utility Structure		State Land Parcel
	115 kV Line		Town Parcel
	Rail Trail		



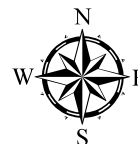
Prepared by:
NH Department of Energy
Enforcement Division



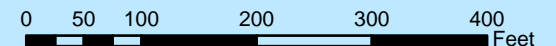
Merrimack River & State Land (NHDOT) - CRE 2023-016 Eversource Crossing - Map 2



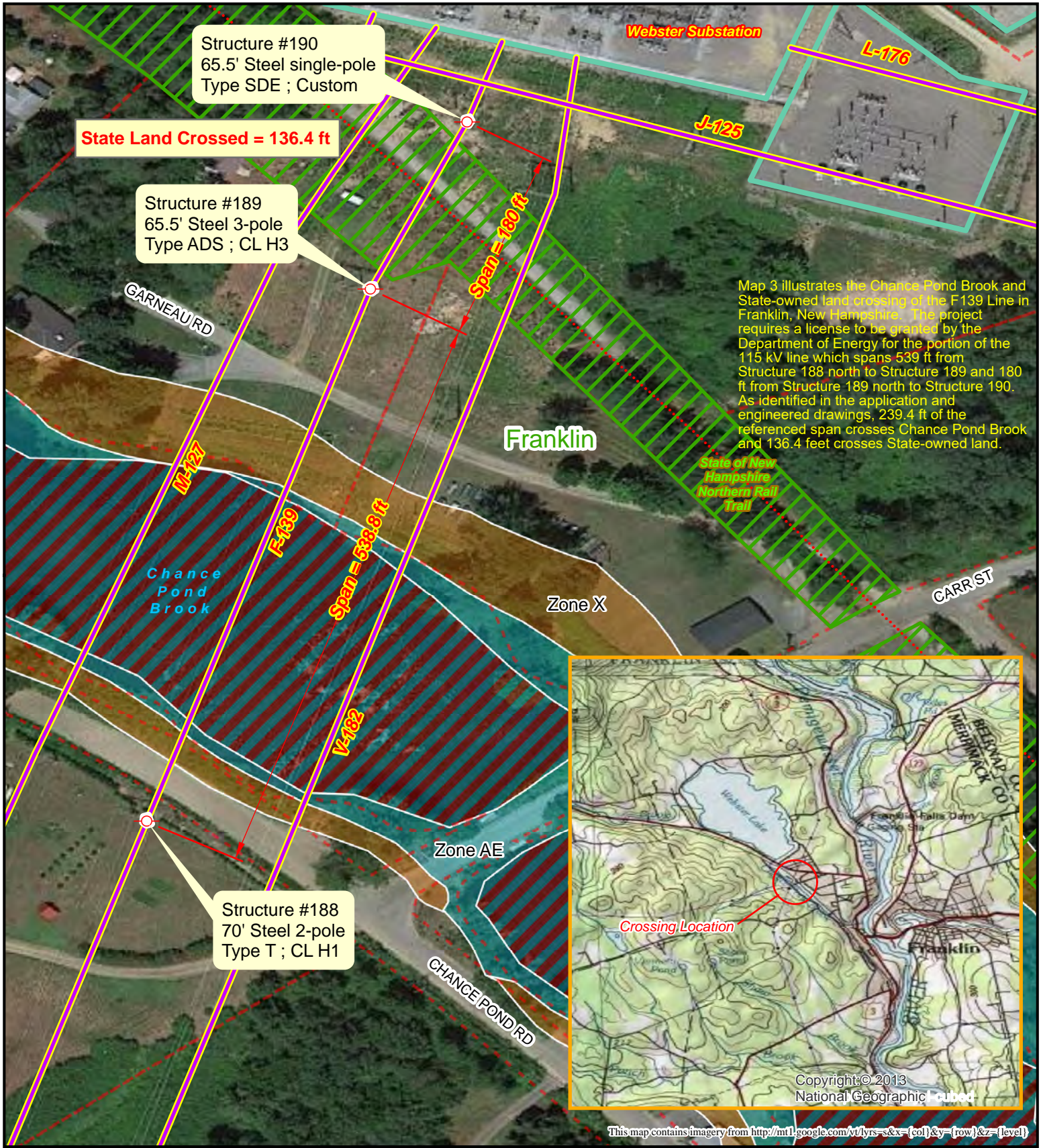
	Utility Structure		Town Parcel
	Rail Trail		State Land Parcel
	115 kV Line	Flood Hazard Zones	
			Regulatory Floodway
			1% Annual Chance Flood Hazard
			0.2% Annual Chance Flood Hazard



Prepared by:
NH Department of Energy
Enforcement Division



Chance Pond Brook & State Land (NHDOT) CRE 2023-016 Eversource Crossing - Map 3



	Utility Structure		State Land Parcel
	115 kV Line		Town Parcel
	Rail Trail	Flood Hazard Zones	
			Regulatory Floodway
			1% Annual Chance Flood Hazard
			0.2% Annual Chance Flood Hazard



	Prepared by: NH Department of Energy Enforcement Division