

# STATE OF NEW HAMPSHIRE

## Intra-Department Communication

**DATE:** March 3, 2023

**AT (OFFICE):** NH Dept. of Energy

**FROM:** Michael Soucy *MRS*  
Administrator III – Division of Enforcement

**SUBJECT:** CRE 2023-006 Eversource Energy  
Application for License to Construct and Maintain Electric Lines over and across public waters and State-owned land in Concord, Bow, and Pembroke, 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 February 24, 2023, 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 M108 Line, over and across public water and state-owned land in Bow, Concord and Pembroke, New Hampshire.

The Eversource M108 Line is a 115kV overhead transmission line which was originally built in 1951 as the V182 Line and rebuilt in 2007 and redesignated as the M108 Line.

The proposed project for the M108 Line encompasses the replacement of existing wooden structures at the Merrimack River in Bow and Concord, the Soucook River in Concord and Pembroke and State-owned land in Pembroke. Structures 2, 11, 12, 27, and 29 through 32 need to be replaced promptly to continue to function safely and reliably. Those structures will be replaced with weathering steel equivalents that will be located within 10' of the original structure location. The M108's existing three phase conductors, single OPGW wire, and single static wire within the spans encompassing Structures 2 to 3, Structures 11 to 12, and Structures 25 through 32, will not be changed in the course of performing the steel structure replacements. Wire specifications are identified on Exhibits 2 through 7 submitted by ES.

The specifications and loading conditions to establish maximum sag for the crossing spans that are the subject of this application were indicated on the Profile View and Cable Schedule of Exhibits 2 through 7 submitted by ES. The conductor clearance requirements pursuant to the NESC based on the design conditions at 285 deg F and the 100-year flood level have been met. Staff verified the depicted sag clearances using Sag10 commercial software with the data inputs as stated in the application.

The location of the public water crossings and state-owned land that are the subject of this application are depicted on the Overview Map as Exhibit 1 submitted by ES, and the DOE Maps attached to this recommendation. Exact locations of the structures are expressed with Latitude and Longitude on Exhibits 2 through 7 submitted by ES

The location of Structures 2 to 3 in this application creates a total span of 818.2 feet with a span of 535.6 feet crossing the Merrimack River in the Town of Bow.

The location of Structures 11 to 12 in this application creates a total span of 401.3 feet with a span of 50.2 feet crossing the Soucook River in the City of Concord and Town of Pembroke.

The location of Structures 25 and 32 in this application creates a total span of 4239.5 feet with a span of 2966.7 crossing State-owned land in the Town of Pembroke.

The locations of Structures 31 and 32 in this application creates a total span 1172.8 feet with a span crossing 388.1 feet crossing the Soucook in the City of Concord and the Town of Pembroke.

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 M108 Line - State Land and Waterbody Crossing Details					
Structures	Type	Span Distance (feet)	Minimum NESC Table 232-1 Clearance (ft.)	ES Vertical Design Clearance (ft.)	Complies with NESC Table 232-1 (Y/N)
2-3	2 – Steel Type ADS-1 Class H3 3 – Steel Type ADS-1 Class H1	818.2	18.6	42.4	Y
11-12	11 – Steel Type ST-1 Class H9 12 – Steel Type ST-1 Class H9	401.3	18.6	57.4	Y
25-26	25 – Steel Type ADS-1 Class H1 26 - Steel Type ST-1 Class H9	585.9	20.1	48.3	Y
26-27	27 - Steel Type ST-1 Class H9	595.5	20.1	40.5	Y
27-28	28 - Steel Type ST-1 Class H9	501.8	20.1	38.5	Y
28-29	29 - Steel Type ST-1 Class H9	491.5	20.1	33.3	Y
29-30	30 - Steel Type ST-1 Class H9	408.1	20.1	34.1	Y
30-31	31 - Steel Type ADS-1 Class H3	483.9	20.1	39.5	Y
31-32	32 - Steel Type ADS-1 Class H1	1172.8	Land - 20.1 Water – 18.6	64.4 49.6	Y

**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 and across public water and state-owned land in Bow, Concord and Pembroke, New Hampshire.**

The public water crossings at the Merrimack River between Structures 2 and 3, that is included in this application was previously licensed in 2022 under CRE 2022-009. The public water crossings at the Soucook River between Structures 11 and 12, and 31 and 32, that are included in this application were previously licensed in 2008 under DE 08-064 (Order No. 24,859). The State-owned land between Structures 25 and 29 was licensed in 2022 under CRE 2022-009, which accounted for a subset of total structures within the continuous state land span between Structures 25 and 32. As a result of this application, the M108 line will be licensed in its entirety.

The Merrimack River from the confluence of the Winnepesaukee and Pemigewasset Rivers in Franklin to Garvin's Falls in Bow and the Soucook River from the outflow of Crystal Lake in Gilmanton, are 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 Notification (PBN) will be required for temporary impacts associated with structure replacements and will be obtained prior to commencement of construction.

The U.S. Army Corps of Engineers (ACOE) -regulates the subject portion of the Merrimack River as navigable waters and the scope of work discussed in this application at that crossing location is covered through Self-Verification process under the ACOE New Hampshire Programmatic General Permit #4, provided that there will be no decrease in existing clearances, which is the case for the scope application herein. The ACOE does not regulate any parts of the Soucook River.

#### **4. Review of land ownership of proposed pole structures.**

In its application, Eversource specifies that the wire installation work will be accomplished within existing right-of-way 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 work of this crossing project as described in the application, attachments, and all supplemental support documents 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 307 Line is an integral part of Eversource's existing electric transmission system in New Hampshire. The crossing locations identified in the application are in the Town of Bow, City of Concord and the Town of Pembroke in 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 and state-owned land in New Hampshire.

The Enforcement Division staff verified that minimum safe line clearances above the public water and State-owned land will be maintained at all times and determined that public use and enjoyment of the public water and State-owned land will not be diminished in any material respect as a result of the proposed 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 application may be exercised without substantially affecting the public rights in public waters and state-owned land; 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 and state-owned land in Bow, Concord and Pembroke, New Hampshire as specified in the application.

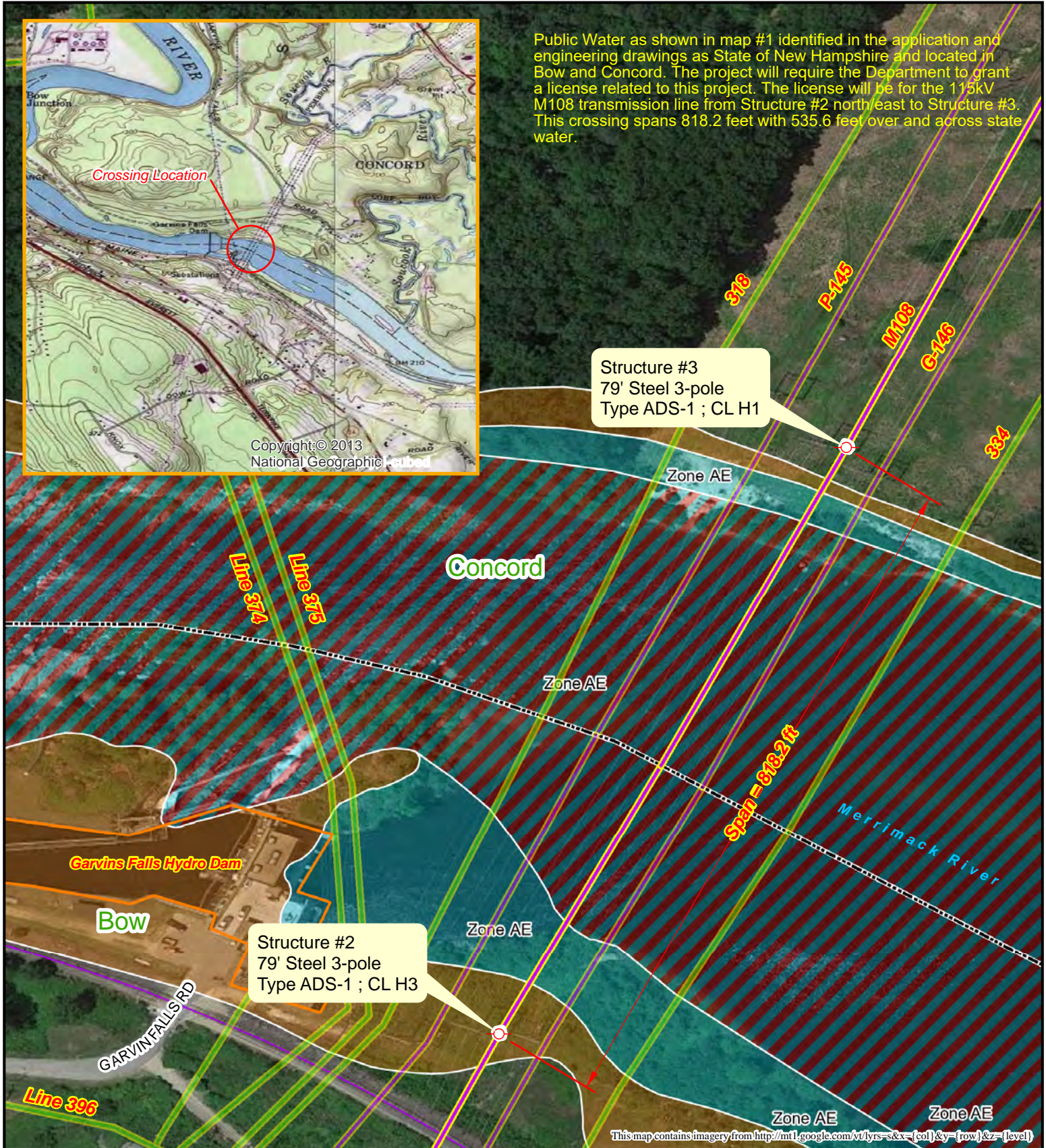
Attachments:

# Merrimack River - CRE 2023-006

## Eversource Crossing - Map 1



Public Water as shown in map #1 identified in the application and engineering drawings as State of New Hampshire and located in Bow and Concord. The project will require the Department to grant a license related to this project. The license will be for the 115kV M108 transmission line from Structure #2 north/east to Structure #3. This crossing spans 818.2 feet with 535.6 feet over and across state water.



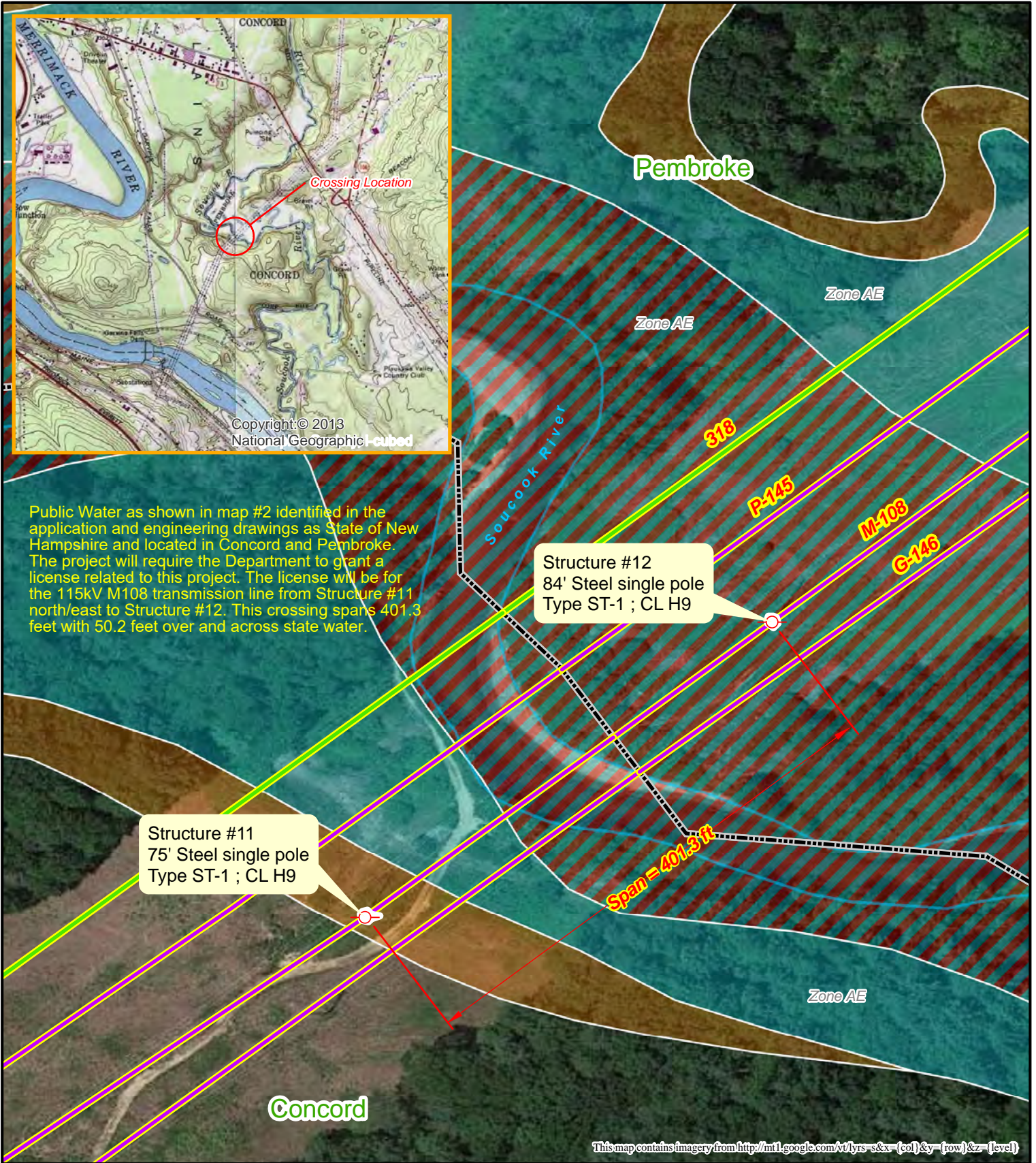
	Utility Structure		Regulatory Floodway
	115 kV Line		1% Annual Chance Flood Hazard
	34.5 kV Line		0.2% Annual Chance Flood Hazard



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NH Department of Energy  
Enforcement Division

0 50 100 200 300 400  
Feet

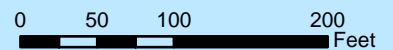
# Soucook River - CRE 2023-006 Eversource Crossing - Map 2



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

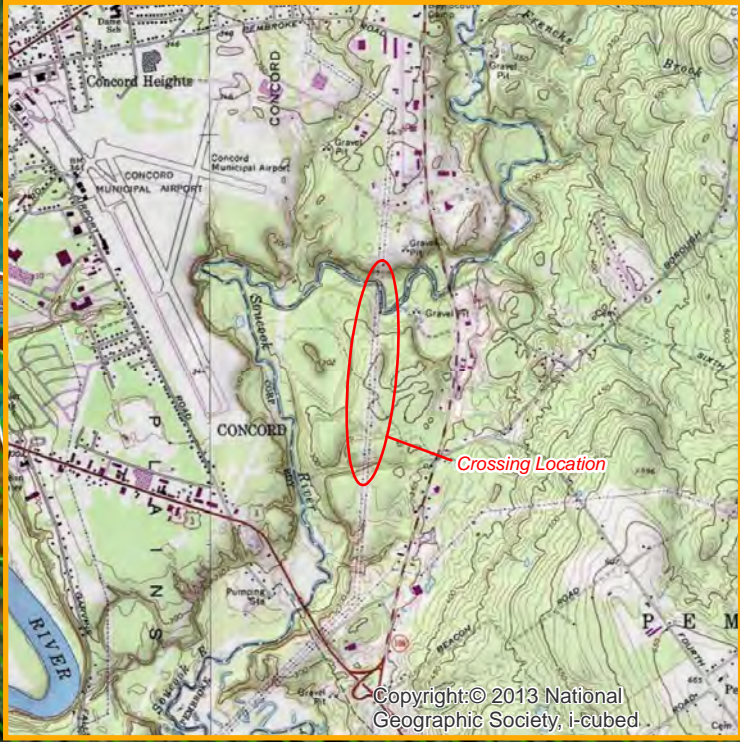


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# Soucook River and State Land (NHAG) - CRE 2023-006

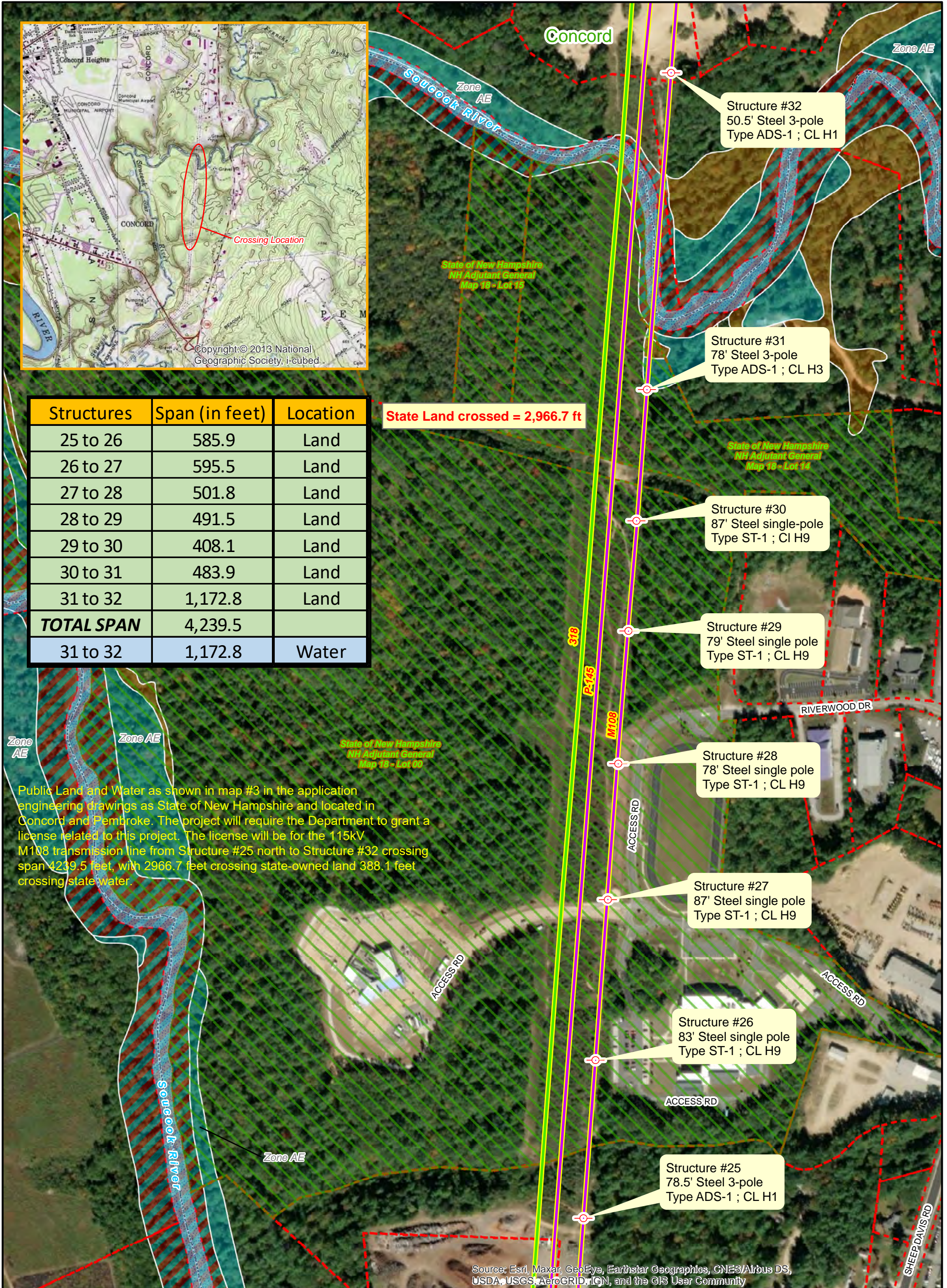
## Eversource Crossing - Map 3



Structures	Span (in feet)	Location
25 to 26	585.9	Land
26 to 27	595.5	Land
27 to 28	501.8	Land
28 to 29	491.5	Land
29 to 30	408.1	Land
30 to 31	483.9	Land
31 to 32	1,172.8	Land
<b>TOTAL SPAN</b>	<b>4,239.5</b>	
31 to 32	1,172.8	Water

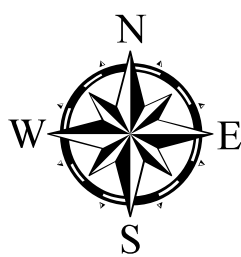
State Land crossed = 2,966.7 ft

Public Land and Water as shown in map #3 in the application engineering drawings as State of New Hampshire and located in Concord and Pembroke. The project will require the Department to grant a license related to this project. The license will be for the 115kV M108 transmission line from Structure #25 north to Structure #32 crossing span 4239.5 feet, with 2966.7 feet crossing state-owned land 388.1 feet crossing state water.



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

	Utility Structure		Town Parcel
	115 kV Lines	<b>Flood Hazard Zones</b>	
	34.5 kV Lines		Regulatory Floodway
	State Land Parcel		1% Annual Chance Flood Hazard
			0.2% Annual Chance Flood Hazard



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NH Department of Energy  
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