

Wildlife Habitat Features Report Eversource Sudbury to Hudson Transmission Reliability Project Sudbury, Massachusetts

**DECEMBER 2022- MAY 2023** 

PREPARED FOR

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PREPARED BY

**SWCA Environmental Consultants** 

# WILDLIFE HABITAT FEATURES REPORT EVERSOURCE SUDBURY TO HUDSON TRANSMISSION RELIABILITY PROJECT SUDBURY, MASSACHUSETTS

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SWCA Project No. 67849

July 2023

Wildlife Habitat Report- Sudbury December 2022- May 2023			
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# **CONTENTS**

1	Introduction	1		
	Study Area			
	Habitat Mitigation			
	3.1 Methodology			
	3.2 Installed Fallen Logs Summary			
4	Vernal Pool Monitorin	5		
	4.1 Methodology	5		
	4.2 Vernal Pool Summary			
5	Future Work			
6	Summary and Recommendations			

## **Attachments**

Appendix A. Fallen Log Placement Map

Appendix B. Placed Fallen Log Photographs

Appendix C. Vernal Pool Monitoring Data Sheet and Site Photos

#### 1 INTRODUCTION

The Eversource Sudbury to Hudson Transmission Reliability Project (the Project) consists of a new, approximately 9-mile-long transmission line between Eversource's existing Sudbury substation in Sudbury, Massachusetts and the Hudson Light & Power Company's (HL&P) substation in Hudson, Massachusetts. The new underground transmission line will be installed in the municipalities of Sudbury, Hudson, Stow, and Marlborough, Massachusetts. Approximately 4 miles of the Project is located within Sudbury, with portions of the work located within jurisdictional resource areas.

As part of the Project, and to ensure the work will not result in the loss of important wildlife habitat features, a habitat mitigation plan was proposed for the work within wetland impact areas along the Project route. The final Habitat Mitigation Plan and the initial pre-construction report of the site, previously submitted to Sudbury Conservation Commission in March 2022.

Under Special Condition Part II(1) of the Sudbury Order of Conditions for DEP# 301-1287

The Applicant's wildlife biologist or other qualified individual document the location of all important habitat features that will be removed (such as brush piles, snags, overhanging trees, logs within or near the water, large woody debris, etc.) to quantify the number of features removed and provide confirmation that the work did not result in the loss of important wildlife habitat features. It also requires that brush, woody debris and logs be replaced within or near water, generally in the location they were removed, and that reports be provided to the Sudbury Conservation Commission every 6 months for the life of the Order, documenting the wildlife habitat removal and restoration effort, including monitoring of vernal pools.

SWCA Environmental (SWCA) has developed this report on behalf of Eversource per Special Condition Part II (1). This is the first monitoring report and shall serve as the December 2022- May 2023 monitoring period. The following sections describe the habitat mitigation efforts conducted during the first six months of Project construction and vernal pool monitoring between March 2023 to May 2023.

#### 2 STUDY AREA

The Project work within Sudbury is broken up into segments. The sections below will refer to segments by number with each segment number corresponding to a stretch of land, typically between roads. Below is the list of segments and their locations.

- Segment 7 (Sudbury Town Line to Bridge 128);
- Segment 8 (Bridge 128 to Dutton Road);
- Segment 9 (Dutton Road to Peakham Road);
- Segment 10 (Peakham Road to Horse Pond Road);
- Segment 11 (Horse Pond Road to Union Avenue);
- Segment 12 (Union Avenue to Boston Post Road/Rt. 20);
- Segment 13 (Boston Post Road/Rt. 20 to Bridge 127); and
- Segment 14 (Bridge 127 to Sudbury Substation).

Where work crosses a wetland resource area, that section of work is identified as a Wetland Impact Area (Impact Area). Within several of the Impact Areas, habitat mitigation measures were proposed and approved by Sudbury Conservation Commission. Table 1 summarizes the location of the Impact Area, what mitigation efforts were proposed, and what mitigation measures have been installed.

Table 1: Proposed and Installed Habitat Mitigation per Impact Area

	Wetland Impact		
Segment	Area ID	Proposed Mitigation	Installed Mitigation
	1	Install 2 brush piles	None
	2	Install 1 brush pile	None
7	3	Reuse 2 significant snags as fallen logs: Install 5 brush piles	Placed 7 fallen logs
	4	Reuse 1 significant snags as fallen log; Snag on the southern limit can be left in place	Placed 3 fallen log
	5	Place 2 snags used as fallen logs; Work with contractor to determine if snag on the northern limit of work can be saved	Placed 2 fallen logs
8	6	Place 2 fallen logs to be placed; Use 1 of the snags as fallen log	Placed 2 fallen logs, one of which was a snag
	7	2 fallen logs placed; Work with contractor to see if can save snags or reuse as the 2 fallen logs place by VP	Placed 2 fallen logs
	8	Install 6 brush piles	None
9	9	Install 6 brush piles; Work with contractor to keep snags or reuse as fallen log near VP	None
10	10	Install 4 brush piles	None
	11	Install 2 brush pile; Work with contractor to keep snags or reuse as fallen log near VP	Placed 2 fallen logs
11	12	Install 2 brush pile	Placed 2 fallen logs
	13	Install 7 brush piles	Placed 4 fallen logs
	14	None	None
12	15	Install 5 brush piles	None
	16	Install 6 brush piles	Placed 4 fallen logs
13	17	none	None
	18	Place 2 fallen logs- one of the snags to be used as fallen log	Placed 1 fallen logs- used an existing snag One snag left standing
14	19	Install 11 brush piles; Work with contractor to keep snags or reuse as fallen log near VP	Placed 13 fallen logs
	20	Install 3 brush piles; Work with contractor to keep snags or reuse as fallen logs	Placed 2 fallen logs

Vernal Pools throughout the Project route are identified in Table 2.

**Table 2: Vernal Pools Locations** 

Segment	Vernal Pool ID
7	VP# 1,
,	VP# 2
	VP# 3,
	VP# 4,
8	VP# 5,
	VP# 6,
	VP# 7
9	VP# 8,
	VP# 9
11	VP# 10,
11	VP# 11
	VP# 12,
14	VP# 13,
	VP# 14,
	VP# 15

### 3 HABITAT MITIGATION

## 3.1 Methodology

The first phase of the Project involved tree removal within the limit of work along the entire Project route. To ensure only the necessary trees are removed and all tree removal work is contained within the limit of work, the work area was first surveyed and staked to identify the limit of work. After the limit of work was identified, the Project engineers, Project Manager, SWCA wildlife biologist, the Sudbury Conservation Agent (Lori Capone), and Moosehead Contractor (crew conducting tree removal) reviewed the segment and flagged a line of trees, identifying the limit of clearing.

Trees that were located on the border or partially outside the limit of work, were reviewed to determine if they can remain in place, or if the proposed grading in the area will damage the roots, causing the tree to decay or fall. If it was determined the roots may be damaged and can cause the tree to die, easily fall, or in general pose a safety threat, the tree was identified to be removed.

Each segment was reviewed by the Sudbury Agent and Contractors less than a week prior to work occurring in that segment. On the day of tree removal activities, the site was walked once more with the wildlife biologist, Moosehead crews, and Project engineers, to ensure all the survey stakes and tree flagging were in place, and the demarcated limit of work was clear and visible, and any questions answered.

A SWCA wildlife biologist was present during all tree removal activities in all segments of the Project in Sudbury to ensure that the appropriate trees were removed and that trees determined to remain in place, remained. During the tree removal activities, SWCA directed Moosehead to reuse snags or removed trees as fallen logs as proposed in the Habitat Mitigation Plan.

Where possible, existing snags that needed to be removed were used as fallen logs. If there were no available snags, or if the existing snags were covered with invasive plant species, an existing fallen tree, or removed tree was used as a fallen log. No tree or tree limb was used if it was located near or covered with invasive plant species.

Fallen logs were placed outside the limit of work either within or partially within vernal pool areas or wetlands that had few or no logs. The intention of the log is to provide an additional habitat feature to the area and to be used for sheltering, basking area, and egg mass attachment sites for vernal pool species. All fallen logs were placed such a way to appear natural and aesthetically pleasing.

Fallen logs were mainly installed using a forwarder forestry machine, which was able to move and delicately place large fallen trees. During the installation using the forwarder, the machine remained within the limit of work at all times and relied on the extent of the machine arm to place the logs beyond the limit of work. Where a forwarder could not reach, logs were installed by hand.

Only Fallen logs were installed as part of the mitigation at this time. Since brush piles are proposed to be installed within the limit of work, it was determined that brush piles will be installed as the same time or soon after the installation of restoration/mitigation plantings.

The Habitat Mitigation Plan was developed prior to development of the restoration planting plan. After reviewing the plans and the site itself with Ms. Capone, it was agreed that there may not be enough working room to install brush piles and plantings within the limit of work and not encroach on the future pedestrian paved path. Ms. Capone gave permission to substitute one fall log for one brush pile and to install brush piles within invasive management areas that are within or outside of the Impact Areas.

Tree removal activities were performed by Moosehead LLC, with work beginning on December 19, 2022, and completed in April 2023.

## 3.2 Installed Fallen Logs Summary

All proposed fallen logs were installed. In several Impact Areas, brush piles were substituted for fallen logs. In some Wetland Impact Areas there are deviations from what was proposed. Theses deviations include:

Wetland Impact Area S4- Installation of additional snags. The area is located near a bridge crossing which will require the use of a crane to conduct work, the existing snags proposed to be saved, required to be removed. Removed snags were re-used.

Wetland Impact Area S6- the required two snags were installed, however, the optimal location for the snags was near the wetland. Therefore, the snags were placed at the boundary of S6 and S5.

Wetland Impact Area S8, S9, and S10- brush piles were not substituted with fallen logs as the work area was close to abutting properties. The proposed number of brush piles in those Impact Areas may need to be reevaluated.

Wetland Impact Area 18- Only one snag was installed. Contractors were able to save the existing standing snag in the area, and therefore it was not replaced.

Wetland Impact Area 19- An additional two snags were installed. The snags were originally left in place, however, during the silt fence installation and grading, the snags required removal and were placed just beyond the limit of work near resource areas.

Table 1, lists the amount of fallen logs installed in each segment. Figure 1 in Appendix A identifies the installed fallen log location along the Project route. Photo pages documenting the positioning and placement of fallen logs right after their installation, is found in Appendix B.

#### 4 VERNAL POOL MONITORING

## 4.1 Methodology

A vernal pool is often a temporary fresh body of water, typically a depression, that provides critical habitat for selected invertebrate and vertebrate species. During the permitting process, fifteen vernal pools have been identified in Sudbury, between Segment 7 and Segment 14. The identified vernal pools have been assessed and activity at the pools has been documented by VHB, in the past. The Sudbury Conservation Commission defines March 1 through June 1 as active vernal pool season. During that time, any vehicles moving through a designated vernal pool buffer zone require an escort, who visually scans the right-of-way to ensure no wildlife species is within the vehicle's path. During this time, SWCA performed weekly monitoring of all identified vernal pools, specifically ensuring that no sediment, debris, or any form of disturbance is occurring in or near a vernal pool. During the weekly inspections, the SWCA monitor reviewed the condition of the Project work area, silt fence conditions, area between the vernal pool and the work area, and the vernal pool itself for Project and non-Project related debris and disturbance. Vernal pool species observations were not conducted as the focus of the monitoring was to ensure the vernal pools remained in the same conditions as prior to construction activities. A Vernal Pool Monitoring Data form was filled out during each visit. Data forms and photo pages are located in Appendix C.

## 4.2 Vernal Pool Summary

Between March 1 and June 1, no Project or non-Project related debris was observed within any of the vernal pools along the Project route. Silt fences were in good condition and no sediment or erosion into a vernal pool or its buffer zone was observed. Wood frogs were observed successfully crossing the right-of-way, and wood frogs calls were heard in many of the vernal pools, specifically those in Segment 8 and Segment 14.

### **5 FUTURE WORK**

The placement of fallen logs for habitat mitigation has been completed. Brush pile installation is proposed to occur at the same time or soon after the restoration planting, which is not anticipated to begin until Spring 2024 or after. Mitigation plantings are proposed along the entire project route and in some sections, the corridor has limited space. It is suggested that the proposed number of brush piles is reviewed and possibly reduced.

Vernal pool monitoring will begin again between March 1, 2024 and June 1, 2024.

#### 6 SUMMARY

The Eversource Sudbury to Hudson Transmission Reliability Project began in Sudbury in December 2022 with the removal of trees within the work limit. Trees in segment 7 through segment 14 were reviewed prior to the start of tree removal activities. Tree removal activities were monitored segment 7 through segment 14 to ensure only those trees identified for removal were removed. Fallen log installations were completed in designated segments with care and consideration of the surrounding environment. Brush piles were not installed, but are anticipated to be installed at the time or soon after mitigation planting installations.

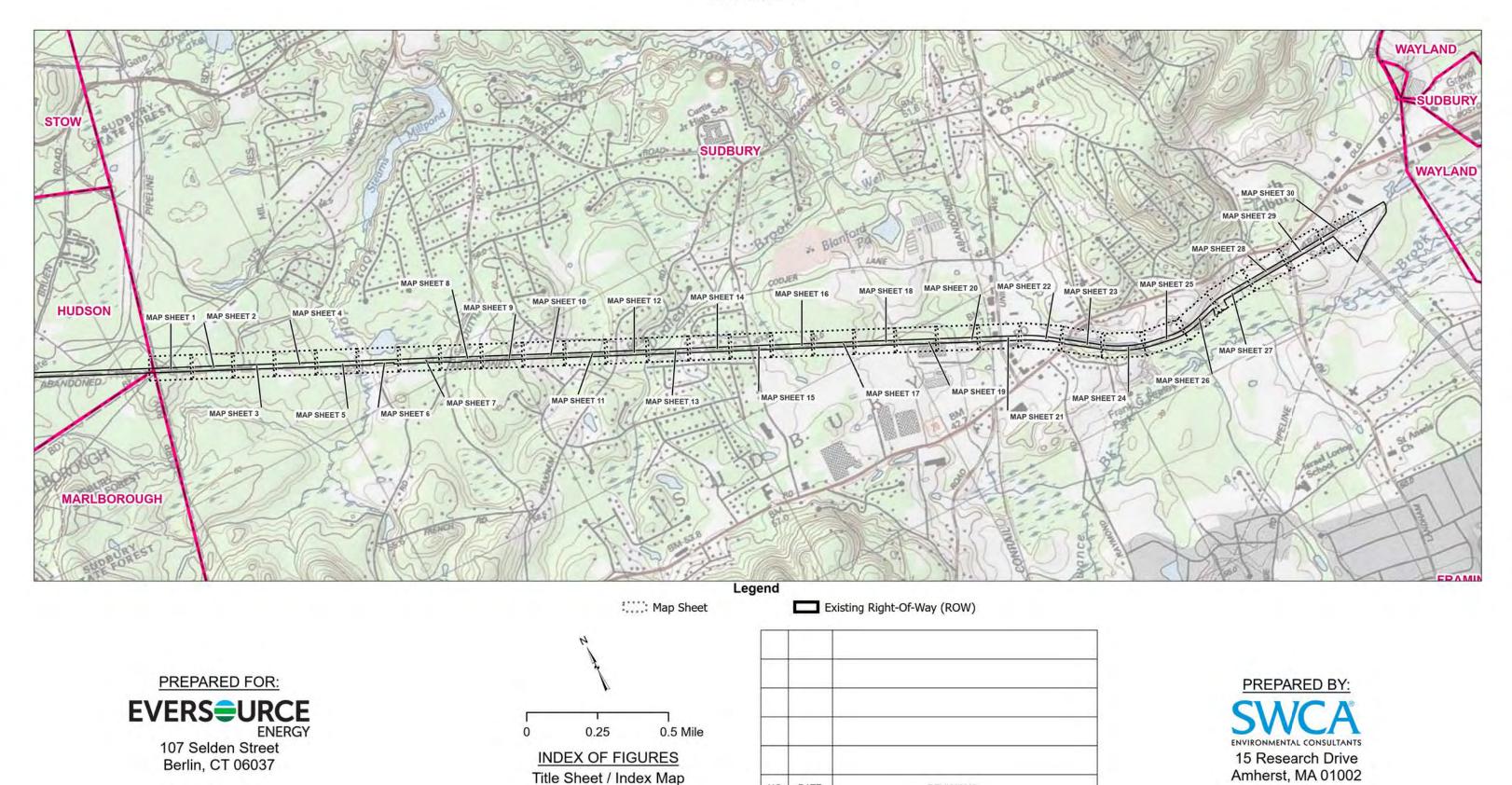
During the vernal pool monitoring, no signs of debris, sedimentation, damage to silt fence, or any form of potential adverse impact to the vernal pool was observed. SWCA will submit the next six-month wildlife habitat features report in December 2023.



# **Sudbury to Hudson Construction Compliance Monitoring**

SUDBURY, MA Wildlife Habitat Features

June 30, 2023



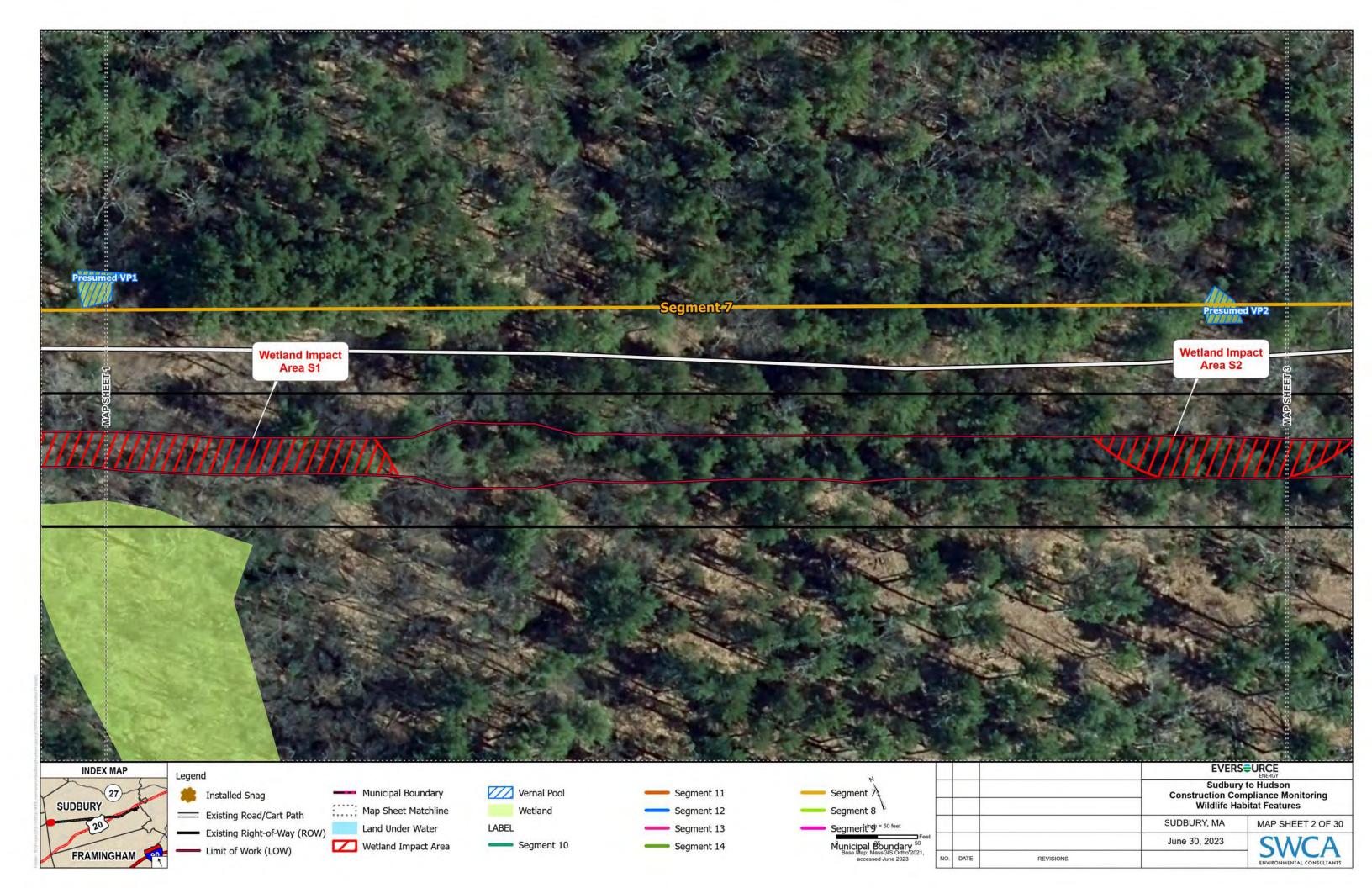
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Map Sheets 1-30

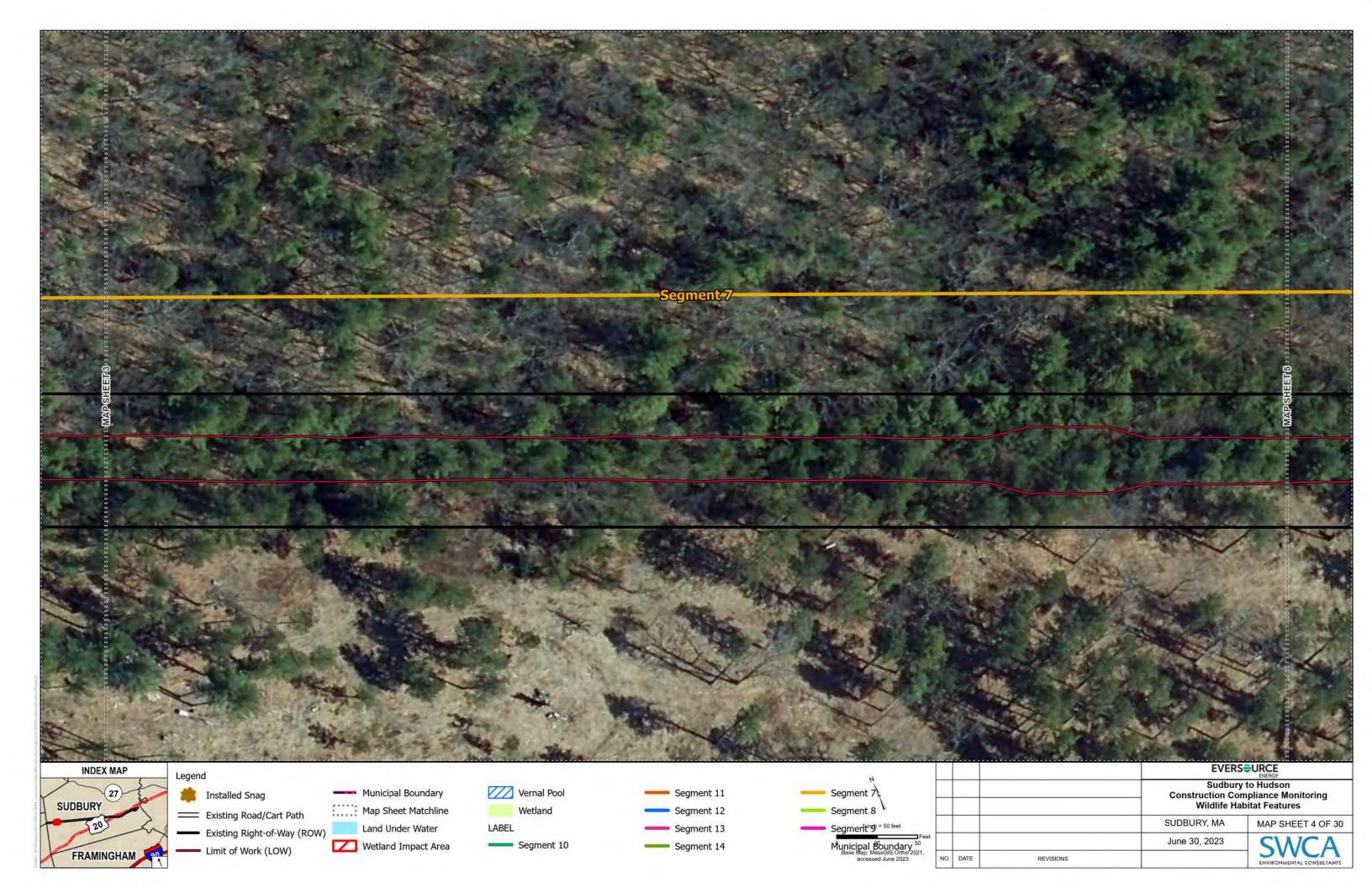
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**REVISIONS** 

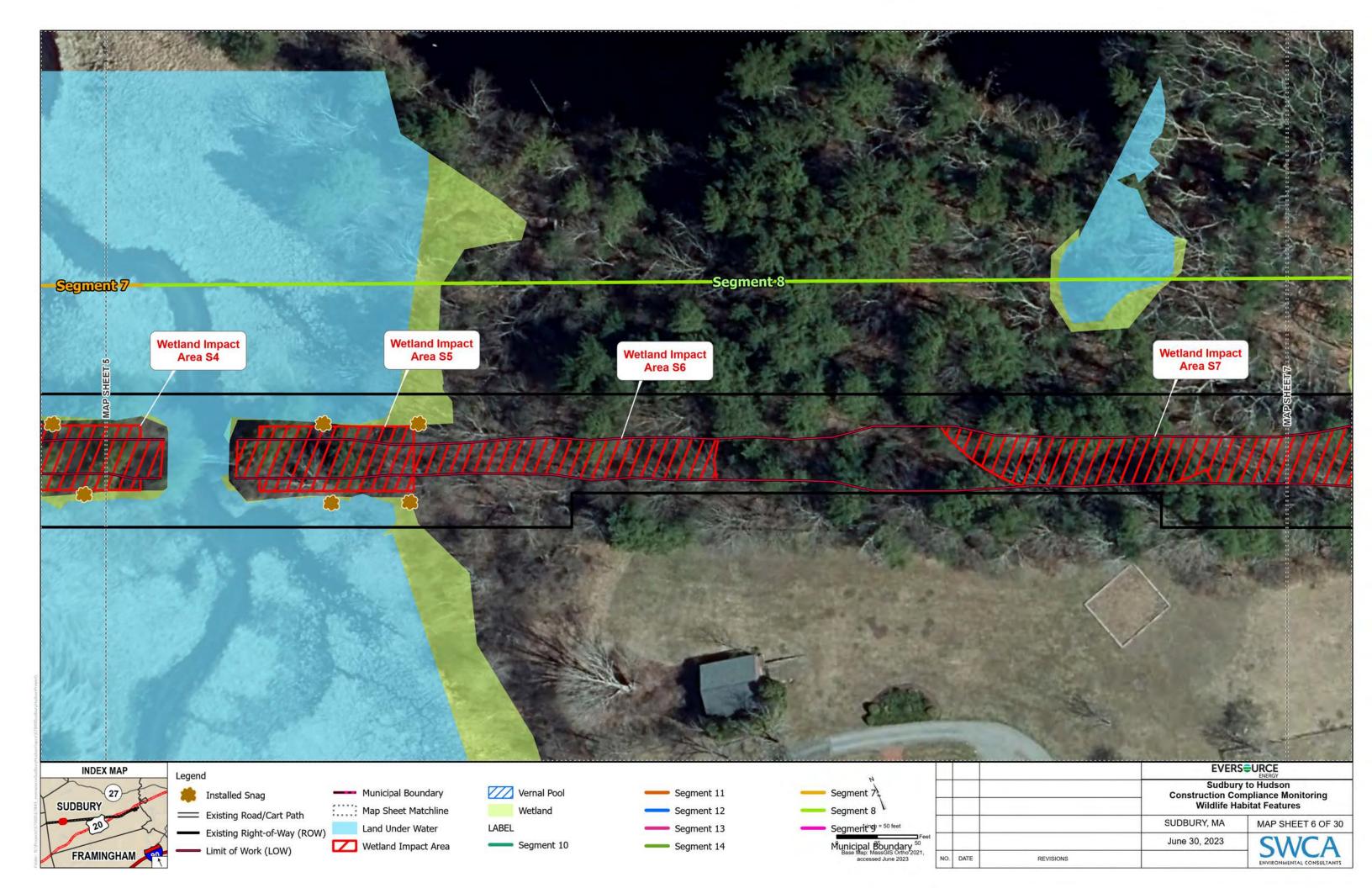










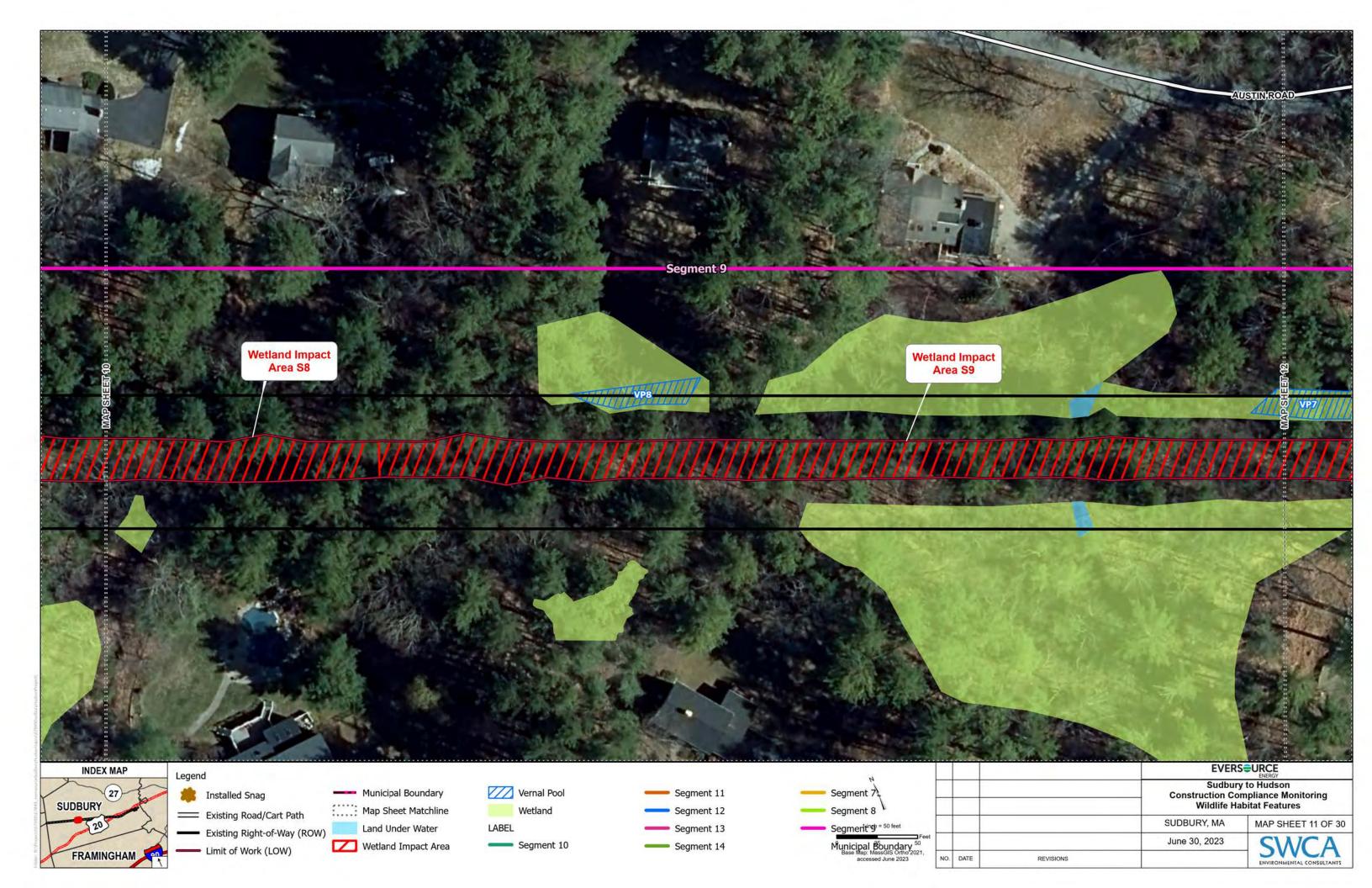






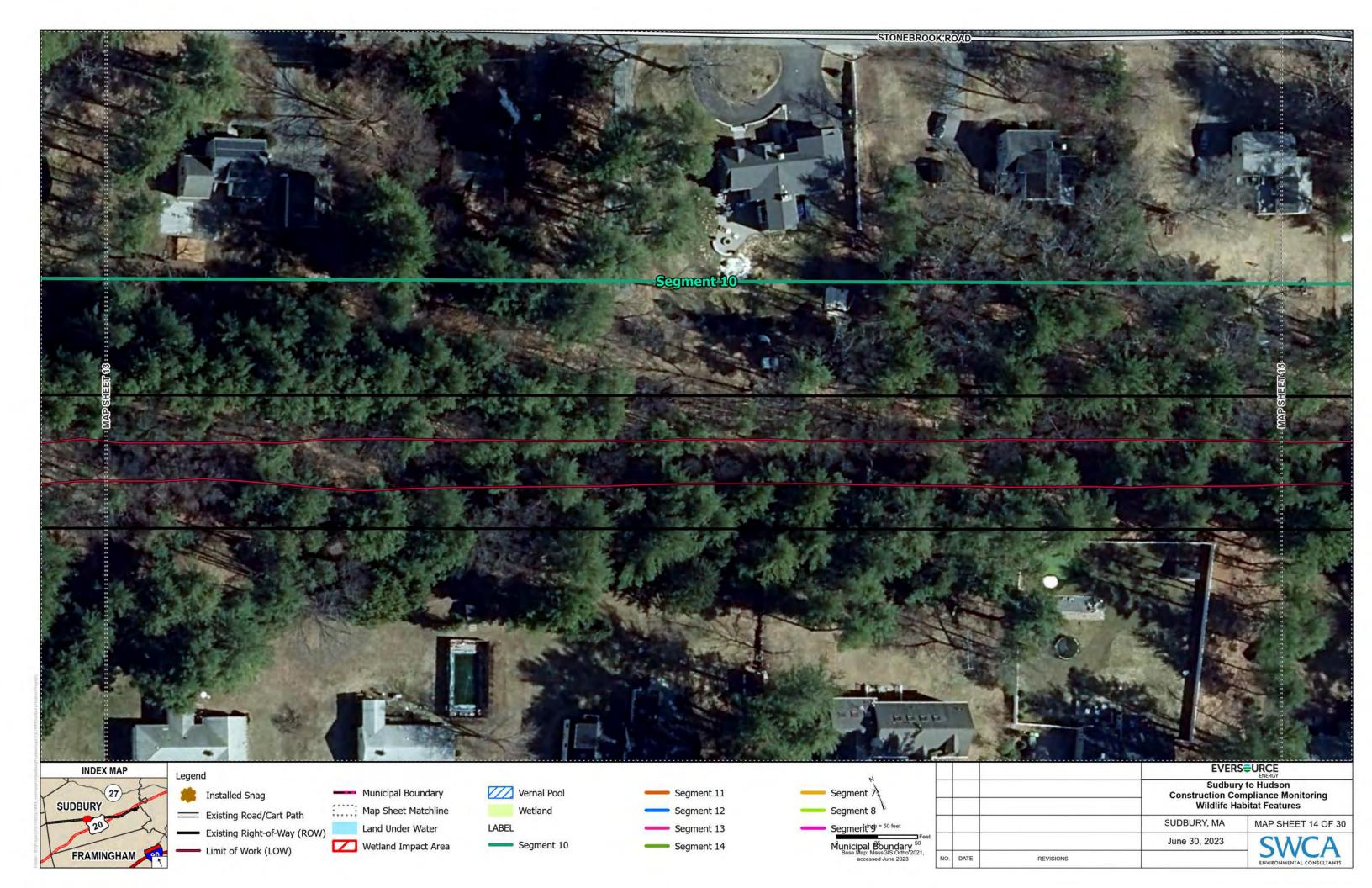










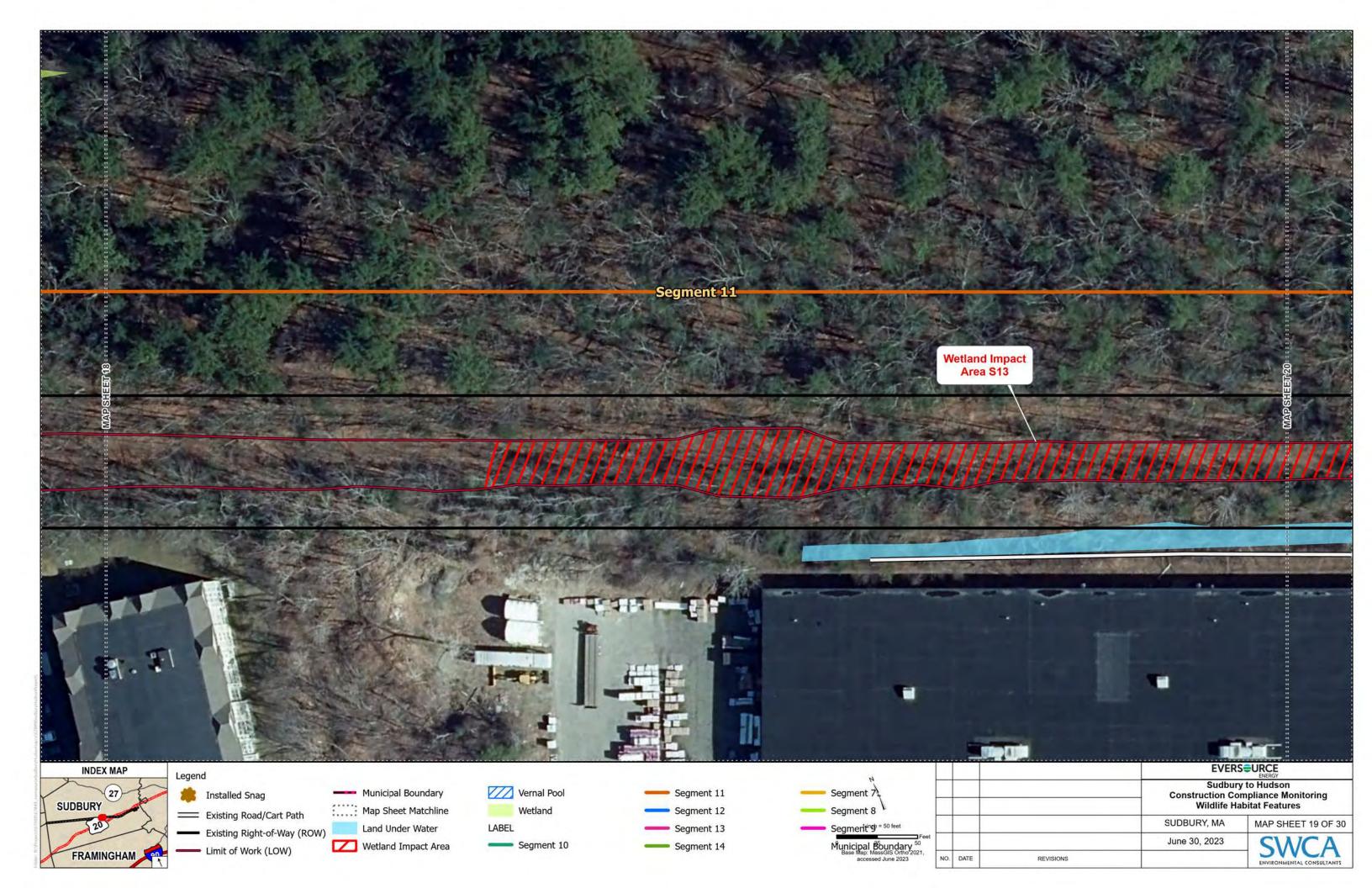


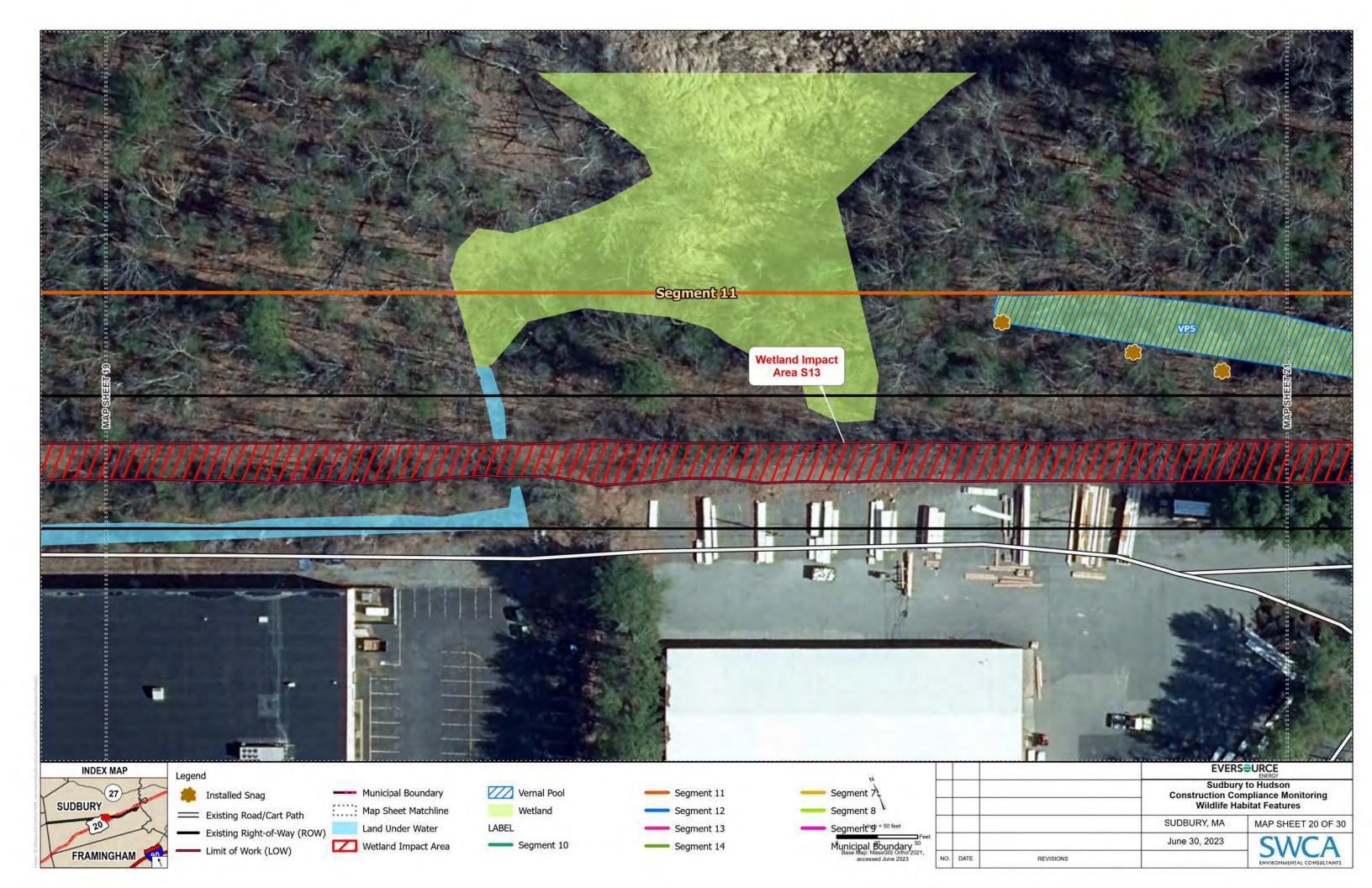








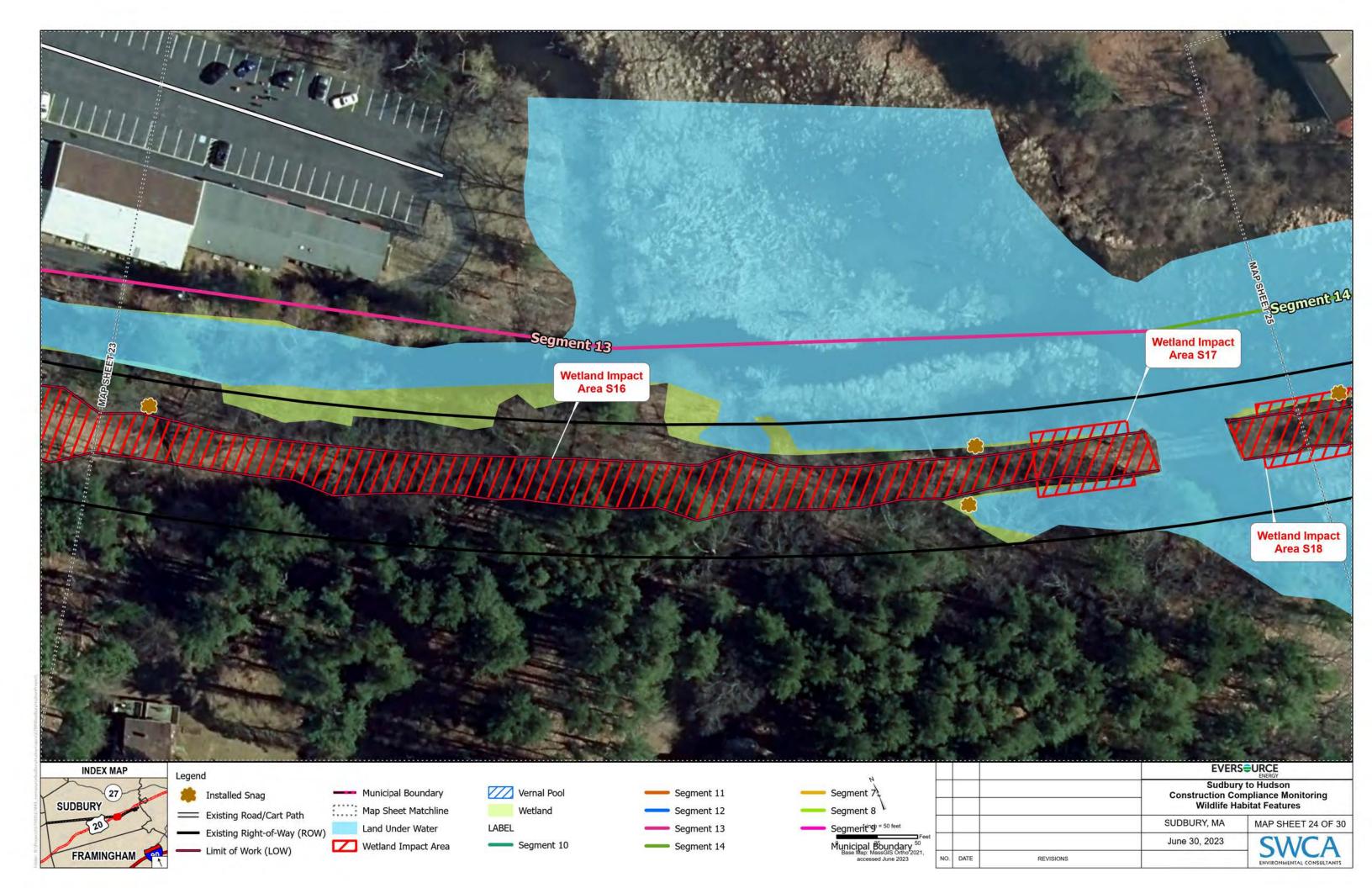


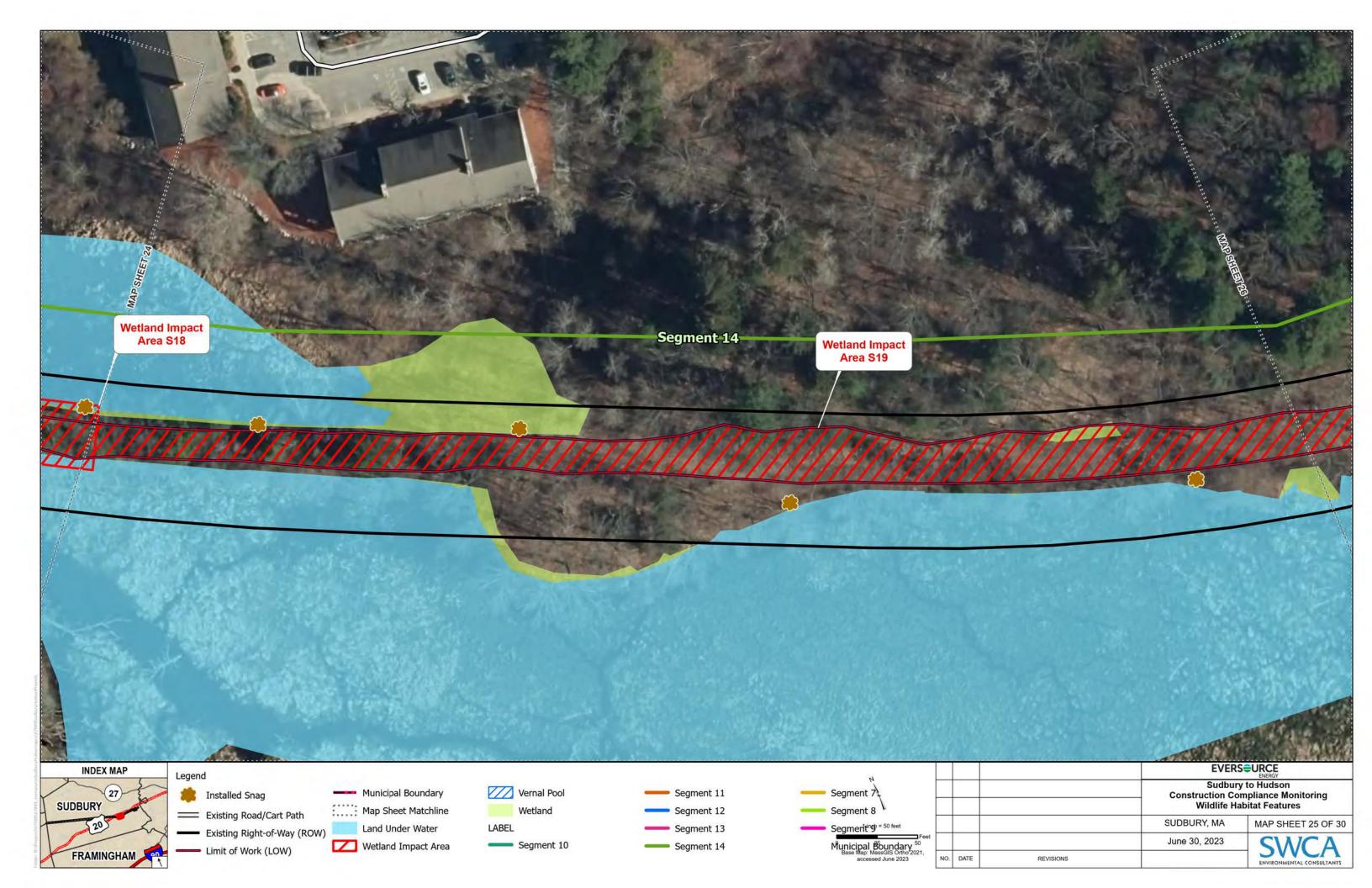


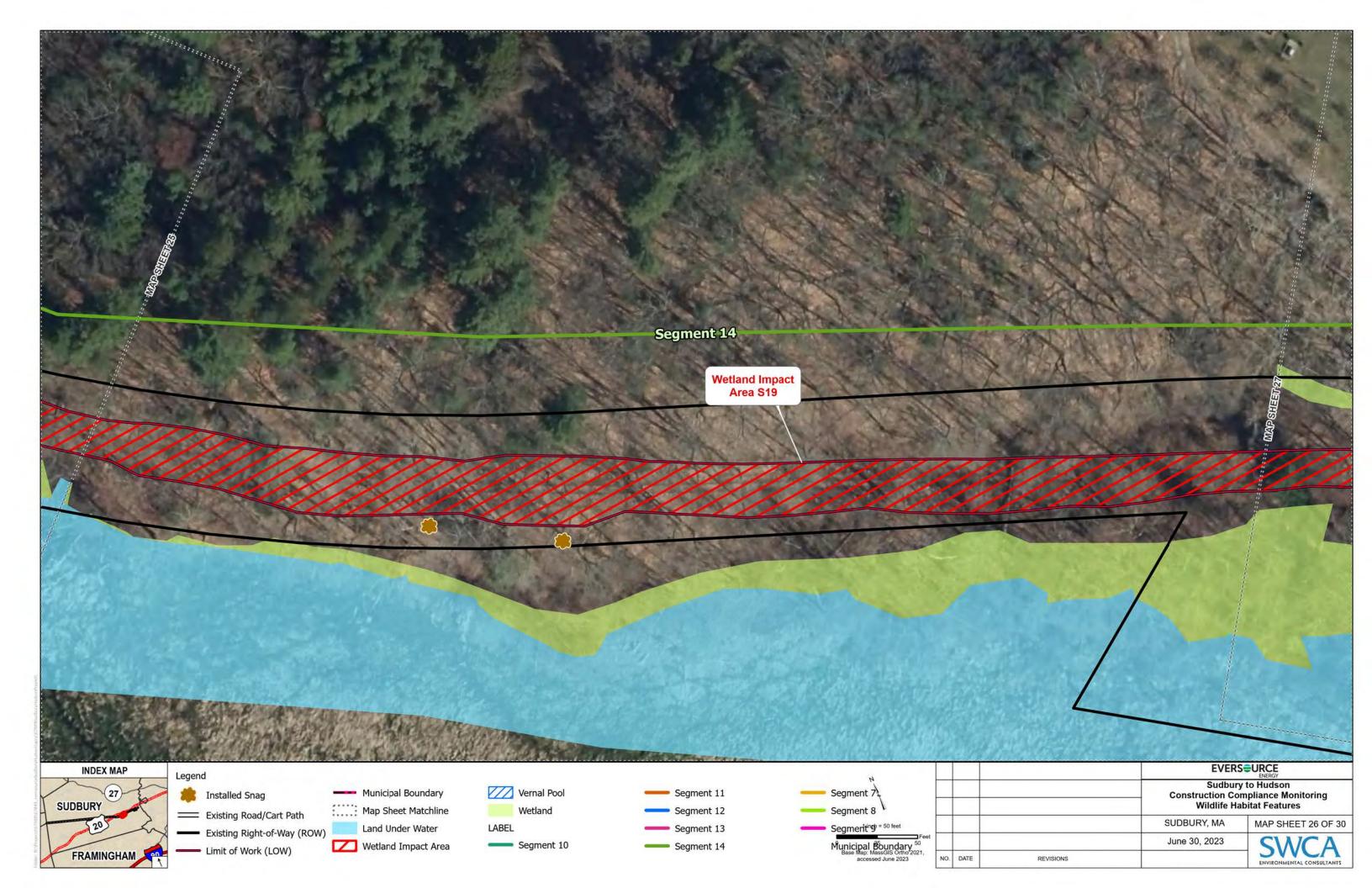


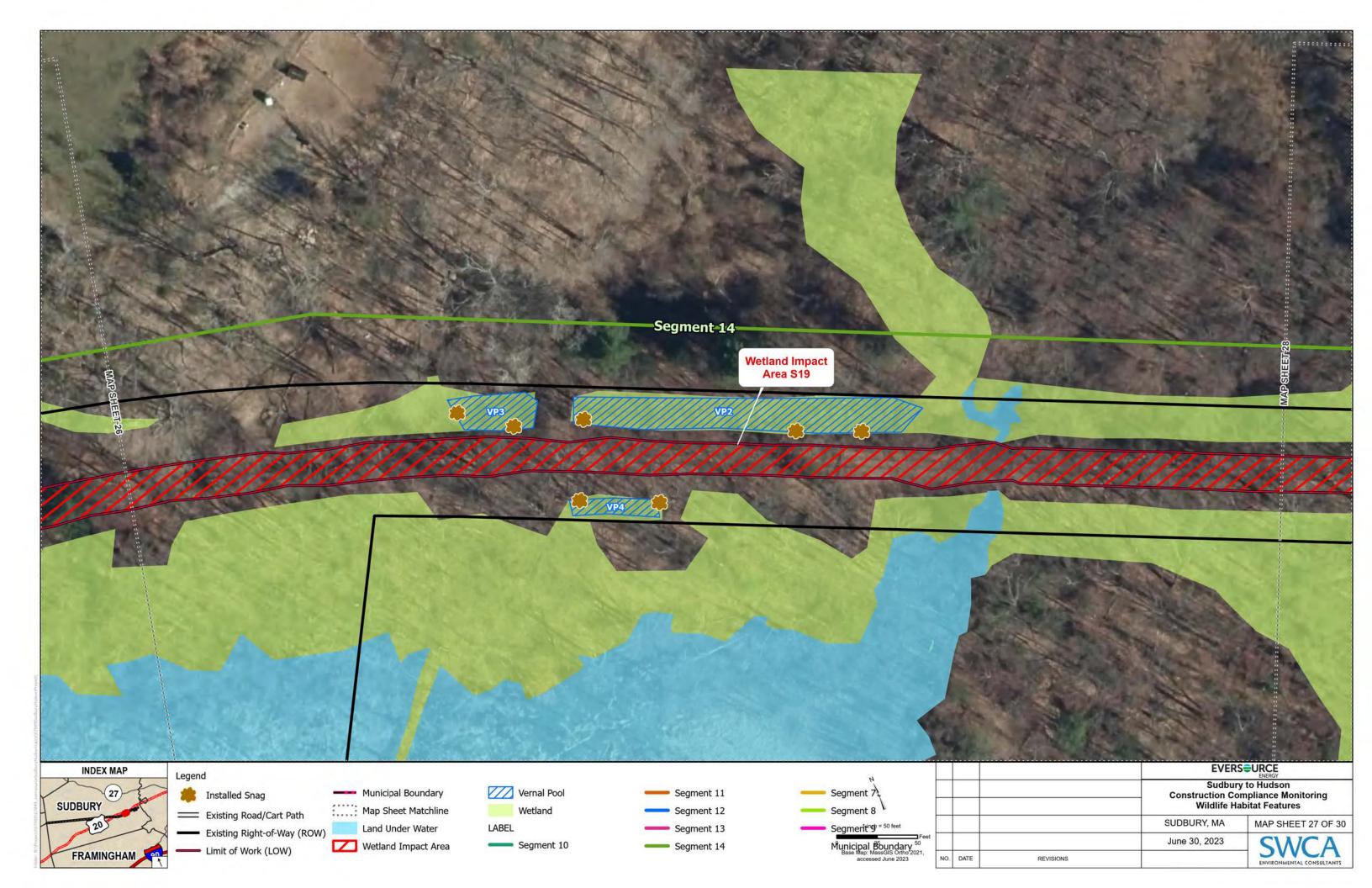




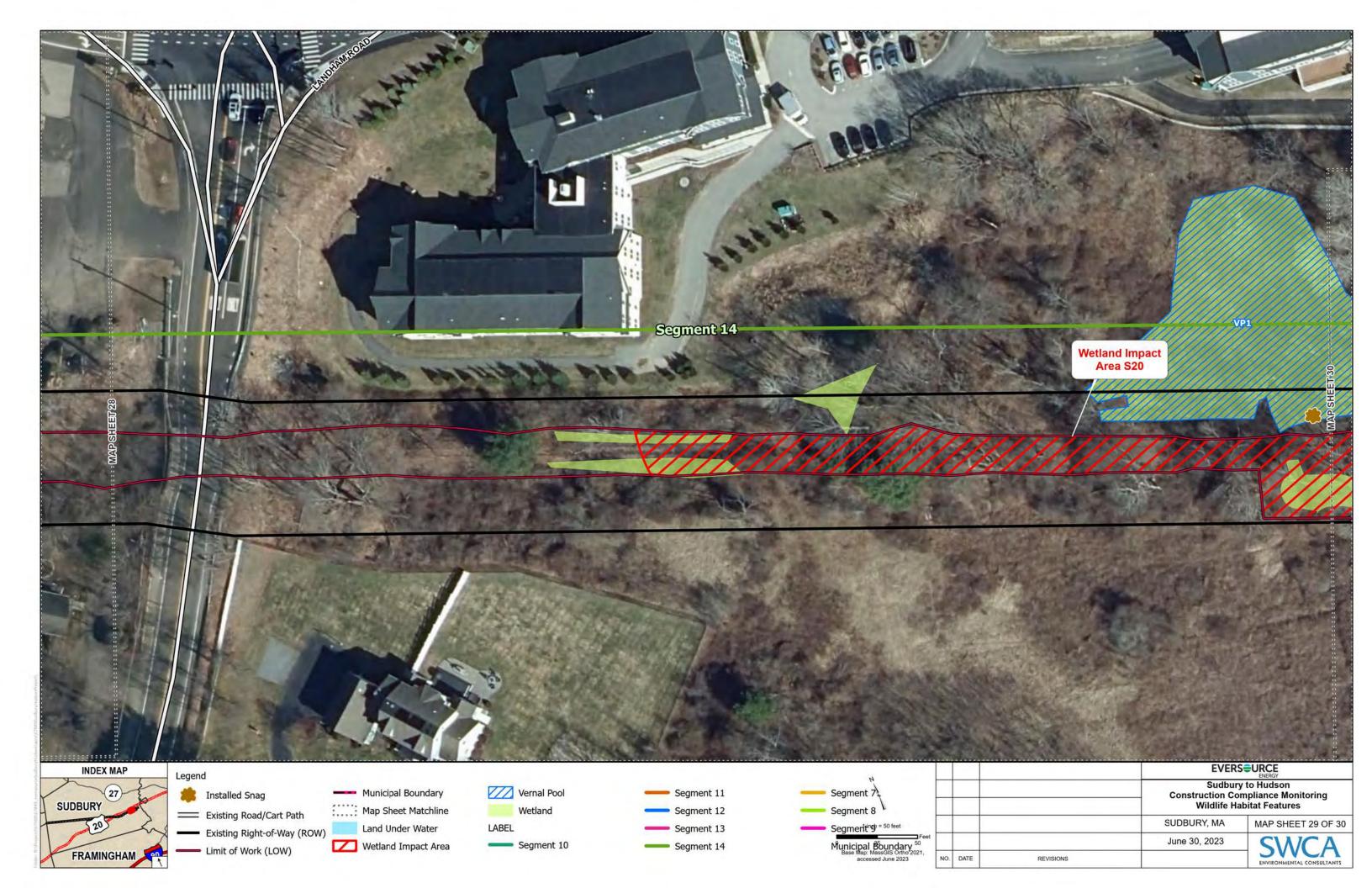


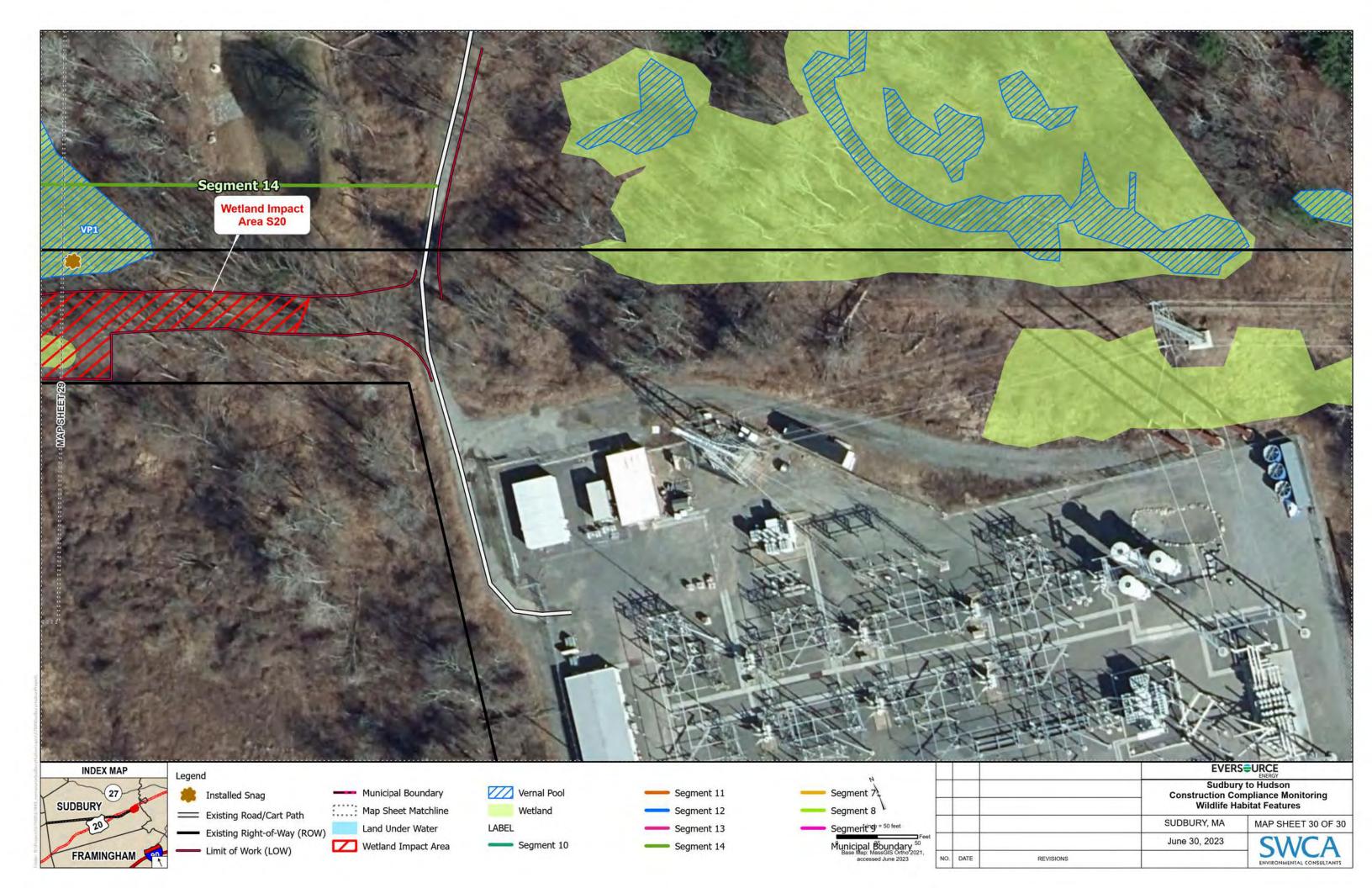
















**Photo** #1: View of installed fallen logs within Impact Area 3 on the northern side or work area. *Facing north.* 



**Photo #2:** View of installed fallen logs within Impact Area 3 on the southwestern end of the work area. *Facing southeast*.



**Photo #3**: View of installed fallen log in Impact Area 3 . *Facing north*.



**Photo #4:** View of installed fallen log in Impact Area 3 . *Facing northeast*.



**Photo** #5: View of installed fallen log as a snag in Impact Area 4. Facing south.



**Photo #6:** View of installed fallen log as a snag in Impact Area 4. *Facing south.* 



**Photo** #7: View of installed fallen log as a snag in Impact Area 5. Facing north.



**Photo** #8: View of one snag that was left in place (left) in Impact Area 5, near the bridge crossing. Large pine (right) required removal to allow for bridge repairs. The stump of the pine was left in place. *Facing west*.



**Photo #9**: View of installed fallen log as a snag in Impact Area 6. An installed fallen log, within Impact Area 5 is located further west (right) and is difficult to see through the vegetation. *Facing south.* 



**Photo #10:** View of installed fallen log as a snag in Impact Area 6. Facing north.



**Photo #11**: View of installed fallen log in vernal pool #11 in Impact Area 7. Facing south.



**Photo** #12: View of installed fallen log in vernal pool #10 in Impact Area 7. Facing northwest.





**Photo** #13: View of tree in Impact Area 9 on the eastern side of Peakham Road. Tree was located just beyond the limit of work and in poor condition. Tree branches and thick vines connected the tree extended into the limit of work and onto the power lines. For safety concerns the entire tree was removed and stump left in place. *Facing northeast*.





**Photo #14:** View of trees within Impact Area 10. Many of the trees within this section had multiple trunks and were on the boundary of the limit of work. Trees were preserved to the greatest extent possible. When the anticipated grading and trenching, associated with the proposed work, would negatively impact the tree health and stability, trees were removed for safety concerns. *Facing northwest*.



Photo #15: View of installed fallen log in vernal pool #6 in Impact Area 11. Facing southeast.



**Photo #16:** View of installed fallen log in vernal pool #6 in Impact Area 11. Facing south.



Photo #17: View of installed fallen log within resource area in Impact Area 12. Facing south.



**Photo #18:** View of installed fallen log within resource area in Impact Area 12. Facing north.



**Photo** #21: View of one of four fallen logs placed in vernal pool VP#5 in Impact Area 13. *Facing northwest.* 



**Photo** #22: View of second fallen logs placed in vernal pool VP#5 in Impact Area 13. *Facing north*.



**Photo** #23: View of third fallen logs placed in vernal pool VP#5 in Impact Area 13. *Facing northeast*.



**Photo** #24: View of fourth fallen logs placed in vernal pool VP#5 in Impact Area 13. *Facing east.* 



**Photo** #25: View of installed snag in Impact Area 16. Snag was placed upright. *Facing northeast*.



**Photo** #26: View of installed fallen log in Impact Area 16 within resource area. *Facing southeast*.



Photo #27: View of installed fallen log in Impact Area 16. Facing northeast.



**Photo** #28: View of installed fallen log in Impact Area 16 near bridge crossing. *Facing northeast*.



**Photo** #29: View of bridge crossing in Impact Area 17. Two snags (indicated with arrows) were saved and remain on either side of the bridge. *Facing east*.



**Photo** #30: View of installed fallen log in Impact Area 18 near bridge crossing. One snag was saved and remains in place (indicated with arrow). *Facing northeast*.



Photo #31: View of installed fallen log in Impact Area 19. Facing north.



Photo #32: View of installed fallen log in Impact Area 19. Facing northeast.





**Photo** #33 View of installed fallen log in Impact Area 19. Snag was originally proposed to be saved, however, during the silt fence installation, snag has fallen/ had to be removed and was placed partially within resource area. *Facing south*.



Photo #34: View of installed fallen log in Impact Area 19. Facing southeast.



**Photo** #35: View of installed fallen log in Impact Area 19. Facing southeast.



**Photo #36:** View of installed fallen log in Impact Area 19. Facing southeast.



**Photo** #37: View of tree in Impact Area 19, at station 741+00, that is on the boundary of the work limit. The tree is engulfed with bittersweet vines. The vines could not be removed without also removing the tree. Tree was reviewed with by the Conservation Agent, who agreed it should be removed. *Facing south*.



**Photo #38:** View of tree in Impact Area 19, at station 756+00. The base of the tree is outside the limit of work; however, the tree is leaning into the limit of work and will need to be cut. Base and root will remain in place. *Facing west*.



**Photo** #39: View of fallen log placement in vernal pool VP#3 in Impact Area 19. *Facing northwest*.



**Photo #40:** View of fallen log placement in vernal pool VP#3 in Impact Area 19. *Facing north*.



Photo #41: View of installed fallen log placement in VP2 in Impact Area 19. Facing north.



Photo #42: View of installed fallen log placement in VP2 in Impact Area 19. Facing northwest.



Photo #43: View of installed fallen log placement in VP2 in Impact Area 19 . Facing northeast.



Photo #44: View of installed fallen log placement in VP4 in Impact Area 19 . Facing south.



**Photo** #45: View of installed fallen log placed in vernal pool VP1, in Impact Area 20. An existing snag was used and placed along the edge of the vernal pool, extending into the water.



**Photo** #46: View of installed fallen log placed in vernal pool VP1 in Impact Area 20. An existing snag was used as a fallen log. *Facing northeast*.



# Vernal Pool Monitoring Field Data Form

**Part I: Summary Sheet** 

Project Name: Evers	ource Sudbur	y- Hudson Transmission Reliability Proje	ect	
Segment 7 (Sudbury Town Segment 8 (Bridge 128 [S' Segment 9 (Dutton Road [ Segment 11 (Horse Pond I	n Line [STA 249 TA 288+50] to 1 STA 305+00] to Road [STA 361+	8, 11, and 14 in Sudbury, MA  2+50] to Bridge 128 [STA 288+50]); VP# 1,2  Dutton Road [STA 305+00]); VP# 3,4,5,6,7  Dependent Road [STA 335+50]); VP# 8,9  400] to Union Avenue [STA 407+50]); VP# 10, 11  2 Sudbury Substation [STA 476+00]); VP# 12, 13,		
Observer(s): P. Safra	ın	<b>Date:</b> March 1, 2023	<i>Time:</i> 2:45pm	
Weather: 39F, sunny				
Issues Observed:	⊠No	□Yes, see Table 1 below		

# Comments:

- -Thick layer of snow on the ground.
- -Very cold temperatures at night and during the day, movement not anticipated. Discussed with agent regarding officially starting monitoring once conditions are more favorable. Will keep an eye on the weather for next week.
- -Was present on site for tree removal in Segment 13, conducted spot checks of vernal pools.
- -Silt fences near vernal pools and associated buffer zones are in good condition.
- -No construction related debris observed within the vernal pool or buffer zone.

### Table 1:

List of Observed Issues and Actions to be Addressed						
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed	
N/A	No issues observed	N/A	N/A	N/A	N/A	

# **Vernal Pool Monitoring** Field Data Form

# **Part I: Summary Sheet**

Project Name: Eversource Sudbu	ry- Hudson Transmission Reliability Project	<u>t</u>	
Landing Maritagal, Comments	11 and 14 in Sudhum. MA		
Locations Monitored: Segments			
-	49+50] to Bridge 128 [STA 288+50]); VP# 1,2		
	Dutton Road [STA 305+00]); VP# 3,4,5,6,7		
ε	to Peakham Road [STA 335+50]); VP# 8,9		
Segment 11 (Horse Pond Road [STA 36	1+00] to Union Avenue [STA 407+50]); VP# 10, 11		
Segment 14 (Bridge 127 [STA 433+50]	to Sudbury Substation [STA 476+00]); VP# 12, 13, 14	, 15	
Observer(s): P. Safran	Date: March 6, 2023	<i>Time</i> :9:30am	
Weather: 39F, sunny			
Issues Observed:   No	□Yes, see Table 1 below		
Commants			

- -Layer of snow on the ground.
- -Very cold temperatures at night and during the day, movement not anticipated. Discussed with agent regarding officially starting monitoring once conditions are more favorable. Next week appears favorable.
- -Conducted spot checks of vernal pools.
- -Silt fences near vernal pools and associated buffer zones are in good condition.
- -No construction related debris observed within the vernal pool or buffer zone.

# Table 1:

List of Observed Issues and Actions to be Addressed						
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed	
N/A	No issues observed	N/A	N/A	N/A	N/A	

# Vernal Pool Monitoring Field Data Form

**Part I: Summary Sheet** 

Project Name: Everso	ource Sudbur	y- Hudson Transmission Reliability Proje	ct			
Segment 8 (Bridge 128 [S' Segment 9 (Dutton Road [ Segment 11 (Horse Pond F	Line [STA 249 ΓΑ 288+50] to STA 305+00] to Road [STA 361-	as are in Sudbury, MA 2+50] to Bridge 128 [STA 288+50]); VP# 1,2 Dutton Road [STA 305+00]); VP# 3,4,5,6,7 Depatham Road [STA 335+50]); VP# 8,9 Depatham Road [STA 407+50]); VP# 10, 11 Depatham Sudbury Substation [STA 476+00]); VP# 12, 13, 13	14, 15			
Observer(s): P. Safra	n	<b>Date:</b> 15 March 2023	<i>Time:</i> 8:30am			
Weather: 39F, partly	cloudy, low	wind				
Issues Observed: ⊠No □Yes, see Table 1 below						

# Comments:

- -All sections along the project route are in good condition. No issues.
- -All silt fences near vernal pools and associated buffer zones are in good condition.
- -No construction related debris, sedimentation, erosion, or non-project related disturbances observed within the vernal pools or associated buffer zones.
- -Snowed in Sudbury the day before (3/14), no signs of species movement.
- -Environmental monitors on site that day, have not observed any species movement.

# Table 1:

List of Observed Issues and Actions to be Addressed						
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed	
N/A	No issues observed	N/A	N/A	N/A	N/A	



**Photo** #1: View of vernal pool #15 in Segment 14. Silt fence is in good condition here and throughout the project area. No sediment or debris observed within the resource area. *Facing northwest*.



**Photo** #2: View of vernal pool #11 in Segment 11. No sediment or construction debris observed within the resource area or beyond the silt fencing. Silt fence is in good condition. *Facing northwest*.



**Photo** #3: View of vernal pool #8 in Segment 9. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zones. *Facing northwest*.



**Photo #4:** View of vernal pool #4 in Segment 8. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zones. *Facing northwest*.

**Part I: Summary Sheet** 

Project Name: Eversource Sudbury- Hudson Transmission Reliability Project								
Locations Monitored: All locations are in Segment 7 (Sudbury Town Line [STA 249+50] to Br Segment 8 (Bridge 128 [STA 288+50] to Dutton Roa Segment 9 (Dutton Road [STA 305+00] to Peakham Segment 11 (Horse Pond Road [STA 361+00] to Univ Segment 14 (Bridge 127 [STA 433+50] to Sudbury S	idge 128 [STA 288+50]); VP# 1,2 d [STA 305+00]); VP# 3,4,5,6,7 Road [STA 335+50]); VP# 8,9 on Avenue [STA 407+50]); VP# 10, 11	4, 15						
Observer(s): P. Safran	<b>Date:</b> March 24, 2023	<b>Time:</b> 7:30am						
Weather: 46F, partly cloudy, low wind								
Issues Observed:								
Comments:	Comments:							
-All sections along the project route are in good -All silt fences near vernal pools and associated -No construction related debris, sedimentation, or associated buffer zones.	buffer zones are in good condition.	pances observed within the vernal pools						

List of Observed Issues and Actions to be Addressed					
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed
N/A	No issues observed	N/A	N/A	N/A	N/A



**Photo #1**: View of silt fence separating vernal pool #1 and the limit of work in Segment 7. Silt fence is in good condition. No sediment or debris observed within the resource area. *Facing southeast*.



**Photo** #2: View of vernal pool #1 in Segment 7. No sediment or debris observed within the resource area. *Facing north*.



**Photo** #3: View of construction right-of-way near vernal pool #2 in Segment 7. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zones. A monitor escorts construction vehicles through a portion of the right-of-way within vernal pool buffer zone. *Facing southeast*.



**Photo** #4: View of vernal pool #2 in Segment 7. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zones. *Facing north*.



**Photo** #5: View of construction right-of-way with vernal pool #3 on the left and vernal pool #5 on the right in Segment 8. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zones. *Facing southeast*.



**Photo** #6: View of vernal pool #9 in Segment 9. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zones. *Facing northwest*.



**Photo** #7: View of vernal pool #13 in Segment 14. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zones. *Facing west*.



**Photo** #8: View of construction right-of-way with vernal pool #13 on the right and vernal pool #14 on the left in Segment 14. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zones. *Facing west*.

**Part I: Summary Sheet** 

Project Name: Eversource Sudbury- Hudson Transmission Reliability Project							
Segment 8 (Bridge 128 [STA Segment 9 (Dutton Road [ST Segment 11 (Horse Pond Roa	ine [STA 249+50] to A 288+50] to Dutton TA 305+00] to Peakh ad [STA 361+00] to	in Sudbury, MA o Bridge 128 [STA 288+50]); VP# 1,2 Road [STA 305+00]); VP# 3,4,5,6,7 nam Road [STA 335+50]); VP# 8,9 Union Avenue [STA 407+50]); VP# 10, 1 nry Substation [STA 476+00]); VP# 12, 13,					
Observer(s): P. Safran		<b>Date:</b> March 30, 2023	<i>Time:</i> 9:30am				
Weather: 37F, sunny							
Issues Observed:   ⊠No □Yes, see Table 1 below							
Comments:							
Comments:  -All sections along the project route are in good condition. No issues.  -All silt fences near vernal pools and associated buffer zones are in good condition.  -Present during additional gravel installation within access road near vernal pool buffers in Segment 14. Permission for gravel installation within access road was given by Sudbury Conservation Agent.  -No construction related debris, sedimentation, erosion, or non-project related disturbances observed within the vernal pools or associated buffer zones.							

List of Observed Issues and Actions to be Addressed					
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed
N/A	No issues observed	N/A	N/A	N/A	N/A



**Photo** #1: View of vernal pool #6 and in Segment 8. Silt fence is in good condition. No sediment or debris observed within the resource area, buffer zone, or project area. *Facing northwest*.



**Photo #2:** View of vernal pool #10 in Segment 11. No sediment or debris observed within the resource area or associated buffer zone. Silt fencing here and throughout the project area is in good condition. *Facing southeast*.



**Photo** #3: View of vernal pool #8 in Segment 10. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zones. *Facing northwest*.



**Photo #4:** View of vernal pool #13 in Segment 14. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zones. *Facing east*.

**Part I: Summary Sheet** 

Project Name: Eversource Sudbury- Hudson Transmission Reliability Project						
Locations Monitored: All locations are in Segment 7 (Sudbury Town Line [STA 249+50] to Esegment 8 (Bridge 128 [STA 288+50] to Dutton Rosegment 9 (Dutton Road [STA 305+00] to Peakhan Segment 11 (Horse Pond Road [STA 361+00] to Ut Segment 14 (Bridge 127 [STA 433+50] to Sudbury	Bridge 128 [STA 288+50]); VP# 1,2 oad [STA 305+00]); VP# 3,4,5,6,7 in Road [STA 335+50]); VP# 8,9 nion Avenue [STA 407+50]); VP# 10, 11	1.5				
Observer(s): P. Safran	<b>Date:</b> April 6, 2023	Time:	8:30am			
Weather: 41F, overcast, low wind						
Issues Observed: $\square$ No $\square$ Yes, see Table 1 below						
Comments:						
-All sections along the project route are in goo -All silt fences near vernal pools and associate -No construction related debris, sedimentation, or associated buffer zones.	d buffer zones are in good condition.	ces obsei	rved within the vernal pools			

List of Observed Issues and Actions to be Addressed					
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed
N/A	No issues observed	N/A	N/A	N/A	N/A



**Photo** #1: View of project area near vernal pool #1 and in Segment 7. Silt fence is in good condition. No sediment or debris observed within the resource area, buffer zone, or project area. *Facing northwest*.



**Photo #2:** View of vernal pool #3 in Segment 8. No sediment or debris observed within the resource area or associated buffer zone. Silt fencing here and throughout the project area is in good condition. *Facing northwest*.



**Photo** #3: View of vernal pool #9 in Segment 10. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing northwest*.



**Photo #4:** View of vernal pool #10 in Segment 11. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing southeast*.

**Part I: Summary Sheet** 

Project Name: Eversource Sudbury- Hudson Transmission Reliability Project							
Locations Monitored: All locations are in Suc Segment 7 (Sudbury Town Line [STA 249+50] to Bridg Segment 8 (Bridge 128 [STA 288+50] to Dutton Road [Segment 9 (Dutton Road [STA 305+00] to Peakham Ros Segment 11 (Horse Pond Road [STA 361+00] to Union Segment 14 (Bridge 127 [STA 433+50] to Sudbury Subs	e 128 [STA 288+50]); VP# 1,2 STA 305+00]); VP# 3,4,5,6,7 ad [STA 335+50]); VP# 8,9 Avenue [STA 407+50]); VP# 10, 11						
Observer(s): P. Safran	Date: April 12, 2023	<i>Time:</i> 9:15am					
Weather: 63F, sunny/ partly cloudy							
Issues Observed: ⊠No □Yes, see Table 1 below							
Comments:							
-All sections along the project route are in good co-All silt fences near vernal pools and associated bu-No construction related debris, sedimentation, ero or associated buffer zonesWood frog chorus audible in Segment 14 and Seg	ffer zones are in good condition. sion, or non-project related disturbance	es observed within the vernal pools					

List of Observed Issues and Actions to be Addressed					
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed
N/A	No issues observed	N/A	N/A	N/A	N/A



**Photo #1**: View of project area near vernal pool #7 and in Segment 8. Silt fence is in good condition. No sediment or debris observed within the resource area, buffer zone, or project area.

Facing northwest.



**Photo #2:** View of vernal pool #4 in Segment 8. No sediment or debris observed within the resource area or associated buffer zone. Silt fencing here and throughout the project area is in good condition. *Facing southeast*.



**Photo** #3: View of vernal pool #11 in Segment 11. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing northwest*.



**Photo** #4: View of vernal pool #15 in Segment 14. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing east*.

**Part I: Summary Sheet** 

Project Name: Eversource Sudbury- Hudson Transmiss	ion Reliability Project
Locations Monitored: All locations are in Sudbury, MA Segment 7 (Sudbury Town Line [STA 249+50] to Bridge 128 [STA Segment 8 (Bridge 128 [STA 288+50] to Dutton Road [STA 305+00] Segment 9 (Dutton Road [STA 305+00] to Peakham Road [STA 335 Segment 11 (Horse Pond Road [STA 361+00] to Union Avenue [ST Segment 14 (Bridge 127 [STA 433+50] to Sudbury Substation [STA	288+50]); VP# 1,2 i]); VP# 3,4,5,6,7 i+50]); VP# 8,9 A 407+50]); VP# 10, 11
Observer(s): P. Safran Date:	April 18, 2023
Weather: 56F, cloudy	
Issues Observed: $\boxtimes$ No $\square$ Yes, see Tab	le 1 below
Comments:	
-All sections along the project route are in good condition. No -All silt fences near vernal pools and associated buffer zones a -No construction related debris, sedimentation, erosion, or no or associated buffer zones. -Wood frog chorus audible in Segment 14 -Pair of wood ducks observed in vernal pool #9	

List of Observed Issues and Actions to be Addressed					
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed
N/A	No issues observed	N/A	N/A	N/A	N/A



**Photo** #1: View of project area near vernal pool #5 and in Segment 8. Silt fence is in good condition. No sediment or debris observed within the resource area, buffer zone, or project area. *Facing southeast*.



**Photo #2:** View of vernal pool #9 in Segment 10. No sediment or debris observed within the resource area or associated buffer zone. Silt fencing here and throughout the project area is in good condition. Pair of wood ducks observed in the vernal pool. *Facing southeast*.



**Photo** #3: View of vernal pool #11 in Segment 11. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing southeast*.



**Photo #4:** View of vernal pool #12 in Segment 14. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing west*.

**Part I: Summary Sheet** 

Project Name: Eversource Sudbury- Hudson Transmission Reliability Project							
Locations Monitored: All locations are in Su Segment 7 (Sudbury Town Line [STA 249+50] to Brid Segment 8 (Bridge 128 [STA 288+50] to Dutton Road Segment 9 (Dutton Road [STA 305+00] to Peakham Ro Segment 11 (Horse Pond Road [STA 361+00] to Union Segment 14 (Bridge 127 [STA 433+50] to Sudbury Sul	ge 128 [STA 288+50]); VP# 1,2 [STA 305+00]); VP# 3,4,5,6,7 oad [STA 335+50]); VP# 8,9 n Avenue [STA 407+50]); VP# 10, 11	5					
Observer(s): P. Safran	Date: April 25, 2023	<i>Time:</i> 11:30am					
Weather: 57F, sunny							
Issues Observed: \( \subseteq \text{No} \)	es, see Table 1 below						
Comments:							
-All sections along the project route are in good co- All silt fences near vernal pools and associated b -No construction related debris, sedimentation, eroor associated buffer zones. -Pair of wood ducks and pair of mallard ducks obtained to the construction of the	uffer zones are in good condition. osion, or non-project related disturbance	ces observed within the vernal pools					

List of Observed Issues and Actions to be Addressed					
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed
N/A	No issues observed	N/A	N/A	N/A	N/A



**Photo** #1: View of project area near vernal pool #6 and in Segment 8. Silt fence is in good condition. No sediment or debris observed within the resource area, buffer zone, or project area. *Facing northwest*.



**Photo #2:** View of vernal pool #9 in Segment 10. No sediment or debris observed within the resource area or associated buffer zone. Silt fencing here and throughout the project area is in good condition. Pair of wood ducks and pair of mallard ducks observed in the vernal pool. *Facing northwest*.



**Photo** #3: View of vernal pool #10 in Segment 11. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing southeast*.



**Photo #4:** View of vernal pool #15 in Segment 14. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing east*.

**Part I: Summary Sheet** 

Project Name: Eversource Sudbury- H	ludson Transmission Reliability Pro	ject
Locations Monitored: All locations are Segment 7 (Sudbury Town Line [STA 249+50] Segment 8 (Bridge 128 [STA 288+50] to Dutto Segment 9 (Dutton Road [STA 305+00] to Peal Segment 11 (Horse Pond Road [STA 361+00] & Segment 14 (Bridge 127 [STA 433+50] to Sudd	to Bridge 128 [STA 288+50]); VP# 1,2 n Road [STA 305+00]); VP# 3,4,5,6,7 kham Road [STA 335+50]); VP# 8,9 to Union Avenue [STA 407+50]); VP# 10,	
Observer(s): P. Safran	Date: May 1, 2023	<i>Time:</i> 1:30pm
Weather: 60F, partly cloudy		
Issues Observed:   No	☐Yes, see Table 1 below	
Comments:		
-All sections along the project route are in -All silt fences near vernal pools and associated construction related debris, sedimenta or associated buffer zones.	iated buffer zones are in good conditio	n. turbances observed within the vernal pools

List of Observed Issues and Actions to be Addressed					
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed
N/A	No issues observed	N/A	N/A	N/A	N/A



**Photo** #1: View of project area near vernal pool #3 and in Segment 8. Silt fence is in good condition. No sediment or debris observed within the resource area, buffer zone, or project area. *Facing northwest*.



**Photo** #2: View of vernal pool #8 in Segment 10. No sediment or debris observed within the resource area or associated buffer zone. Silt fencing here and throughout the project area is in good condition. *Facing northwest*.



**Photo** #3: View of project area near vernal pool #11 in Segment 11. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing northwest*.



**Photo #4:** View of vernal pool #13 in Segment 14. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing west*.

**Part I: Summary Sheet** 

Project Name: Everso	ource Sudbury	- Hudson Transmission Reliability Proje	ect
Segment 8 (Bridge 128 [S' Segment 9 (Dutton Road [ Segment 11 (Horse Pond F	Thine [STA 249+ ΓΑ 288+50] to D STA 305+00] to D Road [STA 361+0	are in Sudbury, MA  -50] to Bridge 128 [STA 288+50]); VP# 1,2  utton Road [STA 305+00]); VP# 3,4,5,6,7  Peakham Road [STA 335+50]); VP# 8,9  00] to Union Avenue [STA 407+50]); VP# 10, 11  Sudbury Substation [STA 476+00]); VP# 12, 13,	
Observer(s): P. Safra	n	<b>Date:</b> May 8, 2023	<i>Time</i> : 3:00pm
Weather: 75F, sunny		_	
Issues Observed:	⊠No	□Yes, see Table 1 below	
Comments:			
-All silt fences near veri -No construction related or associated buffer zon	nal pools and as I debris, sedime es.	e in good condition. No issues. sociated buffer zones are in good condition. ntation, erosion, or non-project related disturble ducks observed within vernal pool #9	

List of Observed Issues and Actions to be Addressed					
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed
N/A	No issues observed	N/A	N/A	N/A	N/A



**Photo** #1: View of project area near vernal pools #6 in Segment 8. Silt fence is in good condition. No sediment or debris observed within the resource area, buffer zone, or project area. *Facing north*.



**Photo #2:** View of vernal pool #9 in Segment 10. No sediment or debris observed within the resource area or associated buffer zone. Silt fencing here and throughout the project area is in good condition. Pair of mallard ducks and wood ducks observed within vernal pool. *Facing northwest*.



**Photo** #3: View of vernal pool #11 in Segment 11. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing northwest*.



**Photo #4:** View of vernal pool #14 in Segment 14. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing west*.

**Part I: Summary Sheet** 

Project Name: Eversource Sudbury- Hudson	Transmission Reliability Project	
Locations Monitored: All locations are in Su Segment 7 (Sudbury Town Line [STA 249+50] to Bridg Segment 8 (Bridge 128 [STA 288+50] to Dutton Road   Segment 9 (Dutton Road [STA 305+00] to Peakham Ro Segment 11 (Horse Pond Road [STA 361+00] to Union Segment 14 (Bridge 127 [STA 433+50] to Sudbury Sub	ge 128 [STA 288+50]); VP# 1,2 STA 305+00]); VP# 3,4,5,6,7 and [STA 335+50]); VP# 8,9 Avenue [STA 407+50]); VP# 10, 11	15
Observer(s): P. Safran	Date: May 15, 2023	<i>Time:</i> 3:00pm
Weather: 73F, partly cloudy		
Issues Observed: \( \sum \no \) \( \sum \no \)	es, see Table 1 below	
Comments:		
-All sections along the project route are in good co- -All silt fences near vernal pools and associated bu- No construction related debris, sedimentation, ero or associated buffer zones.	affer zones are in good condition.	nces observed within the vernal pools

Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed
N/A	No issues observed	N/A	N/A	N/A	N/A



**Photo** #1: View of project area near vernal pools #5 in Segment 8. Silt fence is in good condition. No sediment or debris observed within the resource area, buffer zone, or project area. *Facing southeast*.



**Photo** #2: View of vernal pool #8 in Segment 10. No sediment or debris observed within the resource area or associated buffer zone. Silt fencing here and throughout the project area is in good condition. *Facing northwest*.



**Photo** #3: View of vernal pool #10 in Segment 11. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing northwest*.



**Photo #4:** View of vernal pool #15 in Segment 14. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing east*.

**Part I: Summary Sheet** 

Project Name: Eversource Sudbury- H	Iudson Transmission Reliability Proje	ct
Locations Monitored: All locations are Segment 7 (Sudbury Town Line [STA 249+50] Segment 8 (Bridge 128 [STA 288+50] to Dutto Segment 9 (Dutton Road [STA 305+00] to Peal Segment 11 (Horse Pond Road [STA 361+00] to Segment 14 (Bridge 127 [STA 433+50] to Sudd	to Bridge 128 [STA 288+50]); VP# 1,2 n Road [STA 305+00]); VP# 3,4,5,6,7 kham Road [STA 335+50]); VP# 8,9 to Union Avenue [STA 407+50]); VP# 10, 11	14, 15
Observer(s): P. Safran	Date: May 23, 2023	<i>Time</i> : 2:30pm
Weather: 67F, sunny		
Issues Observed: ⊠No	□Yes, see Table 1 below	
Comments:		
-All sections along the project route are in -All silt fences near vernal pools and assoc -No construction related debris, sedimental or associated buffer zones.	iated buffer zones are in good condition.	bances observed within the vernal pools

List of Observed Issues and Actions to be Addressed					
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed
N/A	No issues observed	N/A	N/A	N/A	N/A



**Photo** #1: View of project area near vernal pools #1 in Segment 7. Silt fence is in good condition. No sediment or debris observed within the resource area, buffer zone, or project area. *Facing northwest*.



**Photo #2:** View of silt fence near vernal pool #2 in Segment 7. No sediment or debris observed within the resource area or associated buffer zone. Silt fencing here and throughout the project area is in good condition. *Facing north*.



**Photo** #3: View of project area near vernal pool #11 in Segment 11. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone.

Facing northwest.

**Photo #4:** View of vernal pool #13 in Segment 14. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing east*.

#### **Part I: Summary Sheet**

Project Name: Eversource Sudbury- Hud	Ison Transmission Reliability Project		
Locations Monitored: All locations are in Segment 7 (Sudbury Town Line [STA 249+50] to Segment 8 (Bridge 128 [STA 288+50] to Dutton R Segment 9 (Dutton Road [STA 305+00] to Peakha Segment 11 (Horse Pond Road [STA 361+00] to Usegment 14 (Bridge 127 [STA 433+50] to Sudburger	Bridge 128 [STA 288+50]); VP# 1,2 Road [STA 305+00]); VP# 3,4,5,6,7 m Road [STA 335+50]); VP# 8,9 Union Avenue [STA 407+50]); VP# 10, 11	15	
Observer(s): P. Safran	<b>Date:</b> May 30, 2023	Time:_	9:00am
Weather: 59F, sunny			
Issues Observed:   No	□Yes, see Table 1 below		
Comments:			
-All sections along the project route are in good-All silt fences near vernal pools and associated-No construction related debris, sedimentation or associated buffer zones.	ed buffer zones are in good condition.	nces observ	ved within the vernal pools

List of Observed Issues and Actions to be Addressed					
Location where issue occurred (Segment and Vernal Pool ID#)	Issue Observed	Action Needed	Date of initial observation	Who was notified	Date and How Issue was Addressed
N/A	No issues observed	N/A	N/A	N/A	N/A



**Photo** #1: View of project area near vernal pools #7 in Segment 8. Silt fencing here, and throughout the project area, is in good condition. No sediment or debris observed within the resource area, buffer zone, or project area. *Facing northwest*.



**Photo** #2: View of vernal pool #8 in Segment 10. No sediment or debris observed within the resource area or associated buffer zone. Silt fence is in good condition. *Facing north*.



**Photo** #3: View of project area near vernal pool #10 in Segment 11. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone.



**Photo #4:** View of vernal pool #15 in Segment 14. Silt fence in good condition. No sediment or debris observed in the resource area or associated buffer zone. *Facing east*.