

To: Murphy Road Energy Storage Project File

Date: July 2, 2025

Project #: 58952.13



Memorandum

From: Allison L. Slaney, PWS, Environmental
Scientist and Adam R. Crary, SPWS, PWD,
Regulatory Team Leader-Renewables

Re: Distribution Line Upgrades – Section 248 Natural Resources
Assessment Supplement; Revised Wetlands Assessment

Introduction

On behalf of Murphy Road Energy Storage, LLC (“Petitioner”), and at the request of Encore Renewable Energy (“Encore”), VHB provided natural resources assessments and pre-filed testimony to the Vermont Public Utility Commission (“PUC”) (Case #: 25-1023-PET) on May 22, 2025, for the Petitioner’s proposed 5 MW battery energy storage system (“BESS”), to be located off Murphy Road in Bennington, Vermont. Pursuant to the BESS interconnection requirements, VHB documented a preliminary natural resource assessment of the associated upgrades required to the Green Mountain Power (“GMP”) existing electric distribution line (“Distribution Line Upgrades”)¹. The BESS will interconnect to the GMP NB-G73 circuit in the vicinity of Line 822 Pole 14 Tag 544229. Distribution Line Upgrades were identified by GMP to take place along Murphy Road, from the street frontage of an existing solar array, and extend northward approximately 2,400 feet to finish at North Bennington Road (Vermont Route 67A) and Murphy Road intersection. The existing line and proposed upgrades are shown on the Preliminary Natural Resources Map - Attachment 1 of MRES-AS-3.

Wetland and water resources in proximity to the proposed Line Distribution Upgrades were originally approximated by VHB in the field on January 21, 2025, under mostly snow-covered ground conditions where hydrophytes, hydrology, and hydric soil indicators could not be positively identified. As such, VHB Environmental Scientists revisited the same corridor during the 2025 growing season (“Study Area”), as shown on the Preliminary Natural Resources Map - Attachment 1 of MRES-AS-3.

The revised wetlands assessment is intended to augment and revise Exhibit MRES-AC-3, superseding the previous approximated wetland assessment. This memorandum and enclosures, update VHB’s findings with respect to the Wetlands criterion following the detailed delineation and is supported by a revised Natural Resources Map for Distribution Line Upgrades, as well as photographs and U.S. Army Corps of Engineers (“USACE”) Wetland Determination Data Forms taken during the June 2025 field investigation.

Wetlands

On June 20, 2025, VHB Environmental Scientists delineated and mapped boundaries of four wetland complexes, three of which are Categorical Class II Wetlands as they meet the following Vermont Wetland Rule (“VWR”) (ANR 2023) 4.6 Presumptions (a): threshold size greater than 0.5 acres and/or (b): contains a prevalence of woody vegetation adjacent to a stream; and provides the following significant functions: Water Storage for Flood Water and Storm Runoff (5.1), Surface and Ground Water Protection (5.2), and/or Erosion Control through Binding and Stabilizing the Soil (5.10). With the growing season detailed delineation, wetland areas have been adjusted since the January 2025 approximate mapping. VHB will request a site visit with DEC Wetland’s Program to confirm VHB mapped wetland boundaries and proposed classifications, if DEC feels it is necessary.

Four pole replacements, one new pole, one pole removal, and undergrounding of the line (UGE) was proposed in wetlands and/or within 50 feet of a potential wetland boundary in the original filing, which has been revised with respect to the updated field assessment, to now include three pole replacements, one pole removal, and UGE along the Distribution Line Upgrades (as depicted on the Natural Resources Map for Distribution Line Upgrades, revised July 2, 2025). Proposed structure replacements and pole

¹ Distribution Line Upgrades – Section 248 Natural Resources Assessment Supplement, provided as Exhibit MRES-AC-3 in the May 2025 (Case#: 25-1023-PET)

removals within Categorical Class II wetlands or buffers following *Repair and Maintenance Allowed Use Guidance* would qualify as an Allowed Use under 6.8 of the VWR. Up to three new poles would qualify as an Allowed Use under Section 6.22 of the VWR, but there are no new poles proposed within Categorical Class II wetlands or buffers. A segment of the existing overhead line corridor would be required to be UGE and will be installed by open trenching, a portion of which will be within a Class II wetland buffer off a wetland located on the opposite side of Murphy Road. The UGE segment would require a Vermont Wetland Permit ("VWP") for temporary soil disturbance through a managed (open field) Class II wetland buffer. Permit coverage under the Vermont Wetland General Permit 9-3025 will be acquired before construction to authorize wetland buffer impacts. This portion of the wetland buffer is managed, due to current land use within the GMP distribution corridor and subject to vegetation management and will not adversely impact wetland or buffer function. With adherence to Best Management Practices ("BMPs") pursuant to the above-mentioned Allowed Uses, and VWP coverage for the UGE segment, the Project will comply with the VWR and will not result in undue adverse impacts to wetlands, significant or otherwise.

Conclusion

Wetland and wetland buffer areas that are regulated pursuant to the VWR, as well as wetlands and waters under Section 404 of the federal Clean Water Act jurisdiction, are present in the vicinity of the proposed Line Distribution Upgrades. As described above, the Distribution Line Upgrades would trigger the need for permit authorization under the state VWR. The Petitioner will obtain all collateral environmental permits identified before Project construction, anticipated to include a VWP for temporary Class II wetland buffer impact associated with the UGE line segment installation in the wetland buffer.

Activities associated with the Distribution Line Upgrades within the Floodway (floodway, floodplain, river corridor, etc.) and Shoreline areas will only involve pole replacements and the results and conclusions in Exhibit MRES-AC-3 are unchanged.

Based on the findings of VHB's revised field assessment in June 2025, the Project will not result in new natural resources impacts, and no new waters², rare/threatened or endangered species, rare/irreplaceable natural areas, or NWH was otherwise observed in the Study Area. Therefore, the prior conclusion that the Distribution Line Upgrades will not have any undue adverse effects on natural resources within the scope of Section 248(b)(5) is unchanged by this updated delineation.

Attachments

1. Natural Resources Map - Distribution Line Upgrades, Revised: July 2, 2025
2. Murphy Road Storage Project Distribution Line Upgrades – Representative Wetland Photographs
3. Wetland Determination Data Forms

References

Agency of Natural Resources. 2023. *Vermont Wetlands Rules*. Department of Environmental Conservation. Effective February 10, 2023.

² Outstanding Resource Waters, headwaters, floodways, streams, waterbodies, shorelines

Attachment 1

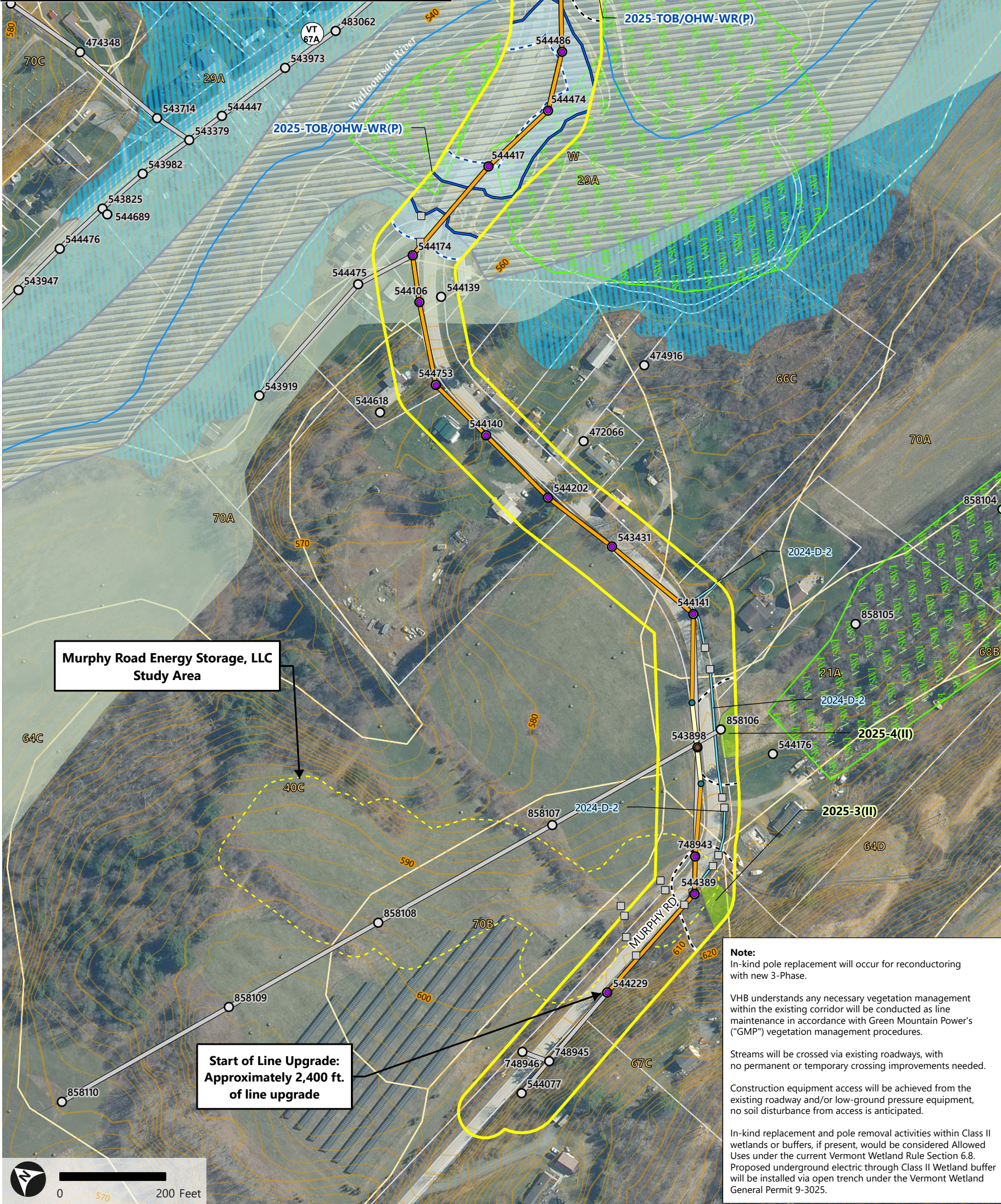
Natural Resources Map - Distribution Line Upgrades

Murphy Road Energy Storage System Project | Bennington, Vermont



Revised: July 02, 2025

NRCS Soil Information				
Soil Abbreviation	Soil Map Unit	Vermont Farmland Classification	Erodibility Ranking	Area (Acres)
40C	Galway-Nellis-Farmington complex, 8 to 15 percent slopes, rocky	Statewide	highly erodible	2.4
66C	Georgia loam, 8 to 15 percent slopes	Statewide	highly erodible	0.7
67C	Georgia loam, 8 to 15 percent slopes, very stony	NPSL	highly erodible	2.5
70A	Groton gravelly fine sandy loam, 0 to 3 percent slopes	Statewide	not highly erodible	0.3
70B	Groton gravelly fine sandy loam, 3 to 8 percent slopes	Statewide	potentially highly erodible	0.03
21A	Limerick silt loam, 0 to 3 percent slopes	Statewide (b)	not highly erodible	0.9
29A	Occum fine sandy loam, 0 to 3 percent slopes	Prime (f)	not highly erodible	2.3
64D	Stockbridge loam, 15 to 25 percent slopes	NPSL	highly erodible	0.1
27B	Udips amments and Udorthents, gently sloping	NPSL	not rated	0.4



- Study Area (VHB) (1)

Proposed New Pole (Approx.) (VHB) (2)

Proposed Replacement Pole (Approx.) (VHB) (14)

Existing Pole to be Removed (Approx.) (VHB) (1)

Proposed New Underground (Approx.) (VHB) (1)

Proposed Reconductoring (VHB/GMP) (2)

Existing Utility Pole - GMP (VCGI) (56)

Existing Overhead Electric - GMP (VCGI) (2)

Found Culvert (VHB) (16)

Ditch (VHB) (1)

Delineated Water (VHB) (3)

Delineated Wetland (VHB) (4)

USACE Data Points (VHB) (2)

Riparian Buffer (VHB) (1)

Class II Wetland Buffer (VHB) (3)

Stream (ANR)* (3)

Waterbody (ANR) (1)

VSWI Wetland (ANR) (3)

River Corridor (ANR) (3)

FEMA Flood Zone (FEMA)

1% Annual Chance Flood Hazard(3)

Regulatory Floodway(1)

Public Water Source (ANR) (0)

Ground Water SPA (ANR) (0)

Surface Water SPA (ANR) (0)

Deer Wintering Areas (ANR) (0)

Uncommon Species (ANR) (0)

Rare, Threatened, Endangered Species (ANR) (0)

Natural Communities (ANR) (0)

AE/VCE Confirmed Vernal Pools (0)

NRCS Soil Boundary (VCGI)

Town Boundary (VCGI)

Parcel Boundary (VCGI)
- A VHB Environmental Scientist conducted a field reconnaissance on January 21, 2025 and wetland and water delineation on June 19, 2025. Mapped wetland/waters boundaries and classifications are subject to review by DEC District Wetlands Ecologist.
- Sources: Background Imagery by VCGI (Collected in 2024), VCGI (Vermont Center for Geographic Information - Various Dates); ANR (Vermont Agency of Natural Resources - Various Dates), FEMA (Federal Emergency Management Agency - Various Dates), VTtrans (Vermont Agency of Transportation - Various Dates), VHB (2024, 2025);
-
- Path: \\vhb.com\gis\proj\SBurlington\58952.13 Encore Murphy Rd VT BESS\Project\ER_MurphyRd_IX_NR_Map.aprx (User: ACoplin, Date: 7/2/2025)

Attachment 2



© VHB

Murphy Road Energy Storage Project Distribution Line Upgrades – Representative Wetland Photographs

PROJECT NUMBER

58952.13

CLIENT

Murphy Road Energy Storage, LLC
50 Lakeside Avenue
Burlington, VT 05401

LOCATION

Murphy Road
Bennington, VT 05201



NO. 1 / 6.20.2025

DESCRIPTION

A representative photograph of a small depression proposed Class III Wetland 2025-100, adjacent to existing GMP ROW and VT Route 67A.



NO. 2 / 6.20.2025

DESCRIPTION

A representative photograph of Palustrine Forested (PFO) Categorical Class II Wetland 2025-1, upstream of the Paper Mill Village Bridge and GMP utility ROW.

NO. 3 / 6.20.2025

DESCRIPTION

A representative photograph of PFO Categorical Class II Wetland 2025-3. The wetland occurs in a forest fragment on the south side of Murphy Road, opposite from the BESS Project access road.



NO. 4 / 6.20.2025

DESCRIPTION

A representative photograph of Palustrine Emergent Wetland (PEM) Categorical Class II Wetland 2025-4. View looking north toward existing utility pole number 858106 and Murphy Road





NO. 5 / 6.20.2025

DESCRIPTION

A representative photograph of the Walloomsac River in the Study Area, photograph taken approximately 15 feet south of the covered Paper Mill Village Bridge near Murphy Road and VT Route 67A intersection.

Attachment 3



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

2025-1-up

Project Site:	MRESP - Distribution Line Upgrades	City/County:	Bennington	Samp. Date:	6/2/2025
Applicant/Owner:	Encore Renewable Energy	State:	VT	Sampling Point:	2025-1-up
Investigator(s):	VHB (AP)	Section, Township, Range:	Bennington		
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave, convex, none):	None	Slope (%):	0-3
Subregion (LRR or MLRA):	LRR R	Lat:	42.912369	Long:	-73.235023
Soil Map Unit:	Occum fine sandy loam	Datum:	NAD 83	NWI Class:	UPL
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)					
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes					
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)					

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	NO	Is This Sample Area Within a Wetland?	NO
Hydric Soil Present?	NO		
Wetland Hydrology Present?	NO		
Remarks: Data collected approximately 20 feet north of Wetland 2025-1; in existing ROW			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B13)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Depth (inches):	Wetland Hydrology Present?	NO
Water Table Present?	Depth (inches):		
Saturation Present?	Depth (inches):		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: No hydrology indicators observed			

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redox Features				Texture	Remarks
(in)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	2.5Y 3/2	100	-	-	-	-	LOAM	
6-16	2.5Y 4/3	100	-	-	-	-	SANDY LOAM	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.								
² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :						
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)						
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)						
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)						
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S9) (LRR K, L, M)						
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)						
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)						
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)						
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)						
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)						
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)						
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)						
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)						
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Restrictive Layer (if observed):		Hydric Soil Present?						
Type: _____		NO						
Depth (inches): _____								
Remarks: No hydric soil indicators observed								

Tree Stratum	(Plot size: 30' RAD)	Absolute % Cover	Dom. Sp?	Indicator Status
1. Acer saccharum		10	X	FACU
2. Fraxinus americana		10	X	FACU
3. Acer negundo		2		FAC
4. _____				
5. _____				
6. _____				
7. _____				
		22	= Total Cover	

Sapling Stratum	(Plot size: 15' RAD)	Absolute % Cover	Dom. Sp?	Indicator Status
1. Acer negundo		10	X	FAC
2. Rhamnus cathartica		10	X	FAC
3. Ulmus americana		5		FACW
4. Fraxinus americana		2		FACU
5. _____				
6. _____				
7. _____				
		27	= Total Cover	

Shrub Stratum	(Plot size: 15' RAD)	Absolute % Cover	Dom. Sp?	Indicator Status
1. Lonicera morrowii		5	X	FACU
2. Rosa multiflora		5	X	FACU
3. Cornus amomum		5	X	FACW
4. _____				
5. _____				
6. _____				
7. _____				
		15	= Total Cover	

Herb Stratum	(Plot size: 5' RAD)	Absolute % Cover	Dom. Sp?	Indicator Status
1. Solidago canadensis		70	X	FACU
2. Securigera varia		30	X	FACU
3. Asclepias syriaca		15		UPL
4. Parthenocissus quinquefolia		5		FACU
5. Erigeron pulchellus		5		FACU
6. Lysimachia ciliata		2		FACW
7. Carex tenera		2		FAC
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
		129	= Total Cover	

Woody Vines	(Plot size: 15' RAD)	Absolute % Cover	Dom. Sp?	Indicator Status
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
			= Total Cover	

Dominance Test Worksheet:	
# Dominants OBL, FACW, FAC:	3 (A)
# Dominants across all strata:	9 (B)
% Dominants OBL, FACW, FAC:	33% (A/B)

Prevalence Index Worksheet:	
Total % Cover of:	Multiply By:
OBL _____ x 1 =	_____
FACW 12 x 2 =	24
FAC 24 x 3 =	72
FACU 142 x 4 =	568
UPL 15 x 5 =	75
Sum: 193 (A)	739 (B)
Prevalence Index = B/A =	3.83

Hydrophytic Vegetation Indicators:	
_____	Dominance Test is > 50%
_____	Prevalence Index is <= 3.0
_____	Problematic Hydrophytic Vegetation ¹ (explain)
_____	Rapid Test for Hydrophytic Vegetation
_____	Morphological Adaptations
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	

Definitions of Vegetation Strata:	
Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).	
Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.	
Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.	
Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.	
Woody vine - All woody vines, regardless of height.	

Hydrophytic Vegetation	
Present?	NO

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

2025-1-wet

Project Site:	MRESP - Distribution Line Upgrades		City/County:	Bennington		Samp. Date:	6/2/2025	
Applicant/Owner:	Encore Renewable Energy		State:	VT		Sampling Point:	2025-1-wet	
Investigator(s):	VHB (WD)		Section, Township, Range:	Bennington				
Landform (hillslope, terrace, etc.):	Flat		Local relief (concave, convex, none):	None		Slope (%):	0-4	
Subregion (LRR or MLRA):	LRR R		Lat:	42.912566		Long:	-73.233193	
Soil Map Unit:	Occum fine sandy loam		Datum:	NAD 83		NWI Class:	PFO	
Are climatic/hydrologic conditions on the site typical for this time of year?								
Yes								
(If no, explain in Remarks.)								
Are Vegetation, Soil, or Hydrology significantly disturbed?								
No								
Normal Circumstances?								
Yes								
Are Vegetation, Soil, or Hydrology naturally problematic?								
No								
(If needed, explain any answers in Remarks.)								

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	YES	Is This Sample Area Within a Wetland?	YES
Hydric Soil Present?	YES		
Wetland Hydrology Present?	YES		
Remarks:			
Data point collected in Wetland 2025-1, adjacent to Walloomsac River			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B13)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Depth (inches):	Wetland Hydrology Present?	
Water Table Present?	Depth (inches):		
Saturation Present?	Depth (inches):		
	X	10	YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redox Features						
(in)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-4	10YR 3/2	100	-	-	-	-	SANDY LOAM		
4-12	10YR 3/2	90	2.5Y 4/2	10	c	m	SANDY LOAM		
12-18	10YR 3/2	65	2.5Y 4/2	30		PL	SANDY LOAM		
			10YR 4/6	5					
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:									
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)			<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)			
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)			<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)			
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)			<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Dark Surface (S9) (LRR K, L, M)			
<input type="checkbox"/> Stratified Layers (A5)			<input checked="" type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Redox Dark Surface (F6)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)			
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)			
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)							<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
<input type="checkbox"/> Sandy Redox (S5)							<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Stripped Matrix (S6)							<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)							<input type="checkbox"/> Other (Explain in Remarks)		
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.									
Restrictive Layer (if observed):							Hydric Soil Present?		
Type: _____									
Depth (inches): _____							YES		
Remarks:									

				Absolute % Cover		Dom. Sp?		Indicator Status	
Tree Stratum (Plot size: 30' RAD)									
1. Acer negundo				40		X		FAC	
2. Salix alba				30		X		FACW	
3.									
4.									
5.									
6.									
7.									
				70		= Total Cover			
Sapling Stratum (Plot size: 15' RAD)									
1. Cornus amomum				20		X		FACW	
2.									
3.									
4.									
5.									
6.									
7.									
				20		= Total Cover			
Shrub Stratum (Plot size: 15' RAD)									
1. Lonicera morrowii				50		X		FACU	
2. Salix alba				30		X		FACW	
3.									
4.									
5.									
6.									
7.									
				80		= Total Cover			
Herb Stratum (Plot size: 5' RAD)									
1. Onoclea sensibilis				30		X		FACW	
2. Maianthemum stellatum				30		X		FAC	
3. Lysimachia nummularia				20				FACW	
4. Equisetum arvense				15				FAC	
5. Solidago gigantea				10				FACW	
6. Eutrochium maculatum				5				OBL	
7. Symphyotrichum puniceum				5				OBL	
8. Geum canadense				2				FAC	
9. Thalictrum pubescens				2				FACW	
10.									
11.									
12.									
				117		= Total Cover			
Woody Vines (Plot size: 15' RAD)									
1.									
2.									
3.									
4.									
5.									
						= Total Cover			
Remarks: (If observed, list morphological adaptations below).									

Dominance Test Worksheet:			
# Dominants OBL, FACW, FAC:	6	(A)	
# Dominants across all strata:	7	(B)	
% Dominants OBL, FACW, FAC:	86%	(A/B)	
Prevalence Index Worksheet:			
Total % Cover of:		Multiply By:	
OBL	10	x 1 =	10
FACW	142	x 2 =	284
FAC	85	x 3 =	255
FACU	50	x 4 =	200
UPL		x 5 =	
Sum:	287	(A)	749 (B)
Prevalence Index	= B/A =	2.61	
Hydrophytic Vegetation Indicators:			
X	Dominance Test is > 50%		
X	Prevalence Index is <= 3.0		
	Problematic Hydrophytic Vegetation ¹ (explain)		
	Rapid Test for Hydrophytic Vegetation		
	Morphological Adaptations		
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Definitions of Vegetation Strata:			
Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).			
Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.			
Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.			
Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.			
Woody vine - All woody vines, regardless of height.			
Hydrophytic Vegetation		Present?	
		YES	