

STATE OF NEW HAMPSHIRE

Intra-Department Communication

Date: August 8, 2023
At (Office): NH Dept. of Energy

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

Subject: **CRE 2023-018** Eversource Energy
Application for License to Construct and Maintain Electric Lines Over and
Across Public Waters in Merrimack, 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

On August 3, 2023, 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 B143 Line. The ES B143 Line is a 115 kV transmission line that crosses public waters in the Town of Merrimack, New Hampshire. Eversource requests that the Department grant a license for the purpose of necessary 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 certain existing wood structures at public water crossings, specifically Structures 120, 121, and 146 need to be replaced to continue to function safely and reliably. The wood structures will be replaced with weathering steel equivalents that shall be located within 10' of existing structure locations. The existing two static wires at all the referenced crossing locations will be replaced with two optical ground wires (OPGW).

The locations of the public water crossings are depicted on the Overview Map, submitted by ES as Exhibit 1, and more detailed location descriptions are as follows:

Exhibit 2 – The B143 Line crosses two sections of Baboosic Brook in the Town of Merrimack between Structures 120 and 121. The crossing commences approximately 1,250 feet south from where the line crosses Summit Road, which is approximately 540 feet west from the intersection of Summit Road and Marrett Road in Merrimack. The crossing span continues south over two sections of Baboosic Brook, extending a total 279.9 feet from the point of commencement to the south bank of Baboosic Brook.

- The location of the proposed structures creates a span of 709.7 ft with 166.5 ft crossing the public waters of Baboosic Brook.

Exhibit 3 – B143 Line crosses Baboosic Brook in the Town of Merrimack between Structures 135 and 136, which crossing is located approximately 1,340 feet south from where the line crosses Catskill Road, which is approximately 50 feet southwest from the intersection of Catskill Road and Bedford Road in Merrimack. The crossing span continues south approximately 35 feet to the south bank of Baboosic Brook.

- The location of the proposed structures creates a span of 472 ft with 35 ft crossing the public waters of Baboosic Brook.

The B143 Line crosses three sections of Baboosic Brook in the Town of Merrimack between Structures 138 and 139. This crossing commences approximately 2,500 feet south from where the line crosses Catskill Rd, which is approximately 50 feet southwest from the

intersection of Catskill Road and Bedford Road in Merrimack. The crossing span continues south over three sections of Baboosic Brook, extending a total of 196.8 feet to the southeast bank of Baboosic Brook.

- The location of the proposed structures creates a span of 522.2 ft with 82.2 ft crossing the public waters of Baboosic Brook.

Exhibit 4 - B143 Line crosses Baboosic Brook in the Town of Merrimack between structures 146 and 147, which crossing commences approximately 824 feet south from where the line crosses Mallard Point Road, which is approximately 1,250 feet east from the intersection of Mallard Point Road and Wire Road in Merrimack. The crossing span continues south approximately 38 feet to the south bank of Baboosic Brook.

- The location of the proposed structures creates a span of 361.8 ft with 38.2 ft crossing the public waters of Baboosic Brook.

The following Table illustrates the structure and span details provided in the application, as well as required NESC clearance and the ES design clearance at each crossing.

| Eversource Energy B143 Line Crossing Proposed Design Details CRE 2023-018 | | | | | | |
|--|----------------|---------------|-----------------|---|----------------------------|--------------------------------|
| 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 |
| 120 | SRAX, steel | 120-121 | 709.7 | 18.6 (115 kV) | 23.5 | Y |
| 121 | Type T, steel | | | | | |
| 135 | Type T, steel | 135-136 | 472 | 18.6 (115 kV) | 43.8 | Y |
| 136 | Type T, Steel | | | | | |
| 138 | Type T, Steel | 138-139 | 522.2 | 18.6 (115 kV) | 22.4 | Y |
| 139 | Type T, Steel | | | | | |
| 146 | SRAX, steel | 146-147 | 361.8 | 18.6 (115 kV) | 42.3 | Y |
| 147 | Type T, Steel | | | | | |

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 public waters in the Town of Merrimack, New Hampshire

Originally constructed in 1966, the ES B143 line has been previously licensed at certain locations. The spans between structures 135 and 136, 138, and 139 were previously licensed under DE 19-146 (Order No. 26,317). The spans between structures 120 and 121, and 146 and 147, were not previously licensed due to the line being built prior to Baboosic Brook being designated as a public waterbody, or due to an oversight as in the case of Structure 147. Structure 147 was replaced from wood to weathered steel in 2017 without obtaining a license. As result of this application, the B143 Line will be licensed in its entirety.

As described in the Comprehensive Shoreland Protection Act (RSA 483-B:4, XVI(c)), the jurisdictional section of Baboosic Brook begins at its “junction with Joe English Brook in Amherst” and continues into Merrimack. Eversource affirms in the application that a New Hampshire Department of Environmental Services (NHDES) statutory permit by notification (SPN) 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:
<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/olpw.pdf>

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 used to establish maximum sag for the referenced crossing spans are as indicated on the provided Profile View and Cable Schedule of Exhibits 2 through 4. The flood elevation used to determine the clearance over Baboosic Brook is as indicated in Note 3 to Exhibits 2 through 4.

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 18.6 feet for water areas not suitable for sail boating or where sail boating is prohibited. The actual design clearances for the 115 kV line and OPGW are depicted on 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 FEMA 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 B143 Line is a transmission line which supplies electricity between Gregg's Falls Substation in Goffstown and Reed's Ferry Substation in Merrimack, New Hampshire. Eversource attests that the license to maintain and construct a portion of that line, if granted, may be exercised without substantially affecting the use and enjoyment of public waters. The Enforcement Division's review of design specifications verified that minimum safe clearances above the public waters of Baboosic Brook will be maintained during and after structure replacement; and therefore, determines that public use and enjoyment of said waters will not be diminished in any respect as a result of the proposed project.

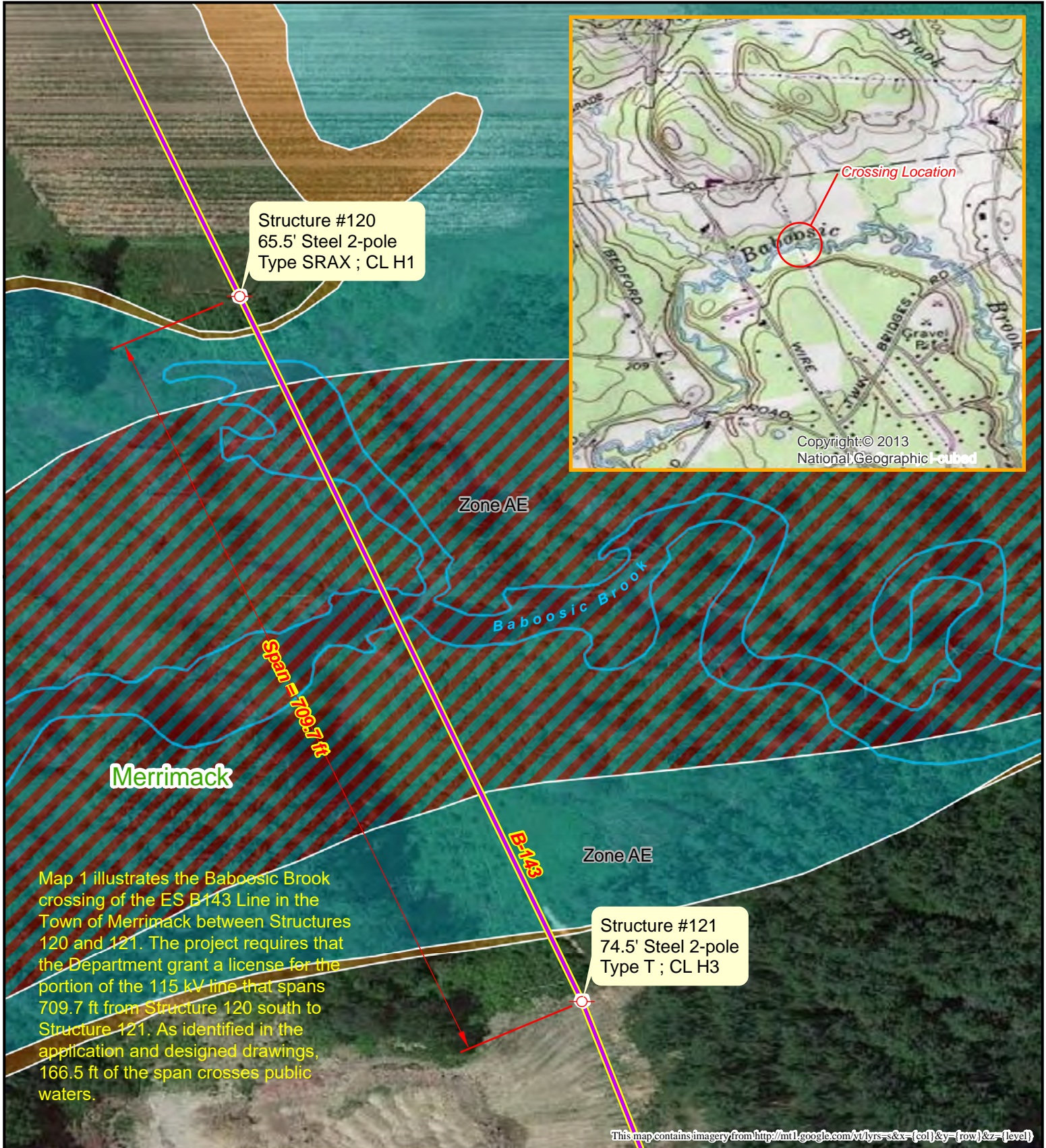
7. Enforcement Division Recommendations

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 public rights to 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 the Town of Merrimack, New Hampshire, as specified in the application.

Attachments

Baboosic Brook - CRE 2023-018 Eversource Crossing - Map 1 -



Map 1 illustrates the Baboosic Brook crossing of the ES B143 Line in the Town of Merrimack between Structures 120 and 121. The project requires that the Department grant a license for the portion of the 115 kV line that spans 709.7 ft from Structure 120 south to Structure 121. As identified in the application and designed drawings, 166.5 ft of the span crosses public waters.

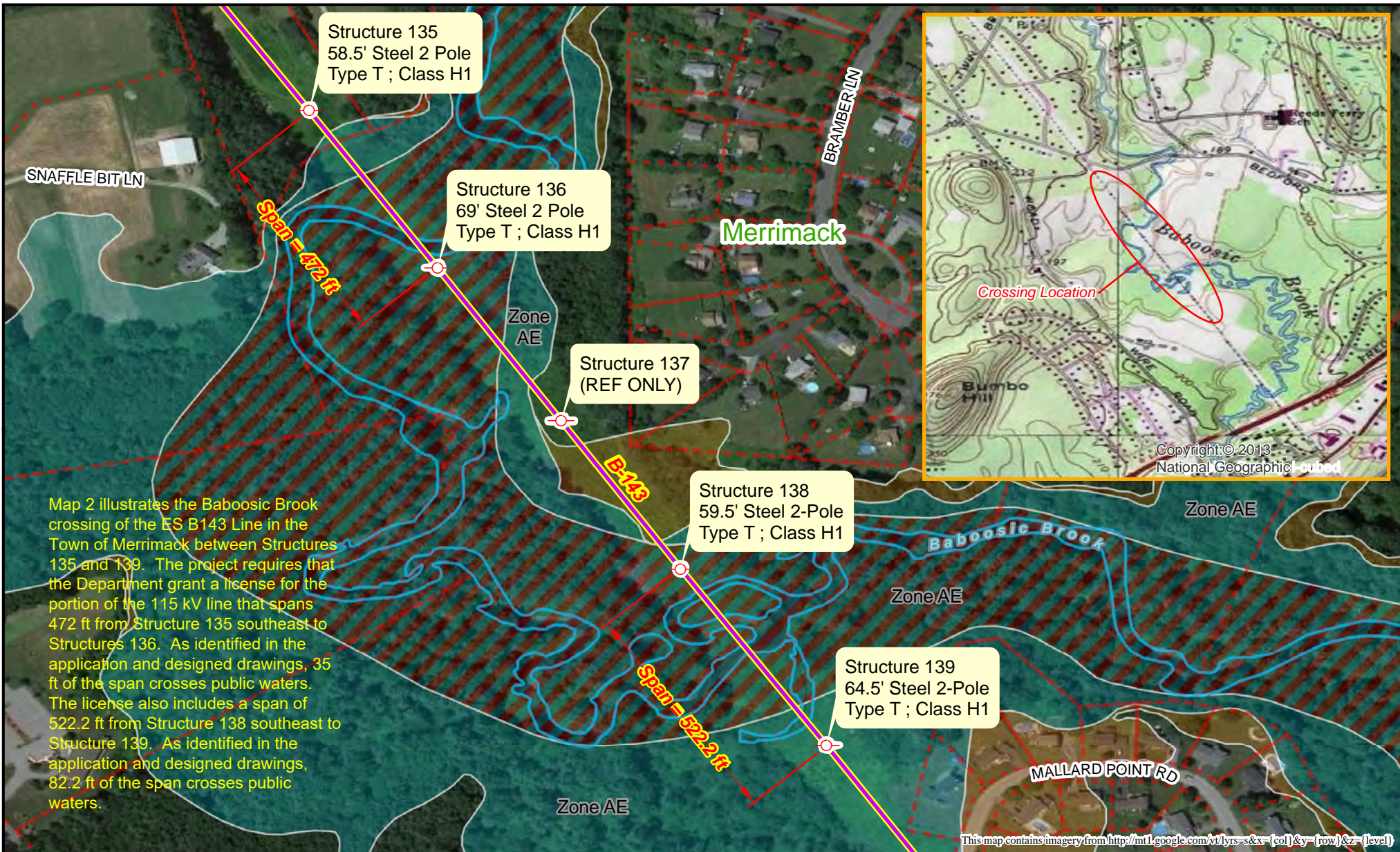
This map contains imagery from <http://mtl.google.com/vt/lyrs=s&x={col}&y={row}&z={level}>

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



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NH Department of Energy
Enforcement Division

Baboosic Brook - CRE 2023-018 Eversource Crossing - Map 2



Map 2 illustrates the Baboosic Brook crossing of the ES B143 Line in the Town of Merrimack between Structures 135 and 139. The project requires that the Department grant a license for the portion of the 115 kV line that spans 472 ft from Structure 135 southeast to Structures 136. As identified in the application and designed drawings, 35 ft of the span crosses public waters. The license also includes a span of 522.2 ft from Structure 138 southeast to Structure 139. As identified in the application and designed drawings, 82.2 ft of the span crosses public waters.

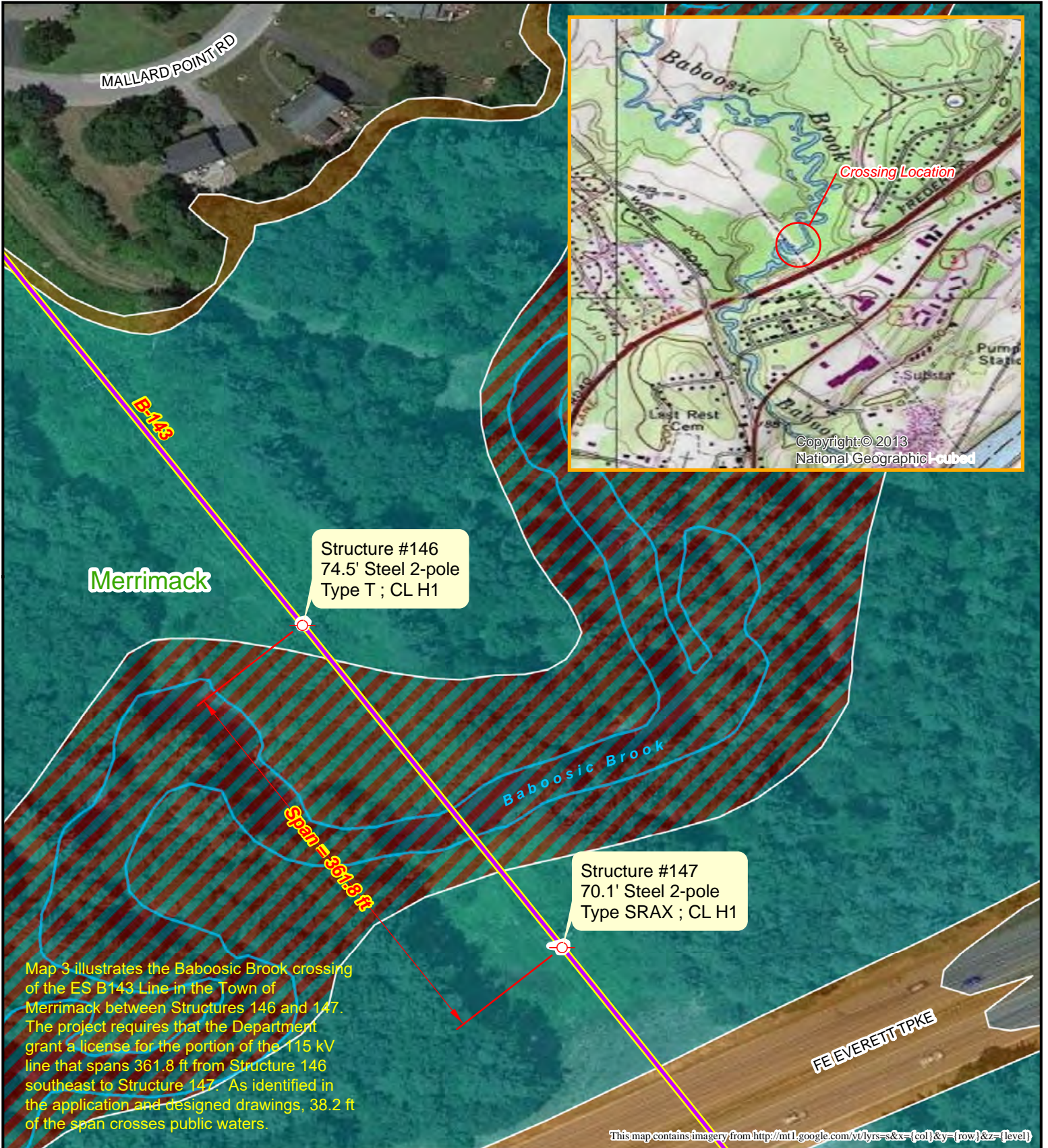
| | | | |
|--|-------------------|---------------------------|---------------------------------|
| | Utility Structure | | Town Parcel |
| | 115 kV Line | Flood Hazard Zones | |
| | | | Regulatory Floodway |
| | | | 1% Annual Chance Flood Hazard |
| | | | 0.2% Annual Chance Flood Hazard |



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Baboosic Brook - CRE 2023-018 Eversource Crossing - Map 3 -



Map 3 illustrates the Baboosic Brook crossing of the ES B143 Line in the Town of Merrimack between Structures 146 and 147. The project requires that the Department grant a license for the portion of the 115 kV line that spans 361.8 ft from Structure 146 southeast to Structure 147. As identified in the application and designed drawings, 38.2 ft of the span crosses public waters.

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

| | | | |
|--|-------------------|--|---------------------------------|
| | Utility Structure | | Flood Hazard Zones |
| | 115 kV Line | | Regulatory Floodway |
| | | | 1% Annual Chance Flood Hazard |
| | | | 0.2% Annual Chance Flood Hazard |



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