

January 6, 2024

**Your Reference**  
NHESP Tracking No. 15-34327  
Permit No. 186.24WRA

**Our Reference**  
Project No. 60682861

Ms. Lauren Glorioso  
Senior Endangered Species Review  
Biologist  
Massachusetts Division of Fisheries  
& Wildlife  
1 Rabbit Hill Road,  
Westborough, MA 01581

**Eversource Sudbury to Hudson Transmission Reliability Project, NHESP Conditional No Take Compliance Report**

Dear Ms. Glorioso,

As you are aware, Eversource Energy (Eversource) recently completed their 9-mile, 115-kilovolt (kV) underground transmission line project extending from Eversource's Sudbury Substation on Boston Post Road (Route 20) in Sudbury, Massachusetts (Sudbury Substation) to the Hudson Light & Power Department's (HLPD) substation at Forest Avenue in Hudson, Massachusetts (Hudson Substation). The new transmission line and related improvements at Sudbury Substation comprise the Sudbury to Hudson Transmission Reliability Project (or "Project") (**Figure 1**).

An approximately 1.2-mile section of this Project located within Sudbury, Marlborough and Hudson, Massachusetts is situated within the Priority Habitat (PH 1400) for state listed wildlife species. Therefore, in September of 2018 a Massachusetts Endangered Species Act (MESA) Project Review Checklist with Project site plans, a Corridor Management Plan, a Turtle Protection Plan (TPP), and other required materials, were submitted to the Massachusetts Natural Heritage and Endangered Species Program (NHESP) for review pursuant to the Massachusetts Endangered Species Act (MESA) (MGL c.131A) and its implementing regulations (321 CMR 10.00).

On October 19, 2018, a letter was issued by the NHESP to Eversource stating that "*The Division has determined that this Project, as currently proposed, will occur within the actual habitat of the following state listed species*". This list included one reptile, one bird and two species of moths (**Table 1**).

**Table 1. State-listed species identified within Priority Habitat.**

Scientific Name	Common Name	Taxonomic Group	State Status
<i>Terrapene carolina</i>	Eastern Box Turtle	Reptile	Special Concern
<i>Caprimulgus vociferous</i>	Eastern Whip-poor-will	Bird	Special Concern
<i>Catocala Herodias gerhardi</i>	Gerhard's Underwing	Butterflies & Moths	Special Concern
<i>Metarranthis pilosaria</i>	Coastal Swamp Metarranthis	Butterflies & Moths	Special Concern

This letter further stated that "*based on the information provided and the information contained in our database, the Division finds that a portion of this project, as currently proposed, **must be conditioned** in order to avoid a prohibited Take of state-listed species (321 CMR 10.18(2)(a))*". These conditions included:

- The Eastern Box Turtle Protection Plan (dated 5/31/2018, [later updated on 8/02/2021]) must be implemented as proposed.
- Corridor Management Plan for Massachusetts Central Rail Trail and Sudbury-Hudson Transmission Reliability Project (dated 5/31/2018) must be implemented as proposed.

- Timing restrictions for construction activities within Whip-poor-will habitats must be implemented, as proposed unless otherwise approved by the Division.
- Within thirty (30) days of the completion of the transmission line project, or as otherwise approved by the Division, the Applicant shall submit a compliance report containing, including a summary of construction timelines and photographs, to Division documenting the completion of the project.

The following text fulfills the compliance reporting requirement outlined in the October 19<sup>th</sup> NHESP determination letter and describes the individual components of the TPP and how they were implemented by the Project team, and measures taken to avoid potential impacts to the Whip-poor-will. No specific protection measures or timing restrictions were required for the two species of moths since impacts to the hostplants for these two species were avoided or minimized within the Project corridor.

## 1. Turtle Protection Plan Components

The NHESP approved TPP included provisions for pre-construction surveys, training of construction personnel and construction period monitoring that included both full-time oversight during construction related activities within Priority Habitat and collection of pinpoint locations on each turtle using radio-telemetry every seven to ten days during the active turtle season (April 1 through October 31). These activities are described in further detail below.

### 1.1 Pre-construction Survey Work

In order to facilitate implementation of the TPP, pre-construction surveys for the eastern box turtle commenced in August of 2017. These surveys aimed to locate as many box turtles as possible before construction, so they may be equipped with radio transmitters. This process also sought to gather insights into the turtles' habitat preferences and seasonal movement patterns relative to the Project corridor within Priority Habitat, such as nesting, feeding, migration, and hibernation sites. All surveys were conducted in accordance with the Division of Fisheries & Wildlife's Scientific Collection Permit, discussions with the NHESP staff and Eversource, and the survey protocol accepted by NHESP in 2017. Minor modifications to the protocol were made at the end of each field season based on observation made during the field season and discussions with NHESP. Typically, those modifications included refinement of search effort, scheduling, and expansion of Study Area, although the survey methodologies remained largely consistent.

During these surveys a total of eight (8) eastern box turtles were captured, including six (6) male and two (2) female box turtles. In addition, one (1) adult female wood turtle (*Glyptemys insculpta*) was hand captured within the survey area on August 8, 2018. Each turtle was outfitted with a radio-transmitter and tracked approximately once every seven to ten days during the active season.

During the pre-construction surveys, one eastern box turtle (EBT-02) was observed traveling west across White Pond Road, where it remained for several weeks before returning east, seemingly moving within the Project corridor. As a result, the TPP was updated to designate Segment 5—located between Parmenter Road and White Pond Road—as "turtle habitat," thereby increasing the level of required oversight for that segment during construction activities (**Figure 1**). EBT-02 is also the only confirmed turtle mortality documented during the surveys, who was unfortunately struck by a vehicle attempting to cross Hudson Road on July 16, 2021.

Annual reports detailing results of survey efforts and radio-telemetry tracking were prepared and submitted to NHESP as a required component of the scientific collection permit. Reports included details on seasonal habitat use patterns, locations of turtle hibernacula, potential nesting sites, movements relative to the Project corridor, home range calculations and other observations. Please see those reports for additional details on the pre-construction period surveys.

**1.2 Construction Period Monitoring**

Construction activities associated with the Project commenced on October 24, 2022 and reached a designation of “substantial completion” on December 7, 2024. A summary of the various Project components and timelines are presented in **Table 2**. Representative photographs of each Project Segment located within turtle habitat (Segments 5-8) are included in **Attachment A**.

**Table 2. Summary of construction timelines for the SHTRP.**

<b>Construction Activity</b>	<b>Dates</b>
Initial Contractor Education and Awareness Training	October 17, 2022
Beginning of construction activities	October 24, 2022
Erosion/sedimentation control installation	October 24, 2022- March 30, 2023
Vegetation clearing	November 15, 2022- April 3, 2023 (ending with the Black Racer snake TOY restriction area)
Grubbing and rail/tie removal	November 30, 2022- April 5, 2023 (ending with the Black Racer snake TOY restriction area)
Grading/cut & Fill	December 12, 2022- May 12, 2023
Duct bank conduit excavation and installation	November 18, 2022- October 18, 2024
Cable pulling and splicing activities	March 20, 2024- November 16, 2024
Final grading and restoration (loaming, planting and seeding)	May 15, 2023- November 8, 2024
Energization of the new line	December 7, 2024

Turtle protection throughout the construction period was implemented using a multi-pronged approach. First, a trained and experienced biological monitor equipped with a radio telemetry receiver focused on areas within the Project corridor. Second, a survey team of two biologists conducted precise tracking of turtle locations outside of the Project corridor following the same schedule and effort level as described above for the pre-construction surveys (i.e., approximately every seven to ten days during the active turtle season).

The onsite biological monitor was responsible for visually checking for turtles near or within the construction corridor and using radio telemetry to ensure that turtles equipped with transmitters remained outside active work zones. Each week, the survey team collecting pinpoint locations on turtles prepared a brief report identifying turtle locations relative to the Project corridor, including detailed mapping. The report also highlighted turtles that were close to construction work areas and had a potential risk of crossing into active zones. This report was typically generated on the same day as the field survey and immediately shared with the biological monitor to guide protective actions. This was particularly important when results of the field surveys identified turtles in close proximity to the work limits and/or when there was a high potential of a turtle crossing the Project corridor. An example of this weekly report is provided in **Attachment B**.

The TPP also required that erosion control and stabilization measures containing plastic or wire mesh (e.g., straw wattles, mesh-backed silt fence, and open mesh blankets) be prohibited, as these materials can cause turtles and other wildlife to be ensnared resulting in mortality. In addition, to allow for wildlife permeability across the landscape while preventing erosion of soils and sediments off-site, syncopated silt-fencing was installed along the Project corridor. Biological monitors and Environmental Inspectors inspected and approved all materials used for this purpose and made regular repairs to ensure functionality.

As outlined in the NHESP-approved TPP, a Contractor Education and Awareness Program was implemented to train construction teams working within Priority Habitats. The training covered key topics, including turtle identification, habitat preferences, best practices to minimize impacts on turtles, and specific instructions for responding to turtle encounters, including proper handling and care procedures. Contractors who completed the training received hardhat stickers, which served as proof of their qualification to work within Priority Habitat areas along the Project corridor. Individuals without stickers were prohibited from accessing these sensitive areas. The onsite biological monitor provided additional training as needed throughout the Project duration to ensure ongoing compliance and awareness. Contractors were also made aware of other sensitive wildlife species and their habitats during these training sessions.

The TPP also outlined special protective measures for any turtle hibernaculum that is documented within 50 feet of the Project work limits or any turtle nest that is located within the Project work limits. However, during the construction no hibernating turtles or turtle nests were observed within the Project corridor or within 50 feet of the work limits.

## **2. Whip-poor-will Avoidance measures**

In order to avoid impacts to the state listed bird Whip-poor-will, no construction activities were allowed within Segment 6 and Segment 7 during the breeding/nesting season for this species (May 1 to August 1). Although construction vehicles were allowed to pass through these Segments as needed, in general and with minimal exception, this entire stretch of the Project was completely avoided during the Whip-poor-will breeding/nesting season.

## **3. Summary**

The NHESP-approved Turtle Protection Plan (TPP) incorporated pre-construction surveys, contractor training, and monitoring during construction to protect turtles within Priority Habitat. Pre-construction surveys began in 2017, aiming to locate eastern box turtles, equip them with radio transmitters, and study their habitat preferences and movement patterns relative to the Project corridor. These efforts identified eight eastern box turtles and one wood turtle. These turtles were tracked approximately every seven to ten days during the active turtle season (April 1–October 31) throughout the pre-construction and construction period phases of this work. One turtle (EBT-02) traveled across White Pond Road, prompting an update to the TPP and resulting in the designation of Segment 5 as "turtle habitat". Unfortunately, EBT-02 was later struck by a vehicle in 2021, the only documented mortality. Annual reports detailed these findings, including habitat use and movement patterns were submitted to the NHESP.

Construction began in October 2022, with "substantial completion" achieved in December 2024. An onsite biological monitor and biologists tracked turtles and ensured those with transmitters stayed clear of work zones. Weekly reports with mapping generated as part of the tracking efforts conducted beyond the limits of the construction corridor guided protective measures. Contractor training included turtle identification, avoidance practices, and handling procedures, with only trained personnel permitted in sensitive areas. While the TPP outlined additional protections for hibernacula and turtle nests, none were observed within or directly adjacent to work zones during construction. To protect the Whip-poor-will bird, construction in Segments 6 and 7 was restricted during its breeding season (May 1–August 1), with minimal exceptions for vehicle passage.

Through implementation of the multipronged approach outlined in the TPP and use of timing restrictions to protect other wildlife species followed by the Project, all the proposed construction elements were completed with no impacts to state listed species being documented. In addition, the intensive field surveys and radio-telemetry tracking that was conducted throughout the pre-construction and construction period monitoring of this project (i.e., a survey period spanning over seven years from the late summer of 2017 through 2024) has generated a wealth of data (i.e., over 1,150 individual observation points from nine turtles) regarding the local turtle populations within this Priority Habitat area. Furthermore, a Net Benefit to the local turtle populations will be achieved by applying these data to guide future conservation

practices and habitat management activities that regularly occur on the Marlborough Conservations Commission's Desert Conservation Area and on Sudbury Valley Trustees properties located in Priority Habitat. Please reach out to either of the undersigned if you have any questions.

Kind regards,



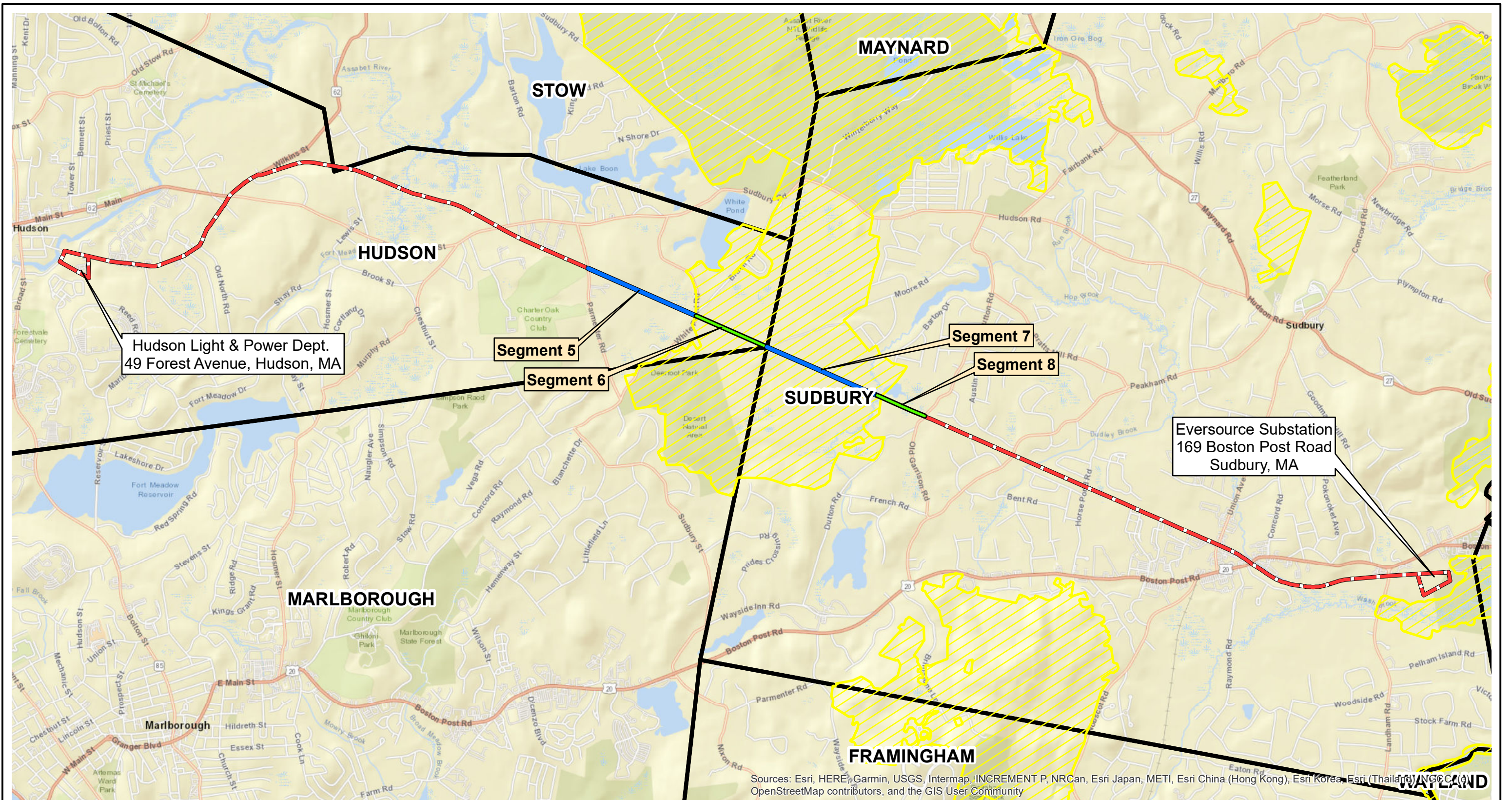
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Marc Bergeron, Epsilon





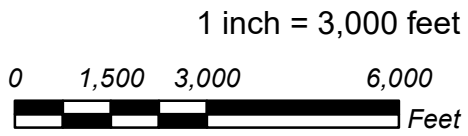
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



USGS 15 MINUTE TOPOGRAPHIC QUADRANGLE MAYNARD AND FRAMINGHAM, MA

**Legend**

- NHESP Priority Habitats (2021)
- Town Boundaries
- SHTRP Project Centerline
- Segments 5 and 7
- Segments 6 and 8



**PROJECT LIMITS AND NHESP PRIORITY HABITATS**  
Sudbury to Hudson Transmission Reliability Project, Massachusetts

SCALE	DATE	PROJECT NO.
1:36,000	12/24/2024	60634893



Figure Number



1



# **Attachment A**

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## **Representative Photographs**

<b>Client Name:</b> Eversource Energy		<b>Site Location:</b> Sudbury to Hudson Transmission Reliability Project		<b>Project No.</b> 60666440	
<b>Photo No. 1</b>		<b>Date:</b> 10/27/22		<b>Photo No. 2</b>	
<b>Description:</b> Segment 5, Pre-construction, looking west from White Pond Road				<b>Date:</b> 11/17/22	
<b>Description:</b> Segment 5, between White Pond Road & Parmenter Road (Feller buncher on-site), looking west					
					

<b>Photo No. 3</b>		<b>Date:</b> 12/27/22		<b>Photo No. 4</b>	
<b>Description:</b> Segment 5, looking west from White Pond Road following initial tree clearing activities and erosion control installation				<b>Date:</b> 6/19/23	
<b>Description:</b> Segment 5, looking east at grading activities					
					



<b>Client Name:</b> Eversource Energy		<b>Site Location:</b> Sudbury to Hudson Transmission Reliability Project		<b>Project No.</b> 60666440	
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<b>Photo No. 5</b>	<b>Date:</b> 7/3/24	<b>Photo No. 6</b>	<b>Date:</b> 7/8/24
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<b>Description:</b> Segment 5, looking west from White Pond Road during final grading and loam placement on shoulders		<b>Description:</b> Segment 5, looking west, crimping and splicing at manhole	
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<b>Photo No. 7</b>	<b>Date:</b> 12/12/24	<b>Photo No. 8</b>	<b>Date:</b> 12/10/24
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<b>Description:</b> Segment 5, looking west of recently hydroseeded and planted areas		<b>Description:</b> Segment 5, looking east from Parmenter Road	
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<b>Client Name:</b> Eversource Energy		<b>Site Location:</b> Sudbury to Hudson Transmission Reliability Project		<b>Project No.</b> 60666440	
<b>Photo No. 9</b>		<b>Date:</b> 10/27/22		<b>Photo No. 10</b>	
<b>Description:</b> Segment 6, Pre-construction, looking east from White Pond Road		<b>Description:</b> Segment 6, Pre-construction looking west from vicinity of Sudbury Town Line			



<b>Photo No. 11</b>		<b>Date:</b> 11/17/22		<b>Photo No. 12</b>	
<b>Description:</b> Segment 6, looking east from White Pond Road of vegetation clearing and tree trimming		<b>Description:</b> Segment 6, looking west at newly installed erosion controls			





<b>Client Name:</b> Eversource Energy		<b>Site Location:</b> Sudbury to Hudson Transmission Reliability Project		<b>Project No.</b> 60666440	
<b>Photo No. 13</b>		<b>Date:</b> 9/25/23		<b>Photo No. 14</b>	
<b>Description:</b> Segment 6, looking east of conduit installation work			<b>Description:</b> Segment 6, looking west of conduit installation work		



<b>Photo No. 15</b>		<b>Date:</b> 12/12/24		<b>Photo No. 16</b>	
<b>Description:</b> Segment 6, looking east at recently hydroseeded and planted areas			<b>Description:</b> Segment 6, looking west at recently hydroseeded and planted areas from Sudbury town line		







<b>Client Name:</b> Eversource Energy		<b>Site Location:</b> Sudbury to Hudson Transmission Reliability Project		<b>Project No.</b> 60666440	
<b>Photo No. 17</b>	<b>Date:</b> 11/10/22	<b>Photo No. 18</b>	<b>Date:</b> 10/27/22		
<b>Description:</b> Segment 7, Pre-construction looking east from Sudbury town line across intersection with gas pipeline			<b>Description:</b> Segment 7, Pre-construction, looking west from approximately 1000 feet west of Hop Brook		
					



<b>Photo No. 19</b>	<b>Date:</b> 6/28/23	<b>Photo No. 20</b>	<b>Date:</b> 9/27/23		
<b>Description:</b> Segment 7, looking west from Hop Brook			<b>Description:</b> Segment 7, looking east across gas pipeline from Sudbury town line of conduit installation		
					



<b>Client Name:</b> Eversource Energy		<b>Site Location:</b> Sudbury to Hudson Transmission Reliability Project		<b>Project No.</b> 60666440	
<b>Photo No. 21</b>		<b>Date:</b> 10/3/23		<b>Photo No. 22</b>	
<b>Description:</b> Segment 7, looking west at conduit work		<b>Description:</b> Segment 7, final grading following conduit installation			
					

<b>Photo No. 23</b>		<b>Date:</b> 12/2/24		<b>Photo No. 24</b>	
<b>Description:</b> Segment 7, looking east at recently hydroseeded and planted areas		<b>Description:</b> Segment 7, looking west at recently hydroseeded and planted areas			
					



<b>Client Name:</b> Eversource Energy		<b>Site Location:</b> Sudbury to Hudson Transmission Reliability Project		<b>Project No.</b> 60666440	
<b>Photo No. 25</b>		<b>Date:</b> 11/3/22		<b>Photo No. 26</b>	
<b>Description:</b> Segment 8, looking west from Dutton Road		<b>Description:</b> Segment 8, looking west from Dunton Road vicinity, tracking apron and erosion controls			
					

<b>Photo No. 27</b>		<b>Date:</b> 7/6/23		<b>Photo No. 28</b>	
<b>Description:</b> Segment 8, looking west from Hop Brook		<b>Description:</b> Segment 8, looking west at portion of Segment 8 within PH 1400 post-construction.			
					



# **Attachment B**

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**Example of Weekly Turtle Reports**

Egan, Scott

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To: John Vieira; Ramborger, Terry  
Cc: White, Taylor; Toner, Mary; Albrecht, Natalie; Vieira Jr, John; mbergeron@epsilonassociates.com  
Subject: RE: Sudbury to Hudson - Turtle positions 05-09-2024

Hi Terry

Attached is a figure showing approximate locations and distances to the MBTA ROW for all the turtles in our tracking effort on 05-09-2024. All of the turtles are actively moving.

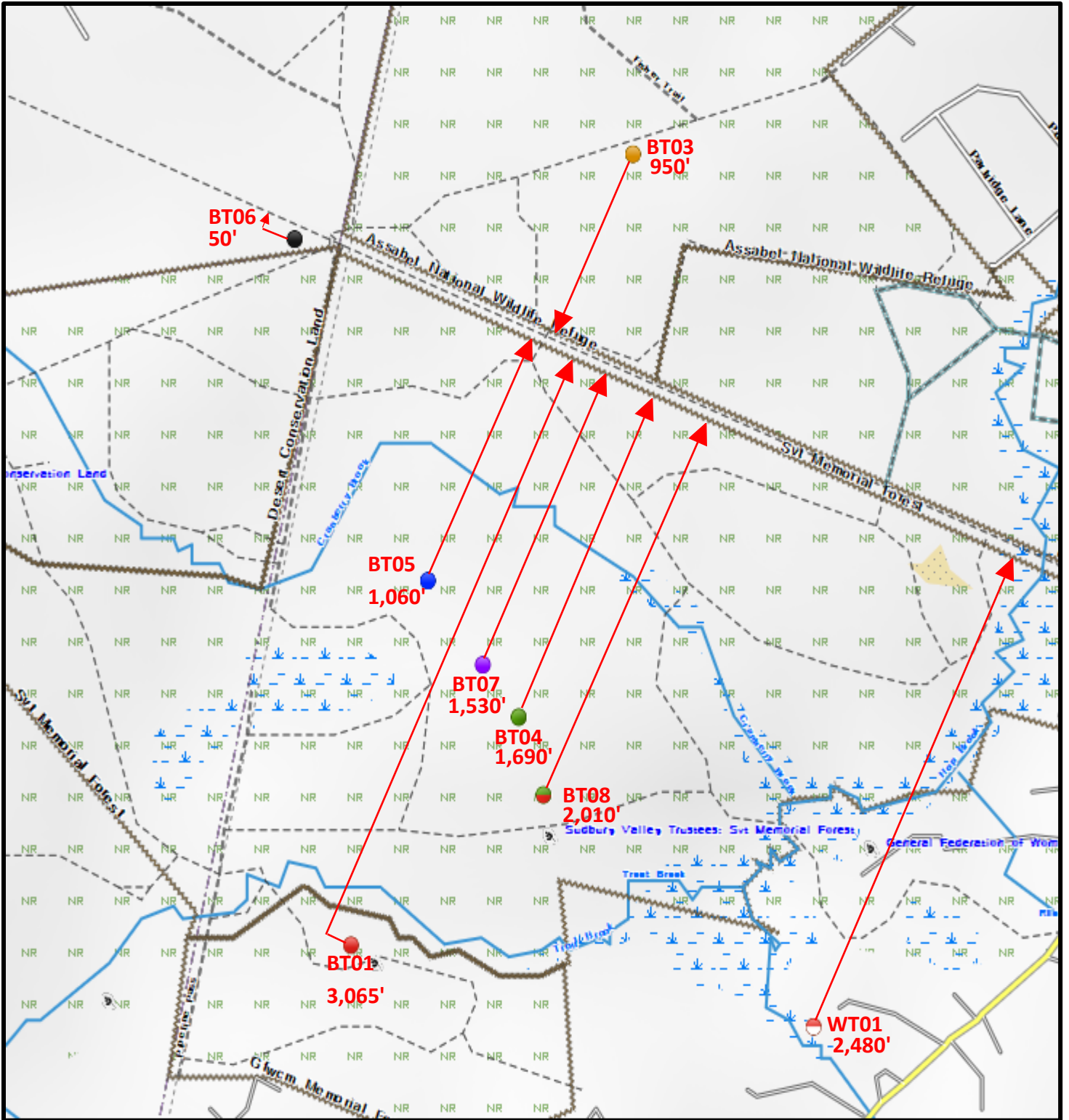
Below is a brief summary of where the turtles were seen.

- **BT01** was seen approximately 3,065' south of the ROW. This distance is more than our last observation.
- **BT03** was seen approximately 950' north of the ROW. This distance is more than our last observation.
- **BT04** was seen approximately 1,690' south of the ROW. This distance is more than our last observation.
- **BT05** was seen approximately 1,060' south of the ROW. This distance is less than our last observation.
- **BT06** was seen approximately 50' south of the ROW. This distance is less than our last observation.
- **BT07** was seen approximately 1,530' south of the ROW. This distance is less than our last observation.
- **BT08** was seen approximately 2,010' south of the ROW. This distance is less than our last observation.
- **WT01** was estimated to be approximately 2,480' south of the ROW in Cranberry Brook on private property. This distance is more than our last observation.

Considering current locations and what we know of their movements, I would pay attention to BT03 and BT06.

If you have any questions let me know.

John



**Sudbury to Hudson  
Turtle Positions 05-09-2024**