

# STATE OF NEW HAMPSHIRE

## Intra-Department Communication

**Date:** January 30, 2024

**At (Office):** NH Dept. of Energy

**From:** Bryan J Flynn      BJF  
Utility Analyst IV – Enforcement Division

**Subject:** CRE 2023-027 **Eversource Energy**  
Application for License to Construct and Maintain Electric Lines Over and Across Public Waters in Gorham, and State-Owned Land in Whitefield, Jefferson, Randolph, and Gorham, 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 N.H. Admin. R., Puc 306
- Review of public need and public impact, including applicability of other State regulations; and
- Recommendations

## 1. Application Contents and History

On December 19, 2023, Public Service of New Hampshire d/b/a Eversource Energy (ES) submitted an application pursuant to RSA 371:17 to construct and maintain portions of the S136 Line in Whitefield, Jefferson, Randolph, and Gorham, New Hampshire. The ES S136 Line is a 115 kV transmission line that crosses State-owned land in Whitefield and Jefferson between Structures 57 and 58, in Randolph between Structures 229 and 230, and in Gorham between Structures 263, 264, and Structures 279 to 281. The S136 Line crosses the public waters of Moose Brook in Gorham between Structures 281 and 282, and the Androscoggin River between Structures 292 and 293. Eversource requests that the Department of Energy issue a license for proposed structure replacement and conductor installation at the referenced locations.

Eversource has determined that in order to continue to meet requirements for reasonable service to the public, the referenced existing wood structures at State-owned land and public water crossings need to be replaced. The wood structures are to be replaced with weathering steel equivalents within 10' of current structure locations. As part of the replacement project, Eversource is also renumbering new and existing structures. Structures 58 and 59 will be renumbered to 57 and 58; Structures 230 and 231 will be renumbered to 229 and 230; Structures 264 to 265 will be renumbered to 263 to 264; Structures 280 through 283 will be renumbered to 279 through 282; and Structures 293 and 294 will be renumbered to 292 and 293. Structures 229, 263, 264, 279, and 293 have been previously replaced with steel and will remain unchanged.

Reconductoring of the three phase wires and replacement of the existing static wire with a new OPGW cable will also be completed as part of the proposed S136 Line maintenance. Eversource states in the application that three ACSS 1272 kcmil "Pheasant" conductors will be installed having specifications detailed in the Cable Schedule on ES Exhibits 2 through 7. A second existing OPGW cable will remain unchanged, other than transfer to newly installed structures.

The locations of the State-owned land and public water crossings are depicted on the Overview Map submitted by ES with the application as Exhibit 1 and more detailed descriptions of the locations are as follows:

The S136 Line crosses a State-owned rail trail in the Town of Whitefield between Structures 57 and 58. Structure 57 is located approximately 1,750 feet SE from where the S136 Line crosses Localizer Dr. Structure 58 is located in Jefferson, approximately 230 feet SE from Structure 57. The State-owned land crossing begins 46.7 feet SE of Structure 57.

- The proposed Structure locations create a total span of 228.5 feet, with 95.5 feet crossing State-owned land.

The S136 Line crosses a State-owned rail trail in the Town of Randolph between Structures 229 and 230. Structure 229 is located approximately 460 feet SW from where the S136 Line crosses

Pinkham B Road. Structure 230 is approximately 350 feet NE from Structure 229. The State-owned land crossing begins 83.6 feet NE of Structure 229.

- The proposed structure locations create a total span of 352.4 feet, with 183.4 feet crossing State-owned land.

The S136 Line crosses State-owned land in the Town of Gorham between Structures 263 and 264. Structure 263 is located approximately 4,200 feet NE from where the S136 Line crosses Mineral Springs Road in Gorham. Structure 264 is approximately 930 feet NE of Structure 263. The State-owned land crossing begins 219.6 feet NE of Structure 263.

- The proposed structure locations create a total span of 926.7 feet, with 115 feet crossing State-owned land.

The S136 Line crosses State-owned land in the Town of Gorham between Structures 279 through 281. Structure 279 is located approximately 315 feet S from where the S136 Line crosses Lancaster Road (aka US Route 2). Structure 280 is approximately 466 feet N of Structure 279. Structure 281 is approximately 462 feet N of Structure 280. The State-owned land crossing begins 369.8 feet N of Structure 279.

- The proposed structure locations create a total span of 929.1 feet with 108.5 feet crossing State-owned land.

The S136 Line crosses Moose Brook in the Town of Gorham between Structures 281 and 282. Structure 281 is approximately 235 feet N from where the S136 Line crosses Crestwood Drive. Structure 282 is approximately 495 feet N of Structure 281. The crossing at Moose Brook begins 124.3 feet N of Structure 281.

- The proposed structure locations create a total span of 495.6 feet with 37.8 feet crossing the public water of Moose Brook.

The S136 Line crosses the Androscoggin River in the in the Town of Gorham between Structures 292 and 293. Structure 292 is located approximately 150 feet W from where the S136 Line crosses Main Street (NH Route 16). Structure 293 is approximately 560 feet E of Structure 292. The crossing of the Androscoggin River begins 227.57 feet E from Structure 292.

- The proposed structure locations create a total span of 561.8 feet with 243.5 feet crossing the public water of the Androscoggin River.

*The following table illustrates the structure and span details provided in the application, as well as required NESC clearance and the design clearance at the crossing span:*

Eversource Energy – S136 Line CRE 2023-027 State-Owned Land and Public Water Crossing Design Details						
Structure Number	Structure Type	Measured Span	Distance (Feet)	Minimum Clearances NESC Table 232-1 (Feet)	ES Design Clearances (Feet)	Complies with NESC 232-1 (Y/N)
57	ADS Steel	57-58	228.5	28.1	43.6	Y
58	Type T Steel					
229	AHS-3 Steel	229-230	352.4	28.1	37.7	Y
230	Type T Steel					
263	SDA-1 Steel	263-264	926.7	28.1	60	Y
264						
279	SDA-1 Steel	279-280	466.8	28.1	47.6	Y
280	ADS Steel	280-281	462.3		65.6	Y
281	Type T Steel					
282	Type T Steel	281-282	495.6	18.5	62.4	Y
292	ADS Steel	292-293	561.8	18.5	41.4	Y
293						

**2. New Hampshire statute referenced in application (modified by NH House Bill 1258, August 22, 2022)**

**RSA 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 the public water crossings and State-owned land crossings in Whitefield, Jefferson, Randolph, and Gorham, New Hampshire**

Originally constructed to serve customers in New Hampshire in 1969, the State-owned land and public water crossings of the Eversource S136 Line were most recently licensed in 2020 under DE 19-162 (Order No. 26,396) for certain structure replacements and OPGW installation.

For the current proposal, ES states that a New Hampshire Department of Environmental Services (NHDES) Standard Dredge and Fill Permit (SDF) and Shoreland Permit Notification (PBN) will be required for temporary impacts associated with the structure replacements and will be obtained prior to commencement of construction.

The Army Corps of Engineers (ACOE) does not regulate any public waters impacted by Eversource's planned project. No ACOE permit is required.

Moose Brook is considered as protected public waters, which begin at the junction of Perkins Brook in Gorham. The Androscoggin River is considered public waters beginning at the junction of the Magalloway River at Lake Umbagog in Errol, NH. The entire list of public waters can be found on the NHDES website by using 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**

Eversource states that the structure replacements, conductor installation, and OPGW installation work will 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 with the application.

**5. Review of 2012 National Electric Safety Code (NESC) requirements as described in N.H. Admin. R., Puc 306**

Eversource shall own, maintain, and operate the S136 line with clearances at a height no less than what is required by the 2012 National Electrical Safety Code (NESC, Table 232-1) which is 28.1 feet for 115 kV wires over top of track of railroads and 20.1 feet for 115 kV wires over other areas traversed by vehicles such as cultivated, grazing, forest, and orchard lands, industrial sites, commercial

sites, etc., and 18.6 feet for 115 kV wires over water areas not suitable for sail boating or where sail boating is prohibited. The actual minimum height over the State-owned land and public water crossings exceeds the minimum requirements.

Eversource proposes to install one type AHS steel structure, three SDA-1 steel structures, four ADS steel structures, and four type T steel structures. Structure heights range from 51 feet to 83.5 feet. Line supporting structures are required to conform to strength and loading specifications described in NESC 2012 rule 252, 260, and 261.

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. R., Puc 306.01 and applicable 2012 NESC rules. The minimum clearance requirements with respect to ground level and design conditions at 392° F as well as the FEMA 10-year flood level have been met. Staff verified the depicted sag clearances using Sag10 commercial software and the wire specifications and loading conditions provided by ES in application Exhibits 2 through 7.

## **6. Review of public need and impact**

The Eversource S136 Line provides transmission of electricity between the Whitefield Substation in Whitefield, NH and Berlin East Substation in Berlin, NH. The line is part of a northern New Hampshire transmission loop also including the Lost Nation Substation, Pontook Dam Hydro Station, and Paris Substation.

RSA 371:17 requires the Department of Energy to review applications for licenses to construct, maintain, or modify installations that exist or are proposed to exist, over, under, or across public waters or State-owned land. This is to provide for safety of the public and the preservation of perpetual access and use of public waters and State-owned land in New Hampshire.

Eversource declares that the license, if granted, may be exercised without substantially affecting the use or enjoyment of public waters or State-owned land, that safe clearances will be maintained at all times, and precautions undertaken to ensure the safety of recreational users. The Enforcement Division's review of design specifications verified that minimum safe clearances above water and land will be maintained during and after construction; and therefore, determines that public use and enjoyment of said water and land will not be diminished in any respect as a result of the proposed project.

## **7. Enforcement Division Recommendations**

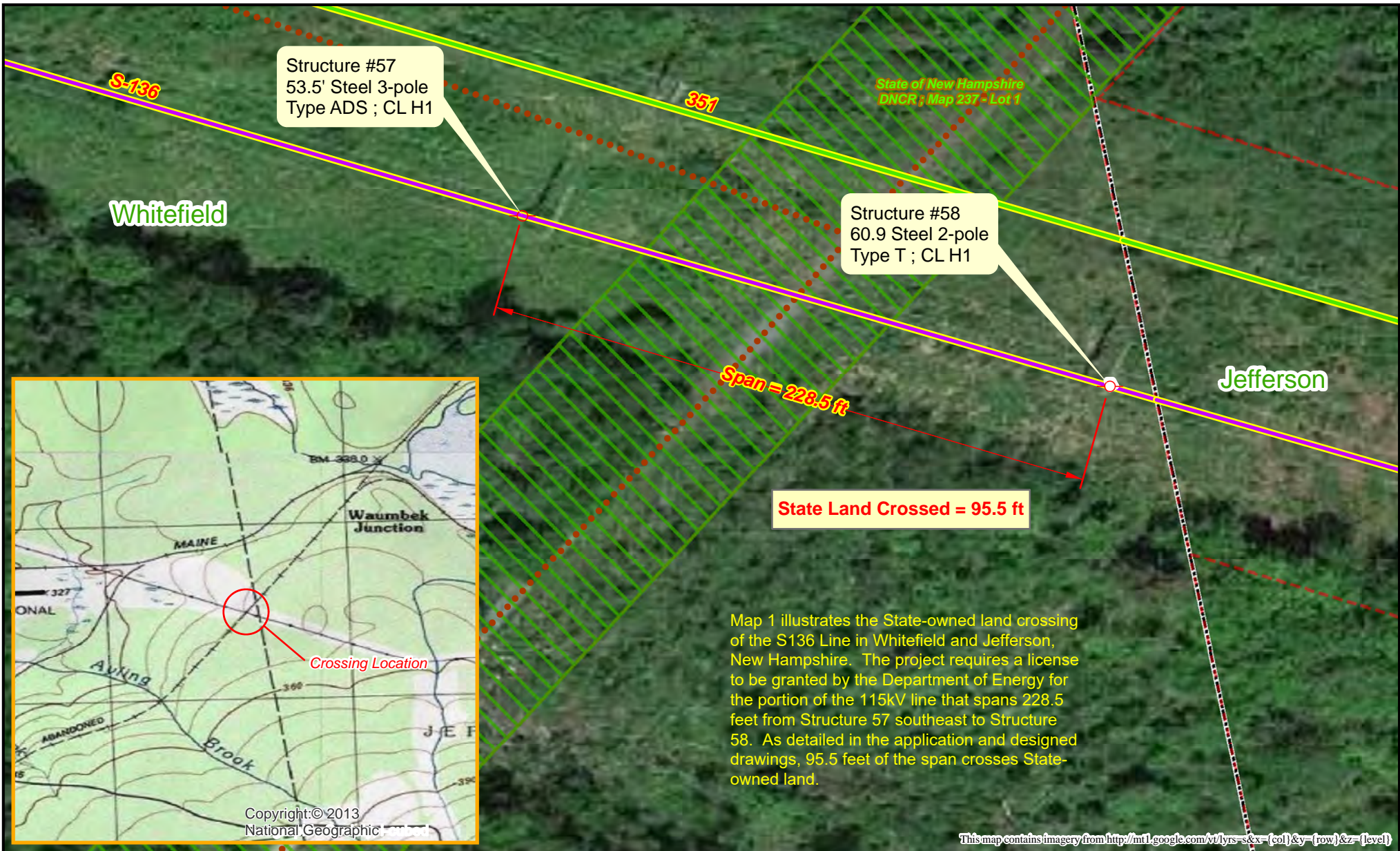
Based on the results of its review of the application, attachments, and all other supporting documents, the Enforcement Division recommends that the Department:

1. Find that the license Eversource requests in the application may be exercised without substantially affecting public rights to State-owned land and public waters; and

2. Grant Eversource Energy a license to construct and maintain electric lines pursuant to RSA 371:17 and N.H. Admin. R., Puc 306.01, over and across public waters in Gorham, and State-owned land in Whitefield, Jefferson, Randolph, and Gorham, New Hampshire, as specified in the application.
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**Attachments:**

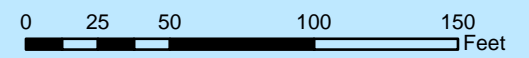
# State Land (DNCR) - CRE 2023-027 Eversource Crossing - Map 1



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

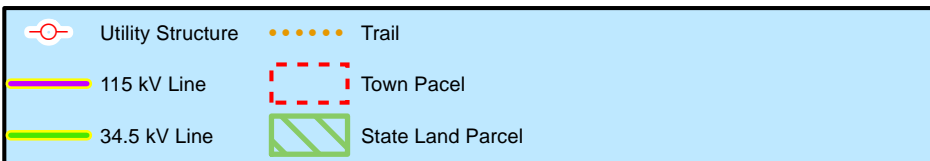
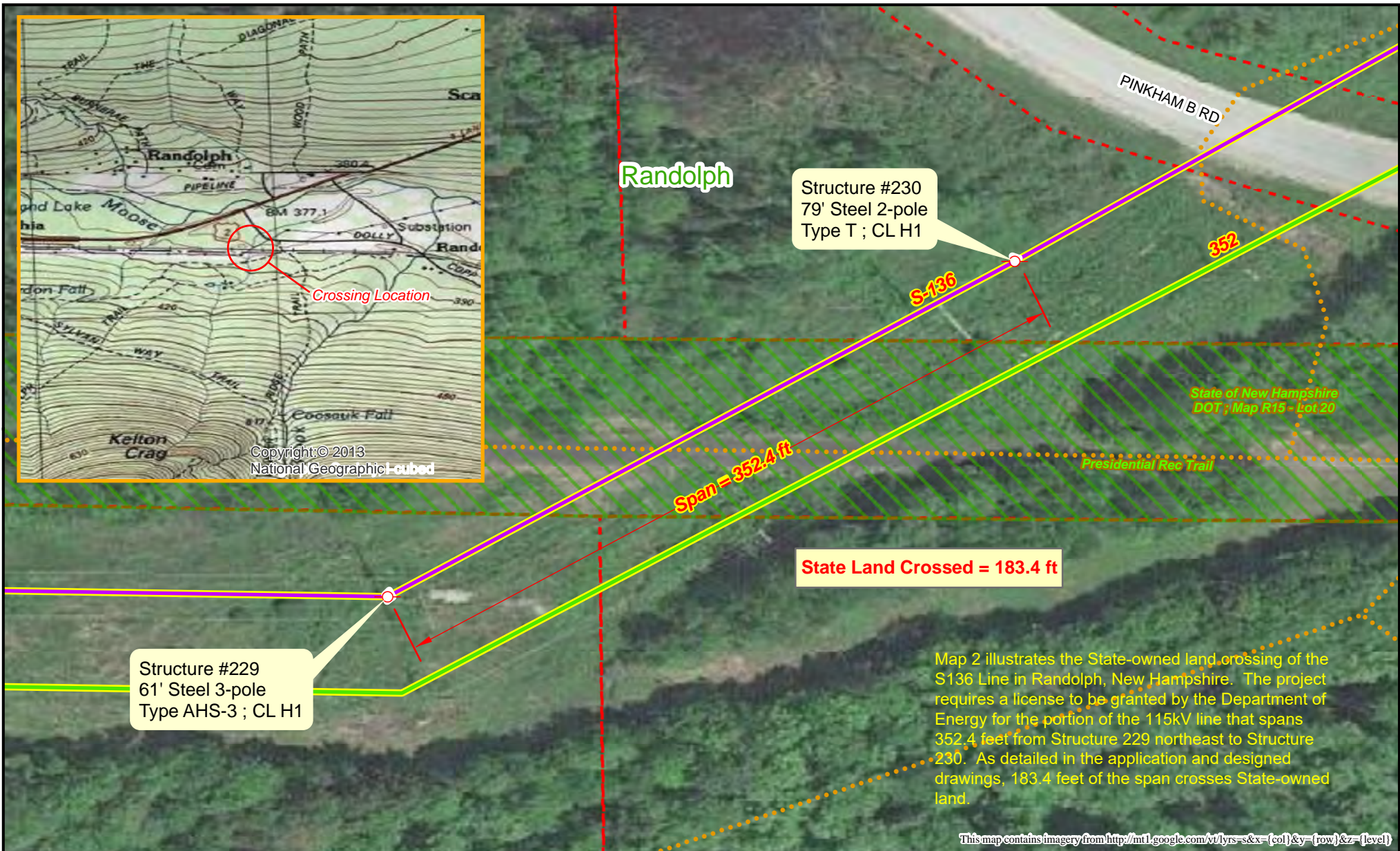


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NH Department of Energy  
Enforcement Division





# State Land (NHDOT) - CRE 2023-027 Eversource Crossing - Map 2



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# State Land (NHDOT) - CRE 2023-027 Eversource Crossing - Map 3



State Land Crossed = 115 ft

Structure #263  
52.5' Steel 3-pole  
Type SDA-1 ; CL H1

Structure #264  
51' Steel 3-pole  
Type SDA-1 ; CL H1

Map 3 illustrates a State-owned land crossing of the S136 Line in Gorham, New Hampshire. The project requires a license to be granted by the Department of Energy for the portion of the 115kV line that spans 926.7 feet from Structure 263 northeast to Structure 264. As detailed in the application and designed drawings, 115 feet of the span crosses State-owned land.

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

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



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# State Land (NHDOT) & Moose Brook CRE 2023-027 Utility Crossing - Map 4



Structure #282  
56.5' Steel 2-pole  
Type T ; CL H1

Structure #281  
83.5' Steel 2-pole  
Type T ; CL H3

Structure #280  
79' Steel 3-pole  
Type ADS ; CL H1

Structure #279  
61' Steel 3-pole  
SDA-1 ; CL H1

Map 4 illustrates State-owned land and public water crossings of the S136 line in Gorham, New Hampshire. The project requires a license to be granted by the Department of Energy for the portion of the 115kV line that spans 929.1 feet from Structure 279 north to Structure 281, and the portion that spans 495.6 feet from Structure 281 north to Structure 282. As detailed in the application and designed drawings, 108.5 feet of the respective span crosses State-owned land and 37.8 feet crosses the public water of Moose Brook.

**State Land Crossed = 108.5 ft**

- Flood Hazard Zones**
- Regulatory Floodway
  - 1% Annual Chance Flood Hazard
  - 0.2% Annual Chance Flood Hazard

- 115 kV Line
- 34.5 kV Line
- Trail
- State Land Parcel
- Town Parcel
- Utility Structure

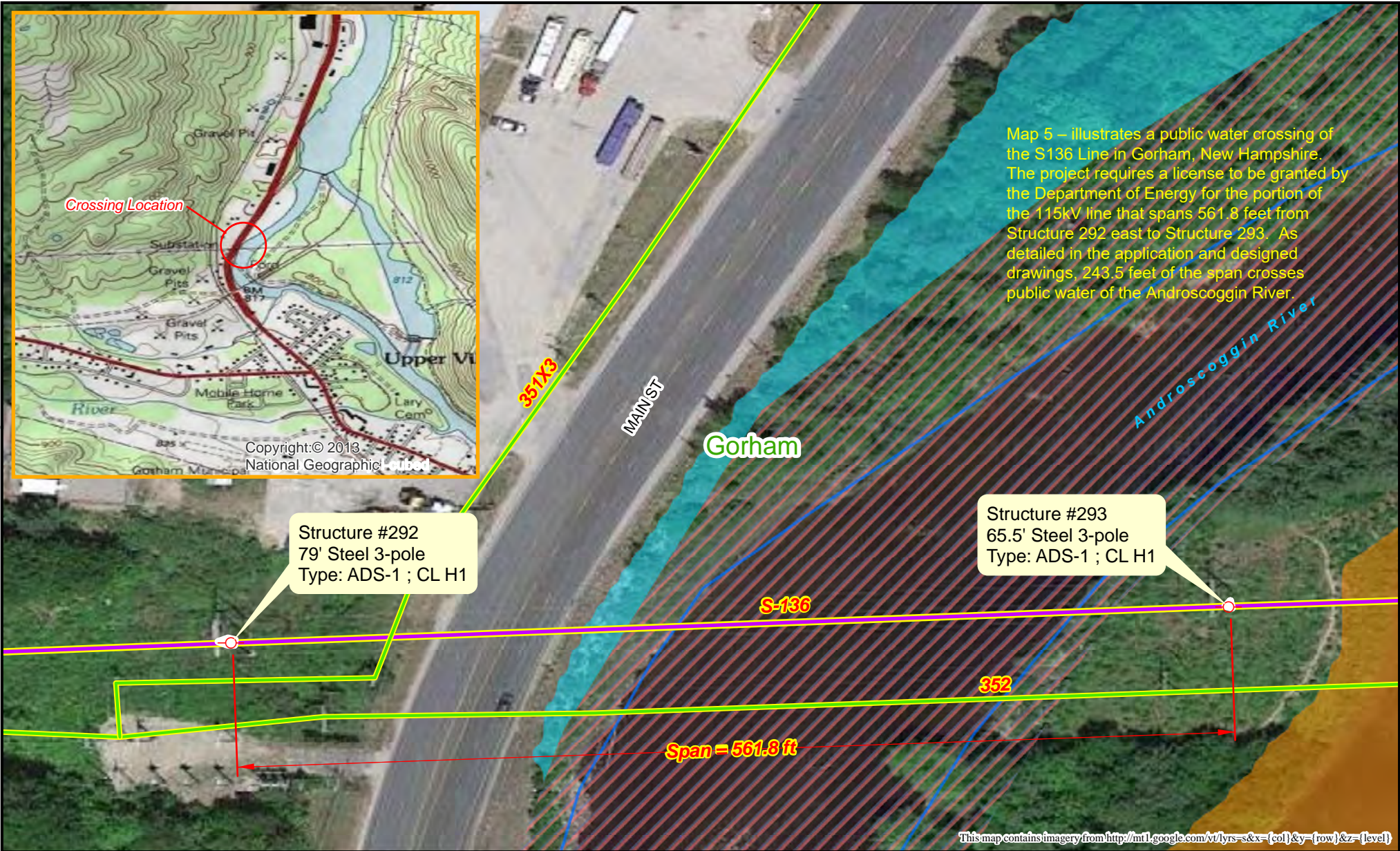


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This map contains imagery from <http://mt1.google.com/vt/lyrs=s&x={col}&y={row}&z={level}>

# Androscoggin River - CRE 2023-027 Eversource Crossing - Map 5



	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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