SOIL

Sampling Point: 66-W011-4W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/2	95	7.5YR 5/6	5	C	PL,M	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/07/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W011-5U
Investigator(s): JB, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94305367 Long: -75.73147017 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes No X
Wetland Hydrology Present? Yes No X

Is the Sampled Area within a Wetland? Yes No X
If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):
Water Table Present? Yes No X Depth (inches):
Saturation Present? (includes capillary fringe) Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W011-5U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharum* / Sugar maple	80	Yes	FACU
2. *Tilia americana* / American basswood	10	No	FACU
3.			
4.			
5.			
6.			
7.			
	90	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Acer saccharum* / Sugar maple	15	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	

Herb Stratum (Plot size: 5 Feet)			
1. *Fraxinus pennsylvanica* / Green ash	15	Yes	FACW
2. *Onoclea sensibilis* / Sensitive fern	5	Yes	FACW
3. *Solidago rugosa* / Wrinkle-leaf goldenrod	5	Yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	25	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	5	x 3 =	15
FACU species	105	x 4 =	420
UPL species	0	x 5 =	0
Column Totals:	130 (A)		475 (B)

Prevalence Index = B/A = 3.65

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W011-5U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/07/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W011-5W
Investigator(s): JB, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94307117 Long: -75.73141633 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 66-W011-5W PEM
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 6
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W011-5W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica* / Green ash	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Leersia oryzoides* / Rice cutgrass	60	Yes	OBL
2. *Onoclea sensibilis* / Sensitive fern	20	No	FACW
3. *Impatiens capensis* / Spotted jewelweed	10	No	FACW
4. *Carex crinita* / Fringed sedge	10	No	OBL
5. *Symphyotrichum prenanthoides* / Crooked-stem american-as	5	No	FAC
6. *Euthamia graminifolia* / Flat-top goldentop	5	No	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	110	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	40	x 2 =	80
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	120 (A)		180 (B)

Prevalence Index = B/A = 1.5

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W011-5W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	90	10YR 4/6	10	C	M,PL	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/07/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W011-6U
Investigator(s): JB, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 3-8
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93818767 Long: -75.72573633 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID: ___
Wetland Hydrology Present?	Yes ___	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W011-6U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharum* / Sugar maple	80	Yes	FACU
2. *Prunus serotina* / Black cherry	10	No	FACU
3. *Fraxinus pennsylvanica* / Green ash	5	No	FACW
4.			
5.			
6.			
7.			
	95	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Lonicera morrowii* / Morrow's honeysuckle	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Dryopteris* / Woodfern	15	Yes	NI
2. *Athyrium angustum* / Northern lady fern	15	Yes	FAC
3. *Fraxinus pennsylvanica* / Green ash	5	No	FACW
4. *Solidago rugosa* / Wrinkle-leaf goldenrod	5	No	FAC
5. *Fragaria* / Strawberry	3	No	NI
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	43	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	10	x 2 =	20	
FAC species	20	x 3 =	60	
FACU species	95	x 4 =	380	
UPL species	18	x 5 =	90	
Column Totals:	143	(A)	550	(B)

Prevalence Index = B/A = 3.85

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W011-6U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 6 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/07/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W011-6W
Investigator(s): JB, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): concave Slope (%): 0-3
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93824717 Long: -75.72567617 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PSS1/EM1Bd, PSS1/EM1E
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ___
Hydric Soil Present? Yes X No ___
Wetland Hydrology Present? Yes X No ___

Is the Sampled Area within a Wetland? Yes X No ___
If yes, optional Wetland Site ID: 66-W011-6W PFO

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 1
Water Table Present? Yes X No ___ Depth (inches): 0
Saturation Present? Yes X No ___ Depth (inches): 0
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W011-6W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica* / Green ash	40	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	40	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Viburnum lentago* / Nanny-berry	15	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	

Herb Stratum (Plot size: 5 Feet)			
1. *Onoclea sensibilis* / Sensitive fern	40	Yes	FACW
2. *Solidago rugosa* / Wrinkle-leaf goldenrod	30	Yes	FAC
3. *Leersia oryzoides* / Rice cutgrass	20	No	OBL
4. *Symphyotrichum prenanthoides* / Crooked-stem american-as	20	No	FAC
5. *Myosotis scorpioides* / Forget me not, Water forget-me-not	15	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	125	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	80	x 2 =	160
FAC species	65	x 3 =	195
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	180 (A)		390 (B)

Prevalence Index = B/A = 2.17

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W011-6W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 4/2	98	10YR 3/4	2	C	M,PL	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Gravel refusal at 14 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/10/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W011-7U
Investigator(s): RF, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9377125 Long: -75.72624033 Datum: WGS 1984
Soil Map Unit Name: Volusia channery silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID: ___
Wetland Hydrology Present?	Yes ___	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W011-7U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Trifolium pratense* / Red clover	15	Yes	FACU
2. *Plantago lanceolata* / Ribwort, English plantain	15	Yes	FACU
3. *Phleum pratense* / Common timothy, Cultivated timothy	10	Yes	FACU
4. *Daucus carota* / Carrot, Carrot, Queen anne's lace	5	No	UPL
5. *Rosa multiflora* / Multiflora rose, Multiflora rosa	5	No	FACU
6. *Achillea millefolium* / Yarrow	5	No	FACU
7. *Leucanthemum vulgare* / Oxe eye daisy, Ox-eye daisy	5	No	UPL
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	10	x 5 =	50
Column Totals:	60 (A)		250 (B)

Prevalence Index = B/A = 4.17

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W011-7U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 6 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/10/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W011-7W
Investigator(s): RF AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 5-10
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.937652 Long: -75.72629467 Datum: WGS 1984
Soil Map Unit Name: Volusia channery silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: 66-W011-7W PEM

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: 66-W011-7W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Scirpus atrovirens* / Green bulrush	20	Yes	OBL
2. *Ranunculus acris* / Acrid buttercup	10	Yes	FAC
3. *Onoclea sensibilis* / Sensitive fern	10	Yes	FACW
4. *Juncus effusus* / Common bog rush, Soft or lamp rush	10	Yes	OBL
5. *Carex lurida* / Shallow sedge	10	Yes	OBL
6. *Achillea millefolium* / Yarrow	5	No	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	65	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	10	x 2 =	20
FAC species	10	x 3 =	30
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	65 (A)		110 (B)

Prevalence Index = B/A = 1.69

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 66-W011-7W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 4/2	90	5YR 3/4	10	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Rock refusal at 9 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/06/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W012-1U
Investigator(s): JB, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94276067 Long: -75.73276833 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___	No X	

Remarks: (Explain alternative procedures here or in a separate report.)
Hillslope dominated by beech and sugar maple.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W012-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharum* / Sugar maple	35	Yes	FACU
2. *Populus tremuloides* / Quaking aspen	20	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	55	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Fagus grandifolia* / American beech	20	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	

Herb Stratum (Plot size: 5 Feet)			
1. *Fraxinus pennsylvanica* / Green ash	10	Yes	FACW
2. *Lonicera morrowii* / Morrow's honeysuckle	10	Yes	FACU
3. *Rubus allegheniensis* / Allegheny blackberry	5	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	25	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.7 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W012-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2	100					Silt Loam	
3-13	10YR 4/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 13 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/06/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W012-1W
Investigator(s): JB, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillside seep Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.942795 Long: -75.7327295 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 66-W012-1W PEM
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Emergent wetland originates as seep with groundwater discharge in wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W012-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Solidago gigantea* / Smooth goldenrod	35	Yes	FACW
2. *Onoclea sensibilis* / Sensitive fern	30	Yes	FACW
3. *Carex crinita* / Fringed sedge	10	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	65	x 2 =	130
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		140 (B)

Prevalence Index = B/A = 1.87

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W012-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	95	10YR 5/4	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/06/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W013-1U
Investigator(s): JB, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94182067 Long: -75.73259933 Datum: WGS 1984
Soil Map Unit Name: Volusia channery silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____
Wetland Hydrology Present?	Yes ____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)
Hillslope where seep is not present

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W013-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Malus* / Apple	25	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)			
1. *Solidago canadensis* / Canada goldenrod	30	Yes	FACU
2. *Lonicera morrowii* / Morrow's honeysuckle	15	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	45	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	45	x 4 =	180
UPL species	25	x 5 =	125
Column Totals:	70 (A)		305 (B)

Prevalence Index = B/A = 4.36

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W013-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/2	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 12 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/06/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W013-1W
Investigator(s): JB, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillside seep Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94173983 Long: -75.73252367 Datum: WGS 1984
Soil Map Unit Name: Volusia channery silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: 66-W013-1W PEM

Remarks: (Explain alternative procedures here or in a separate report.)
Hillside seep within mowed portion of field, with cattail present and saturated soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes X No ____ Depth (inches): 8
Saturation Present? Yes X No ____ Depth (inches): 0
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W013-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Salix* / Willow	10	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Onoclea sensibilis* / Sensitive fern	20	Yes	FACW
2. *Symphyotrichum* / Aster	10	Yes	FACW
3. *Carex vulpinoidea* / Fox sedge, Brown fox sedge	10	Yes	OBL
4. *Cornus amomum* / Silky dogwood	10	Yes	FACW
5. *Carex* / Sedge	10	Yes	NI
6. *Typha angustifolia* / Narrow leaf cattail, Narrow-leaved cattai	10	Yes	OBL
7. *Equisetum* / Horsetail	5	No	NI
8. *Carex scoparia* / Pointed broom sedge	5	No	FACW
9. *Solidago gigantea* / Smooth goldenrod	5	No	FACW
10. *Scirpus atrovirens* / Green bulrush	5	No	OBL
11.			
12.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 71.4 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	50	x 2 =	100
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	25	x 5 =	125
Column Totals:	100 (A)		250 (B)

Prevalence Index = B/A = 2.5

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W013-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	95	7.5YR 3/4	5	C	PL	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Gravel refusal at 8 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/07/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W014-1U
Investigator(s): JB, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Foot of slope Local relief (concave, convex, none): convex Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94042467 Long: -75.72164067 Datum: WGS 1984
Soil Map Unit Name: Volusia channery silt loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____
Wetland Hydrology Present?	Yes ____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W014-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Prunus serotina* / Black cherry	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Lonicera morrowii* / Morrow's honeysuckle	15	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Solidago rugosa* / Wrinkle-leaf goldenrod	50	Yes	FAC
2. *Euthamia graminifolia* / Flat-top goldentop	25	Yes	FAC
3. *Galium aparine* / Cleavers, Goose grass	20	No	FACU
4. *Phleum pratense* / Common timothy, Cultivated timothy	10	No	FACU
5. *Centaurea jacea* / Brownray knapweed	10	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	115	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	75	x 3 =	225
FACU species	65	x 4 =	260
UPL species	0	x 5 =	0
Column Totals:	140 (A)		485 (B)

Prevalence Index = B/A = 3.46

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W014-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/2	95	5YR 4/6	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Gravel refusal at 13 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/07/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W014-1W
Investigator(s): JB, AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Swale Local relief (concave, convex, none): concave Slope (%): 0-3
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94044433 Long: -75.72162533 Datum: WGS 1984
Soil Map Unit Name: Volusia channery silt loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 66-W014-1W PSS
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 5
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: 66-W014-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Salix* / Willow	20	Yes	NI
2. *Lonicera morrowii* / Morrow's honeysuckle	20	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	40	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Phalaris arundinacea* / Reed canary grass	90	Yes	FACW
2. *Onoclea sensibilis* / Sensitive fern	10	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	20	x 5 =	100
Column Totals:	140 (A)		380 (B)

Prevalence Index = B/A = 2.71

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

X 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W014-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/2	100					Silty Clay	
4-18	10YR 4/1	90	7.5YR 5/6	10	C	PL	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/19/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W015-1U
Investigator(s): JB GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): hill slope Local relief (concave, convex, none): concave Slope (%): 2-7
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9440361 Long: -75.7698936 Datum: WGS 1984
Soil Map Unit Name: Lima silt loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____
Wetland Hydrology Present?	Yes ____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland data point taken in active agriculture field.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W015-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Prunus serotina* / Black cherry	15	Yes	FACU
2. *Malus* / Apple	15	Yes	NI
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Lonicera morrowii* / Morrow's honeysuckle	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Solidago canadensis* / Canada goldenrod	25	Yes	FACU
2. *Pastinaca sativa* / Wild parsnip	10	Yes	NI
3. *Rubus allegheniensis* / Allegheny blackberry	5	No	FACU
4. *Galium aparine* / Cleavers, Goose grass	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	45	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	60	x 4 =	240
UPL species	25	x 5 =	125
Column Totals:	85 (A)		365 (B)

Prevalence Index = B/A = 4.29

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W015-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	2.5Y 4/3	98	7.5YR 4/6	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/19/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W015-1W
Investigator(s): JB Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillside seep Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9439951 Long: -75.7699029 Datum: WGS 1984
Soil Map Unit Name: Lima silt loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 66-W015-1W PEM
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
PEM portion of wetland occurs in active agriculture field planted with corn. Corn growth is significantly stunted in this area. Obligate wetland plants growing within transition zone between wooded area and agriculture field.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- X Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W015-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Eutrochium maculatum* / Spotted trumpetweed	10	Yes	OBL
2. *Euthamia graminifolia* / Flat-top goldentop	10	Yes	FAC
3. *Typha angustifolia* / Narrow leaf cattail, Narrow-leaved cattai	5	No	OBL
4. *Echinochloa crus-galli* / Barnyard grass	5	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	30	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	30 (A)		60 (B)

Prevalence Index = B/A = 2.0

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W015-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	95	7.5YR 4/4	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/19/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W015-2U
Investigator(s): JB GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): hill slope Local relief (concave, convex, none): convex Slope (%): 2-7
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.944002 Long: -75.770046 Datum: WGS 1984
Soil Map Unit Name: Appleton loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes No X
Wetland Hydrology Present? Yes No X

Is the Sampled Area within a Wetland? Yes No X
If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Upland scrub shrub

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):
Water Table Present? Yes No X Depth (inches):
Saturation Present? Yes No X Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W015-2U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Rhamnus cathartica* / European buckthorn	15	Yes	FAC
2. *Fraxinus americana* / White ash	10	Yes	FACU
3. *Prunus serotina* / Black cherry	10	Yes	FACU
4.			
5.			
6.			
7.			
	35	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Symphyotrichum prenanthoides* / Crooked-stem american-as	10	Yes	FAC
2. *Euthamia graminifolia* / Flat-top goldentop	10	Yes	FAC
3. *Geum canadense* / White avens	10	Yes	FAC
4. *Arctium minus* / Common burdock	10	Yes	FACU
5. *Solidago gigantea* / Smooth goldenrod	10	Yes	FACW
6. *Fragaria vesca* / Wild strawberry, Wood strawberry	5	No	UPL
7. *Rubus allegheniensis* / Allegheny blackberry	5	No	FACU
8.			
9.			
10.			
11.			
12.			
	60	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 62.5 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	45	x 3 =	135
FACU species	35	x 4 =	140
UPL species	5	x 5 =	25
Column Totals:	95 (A)		320 (B)

Prevalence Index = B/A = 3.37

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W015-2U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					Clay Loam	
6-18	10YR 4/4	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/19/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W015-2W
Investigator(s): JB GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillside seep Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.943926 Long: -75.770059 Datum: WGS 1984
Soil Map Unit Name: Appleton loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 66-W015-2W PSS
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 10
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W015-2W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Lonicera morrowii* / Morrow's honeysuckle	20	Yes	FACU
2. *Salix* / Willow	15	Yes	NI
3.			
4.			
5.			
6.			
7.			
	35	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Onoclea sensibilis* / Sensitive fern	35	Yes	FACW
2. *Eutrochium maculatum* / Spotted trumpetweed	25	Yes	OBL
3. *Solidago gigantea* / Smooth goldenrod	10	No	FACW
4. *Solidago rugosa* / Wrinkle-leaf goldenrod	5	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	45	x 2 =	90
FAC species	5	x 3 =	15
FACU species	20	x 4 =	80
UPL species	15	x 5 =	75
Column Totals:	110 (A)		285 (B)

Prevalence Index = B/A = 2.59

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W015-2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					Silt Loam	
12-18	2.5Y 4/2	90	5Y 5/4	10	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/19/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W016-1U
Investigator(s): RF RN JB GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 5-10
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9402 Long: -75.7659265 Datum: WGS 1984
Soil Map Unit Name: Alluvial land NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X
If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W016-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Malus* / Apple	5	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)			
1. *Plantago major* / Common plantain	35	Yes	FACU
2. *Cirsium arvense* / Canada thistle	30	Yes	FACU
3. *Phleum pratense* / Common timothy, Cultivated timothy	15	No	FACU
4. *Trifolium pratense* / Red clover	15	No	FACU
5. *Trifolium repens* / White clover	15	No	FACU
6. *Taraxacum officinale* / Red seeded dandelion, Common dan	5	No	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	115	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	115	x 4 =	460
UPL species	5	x 5 =	25
Column Totals:	120 (A)		485 (B)

Prevalence Index = B/A = 4.04

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W016-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 3/2	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 6"

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/19/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W016-1W
Investigator(s): JB, GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.940131 Long: -75.765907 Datum: WGS 1984
Soil Map Unit Name: Alluvial land NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: 66-W016-1W

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 2
Water Table Present? Yes X No ____ Depth (inches): 0
Saturation Present? Yes X No ____ Depth (inches): 0
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W016-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Polygonum hydropiperoides* / Mild water pepper	10	Yes	NI
2. *Myosotis scorpioides* / Forget me not, Water forget-me-not	10	Yes	OBL
3. *Leersia oryzoides* / Rice cutgrass	10	Yes	OBL
4. *Veronica anagallis-aquatica* / Water speedwell	10	Yes	OBL
5. *Mentha arvensis* / American wild mint, Field mint	10	Yes	FACW
6. *Rumex crispus* / Curly dock	2	No	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	52	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	10	x 2 =	20
FAC species	2	x 3 =	6
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	52 (A)		106 (B)

Prevalence Index = B/A = 2.04

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W016-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	95	7.5YR 4/4	5	C	PL	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 09/22/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W016-2U
Investigator(s): RN AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94088983 Long: -75.7655375 Datum: WGS 1984
Soil Map Unit Name: Lyons silt loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes ___	No X	**within a Wetland?**	Yes ___	No X
Wetland Hydrology Present?	Yes ___	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No X	Depth (inches):	
Water Table Present?	Yes ___ No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W016-2U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Phleum pratense* / Common timothy, Cultivated timothy	40	Yes	FACU
2. *Cirsium arvense* / Canada thistle	20	Yes	FACU
3. *Mentha* / Mint	20	Yes	NI
4. *Taraxacum officinale* / Red seeded dandelion, Common dan	15	No	FACU
5. *Plantago major* / Common plantain	5	No	FACU
6. *Trifolium pratense* / Red clover	5	No	FACU
7. *Trifolium repens* / White clover	5	No	FACU
8.			
9.			
10.			
11.			
12.			
	110	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	20	x 5 =	100
Column Totals:	110 (A)		460 (B)

Prevalence Index = B/A = 4.18

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W016-2U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/2	100					Slty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 12 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 09/22/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W016-2W
Investigator(s): RN AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Bowl-shaped depression Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94091717 Long: -75.7655745 Datum: WGS 1984
Soil Map Unit Name: Lyons silt loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 66-W016-2W PEM
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W016-2W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Scirpus atrovirens* / Green bulrush	50	Yes	OBL
2. *Ranunculus acris* / Acrid buttercup	20	Yes	FAC
3. *Myosotis scorpioides* / Forget me not, Water forget-me-not	20	Yes	OBL
4. *Juncus effusus* / Common bog rush, Soft or lamp rush	15	No	OBL
5. *Carex lurida* / Shallow sedge	5	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		150 (B)

Prevalence Index = B/A = 1.36

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W016-2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	98	7.5YR 4/4	2		PL	Clay Loam	
8-12	10YR 4/1	60	7.5YR 4/4	10	C	PL,M	Clay Loam	
8-12	10YR 5/3	30					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Gravel refusal at 12 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 09/22/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W016-3U
Investigator(s): RN AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.941184 Long: -75.76555117 Datum: WGS 1984
Soil Map Unit Name: Lyons silt loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X
If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W016-3U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Taraxacum officinale* / Red seeded dandelion, Common dan	30	Yes	FACU
2. *Fragaria vesca* / Wild strawberry, Wood strawberry	10	Yes	UPL
3. *Trifolium pratense* / Red clover	10	Yes	FACU
4. *Galium* / Bedstraw	10	Yes	NI
5. *Prunella* / Selfheal	10	Yes	NI
6. *Trifolium repens* / White clover	10	Yes	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	30	x 5 =	150
Column Totals:	80 (A)		350 (B)

Prevalence Index = B/A = 4.38

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W016-3U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/3	100					Slty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 10 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 09/22/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W016-3W
Investigator(s): RN AT Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Bowl shaped depression Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9411805 Long: -75.765553 Datum: WGS 1984
Soil Map Unit Name: Honeoye silt loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: 66-W016-3W POW

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 36
Water Table Present? Yes X No ____ Depth (inches): 0
Saturation Present? Yes X No ____ Depth (inches): 0
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W016-3W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Typha angustifolia* / Narrow leaf cattail, Narrow-leaved cattai	10	Yes	OBL
2. *Typha latifolia* / Broadleaf cattail, Broad-leaved cattail	10	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	20	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	20 (A)		20 (B)

Prevalence Index = B/A = 1.0

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W016-3W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
								Water too deep, no soil obtained

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Due to water depth, no soil sample was obtained

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/19/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W017-1U
Investigator(s): RN RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 5-10
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9399775 Long: -75.76804617 Datum: WGS 1984
Soil Map Unit Name: Lima silt loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____
Wetland Hydrology Present?	Yes ____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W017-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Zea mays* / Corn	70	Yes	NI
2. *Parthenocissus quinquefolia* / Virginia creeper	30	Yes	FACU
3. *Pastinaca sativa* / Wild parsnip	10	No	NI
4. *Equisetum* / Horsetail	5	No	NI
5. *Rumex crispus* / Curly dock	5	No	FAC
6. *Dipsacus fullonum* / Wild teasel	2	No	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	122	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	32	x 4 =	128
UPL species	85	x 5 =	425
Column Totals:	122 (A)		568 (B)

Prevalence Index = B/A = 4.66

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 66-W017-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	7.5YR 3/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Rock refusal at 10 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/19/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W017-1W
Investigator(s): RN RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Swale Local relief (concave, convex, none): concave Slope (%): 5-10
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9400095 Long: -75.768022 Datum: WGS 1984
Soil Map Unit Name: Lima silt loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 66-W017-1W PEM
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W017-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Hydrophyllum canadense* / Blunt-leaf waterleaf	40	Yes	FAC
2. *Mentha arvensis* / American wild mint, Field mint	15	Yes	FACW
3. *Carex* / Sedge	10	No	FAC
4. *Cornus sericea* / American dogwood	5	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	70 (A)		190 (B)

Prevalence Index = B/A = 2.71

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W017-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/2	95	7.5YR 5/6	5	C	PL	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Rock refusal at 10 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W018-1U
Investigator(s): JB Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Head of slope Local relief (concave, convex, none): convex Slope (%): 3-8
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93309787 Long: -75.70242398 Datum: WGS 1984
Soil Map Unit Name: Appleton loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ___ No X
Hydric Soil Present? Yes ___ No X
Wetland Hydrology Present? Yes ___ No X

Is the Sampled Area within a Wetland? Yes ___ No X
If yes, optional Wetland Site ID: ___

Remarks: (Explain alternative procedures here or in a separate report.)
Successional field

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? Yes ___ No X Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W018-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Centaurea stoebe* / Spotted knapweed	90	Yes	NI
2. *Phleum pratense* / Common timothy, Cultivated timothy	10	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	10	x 4 =	40	
UPL species	90	x 5 =	450	
Column Totals:	100	(A)	490	(B)

Prevalence Index = B/A = 4.9

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W018-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 6 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W018-1W
Investigator(s): JB Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillside seep Local relief (concave, convex, none): concave Slope (%): 2-7
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93312787 Long: -75.70250642 Datum: WGS 1984
Soil Map Unit Name: Appleton loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: 66-W018-1W PEM

Remarks: (Explain alternative procedures here or in a separate report.)
Slight changes in topography mark the edges of wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: 66-W018-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Carex crinita* / Fringed sedge	30	Yes	OBL
2. *Scirpus cyperinus* / Woolgrass	20	Yes	OBL
3. *Carex scoparia* / Pointed broom sedge	10	No	FACW
4. *Onoclea sensibilis* / Sensitive fern	10	No	FACW
5. *Solidago gigantea* / Smooth goldenrod	10	No	FACW
6. *Scirpus atrovirens* / Green bulrush	5	No	OBL
7. *Euthamia graminifolia* / Flat-top goldentop	5	No	FAC
8.			
9.			
10.			
11.			
12.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	30	x 2 =	60
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		130 (B)

Prevalence Index = B/A = 1.44

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W018-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	95	7.5YR 4/6	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Rock refusal at 6 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 11/20/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W019-1U
Investigator(s): JB RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Toe slope Local relief (concave, convex, none): convex Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9654955 Long: -75.753502 Datum: WGS 1984
Soil Map Unit Name: Honeoye silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___	No X	

Remarks: (Explain alternative procedures here or in a separate report.)
Change in topography and LOMO dominated upland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):
Water Table Present?	Yes ___	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W019-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Lonicera morrowii* / Morrow's honeysuckle	90	Yes	FACU
2. *Taraxacum officinale* / Red seeded dandelion, Common dan	10	No	FACU
3. *Symphyotrichum* / Aster	5	No	NI
4.			
5.			
6.			
7.			
	105	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	0	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	5	x 5 =	25
Column Totals:	105 (A)		425 (B)

Prevalence Index = B/A = 4.05

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W019-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 11/20/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W019-1W
Investigator(s): JB RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Bowl shaped depression Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9655055 Long: -75.7535034 Datum: WGS 1984
Soil Map Unit Name: Honeoye silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: 66-W100-1W PSS

Remarks: (Explain alternative procedures here or in a separate report.)
Bowl adjacent to stream that holds and conveys water during periods of high water.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W019-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Salix* / Willow	20	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Lythrum salicaria* / Purple loosestrife	15	Yes	OBL
2. *Onoclea sensibilis* / Sensitive fern	10	Yes	FACW
3. *Carex* / Sedge	5	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	30	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	35	x 2 =	70
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	50 (A)		85 (B)

Prevalence Index = B/A = 1.7

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W019-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	95	7.5YR 4/4	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 11/20/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W020-1U
Investigator(s): JB RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillsope Local relief (concave, convex, none): convex Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.96506057 Long: -75.75383792 Datum: WGS 1984
Soil Map Unit Name: Honeoye silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___	No X	

Remarks: (Explain alternative procedures here or in a separate report.)
Hillslope above wetland , abrupt transition from depression.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):
Water Table Present?	Yes ___	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W020-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Lonicera morrowii* / Morrow's honeysuckle	25	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Solidago canadensis* / Canada goldenrod	25	Yes	FACU
2. *Solidago rugosa* / Wrinkle-leaf goldenrod	10	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	35	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	60 (A)		230 (B)

Prevalence Index = B/A = 3.83

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W020-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 11/20/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 66-W020-1W
Investigator(s): JB RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillside seep Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.96506533 Long: -75.75383733 Datum: WGS 1984
Soil Map Unit Name: Honeoye silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 66-W101-1W PSS
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Depression on side of slope dominated by American dogwood.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____ No X	Depth (inches):	
Water Table Present?	Yes X No ____	Depth (inches):	6
Saturation Present? (includes capillary fringe)	Yes X No ____	Depth (inches):	6

Wetland Hydrology Present? Yes ____ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 66-W020-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Salix* / Willow	25	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Cornus sericea* / American dogwood	95	Yes	FACW
2. *Solidago rugosa* / Wrinkle-leaf goldenrod	15	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	120	x 2 =	240
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	135 (A)		285 (B)

Prevalence Index = B/A = 2.11

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 66-W020-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	95	10YR 4/4	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 06/01/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W001-1U
Investigator(s): RS GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94574533 Long: -75.75339617 Datum: WGS 1984
Soil Map Unit Name: Appleton loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):
Water Table Present?	Yes ___	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W001-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus tremuloides* / Quaking aspen	25	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Elaeagnus umbellata* / Autumn olive	15	Yes	NI
2. *Populus tremuloides* / Quaking aspen	10	Yes	FACU
3. *Salix* / Willow	10	Yes	NI
4. *Lonicera morrowii* / Morrow's honeysuckle	5	No	FACU
5.			
6.			
7.			
	40	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Poa* / Bluegrass	60	Yes	NI
2. *Trifolium pratense* / Red clover	30	Yes	FACU
3. *Fragaria* / Strawberry	10	No	NI
4. *Plantago lanceolata* / Ribwort, English plantain	5	No	FACU
5. *Taraxacum officinale* / Red seeded dandelion, Common dan	5	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	95	x 5 =	475
Column Totals:	175 (A)		795 (B)

Prevalence Index = B/A = 4.54

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W001-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	85	10YR 6/6	15	C	M	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 06/01/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W001-1W
Investigator(s): RS GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Toeslope Local relief (concave, convex, none): concave Slope (%): 0-5%
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94580883 Long: -75.7534375 Datum: WGS 1984
Soil Map Unit Name: Appleton loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- X Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W001-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Cornus sericea* / American dogwood	65	Yes	FACW
2. *Lonicera morrowii* / Morrow's honeysuckle	10	No	FACU
3. *Salix* / Willow	10	No	NI
4. *Populus tremuloides* / Quaking aspen	5	No	FACU
5.			
6.			
7.			
	90	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Equisetum hyemale* / Scouringrush horsetail	35	Yes	FAC
2. *Cornus sericea* / American dogwood	15	Yes	FACW
3. *Typha angustifolia* / Narrow leaf cattail, Narrow-leaved cattai	15	Yes	OBL
4. *Symphyotrichum* / Aster	10	No	NI
5. *Equisetum arvense* / Common horsetail	5	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	80	x 2 =	160
FAC species	40	x 3 =	120
FACU species	15	x 4 =	60
UPL species	20	x 5 =	100
Column Totals:	170 (A)		455 (B)

Prevalence Index = B/A = 2.68

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W001-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	95	7.5YR 5/8	5	C	PL	Silt Loam	
12-18	10YR 4/1	95	10YR 5/8	5	C	M	Slty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 06/02/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W001-2U
Investigator(s): RF RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Mound Local relief (concave, convex, none): convex Slope (%): 5-10
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94705917 Long: -75.75449517 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes ___	No X	**within a Wetland?**	Yes ___	No X
Wetland Hydrology Present?	Yes ___	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No X	Depth (inches):	
Water Table Present?	Yes ___ No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W001-2U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Fraxinus pennsylvanica* / Green ash	2	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	2	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Bromus inermis* / Smooth brome, Smooth brome, Hungarian	25	Yes	UPL
2. *Galium album* / White bedstraw	20	Yes	NI
3. *Solidago rugosa* / Wrinkle-leaf goldenrod	15	Yes	FAC
4. *Pastinaca sativa* / Wild parsnip	15	Yes	NI
5. *Solidago canadensis* / Canada goldenrod	10	No	FACU
6. *Centaurea jacea* / Brownray knapweed	10	No	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	2	x 2 =	4
FAC species	15	x 3 =	45
FACU species	20	x 4 =	80
UPL species	60	x 5 =	300
Column Totals:	97 (A)		429 (B)

Prevalence Index = B/A = 4.42

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W001-2U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 6 inches. Gravel fill below.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 06/02/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W001-2W
Investigator(s): RF, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94685967 Long: -75.7542225 Datum: WGS 1984
Soil Map Unit Name: NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes X No

Is the Sampled Area within a Wetland? Yes X No
If yes, optional Wetland Site ID: 93-W001-2W PSS

Remarks: (Explain alternative procedures here or in a separate report.)
concave surface with salix, dogwood, cattail present. Gentle transition from upland to wetland

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):
Water Table Present? Yes No X Depth (inches):
Saturation Present? (includes capillary fringe) Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W001-2W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Salix* / Willow	35	Yes	FACW
2. *Cornus sericea* / American dogwood	15	Yes	NI
3.			
4.			
5.			
6.			
7.			
	50	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Cornus sericea* / American dogwood	30	Yes	FAC
2. *Symphyotrichum* / Aster	25	Yes	FACW
3. *Equisetum arvense* / Common horsetail	10	No	FAC
4. *Lysimachia nummularia* / Moneywort, Creeping-jenny	10	No	FACW
5. *Typha angustifolia* / Narrow leaf cattail, Narrow-leaved cattai	10	No	OBL
6. *Solidago gigantea* / Smooth goldenrod	10	No	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	80	x 2 =	160
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	15	x 5 =	75
Column Totals:	145 (A)		365 (B)

Prevalence Index = B/A = 2.52

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W001-2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	7.5YR 3/2	95	7.5YR 5/6	5	C	PL	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 06/02/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W002-1U
Investigator(s): RS RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92074867 Long: -75.63745817 Datum: WGS 1984
Soil Map Unit Name: Conesus silt loam, 3 to 8 percent slope NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ___ No X
Hydric Soil Present? Yes ___ No X
Wetland Hydrology Present? Yes ___ No X

Is the Sampled Area within a Wetland? Yes ___ No X
If yes, optional Wetland Site ID: ___

Remarks: (Explain alternative procedures here or in a separate report.)
Upland hillslope in field dominated by canada goldenrod

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? Yes ___ No X Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W002-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Lonicera morrowii* / Morrow's honeysuckle	15	Yes	FACU
2. *Rhamnus cathartica* / European buckthorn	5	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Solidago canadensis* / Canada goldenrod	85	Yes	FACU
2. *Ranunculus acris* / Acrid buttercup	10	No	FAC
3. *Anthoxanthum hirtum* / Northern sweet vernal grass	3	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	98	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	3	x 2 =	6
FAC species	15	x 3 =	45
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	118 (A)		451 (B)

Prevalence Index = B/A = 3.82

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W002-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 16 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 06/02/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W002-1W
Investigator(s): RS, RF Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92060633 Long: -75.63745833 Datum: WGS 1984
Soil Map Unit Name: Conesus silt loam, 3 to 8 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation X, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ___
Hydric Soil Present? Yes X No ___
Wetland Hydrology Present? Yes X No ___

Is the Sampled Area within a Wetland? Yes X No ___
If yes, optional Wetland Site ID: 93-W002-1W PFO

Remarks: (Explain alternative procedures here or in a separate report.)
portion of NWI mapped wetland in forest prior to upslope of field

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W002-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus tremuloides* / Quaking aspen	60	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	60	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Lonicera morrowii* / Morrow's honeysuckle	10	Yes	FACU
2. *Rhamnus cathartica* / European buckthorn	5	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	15	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Onoclea sensibilis* / Sensitive fern	65	Yes	FACW
2. *Impatiens capensis* / Spotted jewelweed	15	No	FACW
3. *Ranunculus acris* / Acrid buttercup	15	No	FAC
4. *Rhamnus cathartica* / European buckthorn	10	No	FAC
5. *Anthoxanthum hirtum* / Northern sweet vernal grass	7	No	FACW
6. *Fraxinus pennsylvanica* / Green ash	5	No	FACW
7. *Acer rubrum* / Red maple	3	No	FAC
8. *Lonicera morrowii* / Morrow's honeysuckle	3	No	FACU
9.			
10.			
11.			
12.			
	123	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	92	x 2 =	184
FAC species	33	x 3 =	99
FACU species	73	x 4 =	292
UPL species	0	x 5 =	0
Column Totals:	198 (A)		575 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W002-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/2	98	10YR 5/6	2	C	PL	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W003-1U
Investigator(s): JB RS GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Foot of slope Local relief (concave, convex, none): convex Slope (%): 2-7
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9226515 Long: -75.686788 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____
Wetland Hydrology Present?	Yes ____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)
Forested area dominated by green ash. Maintained trail occurs in this area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W003-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica* / Green ash	40	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Rhamnus cathartica* / European buckthorn	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Solidago canadensis* / Canada goldenrod	25	Yes	FACU
2. *Symphyotrichum prenanthoides* / Crooked-stem american-as	15	Yes	FAC
3. *Arctium minus* / Common burdock	10	No	FACU
4. *Taraxacum officinale* / Red seeded dandelion, Common dan	5	No	FACU
5. *Fragaria vesca* / Wild strawberry, Wood strawberry	5	No	UPL
6. *Lysimachia nummularia* / Moneywort, Creeping-jenny	5	No	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	65	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	25	x 3 =	75
FACU species	40	x 4 =	160
UPL species	5	x 5 =	25
Column Totals:	115 (A)		350 (B)

Prevalence Index = B/A = 3.04

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W003-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W003-1W
Investigator(s): JB, GH, RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Floodplain Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92272617 Long: -75.68685883 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: Wayland soils complex, 0 to 3 pe
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: 93-W003-1W PEM

Remarks: (Explain alternative procedures here or in a separate report.)
Floodplain to DEC mapped class stream.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: 93-W003-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Euthamia graminifolia* / Flat-top goldentop	30	Yes	FAC
2. *Onoclea sensibilis* / Sensitive fern	25	Yes	FACW
3. *Eutrochium maculatum* / Spotted trumpetweed	20	No	OBL
4. *Symphyotrichum* / Aster	10	No	NI
5. *Symphyotrichum prenanthoides* / Crooked-stem american-as	10	No	FAC
6. *Asclepias incarnata* / Swamp milkweed	5	No	OBL
7. *Mentha arvensis* / American wild mint, Field mint	5	No	FACW
8.			
9.			
10.			
11.			
12.			
	105	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	30	x 2 =	60
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	105 (A)		255 (B)

Prevalence Index = B/A = 2.43

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W003-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	95	10YR 4/4	5	C	PL	Silty Clay	
12-18	7.5YR 4/3	95	10YR 4/4	5	C	M,PL	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W003-2U
Investigator(s): JB RS GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hill slope Local relief (concave, convex, none): convex Slope (%): 2-7
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92277367 Long: -75.68673717 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____
Wetland Hydrology Present?	Yes ____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)
Forested hill slope. Vegetation community is similar to wetland but is lacking hydric soil and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W003-2U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica* / Green ash	70	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	70	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Rhamnus cathartica* / European buckthorn	30	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Symphyotrichum* / Aster	70	Yes	FACW
2. *Lysimachia nummularia* / Moneywort, Creeping-jenny	10	No	FACW
3. *Rubus allegheniensis* / Allegheny blackberry	10	No	FACU
4. *Fragaria vesca* / Wild strawberry, Wood strawberry	5	No	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	150	x 2 =	300
FAC species	30	x 3 =	90
FACU species	10	x 4 =	40
UPL species	5	x 5 =	25
Column Totals:	195 (A)		455 (B)

Prevalence Index = B/A = 2.33

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W003-2U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W003-2W
Investigator(s): JB RS GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hill seep Local relief (concave, convex, none): concave Slope (%): 5-10
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92278917 Long: -75.68677533 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PEM1E
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 93-W003-2W PFO
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Hill seep drains into wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No ____	Depth (inches):	0.25
Water Table Present?	Yes X No ____	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes X No ____	Depth (inches):	0

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Signs of groundwater discharge.

VEGETATION - Use scientific names of plants. Sampling Point: 93-W003-2W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica* / Green ash	70	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	70	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Rhamnus cathartica* / European buckthorn	30	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Lysimachia nummularia* / Moneywort, Creeping-jenny	70	Yes	FACW
2. *Symphyotrichum* / Aster	15	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	85	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	155	x 2 =	310
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	185 (A)		400 (B)

Prevalence Index = B/A = 2.16

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W003-2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/1	95	10YR 4/4	5	C	M	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W003-3U
Investigator(s): RS, GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 6-11
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92249983 Long: -75.68733917 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):
Water Table Present?	Yes ___	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W003-3U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides* / Eastern cottonwood	30	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Salix* / Willow	15	Yes	NI
2. *Rhamnus cathartica* / European buckthorn	5	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Centaurea jacea* / Brownray knapweed	50	Yes	FACU
2. *Solidago canadensis* / Canada goldenrod	30	Yes	FACU
3. *Symphyotrichum* / Aster	5	No	FAC
4. *Cirsium arvense* / Canada thistle	5	No	FACU
5. *Galium aparine* / Cleavers, Goose grass	5	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	90	x 4 =	360
UPL species	15	x 5 =	75
Column Totals:	145 (A)		555 (B)

Prevalence Index = B/A = 3.83

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W003-3U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 6 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W003-3W
Investigator(s): RS, GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Floodplain Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.92249067 Long: -75.687322 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PEM1E
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: 93-W003-3W PSS

Remarks: (Explain alternative procedures here or in a separate report.)
PSS data point

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes X No ____ Depth (inches): 10
Saturation Present? Yes X No ____ Depth (inches): 8
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W003-3W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Salix* / Willow	30	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Acorus americanus* / Several-vein sweetflag	30	Yes	OBL
2. *Eutrochium maculatum* / Spotted trumpetweed	25	Yes	OBL
3. *Carex vulpinoidea* / Fox sedge, Brown fox sedge	15	No	OBL
4. *Chelone glabra* / White turtlehead	10	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		140 (B)

Prevalence Index = B/A = 1.27

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 93-W003-3W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/1	90	7.5YR 4/6	10	C	PL,M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W004-1U
Investigator(s): JB RS GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Head of slope Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93342967 Long: -75.705478 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area**		
Hydric Soil Present?	Yes X	No ___	**within a Wetland?**	Yes ___	No X
Wetland Hydrology Present?	Yes ___	No X	If yes, optional Wetland Site ID:		

Remarks: (Explain alternative procedures here or in a separate report.)
Edge of active agriculture field

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No X	Depth (inches):	
Water Table Present?	Yes ___ No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W004-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Cornus sericea* / American dogwood	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Solidago canadensis* / Canada goldenrod	40	Yes	FACU
2. *Centaurea jacea* / Brownray knapweed	30	Yes	FACU
3. *Dactylis glomerata* / Orchardgrass	10	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	90 (A)		340 (B)

Prevalence Index = B/A = 3.78

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W004-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	7.5YR 3/2	98	7.5YR 4/4	2	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W004-1W
Investigator(s): JB RS GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Swale Local relief (concave, convex, none): concave Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9333905 Long: -75.70545933 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PSS1/EM1Ed
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 93-W004-1W PEM
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland occurs between agriculture fields. Drains into NYSDEC Class C stream

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W004-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Salix* / Willow	40	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	40	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Carex vulpinoidea* / Fox sedge, Brown fox sedge	20	Yes	OBL
2. *Typha angustifolia* / Narrow leaf cattail, Narrow-leaved cattai	15	Yes	OBL
3. *Onoclea sensibilis* / Sensitive fern	15	Yes	FACW
4. *Eutrochium maculatum* / Spotted trumpetweed	10	No	OBL
5. *Scirpus atrovirens* / Green bulrush	10	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	15	x 2 =	30
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		205 (B)

Prevalence Index = B/A = 1.86

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W004-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/1	90	7.5YR 4/4	10	C	PL,M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W004-2U
Investigator(s): JB RS GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Head of slope Local relief (concave, convex, none): convex Slope (%): 1-6
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93358908 Long: -75.70535738 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___	No X	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland berm surrounding POW portion of wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):
Water Table Present?	Yes ___	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W004-2U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Lonicera morrowii* / Morrow's honeysuckle	10	Yes	FACU
2. *Elaeagnus umbellata* / Autumn olive	10	Yes	UPL
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Solidago canadensis* / Canada goldenrod	80	Yes	FACU
2. *Equisetum arvense* / Common horsetail	15	No	FAC
3. *Centaurea jacea* / Brownray knapweed	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	95	x 4 =	380
UPL species	10	x 5 =	50
Column Totals:	120 (A)		475 (B)

Prevalence Index = B/A = 3.96

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W004-2U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	7.5YR 4/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W004-2W
Investigator(s): JB RS GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Bowl shaped depressiom Local relief (concave, convex, none): convex Slope (%): 0-5
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.933595 Long: -75.70534233 Datum: WGS 1984
Soil Map Unit Name: Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PSS1/EM1Ed
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: 93-W004-2W POW

Remarks: (Explain alternative procedures here or in a separate report.)
Ponded water.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- X Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 24+
Water Table Present? Yes X No ____ Depth (inches): 0
Saturation Present? Yes X No ____ Depth (inches): 0
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Frogs, crayfish and other aquatic macro invertebrates observed

VEGETATION - Use scientific names of plants.

Sampling Point: 93-W004-2W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Asclepias incarnata* / Swamp milkweed	10	Yes	OBL
2. *Juncus dudleyi* / Dudley's rush, Dudley's rush	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	15	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	15 (A)		20 (B)

Prevalence Index = B/A = 1.33

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W004-2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/1	98	10YR 3/3	2		M	Muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Gravel refusal at 6.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W004-3U
Investigator(s): JB RS GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hill slope Local relief (concave, convex, none): convex Slope (%): 3-8
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9334044 Long: -75.70389083 Datum: WGS 1984
Soil Map Unit Name: Lansing gravelly silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___	No X	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland data point taken in active agriculture field

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):
Water Table Present?	Yes ___	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W004-3U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Plantago lanceolata* / Ribwort, English plantain	5	Yes	FACU
2. *Oxalis corniculata* / Creeping wood sorrel	5	Yes	FACU
3. *Galium aparine* / Cleavers, Goose grass	5	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	15	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	15 (A)		60 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W004-3U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/3	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 12.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/27/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W004-3W
Investigator(s): JB RS GH Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hill seep Local relief (concave, convex, none): concave Slope (%): 3-8
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.93344452 Long: -75.70389066 Datum: WGS 1984
Soil Map Unit Name: Appleton loam, 3 to 8 percent slopes NWI classification: PSS1/EM1Ed
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 93-W004-3W PEM
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W004-3W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Carex vulpinoidea* / Fox sedge, Brown fox sedge	80	Yes	OBL
2. *Scirpus atrovirens* / Green bulrush	10	No	OBL
3. *Juncus effusus* / Common bog rush, Soft or lamp rush	10	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		100 (B)

Prevalence Index = B/A = 1.0

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W004-3W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	7.5YR 3/2	95	10YR 4/6	5	C	PL	Silty Clay	
4-10	10YR 4/1	90	10YR 5/6	10	C	M,PL	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/25/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W005-1U
Investigator(s): RN RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 5-10
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: Long: Datum: WGS 1984
Soil Map Unit Name: Mardin channery silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area within a Wetland?** Yes No X
Hydric Soil Present?	Yes	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W005-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Picea abies* / Norway spruce	30	Yes	NI
2.			
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Galium* / Bedstraw	25	Yes	FAC
2. *Asclepias syriaca* / Common milkweed	10	Yes	UPL
3. *Oxalis corniculata* / Creeping wood sorrel	10	Yes	FACU
4. *Valeriana officinalis* / Garden valerian	10	Yes	NI
5. *Taraxacum officinale* / Red seeded dandelion, Common dan	10	Yes	FACU
6. *Mentha arvensis* / American wild mint, Field mint	5	No	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.7 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	25	x 3 =	75
FACU species	20	x 4 =	80
UPL species	50	x 5 =	250
Column Totals:	100 (A)		415 (B)

Prevalence Index = B/A = 4.15

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W005-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	100					Slty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 12in

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/25/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W005-1W
Investigator(s): RN RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Bowl shaped depression Local relief (concave, convex, none): concave Slope (%): 5-10
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.94065017 Long: -75.73389517 Datum: WGS 1984
Soil Map Unit Name: Mardin channery silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID: 93-W001-1W PEM
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
OPEN ISSUES: Multiples of 93-W001, update in webmap and wildnote with new wetland number.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 93-W005-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Viburnum lentago* / Nanny-berry	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Symphyotrichum prenanthoides* / Crooked-stem american-as	20	Yes	FAC
2. *Mentha arvensis* / American wild mint, Field mint	20	Yes	FACW
3. *Onoclea sensibilis* / Sensitive fern	15	Yes	FACW
4. *Ranunculus acris* / Acrid buttercup	15	Yes	FAC
5. *Asclepias syriaca* / Common milkweed	10	No	UPL
6. *Euthamia graminifolia* / Flat-top goldentop	10	No	FAC
7. *Solidago gigantea* / Smooth goldenrod	5	No	FACW
8. *Solidago gigantea* / Smooth goldenrod	5	No	FACW
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	55	x 3 =	165
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	110 (A)		305 (B)

Prevalence Index = B/A = 2.77

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W005-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10Y 4/1	95	2.5YR 4/6	5	C	M,PL	Slty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/26/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W006-1U
Investigator(s): RN RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9393735 Long: -75.731844 Datum: WGS 1984
Soil Map Unit Name: Mardin channery silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID: ___
Wetland Hydrology Present?	Yes ___	No X	

Remarks: (Explain alternative procedures here or in a separate report.)
In mowed field upslope of bowl shaped depression

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: 93-W006-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Symphyotrichum prenanthoides* / Crooked-stem american-as	15	Yes	FAC
2. *Rubus* / Blackberry	15	Yes	NI
3. *Daucus carota* / Carrot, Carrot, Queen anne's lace	10	Yes	UPL
4. *Trifolium pratense* / Red clover	10	Yes	FACU
5. *Achillea millefolium* / Yarrow	10	Yes	FACU
6. *Parthenocissus quinquefolia* / Virginia creeper	10	Yes	FACU
7. *Fragaria virginiana* / Mountain strawberry	10	Yes	FACU
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 14.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	40	x 4 =	160
UPL species	25	x 5 =	125
Column Totals:	80 (A)		330 (B)

Prevalence Index = B/A = 4.13

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 93-W006-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/4						Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Gravel refusal at 4 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls Wetland Delineation City/County: Towns of Eaton, Fenner, Nelson, and Smit Sampling Date: 07/26/2023
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 93-W006-1W
Investigator(s): RN RS Section, Township, Range: Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County
Landform (hillslope, terrace, etc): Bowl shaped depression Local relief (concave, convex, none): concave Slope (%): 6-11
Subregion (LRR or MLRA): LRR R MLRA 244, LRR L MLRA 172 Lat: 42.9394315 Long: -75.731812 Datum: WGS 1984
Soil Map Unit Name: Mardin channery silt loam, 8 to 15 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: 93-W006-1W PEM

Remarks: (Explain alternative procedures here or in a separate report.)
Bowl in middle of mowed field. Man made.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 1
Water Table Present? Yes ____ No ____ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Too much gravel to dig more than 4" of soil

VEGETATION - Use scientific names of plants.

Sampling Point: 93-W006-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Eleocharis acicularis* / Needle spikerush	20	Yes	OBL
2. *Sparganium angustifolium* / Narrow leaved bur reed, Narrow	20	Yes	OBL
3. *Typha angustifolia* / Narrow leaf cattail, Narrow-leaved cattai	15	Yes	OBL
4. *Phalaris arundinacea* / Reed canary grass	10	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	65	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	65 (A)		75 (B)

Prevalence Index = B/A = 1.15

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 93-W006-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/1	98	5YR 5/6	2	C	PL	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Gravel refusal at 4 inches

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls City/County: Town of Eaton, Madison County, New York Sampling Date: 10/04/2021
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 01-W002-1U
Investigator(s): MA, KC Section, Township, Range: Town of Eaton
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 0-3
Subregion (LRR or MLRA): LRR R Lat: 42.92303318 Long: -75.65415994 Datum: WGS 1984
Soil Map Unit Name: Cazenovia silt loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X
If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)
Upland point for W02.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? Yes ____ No X Depth (inches): ____
(includes capillary fringe)

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 01-W002-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus americana* / White ash	30	Yes	FACU
2. *Acer saccharum* / Sugar maple	20	Yes	FACU
3. *Prunus serotina* / Black cherry	5	No	FACU
4.			
5.			
6.			
7.			
	55	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Cornus racemosa* / Gray dogwood	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	

Herb Stratum (Plot size: 5 Feet)			
1. *Fraxinus americana* / White ash	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	65 (A)		255 (B)

Prevalence Index = B/A = 3.92

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 01-W002-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls City/County: Town of Eaton, Madison County, New York Sampling Date: 10/04/2021
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 01-W002-1W
Investigator(s): MA, KC Section, Township, Range: Town of Eaton
Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): concave Slope (%): 0-3
Subregion (LRR or MLRA): LRR R Lat: 42.92319524 Long: -75.65438259 Datum: WGS 1984
Soil Map Unit Name: Cazenovia silt loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: W002-1W

Remarks: (Explain alternative procedures here or in a separate report.)
PFO with canopy cover from trees (Acer saccharum) growing in upland area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 01-W002-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica* / Green ash	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Impatiens capensis* / Spotted jewelweed	50	Yes	FACW
2. *Solidago rugosa* / Wrinkle-leaf goldenrod	10	No	FAC
3. *Alliaria petiolata* / Garlic-mustard	10	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	55	x 2 =	110
FAC species	10	x 3 =	30
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	75 (A)		180 (B)

Prevalence Index = B/A = 2.4

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)
PFO due to adjacent upland tree cover.

SOIL

Sampling Point: 01-W002-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	95	10YR 6/6	5	C	M,PL	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls City/County: Town of Eaton, Madison County, New York Sampling Date: 10/05/2021
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 01-W004-1U
Investigator(s): MA, KC Section, Township, Range: Town of Eaton
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): convex Slope (%): 0-3
Subregion (LRR or MLRA): LRR R Lat: 42.9080258 Long: -75.64832845 Datum: WGS 1984
Soil Map Unit Name: Lansing gravelly silt loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X
If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)
Upland point for W04 within an agricultural field likely planted with a wildlife food plot mix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 01-W004-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Echinochloa crus-galli* / Barnyard grass	30	Yes	FAC
2. *Trifolium pratense* / Red clover	20	Yes	FACU
3. *Taraxacum officinale* / Red seeded dandelion, Common dan	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	55 (A)		190 (B)

Prevalence Index = B/A = 3.45

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 01-W004-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls City/County: Town of Eaton, Madison County, New York Sampling Date: 10/05/2021
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 01-W004-1W
Investigator(s): MA, KC Section, Township, Range: Town of Eaton
Landform (hillslope, terrace, etc): Toe of slope Local relief (concave, convex, none): concave Slope (%): 0-3
Subregion (LRR or MLRA): LRR R Lat: 42.907969 Long: -75.64828455 Datum: WGS 1984
Soil Map Unit Name: Lansing gravelly silt loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: W004-1W

Remarks: (Explain alternative procedures here or in a separate report.)
Small PEM wetland on the edge of an agricultural field and upland forest.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes X No ____ Depth (inches): 0
Saturation Present? Yes X No ____ Depth (inches): 0
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 01-W004-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Impatiens capensis* / Spotted jewelweed	50	Yes	FACW
2. *Euthamia graminifolia* / Flat-top goldentop	30	Yes	FAC
3. *Scirpus atrovirens* / Green bulrush	10	No	OBL
4. *Cirsium vulgare* / Bullthistle, Bull thistle	10	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	50	x 2 =	100
FAC species	30	x 3 =	90
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	100 (A)		240 (B)

Prevalence Index = B/A = 2.4

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 01-W004-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	85	10YR 3/6	15	C	M,PL	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls City/County: Town of Eaton, Madison County, New York Sampling Date: 10/06/2021
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 01-W005-1U
Investigator(s): MA, KC Section, Township, Range: Town of Eaton
Landform (hillslope, terrace, etc): Hilltop Local relief (concave, convex, none): concave Slope (%): 0-8
Subregion (LRR or MLRA): LRR R Lat: 42.91441744 Long: -75.64020173 Datum: WGS 1984
Soil Map Unit Name: Appleton Loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____
Wetland Hydrology Present?	Yes ____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland point for PEM and POW.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 01-W005-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1. *Lonicera morrowii* / Morrow's honeysuckle	30	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	30	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Dactylis glomerata* / Orchardgrass	60	Yes	FACU
2. *Solidago canadensis* / Canada goldenrod	20	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	110	x 4 =	440
UPL species	0	x 5 =	0
Column Totals:	110 (A)		440 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 01-W005-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls City/County: Town of Eaton, Madison County, New York Sampling Date: 10/06/2021
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 01-W005-1W
Investigator(s): MA, KC Section, Township, Range: Town of Eaton
Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): concave Slope (%): 0-3
Subregion (LRR or MLRA): LRR R Lat: 42.91429171 Long: -75.64029576 Datum: WGS 1984
Soil Map Unit Name: Lansing Gravelly silt loam NWI classification: Riverine
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: W005-1W

Remarks: (Explain alternative procedures here or in a separate report.)
PEM wetland long intermittent stream St07 and adjacent to dairy farm and agricultural fields.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 01-W005-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Phalaris arundinacea* / Reed canary grass	70	Yes	FACW
2. *Impatiens capensis* / Spotted jewelweed	40	Yes	FACW
3. *Solidago rugosa* / Wrinkle-leaf goldenrod	30	No	FAC
4. *Typha angustifolia* / Narrow leaf cattail, Narrow-leaved cattai	10	No	OBL
5. *Verbena hastata* / Swamp verbena	5	No	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	155	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	115	x 2 =	230
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	155 (A)		330 (B)

Prevalence Index = B/A = 2.13

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 01-W005-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/2	85	10YR 3/6	15	C	M,PL	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls City/County: Town of Eaton, Madison County, New York Sampling Date: 10/06/2021
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 01-W005-2W
Investigator(s): MA, KC Section, Township, Range: Town of Eaton
Landform (hillslope, terrace, etc): Depression Local relief (concave, convex, none): concave Slope (%): 0-3
Subregion (LRR or MLRA): LRR R Lat: 42.91441039 Long: -75.64020063 Datum: WGS 1984
Soil Map Unit Name: Appleton loam NWI classification: Freshwater Pond
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: W005-2W

Remarks: (Explain alternative procedures here or in a separate report.)
POW adjacent to dairy farm and agricultural field. St07 flows through the wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- X Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 12+
Water Table Present? Yes X No ____ Depth (inches): 0
Saturation Present? Yes X No ____ Depth (inches): 0
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 01-W005-2W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Phalaris arundinacea* / Reed canary grass	30	Yes	FACW
2. *Impatiens capensis* / Spotted jewelweed	10	No	FACW
3. *Lythrum salicaria* / Purple loosestrife	10	No	OBL
4. *Solidago rugosa* / Wrinkle-leaf goldenrod	5	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	40	x 2 =	80
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	55 (A)		105 (B)

Prevalence Index = B/A = 1.91

Hydrophytic Vegetation Indicators:

- X 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 01-W005-2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

Soil sample unattainable due to steep banks and deep and potentially hazardous water.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls City/County: Town of Eaton, Madison County, New York Sampling Date: 10/06/2021
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 01-W006-1U
Investigator(s): MA, KC Section, Township, Range: Town of Eaton
Landform (hillslope, terrace, etc): Hillslope Local relief (concave, convex, none): concave Slope (%): 3-5
Subregion (LRR or MLRA): LRR R Lat: 42.92108105 Long: -75.63352762 Datum: WGS 1984
Soil Map Unit Name: Lansing gravelly silt loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X
If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 01-W006-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharum* / Sugar maple	60	Yes	FACU
2. *Acer rubrum* / Red maple	5	No	FAC
3.			
4.			
5.			
6.			
7.			
	65	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum (Plot size: 5 Feet)			
1. *Rosa multiflora* / Multiflora rose, Multiflora rosa	5	Yes	FACU
2. *Lonicera morrowii* / Morrow's honeysuckle	5	Yes	FACU
3. *Rhamnus cathartica* / European buckthorn	5	Yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	15	= Total Cover	

Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	80 (A)		310 (B)

Prevalence Index = B/A = 3.88

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 01-W006-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls City/County: Town of Eaton, Madison County, New York Sampling Date: 10/06/2021
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 01-W006-1W
Investigator(s): MA, KC Section, Township, Range: Town of Eaton
Landform (hillslope, terrace, etc): Access road Local relief (concave, convex, none): concave Slope (%): 0-3
Subregion (LRR or MLRA): LRR R Lat: 42.92102844 Long: -75.63330515 Datum: WGS 1984
Soil Map Unit Name: Lansing gravelly silt loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: W006-1W

Remarks: (Explain alternative procedures here or in a separate report.)
Heavily disturbed PEM wetland within and surrounding an active logging area and road.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 0.5
Water Table Present? Yes X No ____ Depth (inches): 0
Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 0

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 01-W006-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Onoclea sensibilis* / Sensitive fern	25	Yes	FACW
2. *Euthamia graminifolia* / Flat-top goldentop	20	Yes	FAC
3. *Glyceria* / Mannagrass	20	Yes	OBL
4. *Ranunculus acris* / Acrid buttercup	10	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	25	x 2 =	50
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		160 (B)

Prevalence Index = B/A = 2.13

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 01-W006-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	90	10YR 4/6	10	C	PL	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls City/County: Town of Eaton, Madison County, New York Sampling Date: 10/06/2021
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 01-W008-1U
Investigator(s): MA, KC Section, Township, Range: Town of Eaton
Landform (hillslope, terrace, etc): Terrace Local relief (concave, convex, none): convex Slope (%): 0-3
Subregion (LRR or MLRA): LRR R Lat: 42.92552918 Long: -75.63473763 Datum: WGS 1984
Soil Map Unit Name: Lansing gravelly silt loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X
If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants. Sampling Point: 01-W008-1U

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Euthamia graminifolia* / Flat-top goldentop	50	Yes	FAC
2. *Solidago altissima* / Canada goldenrod	30	Yes	FACU
3. *Elymus repens* / Quack grass	15	No	FACU
4. *Taraxacum officinale ssp. officinale* / Common dandelion	5	No	NI
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	50	x 3 =	150
FACU species	45	x 4 =	180
UPL species	5	x 5 =	25
Column Totals:	100 (A)		355 (B)

Prevalence Index = B/A = 3.55

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL

Sampling Point: 01-W008-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 21028 Hoffman Falls City/County: Town of Eaton, Madison County, New York Sampling Date: 10/06/2021
Applicant/Owner: Liberty Renewables State: New York Sampling Point: 01-W008-1W
Investigator(s): MA, KC Section, Township, Range: Town of Eaton
Landform (hillslope, terrace, etc): Lowland Local relief (concave, convex, none): concave Slope (%): 0-3
Subregion (LRR or MLRA): LRR R Lat: 42.92577007 Long: -75.63472481 Datum: WGS 1984
Soil Map Unit Name: Teel silt loam NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: W008-1W

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 0.5
Water Table Present? Yes X No ____ Depth (inches): 0
Saturation Present? Yes X No ____ Depth (inches): 0
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: 01-W008-1W

Tree Stratum (Plot size: 30 Feet)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 Feet)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 Feet)			
1. *Eutrochium maculatum* / Spotted trumpetweed	40	Yes	OBL
2. *Euthamia graminifolia* / Flat-top goldentop	30	Yes	FAC
3. *Solidago gigantea* / Smooth goldenrod	20	Yes	FACW
4. *Typha angustifolia* / Narrow leaf cattail, Narrow-leaved cattai	5	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: 30 Feet)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	20	x 2 =	40
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		175 (B)

Prevalence Index = B/A = 1.84

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 01-W008-1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	98	10YR 5/4	2	C	PL	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R,MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

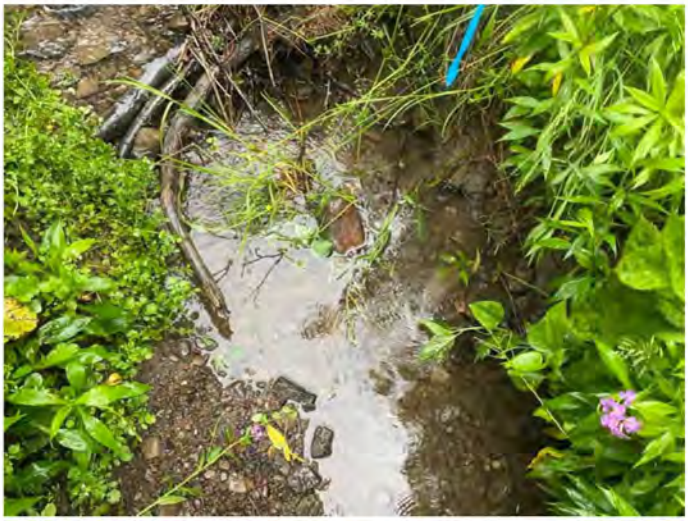
21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	356751
Survey Date	06/14/2023
User	Rachael Foote
General Information	
Project ID #	05-ST001
Site	21028 Hoffman Falls
Date	06/14/2023
Time	12:50 PM
Location	
Latitude	42.9170395
Longitude	-75.68020717
Datum	NAD83/2011
Investigator(s)	MA RF
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Rain in the last 24 hours, moderate flow. Surrounding land use is primarily forested. Flows into NYS DEC mapped C class stream.
Step 2: Site conditions during field assessment	
Describe Site Condition	No man-made disturbances were observed within the delineated stream.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	

Instream bedforms and other bedload transport evidence	
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	Present
Changes in character of soil Indicator Location	x
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	The OHWM occurs at the break in slope, the transition in vegetation, and where leaf litter has been washed away. These indicators persist throughout the reach of the delineated stream.
Additional observations or notes	Flows into larger perennial stream and drains wetland.

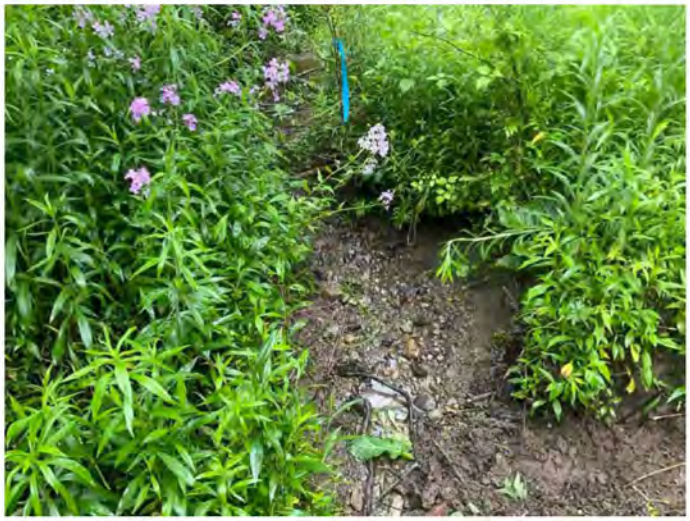
Photos

Photo log attached?	Yes

Photos



Stream substrate photograph, looking upstream.



Downstream photograph.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	378458
Survey Date	08/15/2023
User	Rachel Nazak
General Information	
Project ID #	05-ST006
Site	21028 Hoffman Falls
Date	08/15/2023
Time	10:26 AM
Location	
Latitude	42.9401445
Longitude	-75.76105717
Datum	NAD83/2011
Investigator(s)	JK JP
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Agriculture fields border this feature. Drains into 33-W029
Step 2: Site conditions during field assessment	
Describe Site Condition	Rain in past 24 hrs, light drizzle during the time of the survey.. Stream is an excavated ditch flowing west between pasture and agriculture field.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	

Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	Present
Changes in particle-sized distribution Indicator Location	x
transition from	Silt/clay to gravel/cobble
Upper limit of sand-sized particles	
Silt deposits	

Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	Present
Exposed Roots Indicator Location	a

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

Step 4: Additional Information	
Is additional information needed to support this determination?	No

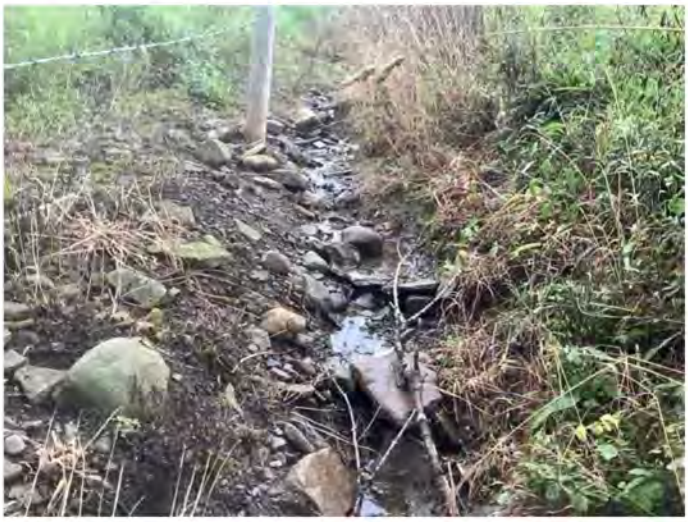
Step 5: Rationale	
Describe rationale for location of OHWM	The stream follows a break in the slope and change in particle size distribution as well as a change in vegetation at the determined OHWM. Exposed roots are present above the OHWM.
Additional observations or	

notes

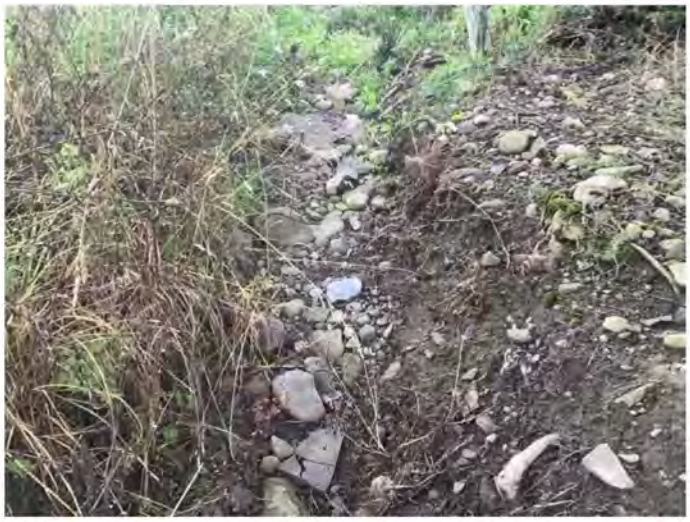
Photos

Photo log attached?	Yes

Photos



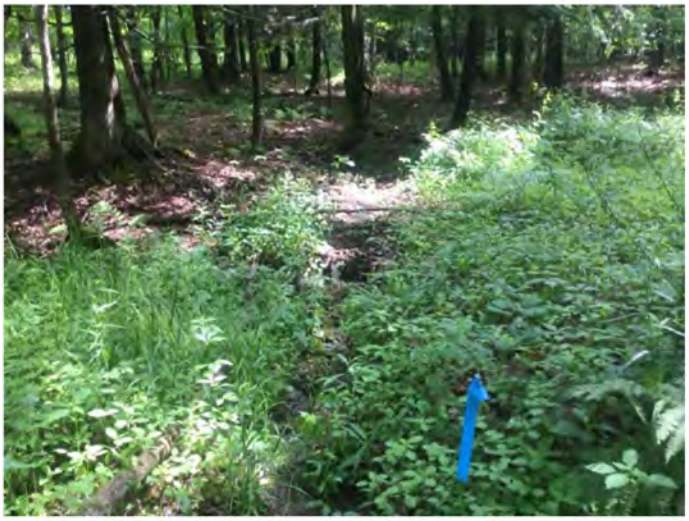
Upstream



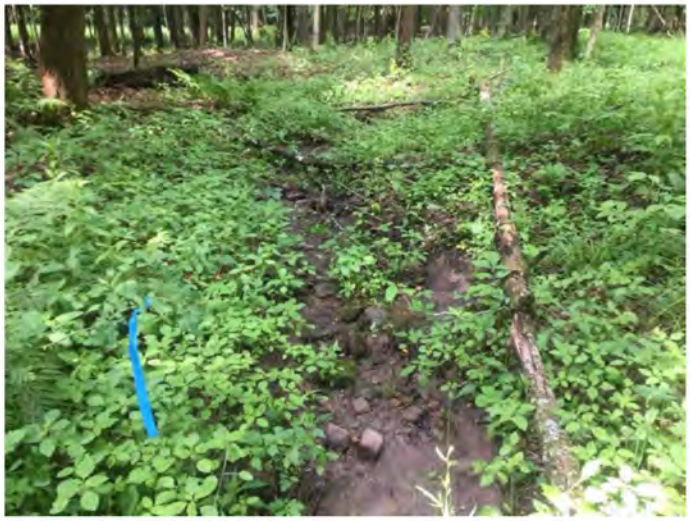
Downstream

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	356288
Survey Date	06/13/2023
User	Megan Aubertine
General Information	
Project ID #	10-ST003
Site	21028 Hoffman Falls
Date	06/13/2023
Time	10:35 AM
Location	
Latitude	42.92080917
Longitude	-75.675728
Datum	NAD83/2011
Investigator(s)	MA, RF, AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural resource maps
Describe land use and flow conditions from online resources.	This stream is bordered by deciduous upland forest.
Step 2: Site conditions during field assessment	
Describe Site Condition	Small stream flowing SW and connects to 10-ST004. Presence of base flow observed at the time of delineation. No obstructions or disturbances occur within the delineated reach of stream that would affect flow.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport	

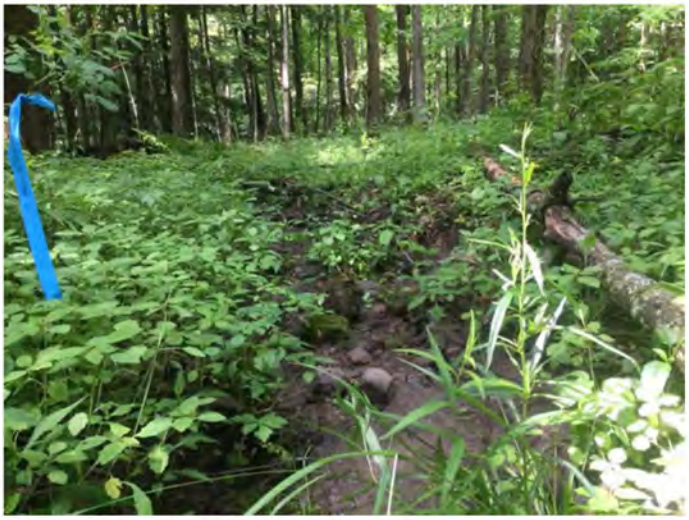
evidence	
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	Present
Changes in character of soil Indicator Location	b
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	Break in slope on the bank with vegetation absent to forbs along entirety of stream at the OHWM.
Additional observations or notes	
Photos	
Photo log attached?	Yes
Photos	



Change in vegetation



Change in vegetation



Change in vegetation

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	356289
Survey Date	06/13/2023
User	Megan Aubertine
General Information	
Project ID #	10-ST004
Site	21028 Hoffman Falls
Date	06/13/2023
Time	10:42 AM
Location	
Latitude	42.920864
Longitude	-75.67576917
Datum	NAD83/2011
Investigator(s)	MA, RF, AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Surrounding land use is forested upland.
Step 2: Site conditions during field assessment	
Describe Site Condition	Stream collects surface runoff from upland offsite. Connects with 10-ST003 to create second order stream. Low baseflow observed during delineation. PFO wetland borders stream.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	

Sediment Indicators	
Soil development	
Changes in character of soil	Present
Changes in character of soil Indicator Location	b
Mudcracks	
Changes in particle-sized distribution	Present
Changes in particle-sized distribution Indicator Location	b
transition from	Gravel to loam.
Upper limit of sand-sized particles	
Silt deposits	

Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

Step 4: Additional Information	
Is additional information needed to support this determination?	No

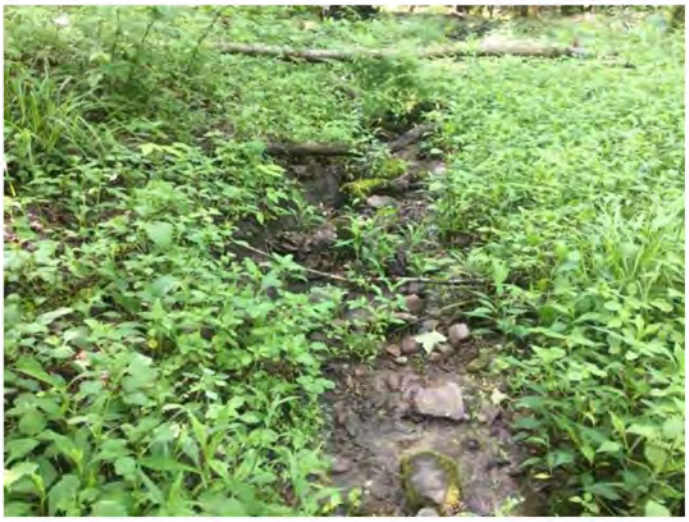
Step 5: Rationale	
Describe rationale for location of OHWM	The OHWM for this stream was determined using break in slope on the bank changes in character of the soil and the transition in vegetation. These indicators were persistent throughout the delineated reach of stream.
Additional observations or	

notes

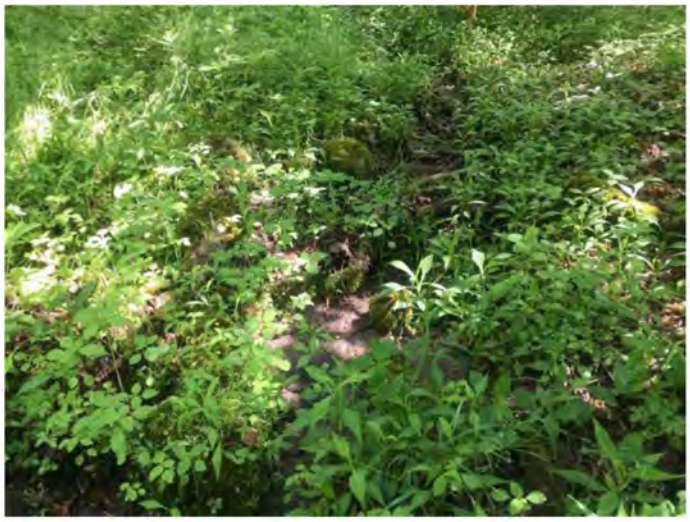
Photos

Photo log attached? Yes

Photos



Downstream photo.



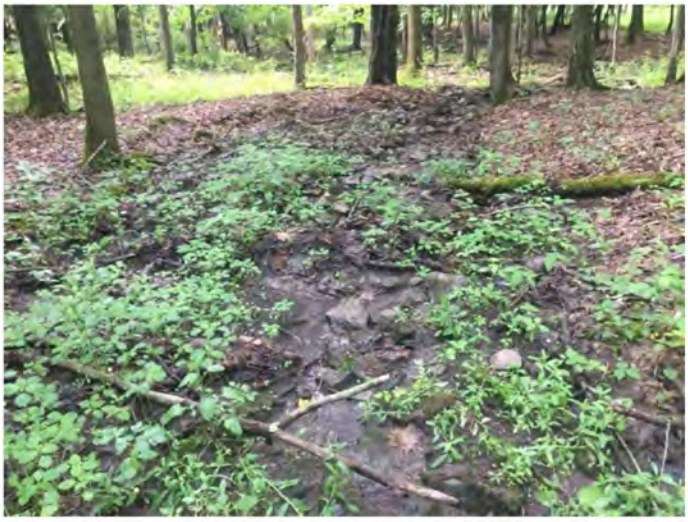
Upstream photo.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	356291
Survey Date	06/13/2023
User	Megan Aubertine
General Information	
Project ID #	10-ST005
Site	21028 Hoffman Falls
Date	06/13/2023
Time	10:49 AM
Location	
Latitude	42.919971
Longitude	-75.67616967
Datum	NAD83/2011
Investigator(s)	MA, RF, AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Surrounding land use is primarily forested upland.
Step 2: Site conditions during field assessment	
Describe Site Condition	Stream receives flow from two stream other streams and flows into a wetland. Low baseflow observed during delineation.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	Present
Secondary Channels	x

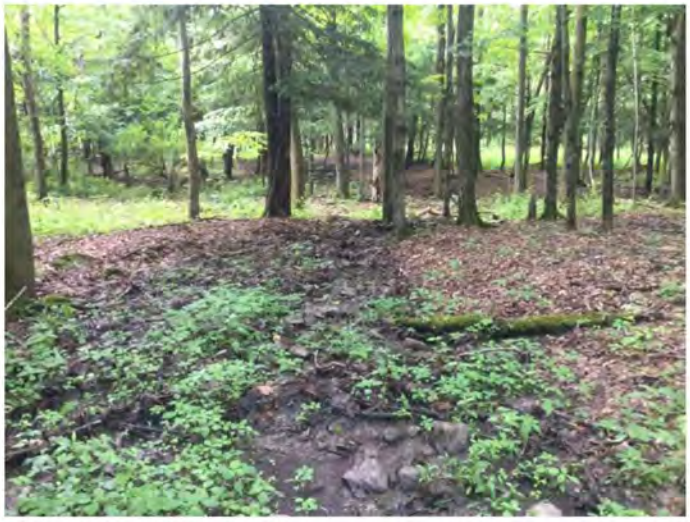
Indicator Location	
Sediment Indicators	
Soil development	
Changes in character of soil	Present
Changes in character of soil Indicator Location	x
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	deciduous trees
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	Present
Exposed Roots Indicator Location	b
Ancillary Indicators	
Wracking/presence of organic litter	Present
Wracking Indicator Location	b
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	
Step 4: Additional Information	
Is additional information needed to support this determination?	
Step 5: Rationale	
Describe rationale for location of OHWM	The OHWM occurs at the break in slope, the change in vegetation to deciduous trees, and where secondary channels form. Exposed roots occur at the OHWM but occur sporadically throughout the delineated reach of stream.
Additional observations or notes	
Photos	

Photo log attached? Yes

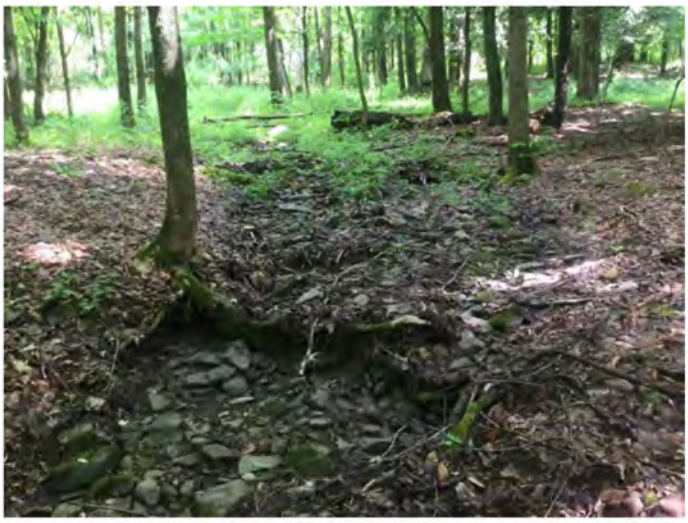
Photos



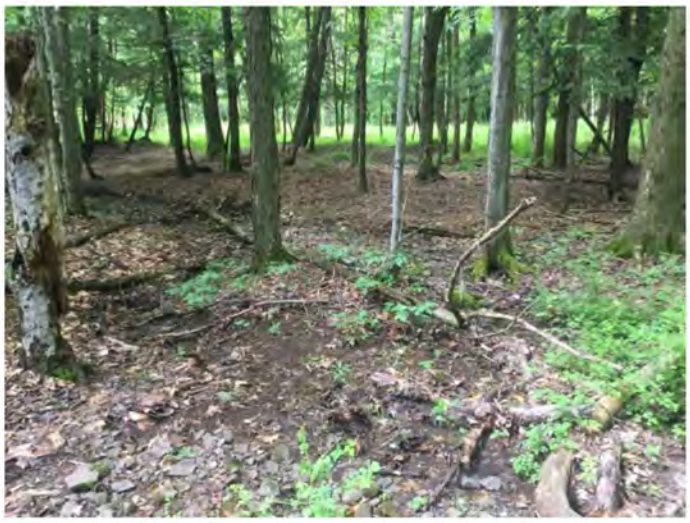
Downstream photograph, with stream substrate visible and change in vegetation



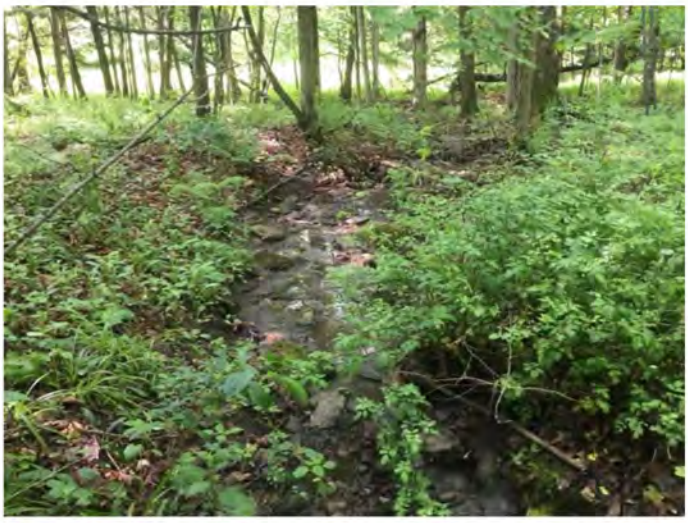
Downstream photograph.



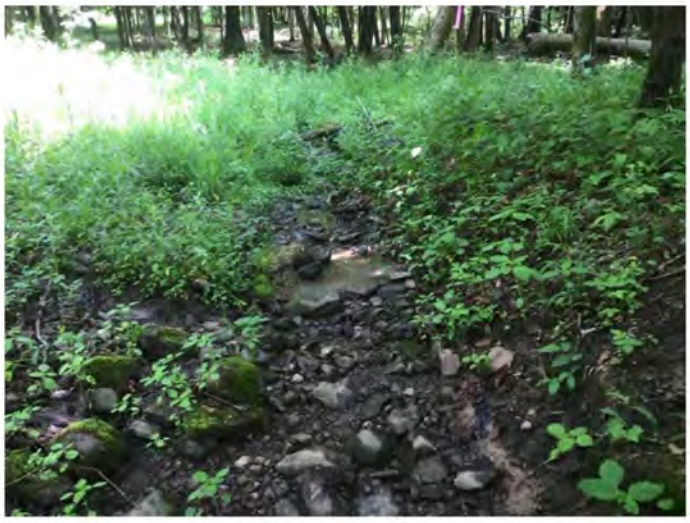
Upstream photograph. Exposed roots are below the OHWM.



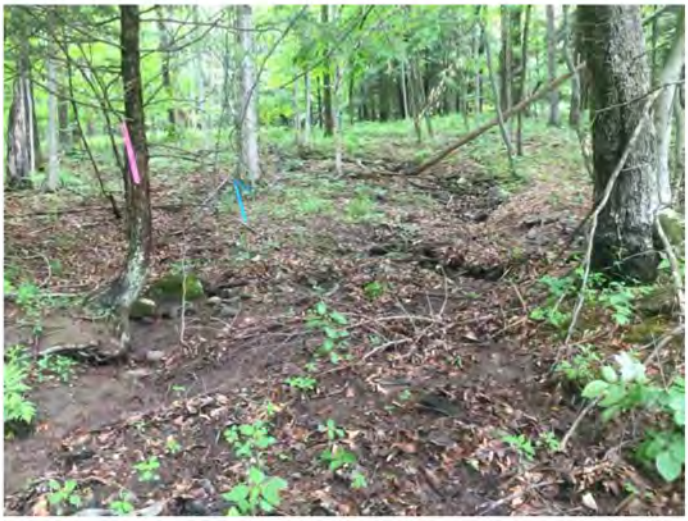
Secondary channel.



Upstream photograph.



Stream substrate photograph.



Wracking below the OHWM visible.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	356743
Survey Date	06/14/2023
User	Rachael Foote
General Information	
Project ID #	10-ST006
Site	21028 Hoffman Falls
Date	06/14/2023
Time	09:12 AM
Location	
Latitude	42.91505717
Longitude	-75.6760485
Datum	NAD83/2011
Investigator(s)	RF MA AB JK
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	This stream is mapped as Callahan Brook, a class C protected NYSDEC stream. Surrounding land use is primarily scrub-shrub and emergent wetland, and forested upland. Moderate rain has occurred within the past 24 hours.
Step 2: Site conditions during field assessment	
Describe Site Condition	Beaver activity was observed during delineation and a floodplain wetland borders the stream in patches. Medium to heavy baseflow observed.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	Present
Undercut Bank Indicator Location	x
Valley Bottom	Present
Valley Bottom Indicator Location	a
Other break in slope description	
Shelving	

Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	Present
Secondary Channels Indicator Location	x
Sediment Indicators	
Soil development	
Changes in character of soil	Present
Changes in character of soil Indicator Location	x
Mudcracks	
Changes in particle-sized distribution	Present
Changes in particle-sized distribution Indicator Location	x
transition from	Gravel and cobble to loam.
Upper limit of sand-sized particles	
Silt deposits	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	Present
Exposed Roots Indicator Location	x
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	Present
Presence of Large Wood Indicator Location	x
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	

Weathered clasts or bedrock	
Other observed indicators?	No

Step 4: Additional Information

Is additional information needed to support this determination?	No

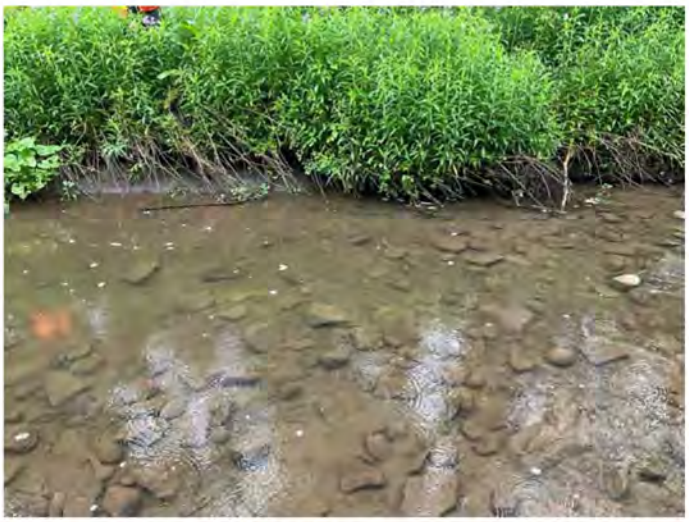
Step 5: Rationale

Describe rationale for location of OHWM	The OHWM occurs at the break in slope on the bank, this is where the transition in particle size occurs. The transition from absent vegetation to forbs, where exposed roots occur along the streambank, and at undercut banks also defines the OHWM.
Additional observations or notes	

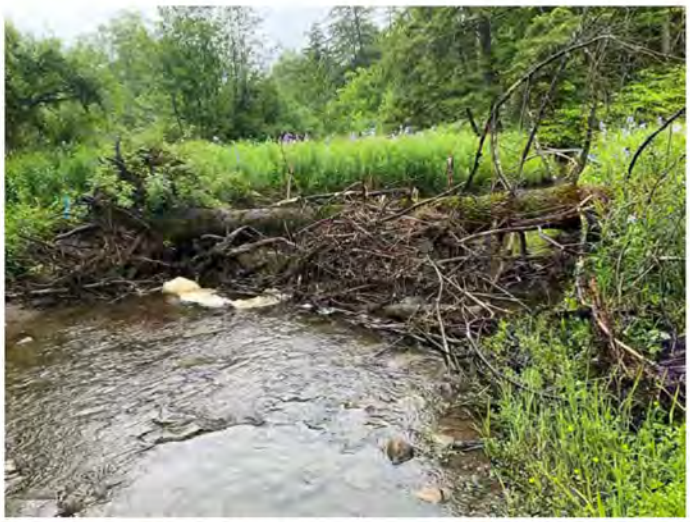
Photos

Photo log attached?	Yes

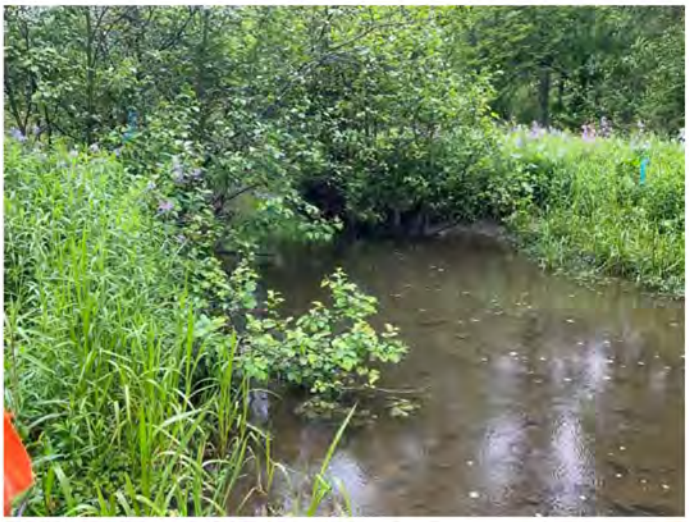
Photos



Stream substrate and baseflow.



Downstream photograph.



Upstream photograph.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	357362
Survey Date	06/15/2023
User	Megan Aubertine
General Information	
Project ID #	10-ST007
Site	21028 Hoffman Falls
Date	06/15/2023
Time	08:53 AM
Location	
Latitude	42.91644167
Longitude	-75.67668717
Datum	NAD83/2011
Investigator(s)	MA, AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Recent rain within 48 hours, moderate to low baseflow. Surrounding land use is primarily forested.
Step 2: Site conditions during field assessment	
Describe Site Condition	Flows from groundwater seep and is diverted under road through a culvert and into a PSS wetland.
Step 3 Indicators Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	

Sediment Indicators	
Soil development	
Changes in character of soil	Present
Changes in character of soil Indicator Location	x
Mudcracks	
Changes in particle-sized distribution	

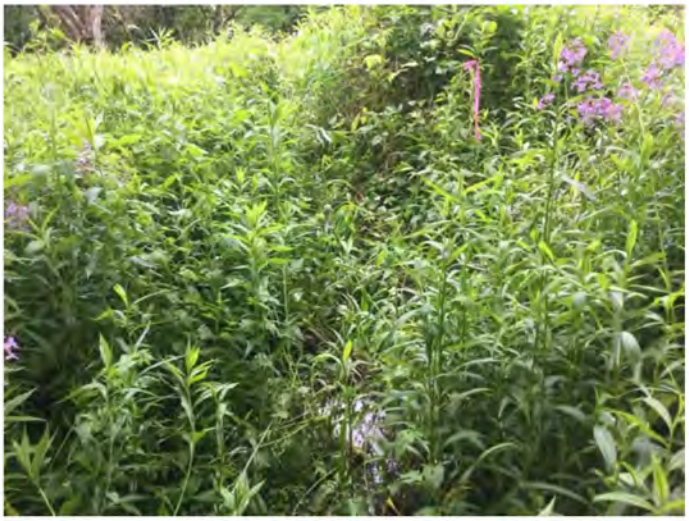
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	deciduous trees
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

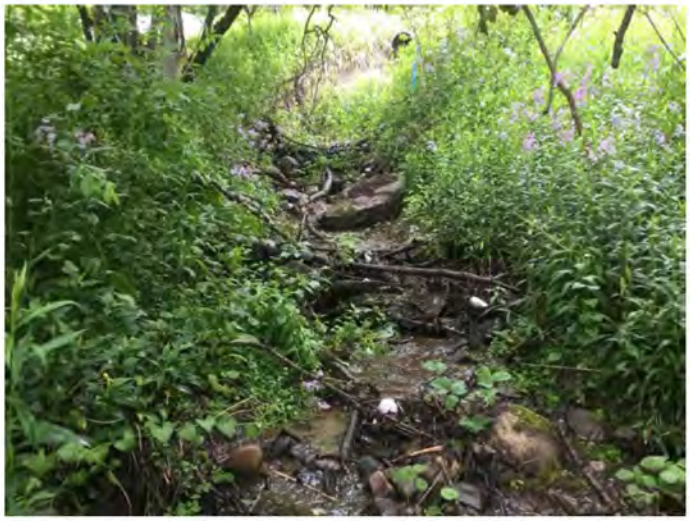
Step 4: Additional Information	
Is additional information needed to support this determination?	No

Step 5: Rationale	
Describe rationale for location of OHWM	The OHWM occurs at the break in slope, where stream substrate transitions from gravel and cobble to silt loam, and at the transition in vegetation. These indicators persist throughout the delineated stream.
Additional observations or notes	

Photos	
Photo log attached?	Yes
Photos	



Absent vegetation within stream channel and overgrown around surrounding bank.



Upstream photograph, with vegetation and stream substrate transition.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	357389
Survey Date	06/15/2023
User	Megan Aubertine
General Information	
Project ID #	10-ST008
Site	21028 Hoffman Falls
Date	06/15/2023
Time	12:07 PM
Location	
Latitude	42.916697
Longitude	-75.681522
Investigator(s)	MA, AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Surrounding land use is forested. Flows into NYS DEC mapped Class C stream.
Step 2: Site conditions during field assessment	
Describe Site Condition	Stream flows out of wetland down forested hill slope into other wetland. No base flow at time of delineation
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	
Sediment Indicators	

Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	

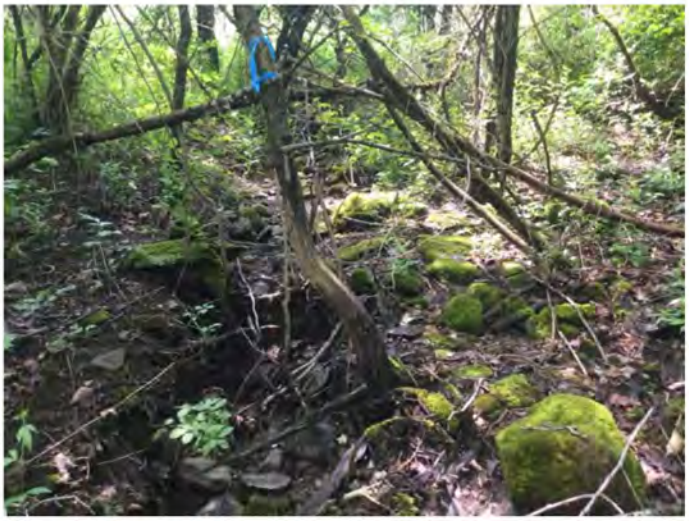
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	b
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

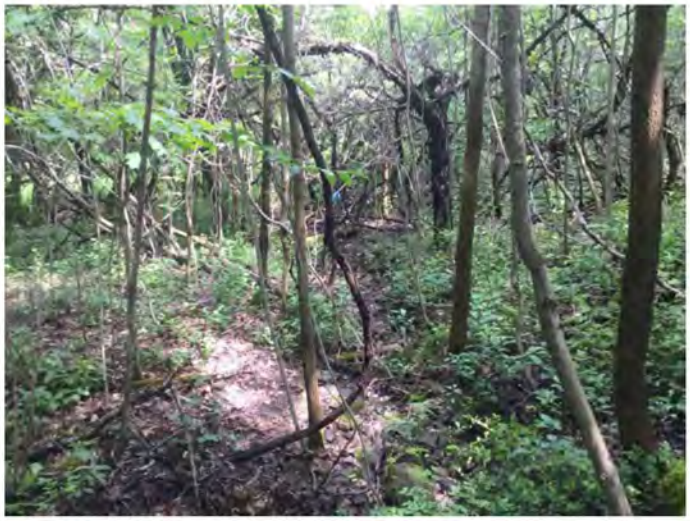
Step 4: Additional Information	
Is additional information needed to support this determination?	No

Step 5: Rationale	
Describe rationale for location of OHWM	Break in slope with vegetation absent to forbs along entirety of stream at the OHWM. Wracking and disturbed leaf litter present below the OHWM.
Additional observations or notes	

Photos	
Photo log attached?	Yes
Photos	



Break in slope and change in vegetation



Change in vegetation

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	358297
Survey Date	06/16/2023
User	Rachael Foote
General Information	
Project ID #	10-ST009
Site	21028 Hoffman Falls
Date	06/16/2023
Time	01:23 PM
Location	
Latitude	42.90925
Longitude	-75.68434233
Datum	NAD83/2011
Investigator(s)	MA, AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Stream overlaps a NYSDEC mapped class C stream
Step 2: Site conditions during field assessment	
Describe Site Condition	Flows from upland forest into wetland. Recent rainfall within 24 hours
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	
Sediment Indicators	

Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	

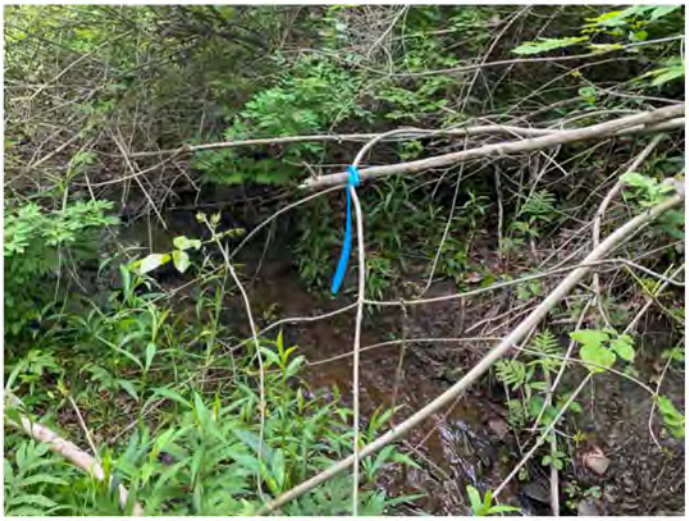
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

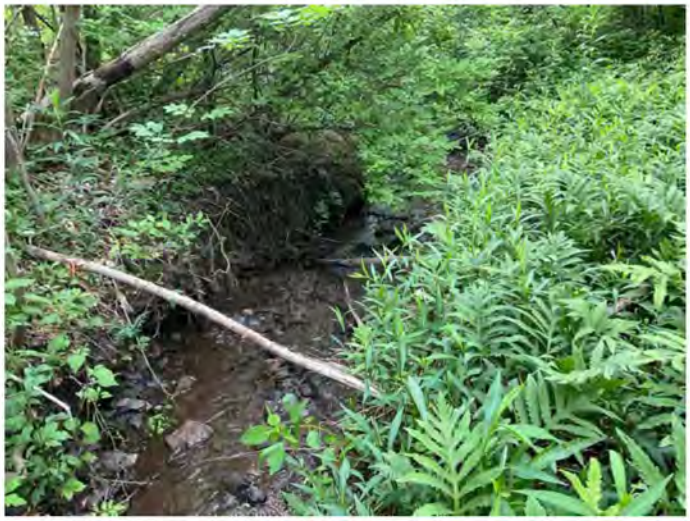
Step 4: Additional Information	
Is additional information needed to support this determination?	No

Step 5: Rationale	
Describe rationale for location of OHWM	Break in slope with vegetation absent to forbs were consistent along the entirety of stream and were the main indicators used in determining the OHWM.
Additional observations or notes	

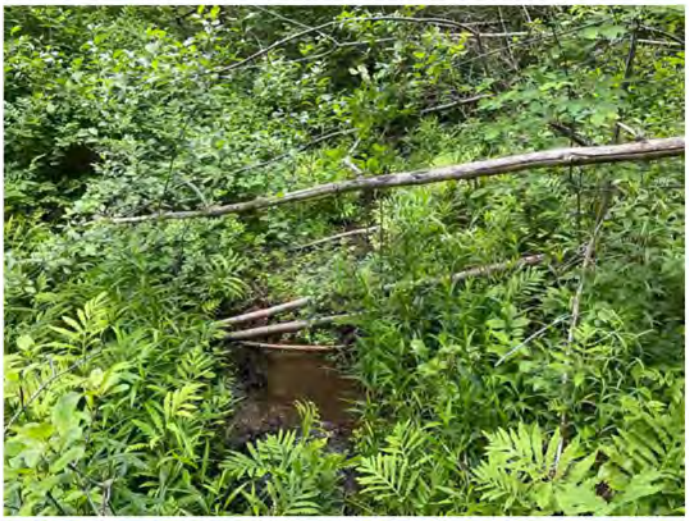
Photos	
Photo log attached?	Yes
Photos	



Example of substrate



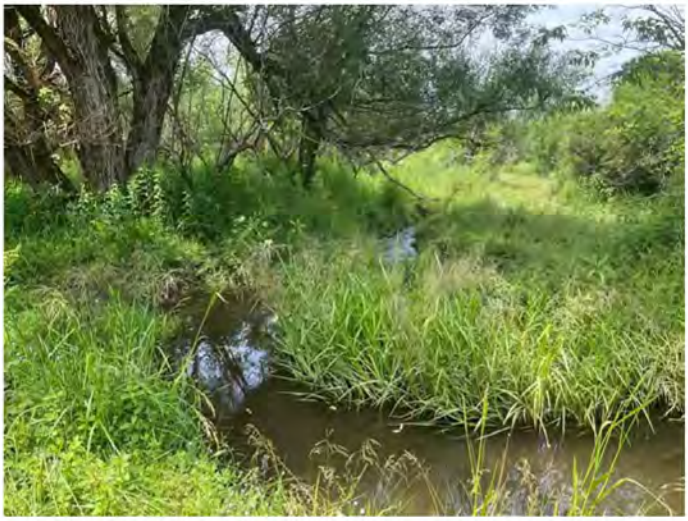
View of break in slope, change in vegetation and undercut bank.



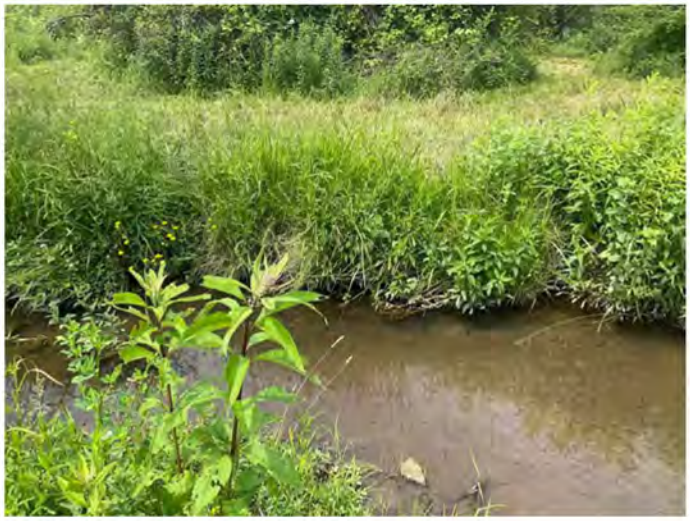
Change in vegetation

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	365936
Survey Date	07/07/2023
User	Rachael Foote
General Information	
Project ID #	12-ST001
Site	21028 Hoffman Falls
Date	07/07/2023
Time	12:18 PM
Location	
Latitude	42.94306967
Longitude	-75.76076533
Datum	NAD83/2011
Investigator(s)	ME RF
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	The delineated stream corresponds with NYS DEC mapped C(T) stream and NWI riverine feature R5UBH. A PSS riparian buffer occurs between the stream and an agriculture field. Moderate baseflow was observed during the delineation. No rain in past 24 hours.
Step 2: Site conditions during field assessment	
Describe Site Condition	A gravel ford crossing created for an agriculture service road occurs within delineated reach of the stream.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	Present
Undercut Bank Indicator Location	x
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	

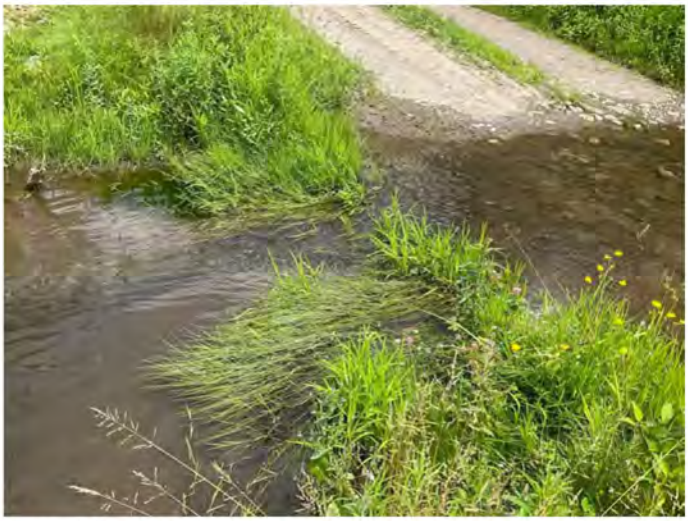
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	graminoids
Vegetation matted down and/or bent:	Present
Matted/Bent Vegetation Indicator Location	x
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	Present
Wracking Indicator Location	x
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	The OHWM was defined by a break in slope and change in vegetation. These were the most persistent, permanent and prevalent indicators identified. Undercut banks, matted vegetation, and wracking aided in determining the OHWM.
Additional observations or notes	This stream flows through delineated wetland 12-W012.
Photos	
Photo log attached?	Yes



View across stream channel, note the vegetation beginning at the OHWM.



Undercut bank.



Stream flowing over road.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	356280
Survey Date	06/13/2023
User	Megan Aubertine
General Information	
Project ID #	12-ST002
Site	21028 Hoffman Falls
Date	06/13/2023
Time	09:52 AM
Location	
Latitude	42.91987233
Longitude	-75.67674467
Investigator(s)	MA, RF, AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	PFO wetland borders stream.
Step 2: Site conditions during field assessment	
Describe Site Condition	Stream flows out of wetland through valley.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	Present
Undercut Bank Indicator Location	b
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	

Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	

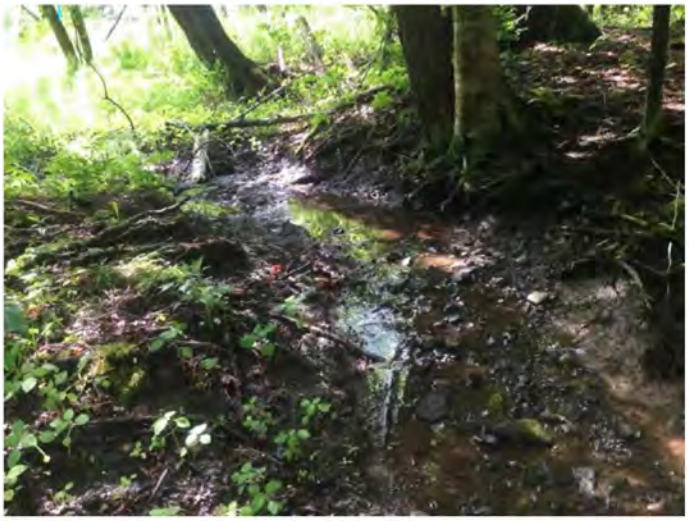
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	Present
Wracking Indicator Location	b
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	b
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

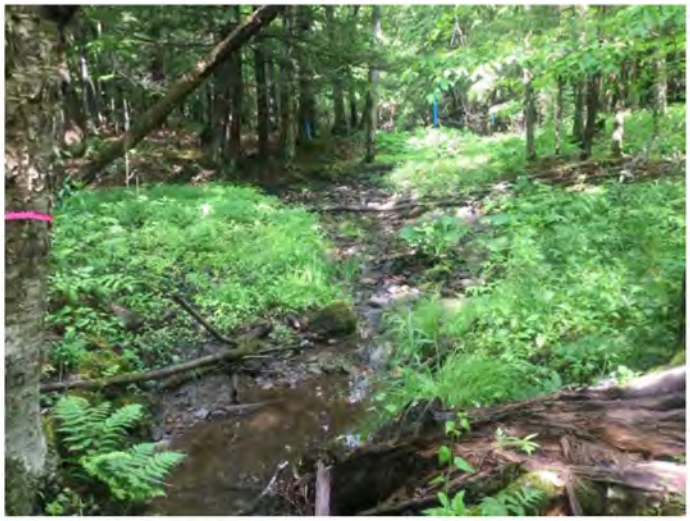
Step 4: Additional Information	
Is additional information needed to support this determination?	No

Step 5: Rationale	
Describe rationale for location of OHWM	Break in slope with vegetation absent to forbs along entirety of stream define the OHWM. Sections of the bank were undercut below the OHWM. Wracking and disturbed leaf litter present below the OHWM.
Additional observations or notes	

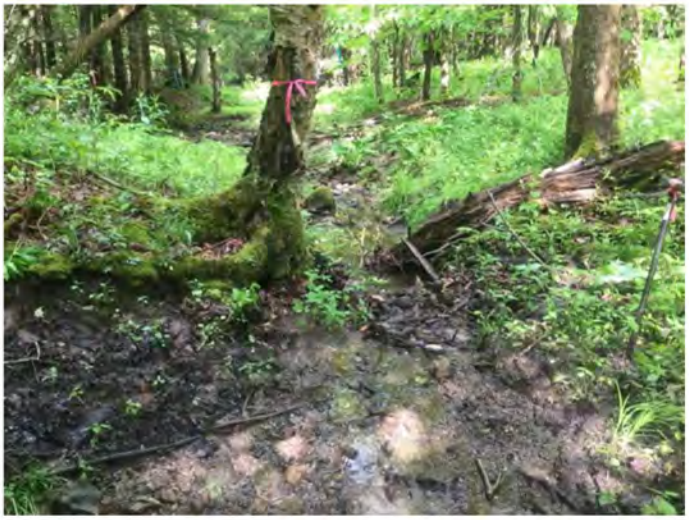
Photos	
Photo log attached?	Yes
Photos	



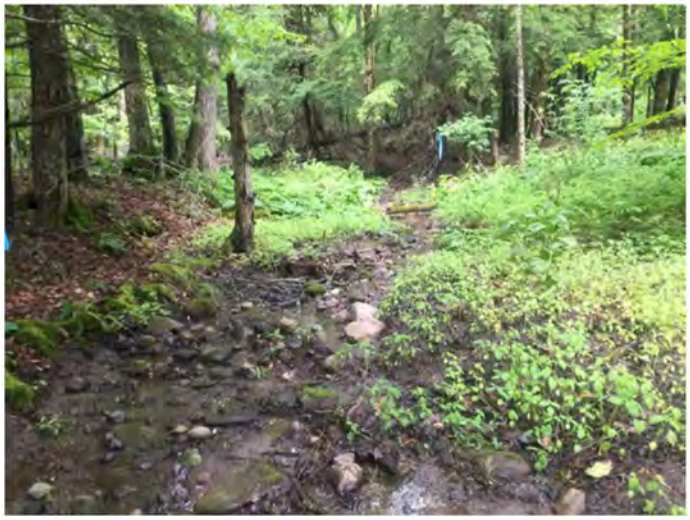
break in slope at OHWM visible



vegetation absent to forbs clearly visible



stream within wetland



example of substrate particle size

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	356284
Survey Date	06/13/2023
User	Megan Aubertine
General Information	
Project ID #	12-ST003
Site	21028 Hoffman Falls
Date	06/13/2023
Time	10:11 AM
Location	
Latitude	42.920277
Longitude	-75.676803
Investigator(s)	MA, AT, RF
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Stream is bordered by upland forest.
Step 2: Site conditions during field assessment	
Describe Site Condition	Stream flows into PFO wetland. No man made disturbances occur within the delineated reach of stream.
Step 3 Indicators Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	

Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	Present
Changes in particle-sized distribution Indicator Location	x
transition from	Gravel and cobble to loam.
Upper limit of sand-sized particles	
Silt deposits	

Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	deciduous trees
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	b
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

Step 4: Additional Information	
Is additional information needed to support this determination?	No

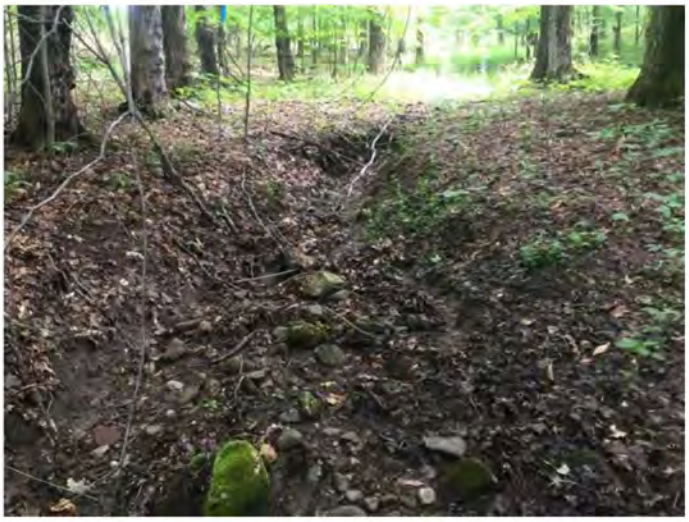
Step 5: Rationale	
Describe rationale for location of OHWM	Break in slope on the bank with vegetation absent to deciduous trees along entirety of stream at the OHWM. Disturbed leaf litter present below the OHWM. Changes in particle size distribution occurs at the transition from stream bed to stream banks. This indicator coincides with the other indicators used to determine OHWM.
Additional observations or	

notes

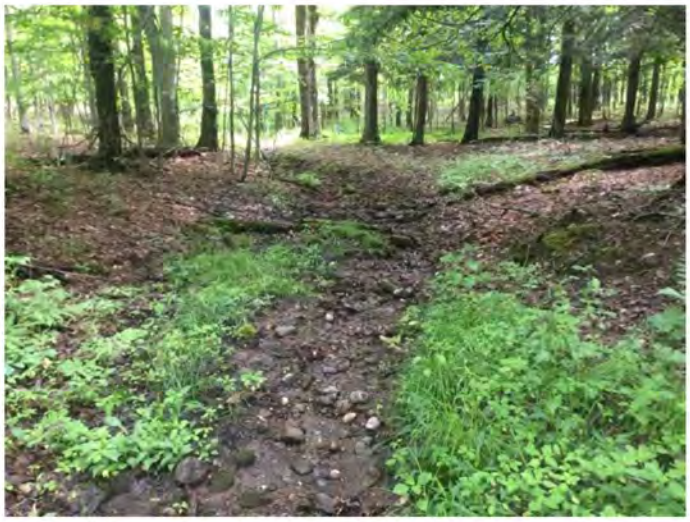
Photos

Photo log attached? Yes

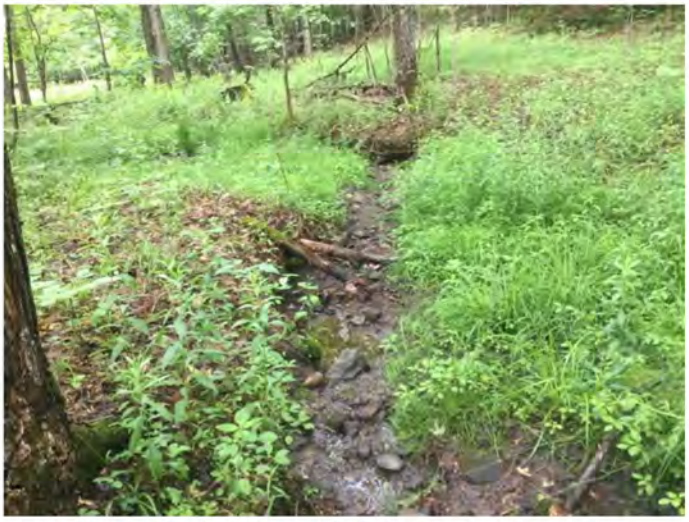
Photos



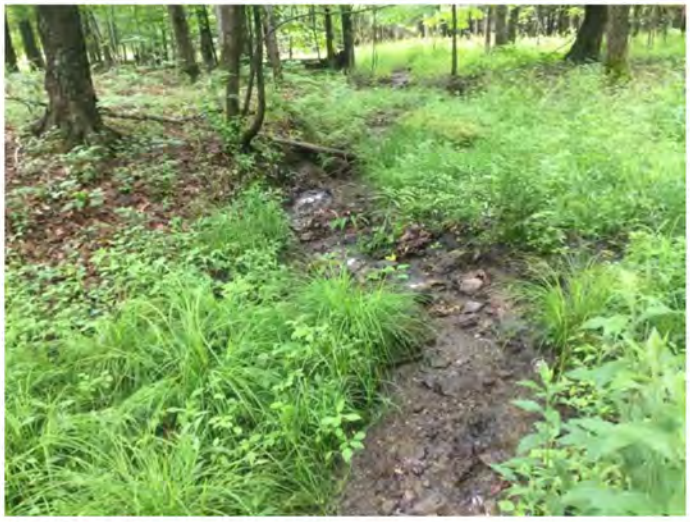
break in slope



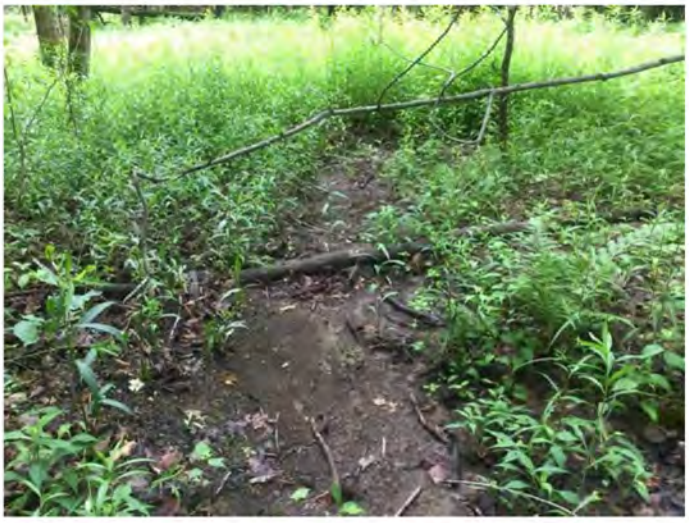
substraight



change in vegetation absent to forbs



downstream



channel

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	393335
Survey Date	10/05/2023
User	Rachel Nazak
General Information	
Project ID #	12-ST003A
Site	21028 Hoffman Falls
Date	06/13/2023
Time	09:30 AM
Location	
Latitude	42.919913
Longitude	-75.677059
Investigator(s)	RF
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Stream exists in a forested area that is bordered by agricultural fields.
Step 2: Site conditions during field assessment	
Describe Site Condition	Small stream that drains portions of wetland 12-W003 into stream 12-ST002.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	
Sediment Indicators	
Soil development	

Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	

Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

Step 4: Additional Information	
Is additional information needed to support this determination?	No

Step 5: Rationale	
Describe rationale for location of OHWM	A break in slope and change in vegetation density from absent to forbs were two of the most consistent indicators of OHWM along the stream reach.
Additional observations or notes	

Photos	
Photo log attached?	No
Explain why not	
Photos	None

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	361873
Survey Date	06/16/2023
User	Megan Aubertine
General Information	
Project ID #	12-ST004
Site	21028 Hoffman Falls
Date	06/16/2023
Time	01:33 PM
Location	
Latitude	42.909565
Longitude	-75.68445217
Datum	NAD83/2011
Investigator(s)	RF
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Topography mapping indicates the presence of a stream channel
Step 2: Site conditions during field assessment	
Describe Site Condition	Stream borders wetland and upland and dissipates into wetland.
Step 3 Indicators Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	Present
Shelving Indicator Location	b
Shelf at top of bank	
Natural Levee	
Man-made Berms or Levees	
Other Berms Description	
Channel bar	

Instream bedforms and other bedload transport evidence	
Secondary channels	

Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	

Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	Present
Exposed Roots Indicator Location	x

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

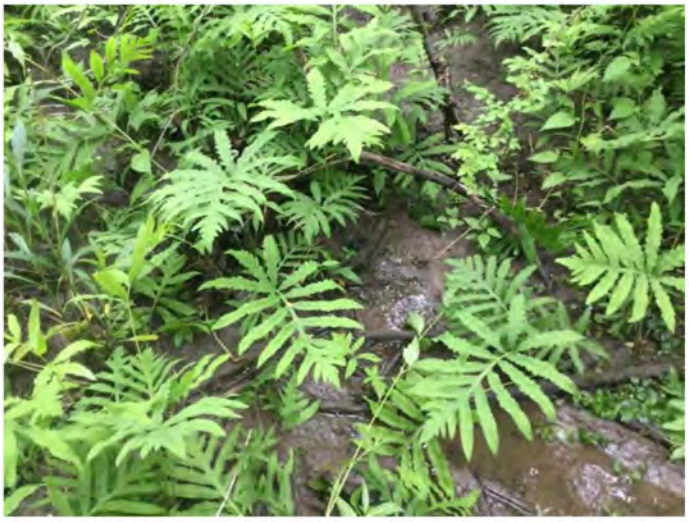
Step 4: Additional Information	
Is additional information needed to support this determination?	No

Step 5: Rationale	
Describe rationale for location of OHWM	This stream has several indicators present at the OHWM consistently throughout the reach of the stream, but the most consistent being break in slope and vegetation change.
Additional observations or notes	

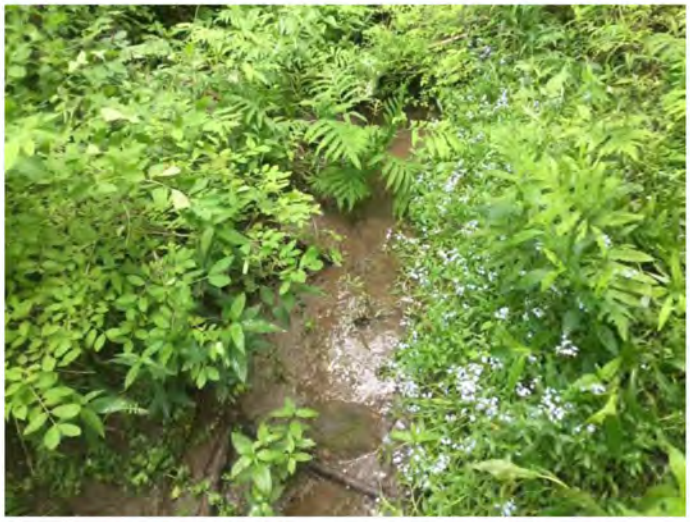
Photos

Photo log attached? Yes

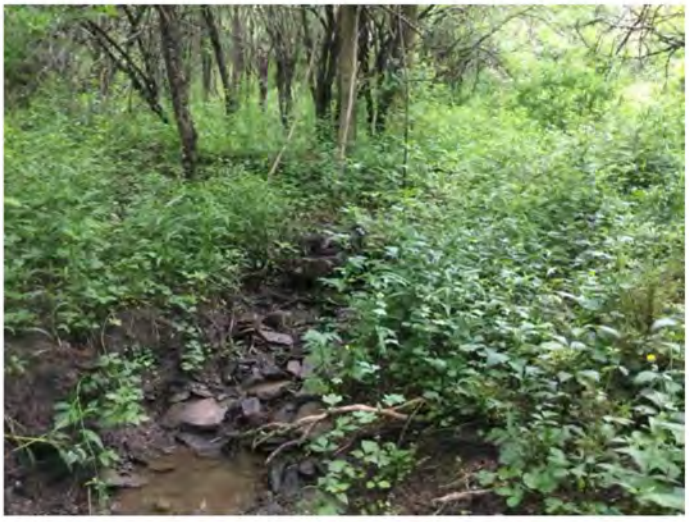
Photos



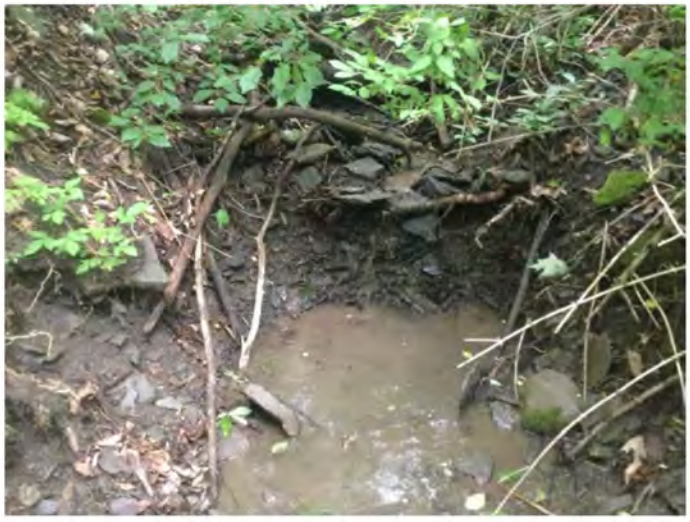
stream dissipating into wetland



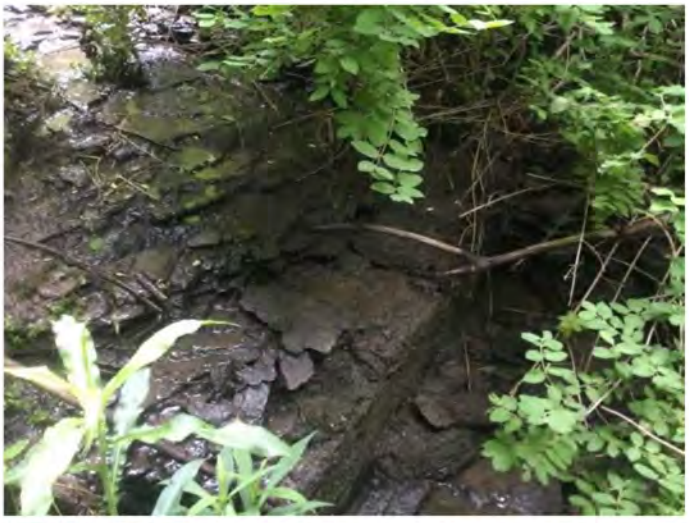
dense vegetation on bank



stream substrate



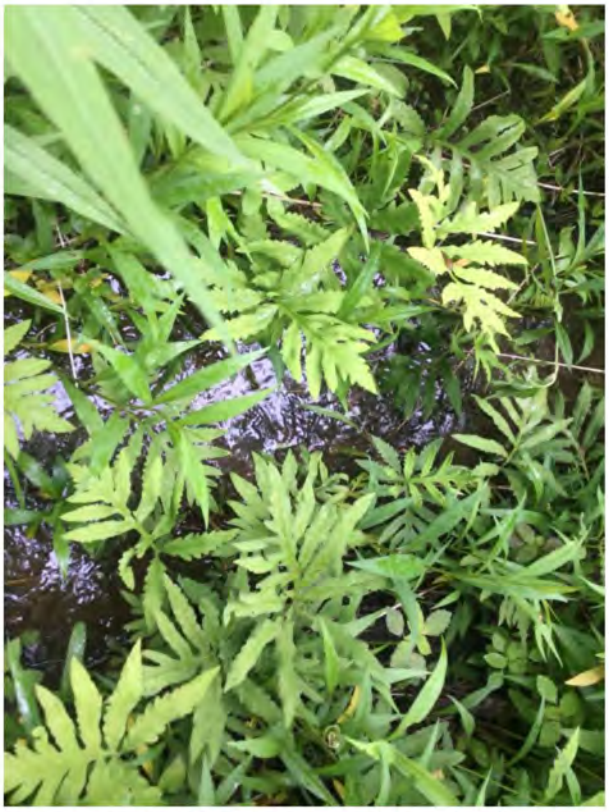
pool



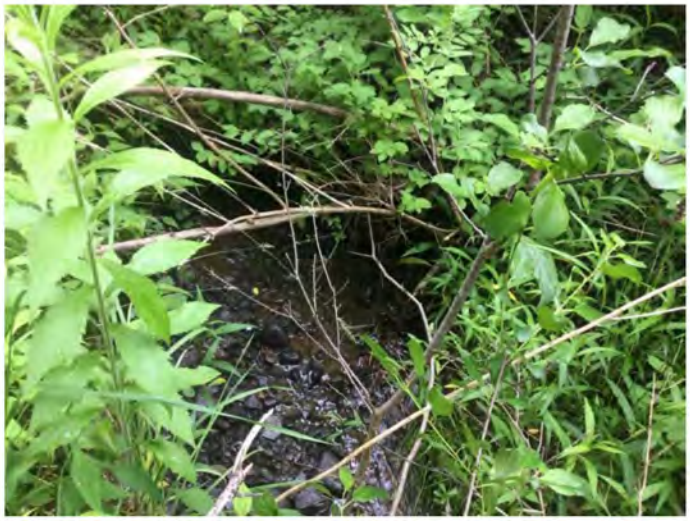
headcut upstream

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	361872
Survey Date	06/16/2023
User	Megan Aubertine
General Information	
Project ID #	12-ST005
Site	21028 Hoffman Falls
Date	06/16/2023
Time	01:22 PM
Location	
Latitude	42.90963
Longitude	-75.68390183
Datum	NAD83/2011
Investigator(s)	RF
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Stream at the edge of forest and agricultural field.
Step 2: Site conditions during field assessment	
Describe Site Condition	Intermittent stream drains wetland complex. Rain in the last 24 hours. Bordered by dense vegetation.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	

Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	Change in vegetation density from absent to forbs was one of the most consistent indicators of OHWM along the stream reach, in addition to both a break in slope and disturbed leaf litter.
Additional observations or notes	
Photos	
Photo log attached?	Yes
Photos	



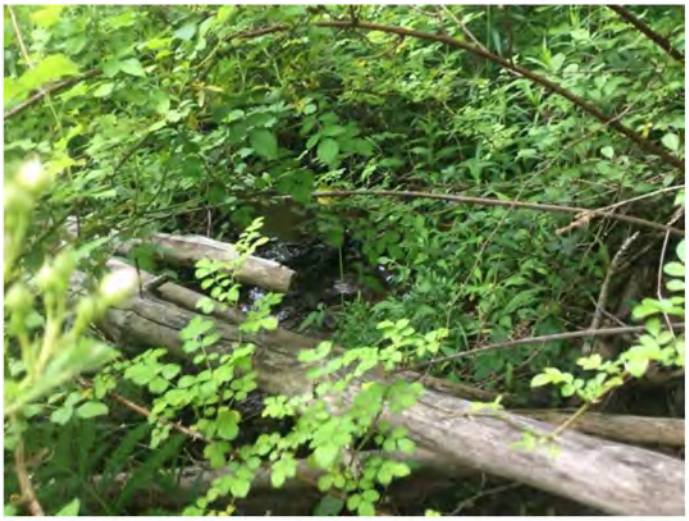
stream surrounded by dense vegetation on bank



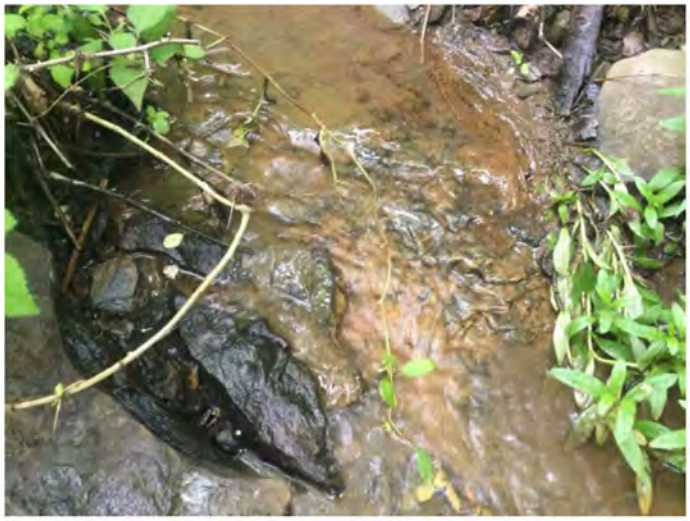
substrate

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	361874
Survey Date	06/16/2023
User	Megan Aubertine
General Information	
Project ID #	12-ST006
Site	21028 Hoffman Falls
Date	06/16/2023
Time	01:52 PM
Location	
Latitude	42.90965333
Longitude	-75.68391367
Datum	NAD83/2011
Investigator(s)	RF
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Stream corresponds with a NYSDEC mapped class C stream, and topography mapping indicates the presence of a channel.
Step 2: Site conditions during field assessment	
Describe Site Condition	Rain in the last 24 hours. Stream draining wetland meets another stream. Bordered by wetland and upland.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	Present
Secondary Channels	x

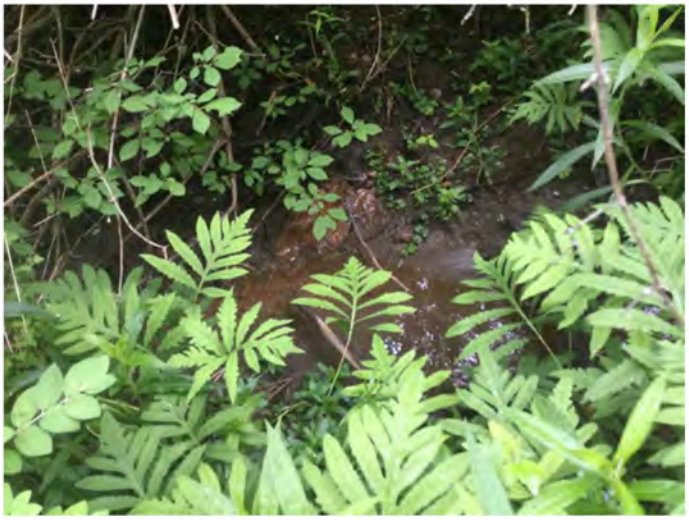
Indicator Location	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	Yes
Describe	Oxidized iron in stream
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	Change in vegetation density from absent to forbs was one of the most consistent indicators of OHWM along the stream reach, in addition to both a break in slope and disturbed leaf litter.
Additional observations or notes	
Photos	
Photo log attached?	Yes
Photos	



dense vegetation



substrate



view across channel

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	362495
Survey Date	06/27/2023
User	Rachael Foote
General Information	
Project ID #	12-ST007
Site	21028 Hoffman Falls
Date	06/27/2023
Time	01:31 PM
Location	
Latitude	42.90985517
Longitude	-75.68328167
Datum	NAD83/2011
Investigator(s)	RF AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Stream corresponds to NYSDEC mapped class C stream.
Step 2: Site conditions during field assessment	
Describe Site Condition	Rain in the last 24 hours, drains wetland system. Newly constructed, man-made pond within stream. Two streams converge to form 12-ST007
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	Present
Channel Bar Indicator Location	x
Shelving (berms) on bar	
Unvegetated	

Vegetation transition (go to veg. indicators)	
Sediment transition (go to sed. indicators)	
Upper limit of deposition on bar:	
Instream bedforms and other bedload transport evidence	
Secondary channels	Present
Secondary Channels Indicator Location	x

Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	

Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

Step 4: Additional Information	
Is additional information needed to support this determination?	No

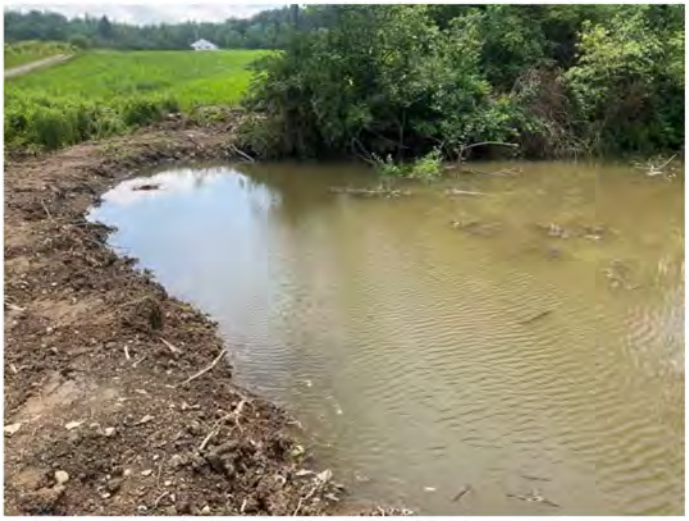
Step 5: Rationale

Describe rationale for location of OHWM	Change in vegetation density from absent to forbs was one of the most consistent indicators of OHWM along the stream reach, in addition to a break in slope.
Additional observations or notes	

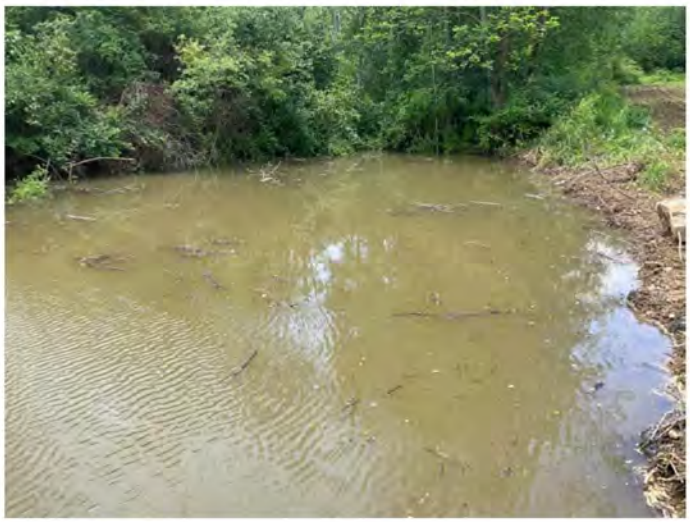
Photos

Photo log attached?	Yes

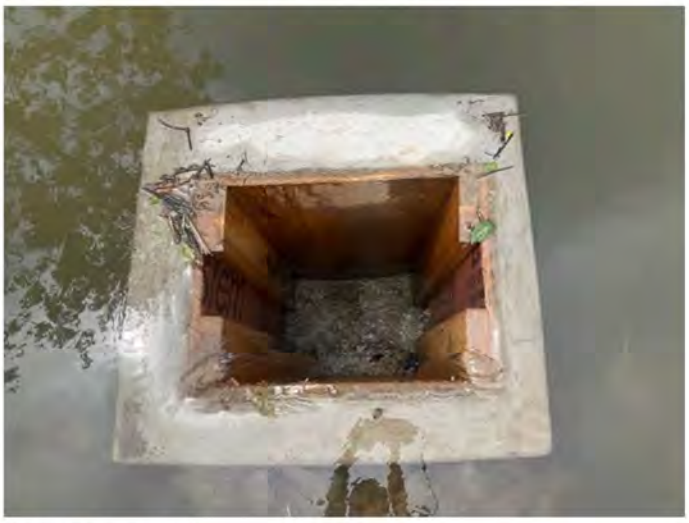
Photos



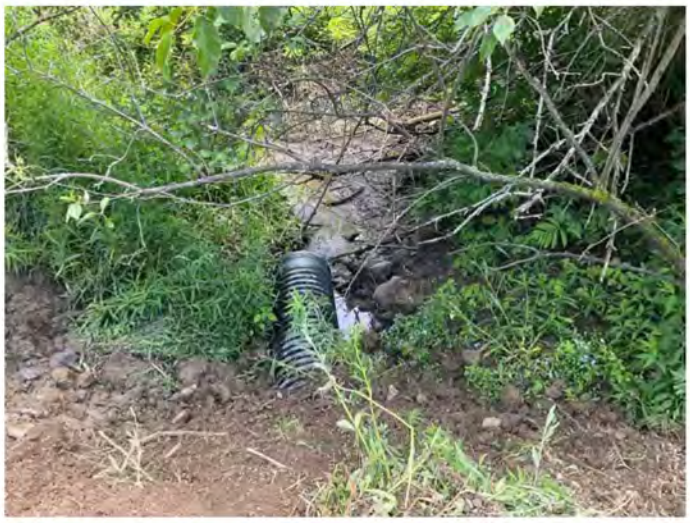
stream flows into newly constructed ponds



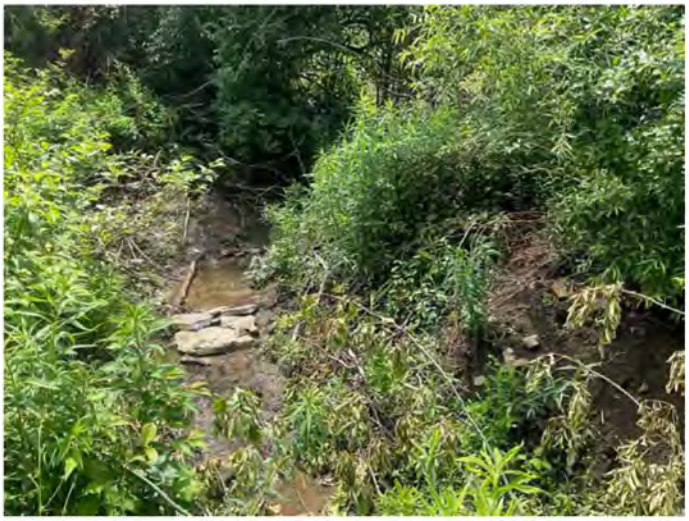
pond



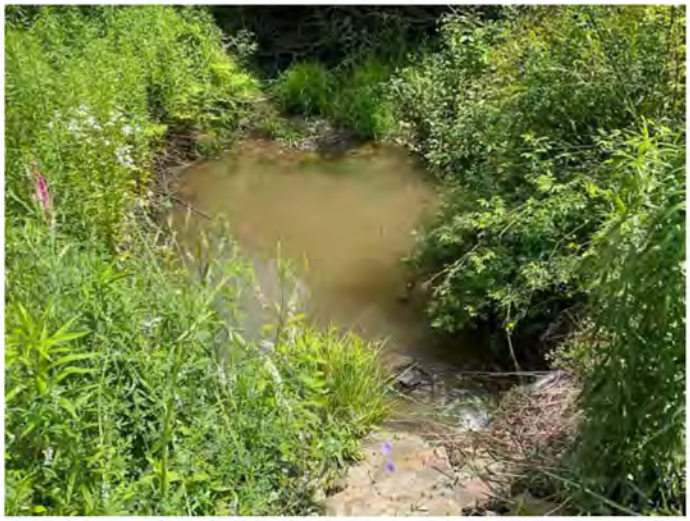
drainage in pond



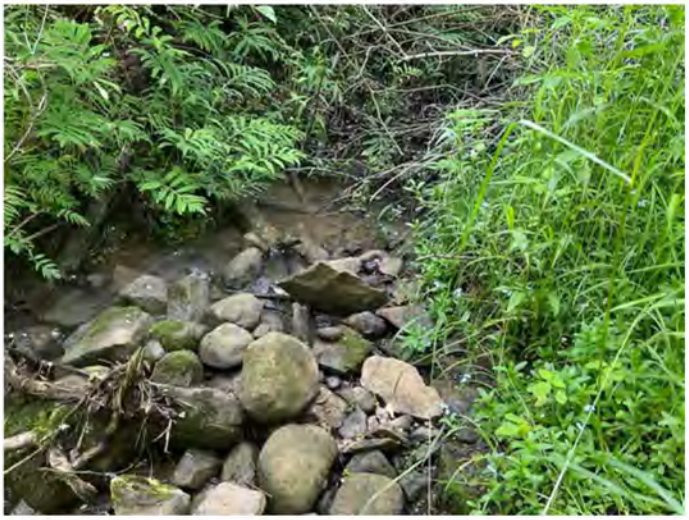
culvert draining pond back to natural stream channel



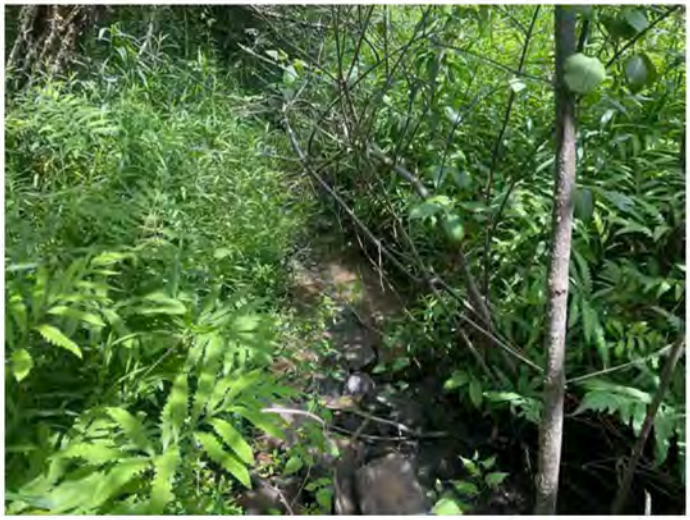
disturbed area



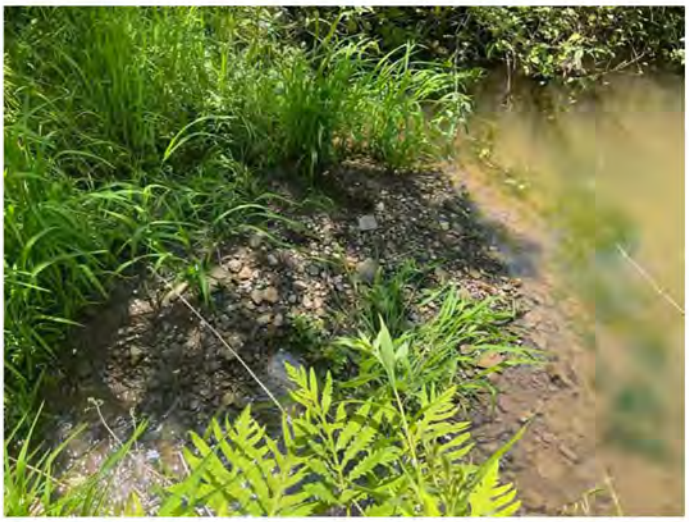
disturbed area



streambed/substrate



stream channel



secondary channel

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	364981
Survey Date	07/05/2023
User	Rachael Foote
General Information	
Project ID #	12-ST009
Site	21028 Hoffman Falls
Date	07/05/2023
Time	02:15 PM
Location	
Latitude	42.90106267
Longitude	-75.65658633
Datum	NAD83/2011
Investigator(s)	RF, AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Corresponds with NYS DEC mapped C class stream NWI mapped riverine feature R5UBH. Stream is bordered by agriculture fields. No rain in last 48 hours.
Step 2: Site conditions during field assessment	
Describe Site Condition	Stream drains wetland, adjacent to active agricultural field. No disturbances affecting flow within the delineated reach of stream. Delineated wetland 12-W011 outlets into this stream.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	Present
Valley Bottom Indicator Location	x
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport	

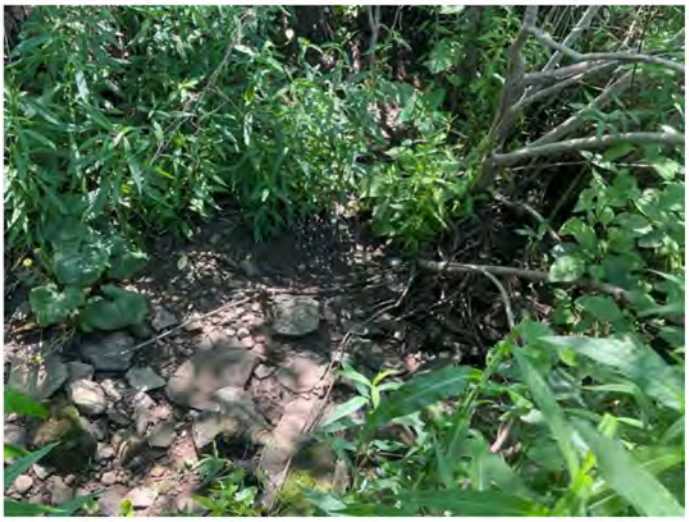
evidence	
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	Present
Matted/Bent Vegetation Indicator Location	x
Exposed roots below intact soil layer:	Present
Exposed Roots Indicator Location	x
Ancillary Indicators	
Wracking/presence of organic litter	Present
Wracking Indicator Location	x
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	The OHWM is defined by the break in slope and a vegetative transition from absent to forbs, wracking and bent vegetation. These indicators were persistent throughout the delineated reach of stream.
Additional observations or	

notes

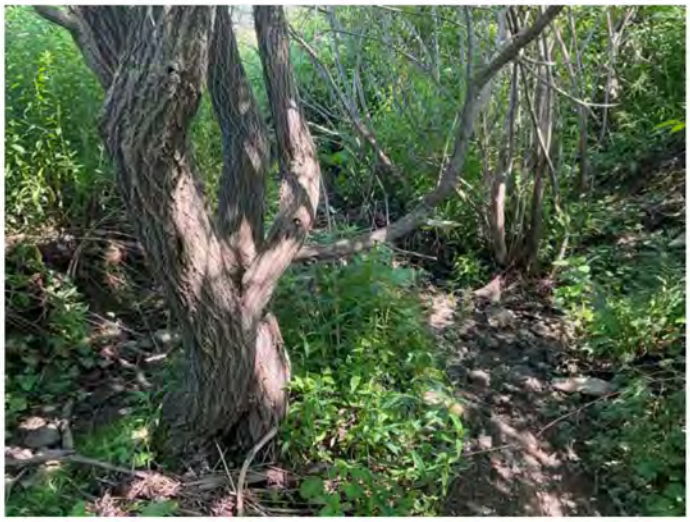
Photos

Photo log attached? Yes

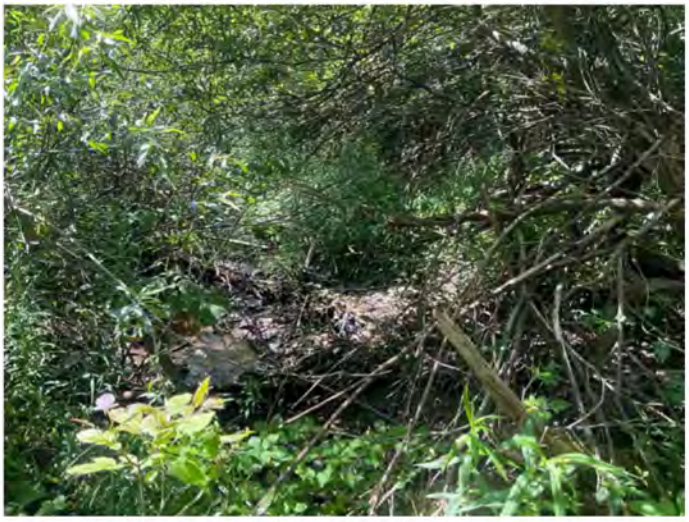
Photos



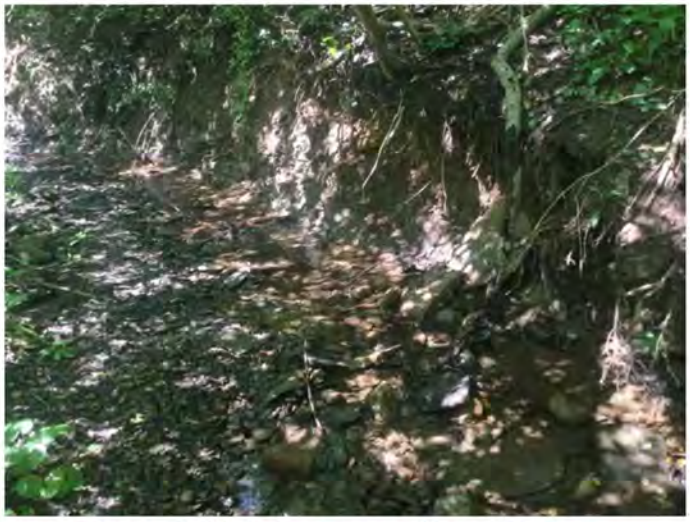
substrate



change in vegetation density



secondary channel visible through shrubs



exposed roots visible below intact soil layer upstream

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1

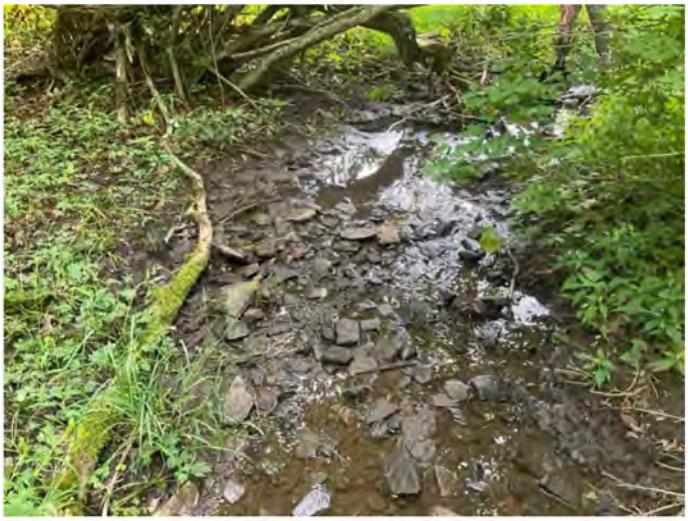
Project	21028 Hoffman Falls Wetland Delineation
ID	365931
Survey Date	07/07/2023
User	Rachael Foote
General Information	
Project ID #	12-ST012
Site	21028 Hoffman Falls
Date	07/07/2023
Time	10:43 AM
Location	
Latitude	42.95553667
Longitude	-75.7370485
Datum	NAD83/2011
Investigator(s)	ME RF
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	The surrounding land use is primarily forested uplands and wetlands. No rain has occurred within the previous 24 hours. Low baseflow was observed during the delineation.
Step 2: Site conditions during field assessment	
Describe Site Condition	No observations of man-made or natural disturbances were made within the delineated reach of this stream.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	Present
Channel Bar Indicator Location	x
Shelving (berms) on bar	
Unvegetated	

Vegetation transition (go to veg. indicators)	
Sediment transition (go to sed. indicators)	
Upper limit of deposition on bar:	
Instream bedforms and other bedload transport evidence	
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	Present
Presence of Large Wood Indicator Location	x
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	A break in slope and channel bars were two of the most consistent indicators of OHWM along the stream reach. Large wood was also noted as being present at the location of the OHWM.
Additional observations or notes	This stream runs through and diffuses into delineated wetland 12-W013.

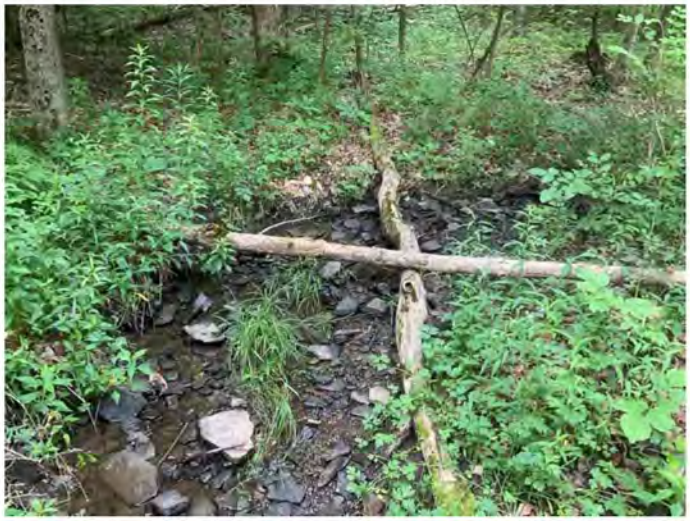
Photos

Photo log attached?	Yes

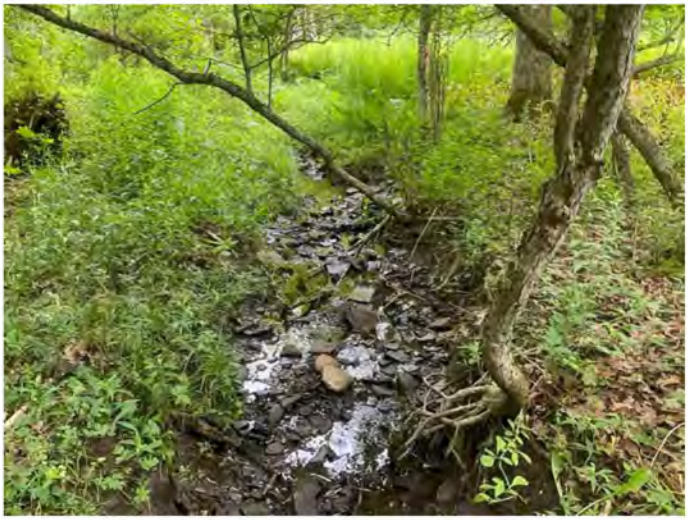
Photos



Break in slope and large wood.



More photos of large wood.



Break in slope present.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	366409
Survey Date	07/10/2023
User	Rachael Foote
General Information	
Project ID #	12-ST014
Site	21028 Hoffman Falls
Date	07/10/2023
Time	01:52 PM
Location	
Latitude	42.93487733
Longitude	-75.728111
Datum	NAD83/2011
Investigator(s)	RF, AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	No state or federal stream mapped; however, based on contour, a channel is present. Agriculture fields occur adjacent to stream.
Step 2: Site conditions during field assessment	
Describe Site Condition	Rain during the time of the survey. Narrow ravine in between two active agricultural fields
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	
Sediment Indicators	

Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	

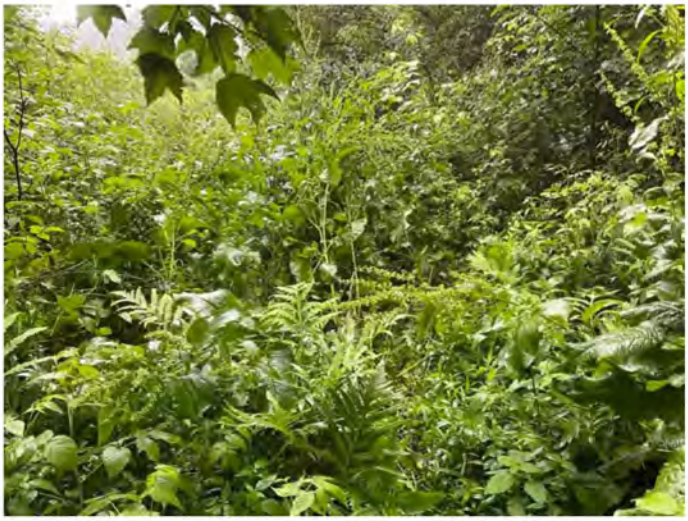
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

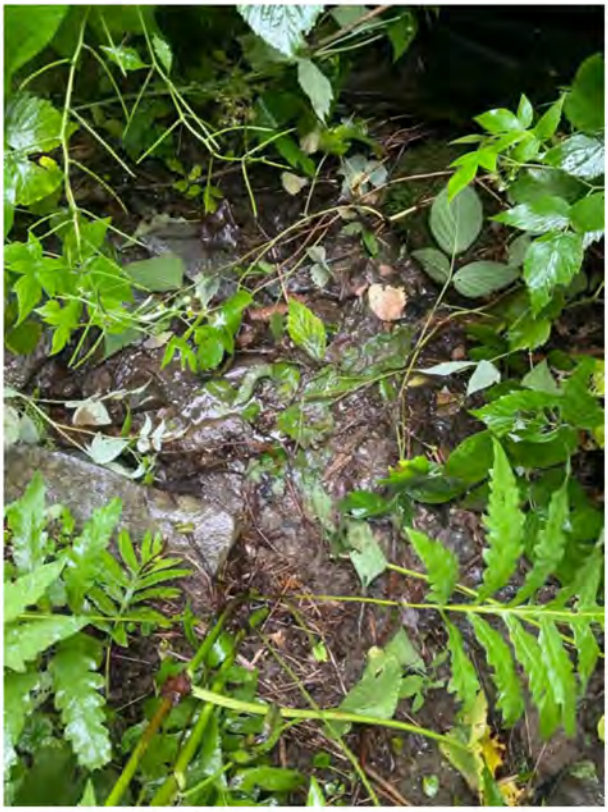
Step 4: Additional Information	
Is additional information needed to support this determination?	No

Step 5: Rationale	
Describe rationale for location of OHWM	Break in slope with vegetation absent to forbs along entirety of stream at the OHWM.
Additional observations or notes	

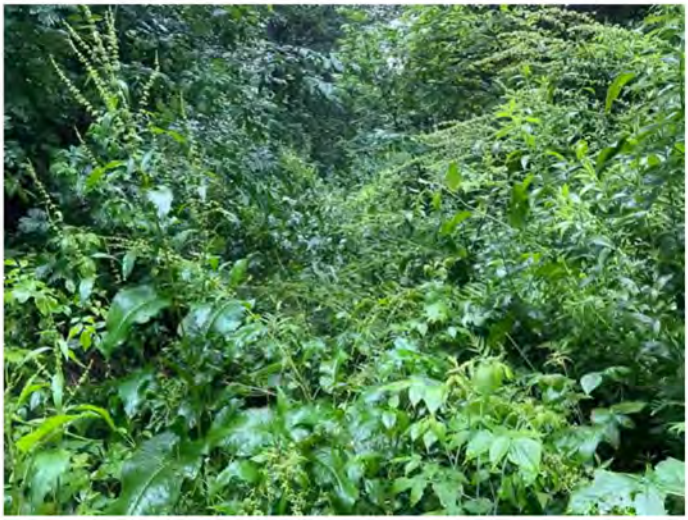
Photos	
Photo log attached?	Yes
Photos	



dense vegetation near stream channel



view across stream channel



vegetation obstructing the view of stream channel

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	370069
Survey Date	07/19/2023
User	Rachael Foote
General Information	
Project ID #	12-ST015
Site	21028 Hoffman Falls
Date	07/19/2023
Time	01:33 PM
Location	
Latitude	42.93936967
Longitude	-75.767666
Datum	NAD83/2011
Investigator(s)	RF RN
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Primary land use is active pastureland. Rainfall occurred within previous 24 hours. Moderate baseflow was observed during the delineation. This feature corresponds with NYS DEC mapped C(T) stream. This stream is bordered by NWI mapped wetland PSS1/EM1Eb.
Step 2: Site conditions during field assessment	
Describe Site Condition	A gravel ford crossing for a service road occurs within the streambed.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	Present
Undercut Bank Indicator Location	x
Valley Bottom	Present
Valley Bottom Indicator Location	b
Other break in slope description	
Shelving	

Channel bar	
Instream bedforms and other bedload transport evidence	Present
Instream bedforms Indicator Location	x
Deposition bedload indicators (e.g., poofs, riffles, steps, etc.)	Present
Deposition Bedload Indicator Location	b
Bedforms (e.g., imbricated clasts, gravel sheets, etc.)	Present
Bedforms Indicator Location	x
Erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)	
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	Present
Changes in particle-sized distribution Indicator Location	x
transition from	Gravel and cobble to loam.
Upper limit of sand-sized particles	
Silt deposits	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	Present
Wracking Indicator Location	x

Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	Present
Water Staining Indicator Location	x
Weathered clasts or bedrock	Present
Weathered clasts or bedrock Indicator Location	x
Other observed indicators?	No

Step 4: Additional Information

Is additional information needed to support this determination?	No

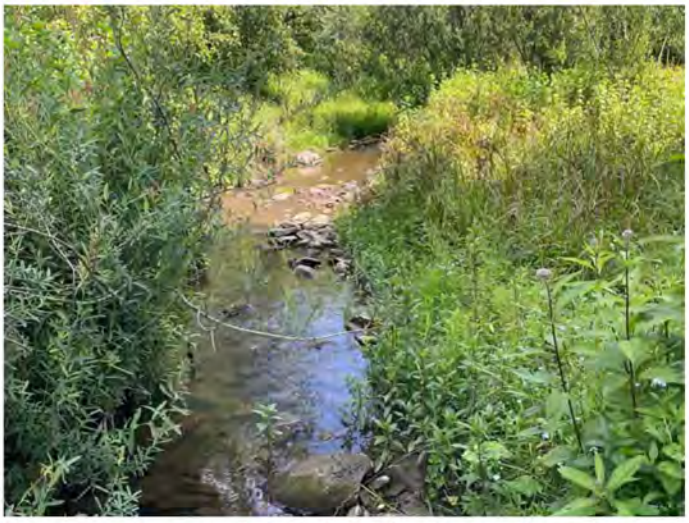
Step 5: Rationale

Describe rationale for location of OHWM	The OWHM was determined by the changes in particle size distribution. This change coincides with the break in slope on the stream bank and a transition in vegetation. These indicators were the most consistent throughout the entire reach of the delineated stream.
Additional observations or notes	

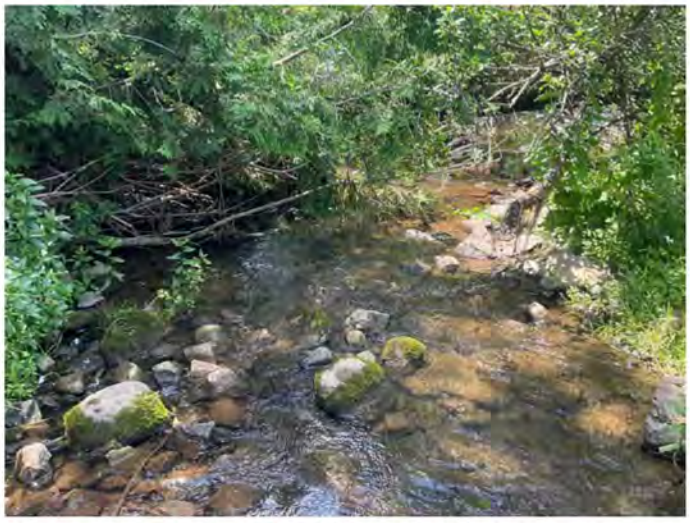
Photos

Photo log attached?	Yes

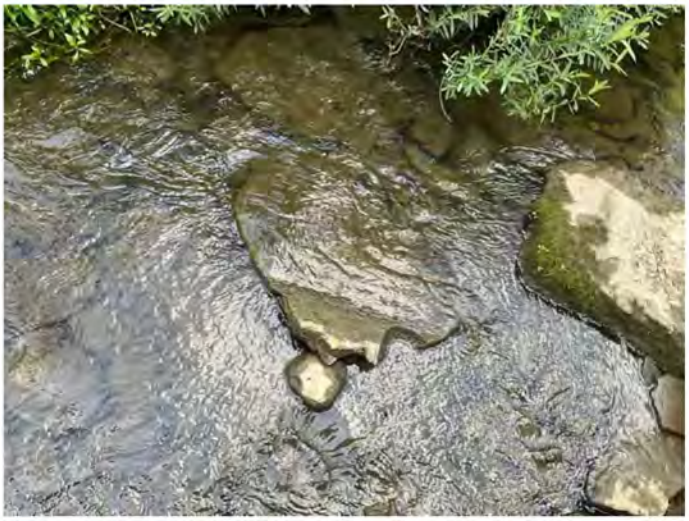
Photos



Upstream photograph, with break in slope and vegetation transition present.



Downstream photograph, with stream substrate present. Some wracking of woody material visible further downstream.



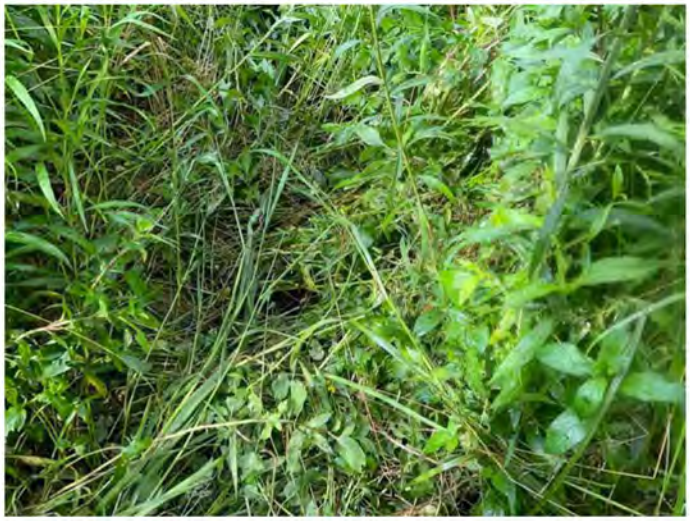
Stream substrate photograph. Leaf litter has been washed away in this photograph.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	367096
Survey Date	07/12/2023
User	Rachael Foote
General Information	
Project ID #	12-ST015A
Site	21028 Hoffman Falls
Date	07/12/2023
Time	09:28 AM
Location	
Latitude	42.92389467
Longitude	-75.681049
Datum	NAD83/2011
Investigator(s)	RF AT BA
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Successional scrubland buffers stream before transitioning to agriculture field.
Step 2: Site conditions during field assessment	
Describe Site Condition	Rain in the last 24 hours. Drains overland flow from upland agriculture/pasture. Drains into PSS wetland complex.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	Present
Undercut Bank Indicator Location	x
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	

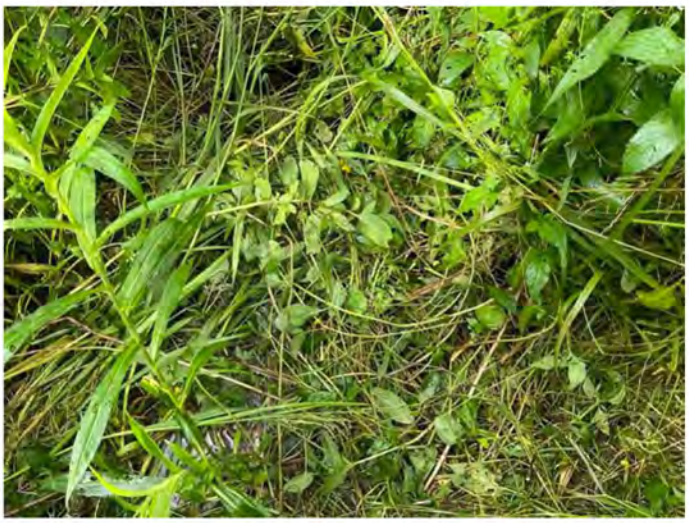
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	forbs
Vegetation Change To	woody shrubs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	Present
Weathered clasts or bedrock Indicator Location	x
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	Break in slope with an undercut bank and change in vegetation from forbs to woody shrubs. along entirety of stream at the OHWM. Disturbed leaf litter and weathered bedrock aided in the determination of the OHWM.
Additional observations or notes	
Photos	
Photo log attached?	No
Explain why not	Please attach photos from photopoints

Photos

stream flowing with forbes in streambed



looking across channel



stream flowing with forbes in streambed

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	378740
Survey Date	08/11/2023
User	Rachael Foote
General Information	
Project ID #	12-ST016
Site	21028 Hoffman Falls
Date	08/11/2023
Time	11:48 AM
Location	
Latitude	42.937095
Longitude	-75.730948
Investigator(s)	RF AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Deciduous forest borders stream. Rain and moderate baseflow was present during the delineation.
Step 2: Site conditions during field assessment	
Describe Site Condition	No observations of man-made or natural disturbances were made during the delineation.
Step 3 Indicators Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	Present
Shelving Indicator Location	x
Shelf at top of bank	
Natural Levee	
Man-made Berms or Levees	
Other Berms Description	

Channel bar	Present
Channel Bar Indicator Location	x
Shelving (berms) on bar	
Unvegetated	
Vegetation transition (go to veg. indicators)	
Sediment transition (go to sed. indicators)	
Upper limit of deposition on bar:	
Instream bedforms and other bedload transport evidence	Present
Instream bedforms Indicator Location	b
Deposition bedload indicators (e.g., poofs, riffles, steps, etc.)	Present
Deposition Bedload Indicator Location	b
Bedforms (e.g., imbricated clasts, gravel sheets, etc.)	
Erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)	Present
Erosional Bedload Indicator Location	x
Secondary channels	Present
Secondary Channels Indicator Location	x
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	moss
Vegetation matted down and/or bent:	
Exposed roots below intact	

soil layer:

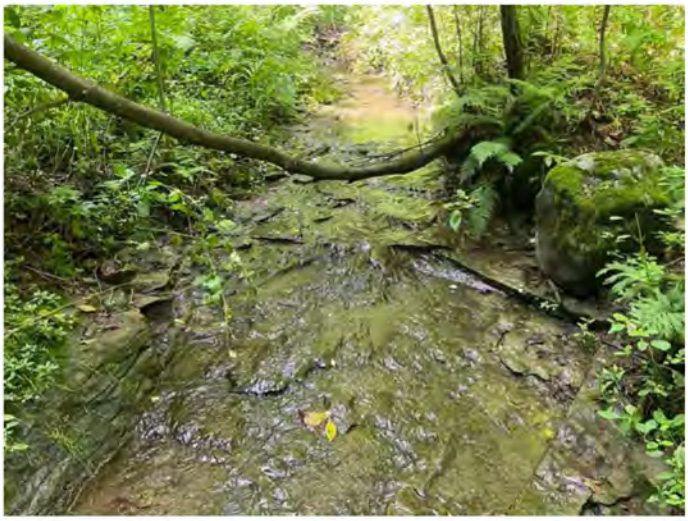
Ancillary Indicators	
Wracking/presence of organic litter	Present
Wracking Indicator Location	x
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	Present
Water Staining Indicator Location	x
Weathered clasts or bedrock	
Other observed indicators?	No

Step 4: Additional Information	
Is additional information needed to support this determination?	No

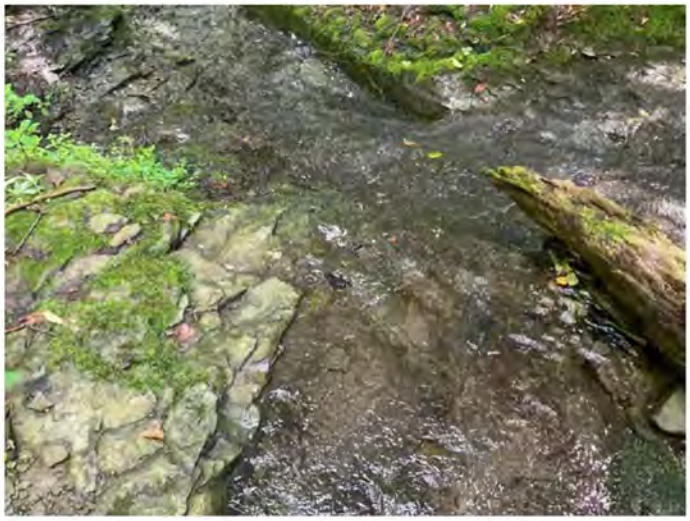
Step 5: Rationale	
Describe rationale for location of OHWM	The OHWM was determined to occur at the break in slope, where wracking of leaf litter has occurred, where vegetation transitions from absent to moss, and where erosional bedload indicators are present. These indicators were persistent throughout the entire reach of the delineated stream.
Additional observations or notes	

Photos	
Photo log attached?	Yes

Photos



Downstream photograph of delineated stream where break in slope, vegetation transition, and erosional bedload indicators occur at the OHWM.



Stream substrate photo, facing upstream, with erosional bedload indicators present.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	378708
Survey Date	08/09/2023
User	Rachael Foote
General Information	
Project ID #	12-ST016A
Site	21028 Hoffman Falls
Date	08/09/2023
Time	02:48 PM
Location	
Latitude	42.938494
Longitude	-75.765017
Datum	NAD83/2011
Investigator(s)	RF AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Adjacent land use is active pastureland. Rain in the last 24 hours. No baseflow observed during the delineation.
Step 2: Site conditions during field assessment	
Describe Site Condition	Stream flows through active pasture.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	

Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	

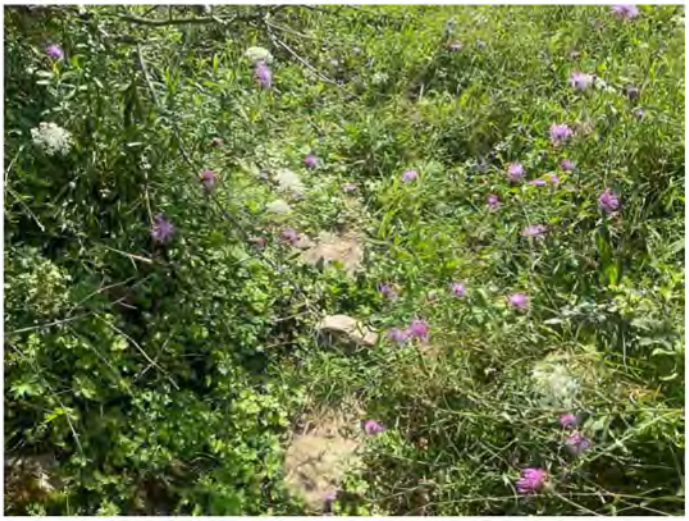
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	graminoids
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	Present
Water Staining Indicator Location	x
Weathered clasts or bedrock	
Other observed indicators?	No

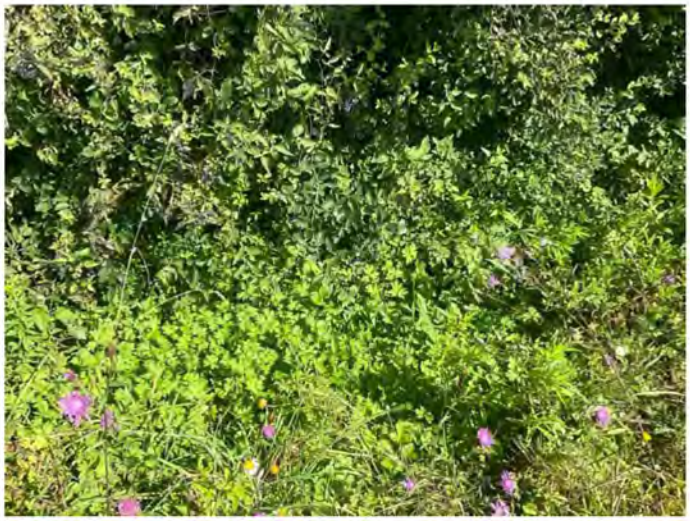
Step 4: Additional Information	
Is additional information needed to support this determination?	No

Step 5: Rationale	
Describe rationale for location of OHWM	The OHWM was determined by a continuous break in slope on the bank and transition in vegetation, which persisted throughout the entire reach of the delineated stream. Observations of water staining and washed-out leaf litter aided in this determination, but did not persist throughout the reach of this stream.
Additional observations or notes	This feature abruptly terminates.

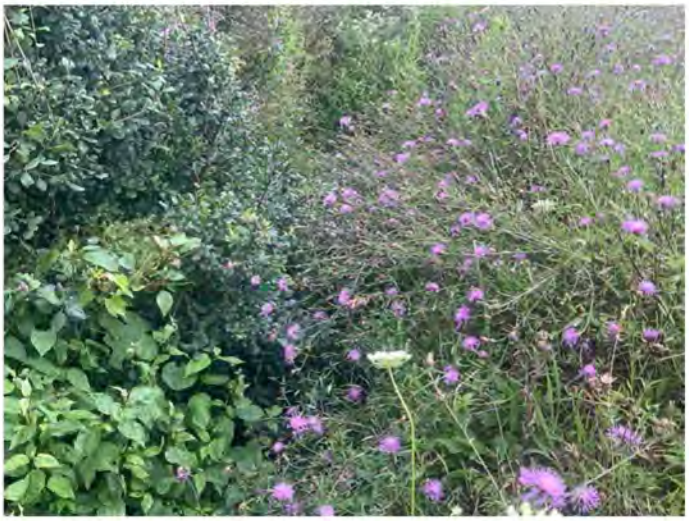
Photos	
Photo log attached?	Yes
Photos	



Upstream photograph with defined break in slope present, as well as a transition in vegetation from graminoids to forbs.



Stream bed, with defined channel and herbaceous layer.



Downstream photograph, with break in slope and stream channel visible.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	378738
Survey Date	08/11/2023
User	Rachael Foote
General Information	
Project ID #	12-ST018
Site	21028 Hoffman Falls
Date	08/11/2023
Time	11:48 AM
Location	
Latitude	42.93705583
Longitude	-75.73092517
Datum	NAD83/2011
Investigator(s)	RF AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Forested and agricultural land are the adjacent land uses. This stream corresponds with a NYS DEC mapped C(T) stream and NWI riverine feature R5UBH.
Step 2: Site conditions during field assessment	
Describe Site Condition	No observations of man-made or natural disturbances were present at the time of the delineation. Low baseflow present during the delineation and rainfall present during the delineation. Various fringe wetlands occur along stream banks.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	Present
Shelving Indicator Location	x
Shelf at top of bank	
Natural Levee	

Man-made Berms or Levees	
Other Berms Description	
Channel bar	Present
Channel Bar Indicator Location	x
Shelving (berms) on bar	
Unvegetated	
Vegetation transition (go to veg. indicators)	
Sediment transition (go to sed. indicators)	
Upper limit of deposition on bar:	
Instream bedforms and other bedload transport evidence	Present
Instream bedforms Indicator Location	x
Deposition bedload indicators (e.g., poofs, riffles, steps, etc.)	Present
Deposition Bedload Indicator Location	x
Bedforms (e.g., imbricated clasts, gravel sheets, etc.)	
Erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)	Present
Erosional Bedload Indicator Location	x
Secondary channels	Present
Secondary Channels Indicator Location	x
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	moss

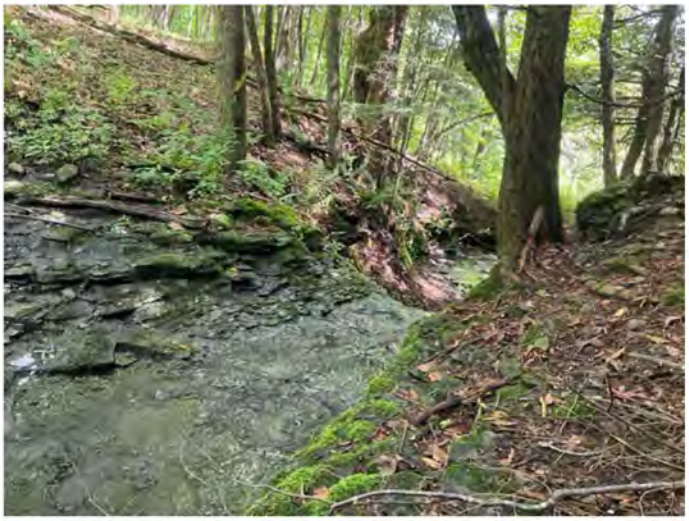
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	Present
Wracking Indicator Location	x
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	Present
Water Staining Indicator Location	x
Weathered clasts or bedrock	
Other observed indicators?	No

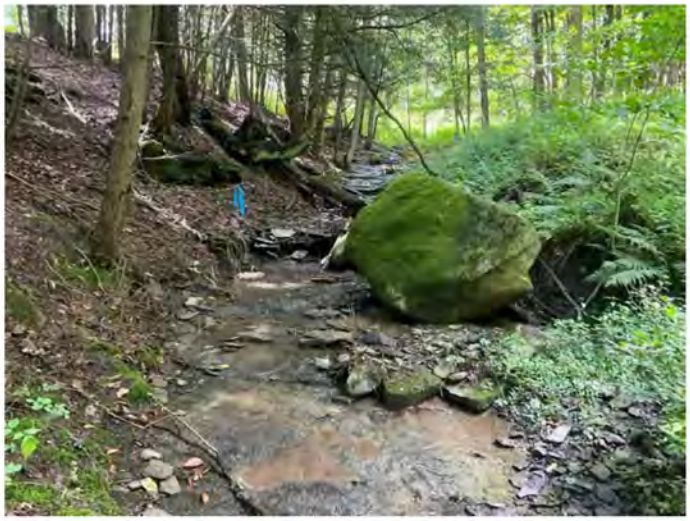
Step 4: Additional Information	
Is additional information needed to support this determination?	No

Step 5: Rationale	
Describe rationale for location of OHWM	OHWM was determined to occur at the break on the bank and at the transition in vegetation. These indicators were persistent throughout the stream. Other indicators such as channel bars, instream bedforms, erosional and depositional bedload indicators, secondary channels indicate the OHWM but their occurrences were sporadic.
Additional observations or notes	

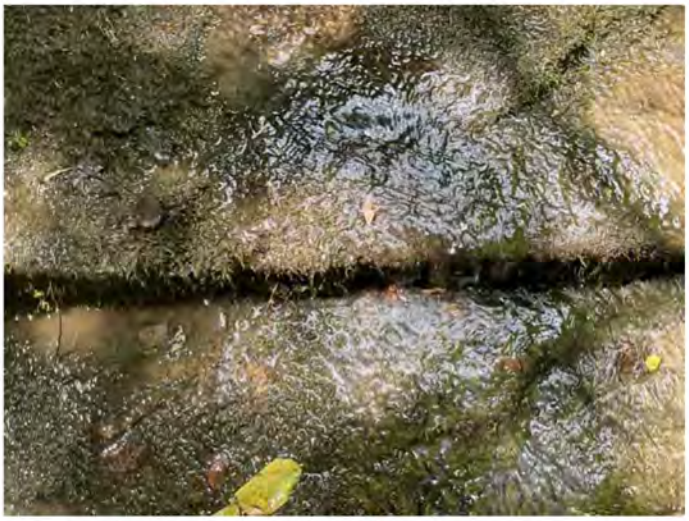
Photos	
Photo log attached?	Yes
Photos	



Downstream photograph with defined break in slope and stream substrate transition.



Upstream photograph with defined vegetation transition and stream substrate transition. Instream bedforms present within this reach. Scouring and erosion of substrate is additionally present.



Stream substrate photo with low baseflow.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	365443
Survey Date	07/06/2023
User	Rachael Foote
General Information	
Project ID #	12-ST020
Site	21028 Hoffman Falls
Date	07/06/2023
Time	09:05 AM
Location	
Latitude	42.90206983
Longitude	-75.66228917
Datum	NAD83/2011
Investigator(s)	RF AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Deciduous forest borders stream.
Step 2: Site conditions during field assessment	
Describe Site Condition	No rain in the last 24 hours. Converges with 12-ST011
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	Present
Shelving Indicator Location	x
Shelf at top of bank	
Natural Levee	
Man-made Berms or Levees	
Other Berms Description	
Channel bar	

Instream bedforms and other bedload transport evidence	
Secondary channels	

Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	

Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	forbs
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	Present
Wracking Indicator Location	x
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

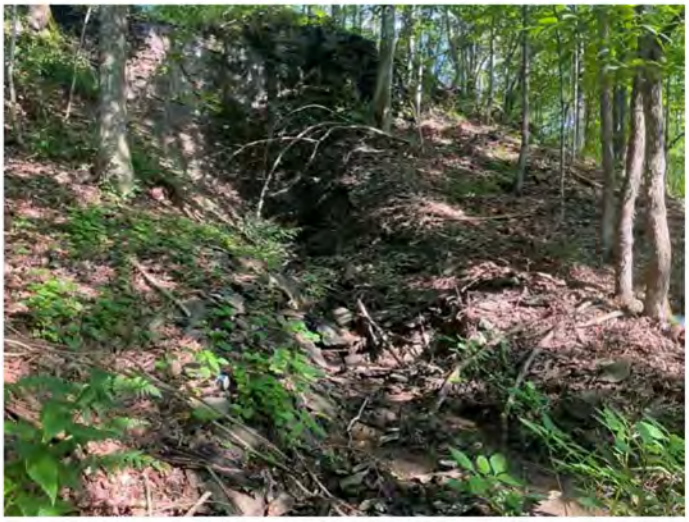
Step 4: Additional Information	
Is additional information needed to support this determination?	No

Step 5: Rationale	
Describe rationale for location of OHWM	The OHWM is defined by the break in slope and change in vegetation. Other indicators such as wracking, shelving, and disturbed leaf litter also occur at the OHWM help support this determination.
Additional observations or notes	

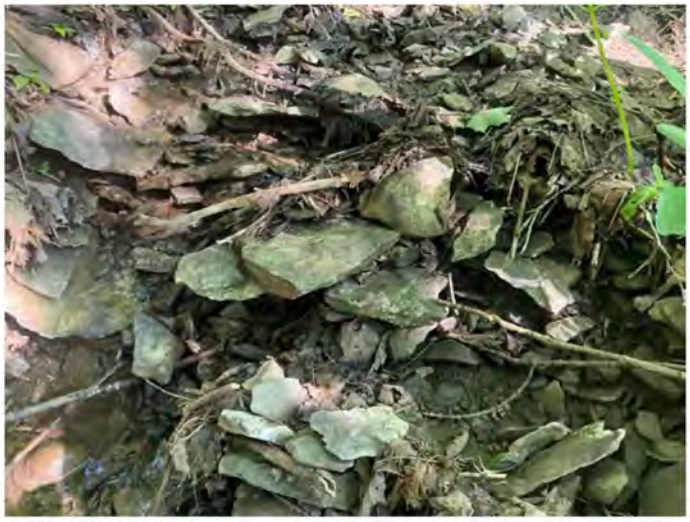
Photos

Photo log attached? Yes

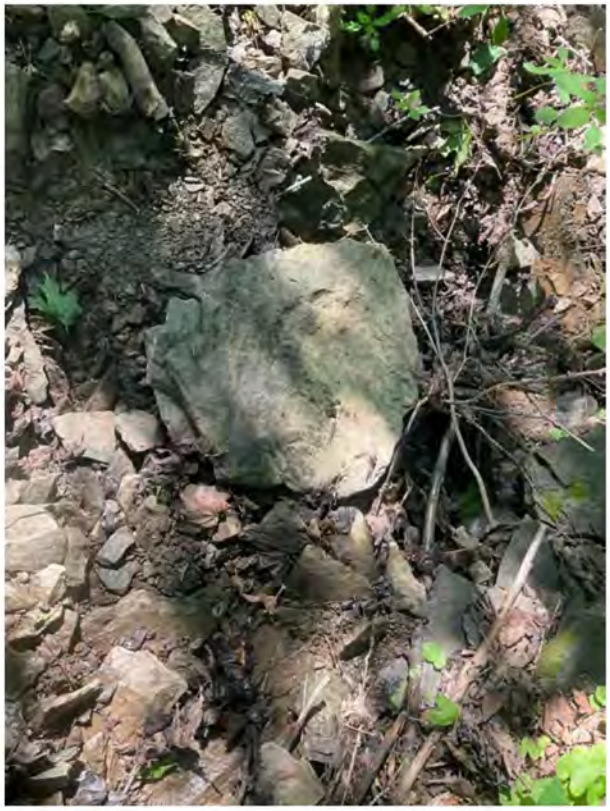
Photos



upstream



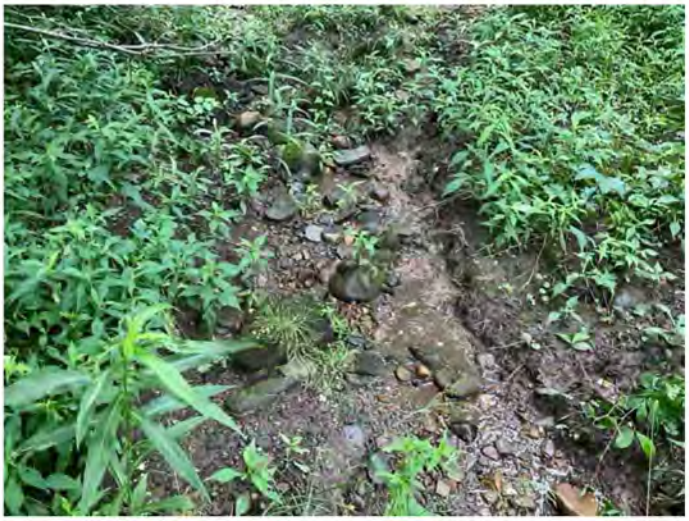
undercut bank



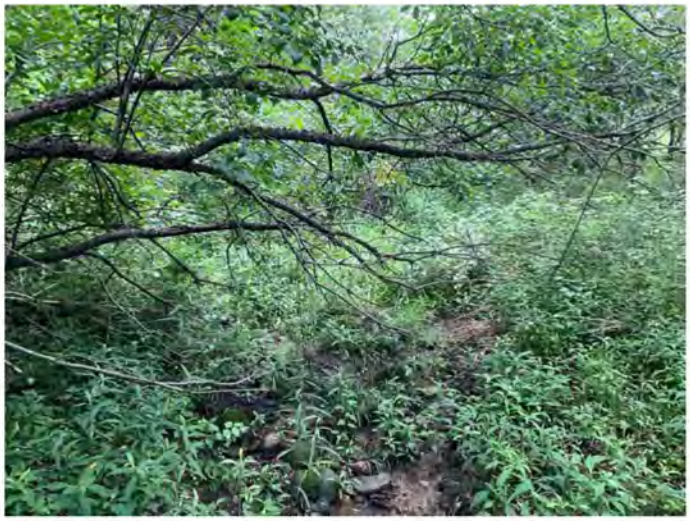
substrate of stream

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	367101
Survey Date	07/12/2023
User	Rachael Foote
General Information	
Project ID #	12-ST021
Site	21028 Hoffman Falls
Date	07/12/2023
Time	01:08 PM
Location	
Latitude	42.92308333
Longitude	-75.68191133
Datum	NAD83/2011
Investigator(s)	BA RF AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	The surrounding land use is primarily forested. Very low baseflow observed during the delineation. Rainfall has occurred within the last 24 hours.
Step 2: Site conditions during field assessment	
Describe Site Condition	Stream drains overland sheet flow from surrounding upland areas. No observations of man-made or natural disturbances were present during the delineation.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	Present
Secondary Channels	x

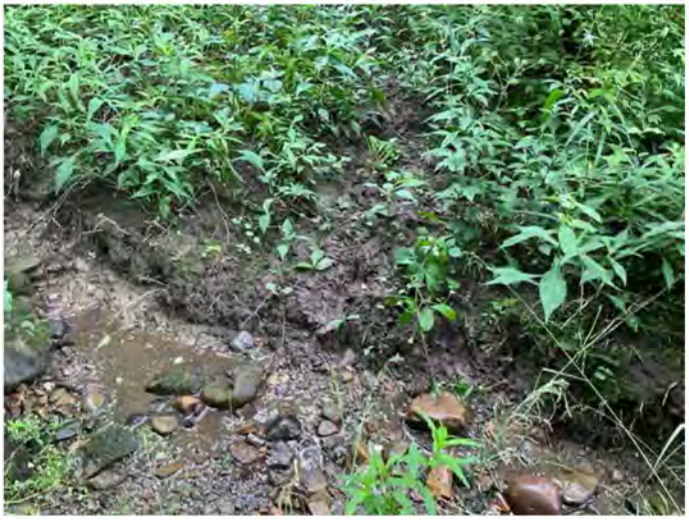
Indicator Location	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	The OHWM was determined by a break in slope and transition in vegetation. Additional indicators including secondary channels and disturbed leaf litter aided in the determination of the OHWM. These indicators were consistent throughout the entire reach of the delineated stream.
Additional observations or notes	This stream terminates abruptly and does not share a hydrologic connection with any other features.
Photos	
Photo log attached?	Yes
Photos	



Stream substrate with vegetation transition present.



Upstream photograph, with break in slope present.



Break in slope present within the delineated stream.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1

Project	21028 Hoffman Falls Wetland Delineation
ID	401515
Survey Date	10/31/2023
User	Rachael Foote
General Information	
Project ID #	12-ST022
Site	21028 Hoffman Falls
Date	10/30/2023
Time	09:47 AM
Location	
Latitude	42.943541
Longitude	-75.761205
Investigator(s)	RF AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Environmental resource mapper
Describe land use and flow conditions from online resources.	Land use maps, geologic maps, satellite imagery, LiDAR, and topographic maps used to determine approximate location of stream within study area. Environmental resource mapper was used to determine stream class as well as assumed stream order based on relationships with mapped NYSDEC stream and NWI riverine areas. Climate data used to determine flow regime in relation to storm events.
Step 2: Site conditions during field assessment	
Describe Site Condition	Ephemeral stream/ditch likely conveys storm water. Water flowing in stream at time of delineation. Persistent rain in the last 24 hours.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	

Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	

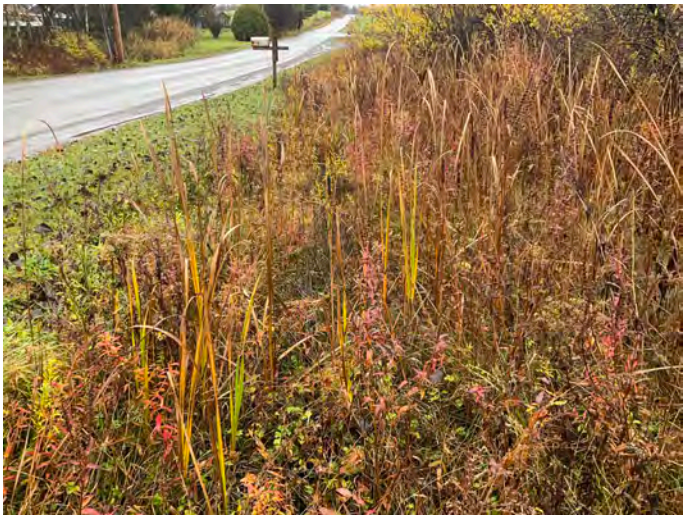
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

Step 4: Additional Information	
Is additional information needed to support this determination?	No

Step 5: Rationale	
Describe rationale for location of OHWM	OHWM determined by the presence of a break in slope that corresponds with a change in vegetation and disturbed leaf litter.
Additional observations or notes	

Photos	
Photo log attached?	Yes
Photos	



Upstream view - break in slope

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1

Project	21028 Hoffman Falls Wetland Delineation
ID	401509
Survey Date	10/31/2023
User	Rachael Foote
General Information	
Project ID #	12-ST023
Site	21028 Hoffman Falls
Date	10/30/2023
Time	10:30 AM
Location	
Latitude	42.9433446
Longitude	-75.7611384
Investigator(s)	RF AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Environmental resource mapper
Describe land use and flow conditions from online resources.	This stream corresponds with NYSDEC mapped C(T) class stream. The banks are brodered by successional scrub shrub.
Step 2: Site conditions during field assessment	
Describe Site Condition	Perennial stream (Chittenango Creek) flows through residential and agricultural areas and enter study area through culvert under Wyss Road. Persistent rain in the last 12 hours.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	Present
Shelving Indicator Location	x
Shelf at top of bank	Present
Shelf at top of bank Indicator Location	x
Natural Levee	

Man-made Berms or Levees	
Other Berms Description	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	

Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	Present
Changes in particle-sized distribution Indicator Location	x
transition from	silt to cobble
Upper limit of sand-sized particles	
Silt deposits	

Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	Present
Matted/Bent Vegetation Indicator Location	x
Exposed roots below intact soil layer:	

Ancillary Indicators	
Wracking/presence of organic litter	Present
Wracking Indicator Location	x
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

Step 4: Additional Information

Is additional information needed to support this determination?	No

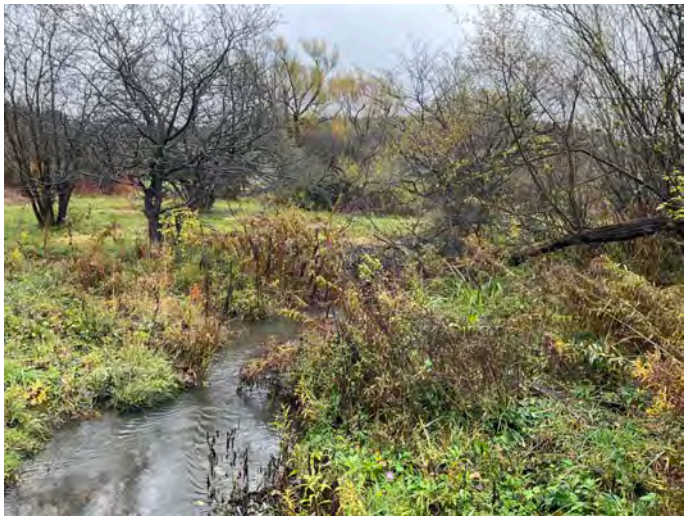
Step 5: Rationale

Describe rationale for location of OHWM	OHWM determined by a break in slope the corresponds with a natural line impressed on the bank, a shelf at the top of bank, and change in vegetation type and/or density. A change in particle size distribution from silt to cobble, matted vegetation, and leaf litter washed away at the OHWM.
Additional observations or notes	

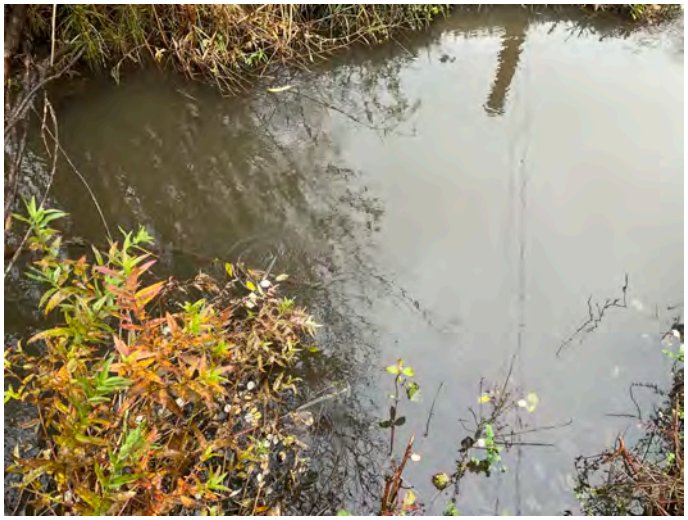
Photos

Photo log attached?

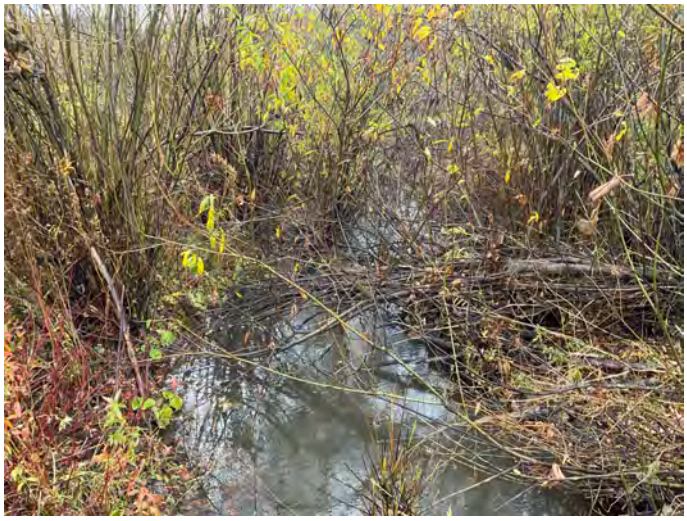
Photos



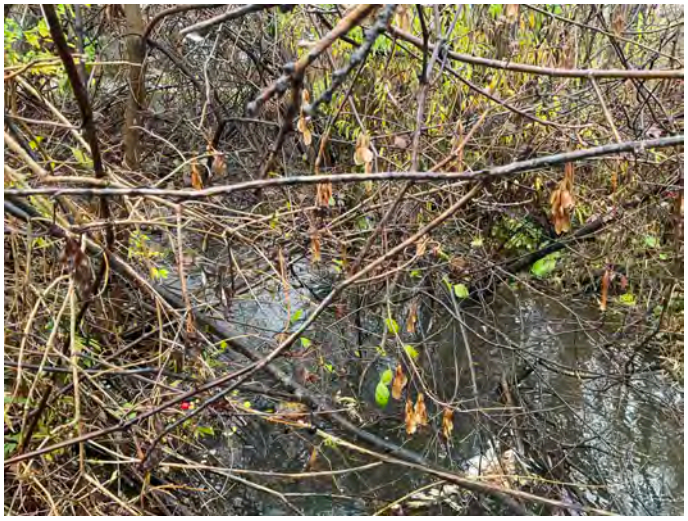
Break in slope, shelf at time of bank, leaf litter washed away



Natural line on the bank



Wracking, change in vegetation, vegetation bent



Wracking

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1

Project	21028 Hoffman Falls Wetland Delineation
ID	406640
Survey Date	11/16/2023
User	Rachael Foote

General Information

Project ID #	12-ST024
Site	21028 Hoffman Falls
Date	11/16/2023
Time	10:55 AM
Location	
Latitude	42.94239017
Longitude	-75.71306667
Datum	NAD83/2011
Investigator(s)	RF AT

Step 1: Site overview from remote and online resources

Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Environmental resource
Describe land use and flow conditions from online resources.	Land use maps, geologic maps, satellite imagery, LiDAR, and topographic maps used to determine approximate location of stream within study area. Environmental resource mapper was used to determine stream class as well as assumed stream order based on relationships with mapped NYSDEC stream and NWI riverine areas. Climate data used to determine flow regime in relation to storm events.

Step 2: Site conditions during field assessment

Describe Site Condition	Perennial trout stream through active agriculture. Gentle gradient. Includes minor man made berm adjacent to agricultural field. Debris has been pushed into stream from agriculture practices. This stream flows south through active agriculture field. This stream corresponds with a NYS DEC mapped C(T) class stream.

Step 3 Indicators

Geomorphic Indicators

Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	Present
Valley Bottom Indicator Location	x
Other break in slope description	
Shelving	Present

Shelving Indicator Location	a
Shelf at top of bank	Present
Shelf at top of bank Indicator Location	a
Natural Levee	
Man-made Berms or Levees	Present
Man-made berms or levees Indicator Location	x
Other Berms Description	Man made berm adjacent to agricultural field
Channel bar	Present
Channel Bar Indicator Location	x
Shelving (berms) on bar	
Unvegetated	
Vegetation transition (go to veg. indicators)	
Sediment transition (go to sed. indicators)	
Upper limit of deposition on bar:	
Instream bedforms and other bedload transport evidence	Present
Instream bedforms Indicator Location	x
Deposition bedload indicators (e.g., poofs, riffles, steps, etc.)	
Bedforms (e.g., imbricated clasts, gravel sheets, etc.)	
Erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)	
Secondary channels	

Sediment Indicators

Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	

Vegetation Indicators

Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent

Vegetation Change To	woody shrubs
Vegetation matted down and/or bent:	Present
Matted/Bent Vegetation Indicator Location	x
Exposed roots below intact soil layer:	

Ancillary Indicators

Wracking/presence of organic litter	Present
Wracking Indicator Location	x
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No

Step 4: Additional Information

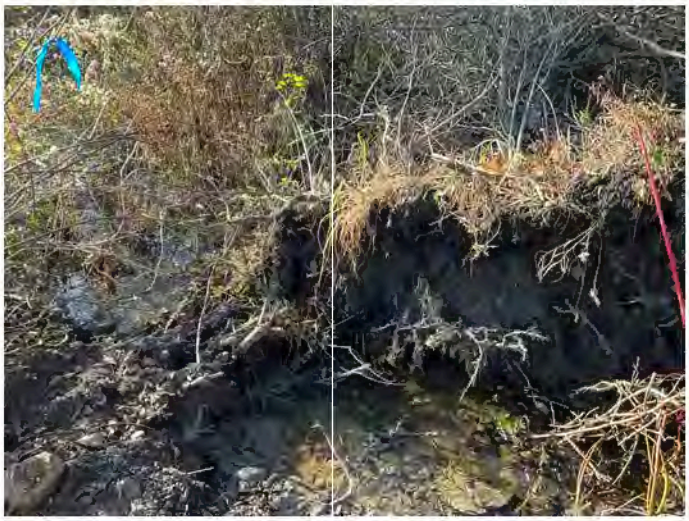
Is additional information needed to support this determination?	No

Step 5: Rationale

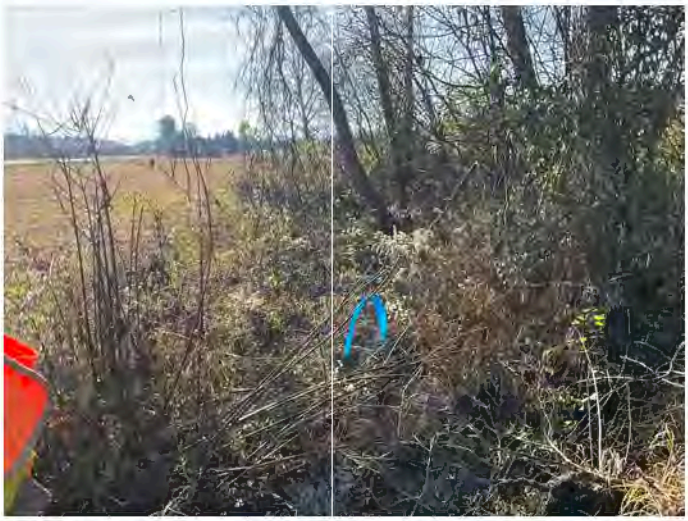
Describe rationale for location of OHWM	The OHWM was determined primarily based on the strong presence pf a break in slope, shelving, a change in vegetation type/density, and disturbed leaf litter.The stream was observed within a valley bottom and one bank was influenced by a man-made berm. Channel bars, instream bedforms, depositional bedload indicators, matted vegetation, and wracking were observed within the OHWM. The stream channel and banks are void of vegetation and transition to woody shrubs at the shelf at the top of the bank. These indicators were persistent throughout the delineated reach of stream.
Additional observations or notes	

Photos

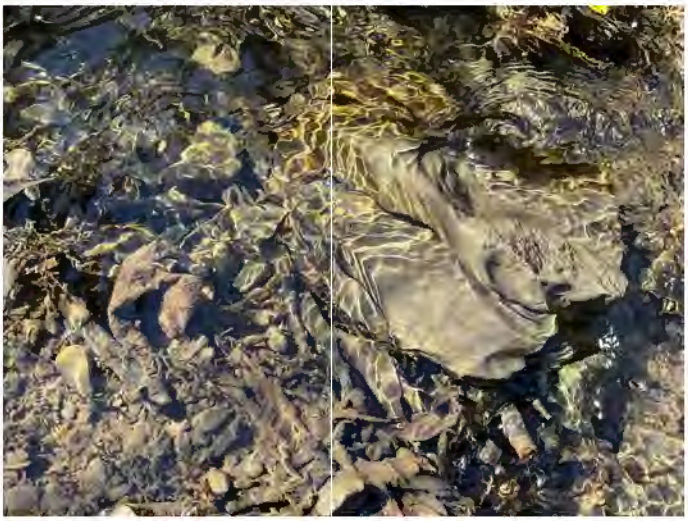
Photo log attached?	Yes
Photos	



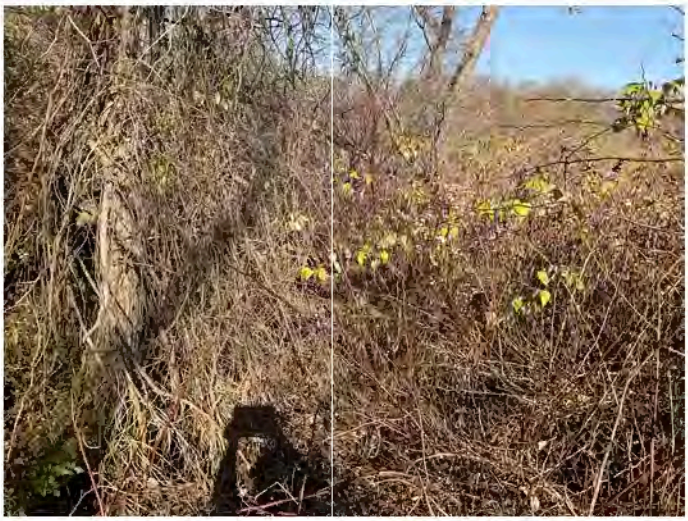
Debris from agriculture practices.



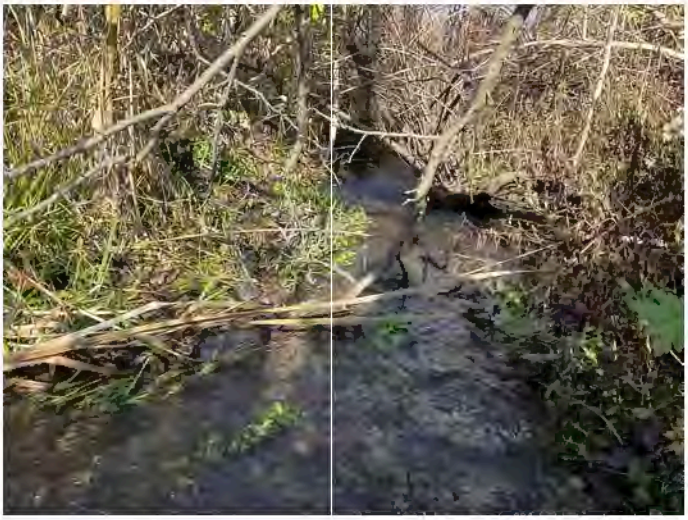
Upstream view, Shelf at top of bank.



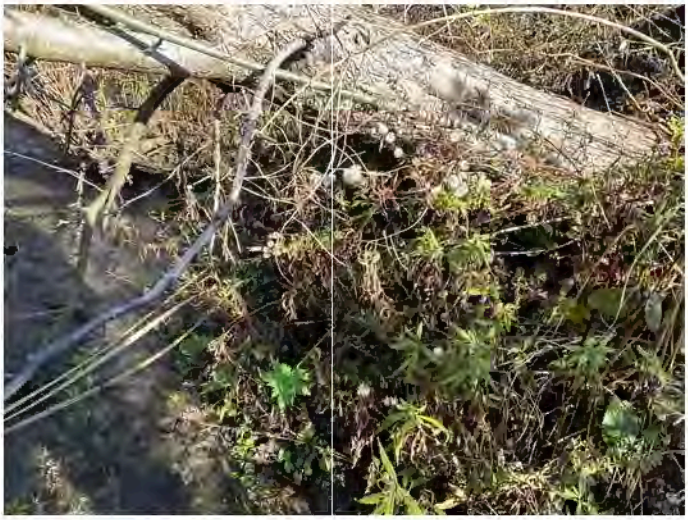
Stream substrate.



Downstream view.



Break in slope, Transition in vegetation.

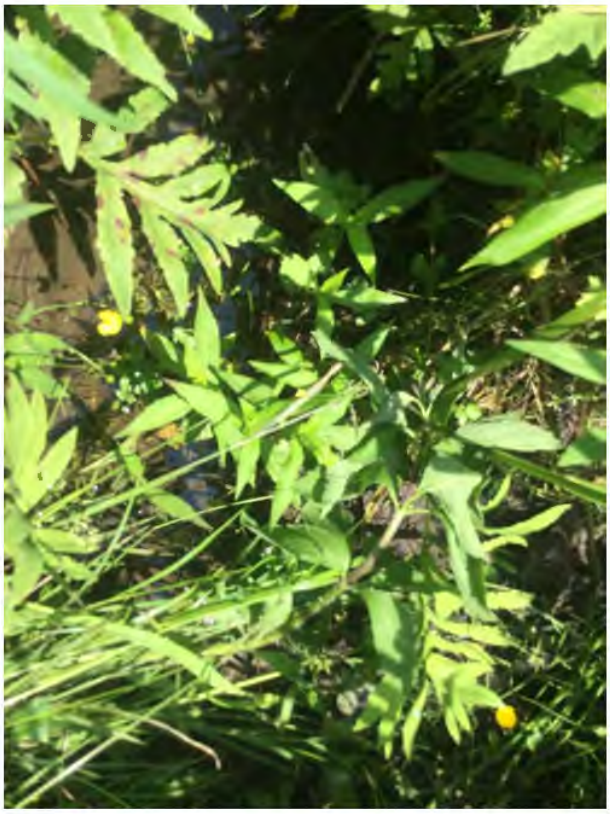


Break in slope.

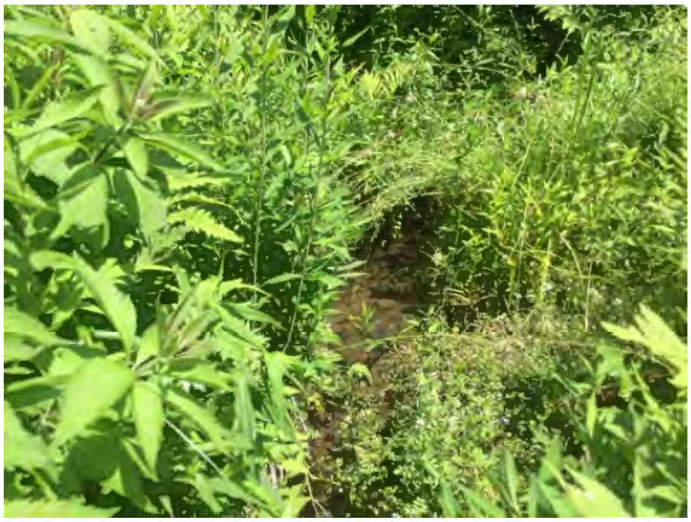
21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1

Project	21028 Hoffman Falls Wetland Delineation
ID	365085
Survey Date	07/05/2023
User	Rachel Nazak
General Information	
Project ID #	23-ST001A
Site	21028 Hoffman Falls
Date	07/05/2023
Time	12:09 PM
Location	
Latitude	42.9254236
Longitude	-75.69309552
Datum	WGS84
Investigator(s)	RF RN AT
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	This stream corresponds with NYSDEC mapped C class stream and NWI mapped riverine feature R5UBH.
Step 2: Site conditions during field assessment	
Describe Site Condition	No rain in the last 24 hours. No disturbances occur within the delineated reach of stream that would affect flow. A forested riparian buffer occurs between stream and agriculture field.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	Present
Valley Bottom Indicator Location	x
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport	

evidence	
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	Present
Leaf Litter Indicator Location	x
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	The OHWM was determined using break in slope, valley bottom and transition in vegetation. These were the most permanent, persistent, and prevalent indicators identified. Leaf litter has been washed away coincides with the other indicators observed at the OHWM.
Additional observations or notes	
Photos	
Photo log attached?	Yes
Photos	



downstream

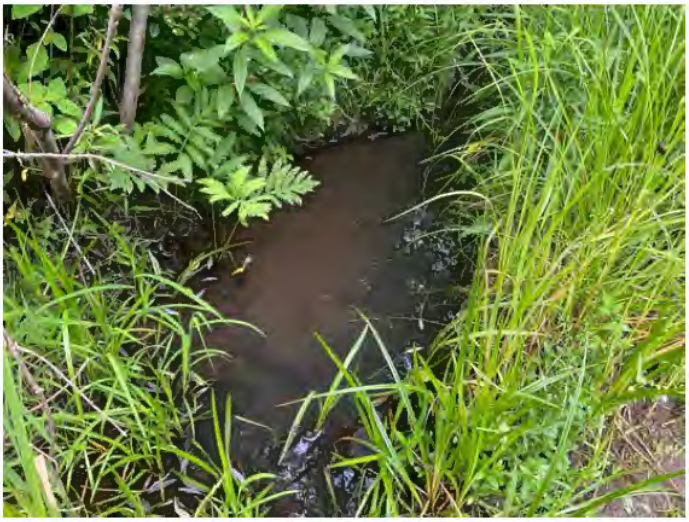


upstream

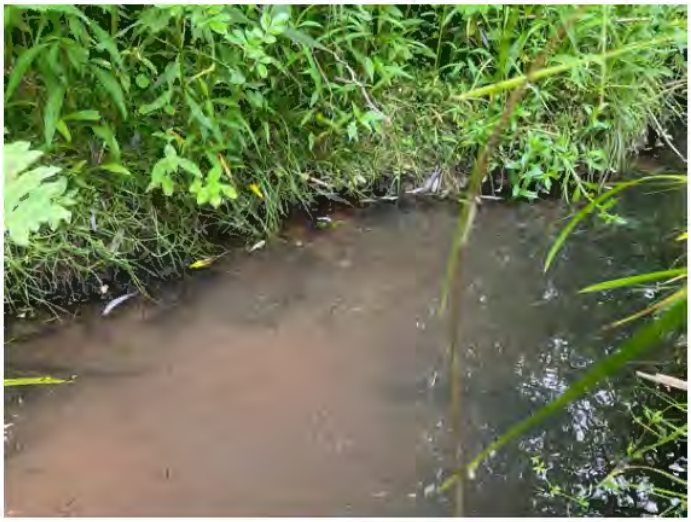
21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	366261
Survey Date	07/07/2023
User	Bennett Amberger
General Information	
Project ID #	23-ST002A
Site	21028 Hoffman Falls
Date	07/07/2023
Time	09:22 AM
Location	
Latitude	42.93918367
Longitude	-75.72661267
Datum	NAD83/2011
Investigator(s)	RN, RS
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Stream corresponds to a mapped DEC class C(T) stream. NWI mapped feature PSS1/EM1Bd borders stream
Step 2: Site conditions during field assessment	
Describe Site Condition	Wetland drainage channelizes into stream. No disturbances occur affecting flow.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	Present
Shelving Indicator Location	x
Shelf at top of bank	
Natural Levee	
Man-made Berms or Levees	

Other Berms Description	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	Break in slope on the bank and transition in vegetation from absent to forbs were consistent along the streams reach. These indicators were used to define the OHWM.
Additional observations or notes	
Photos	
Photo log attached?	Yes

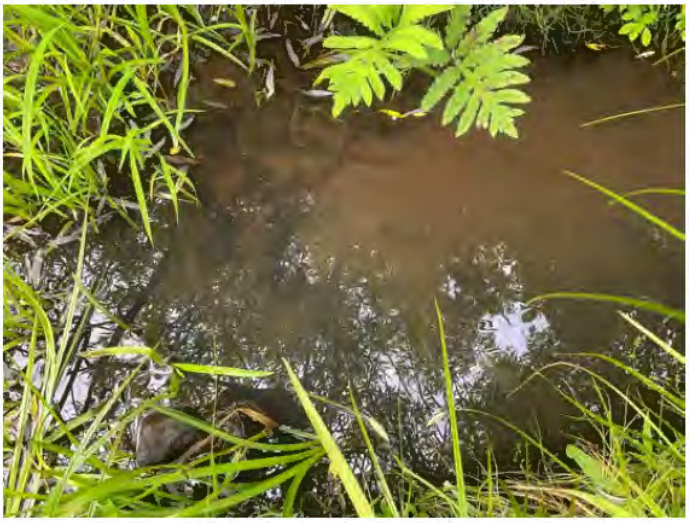
Photos



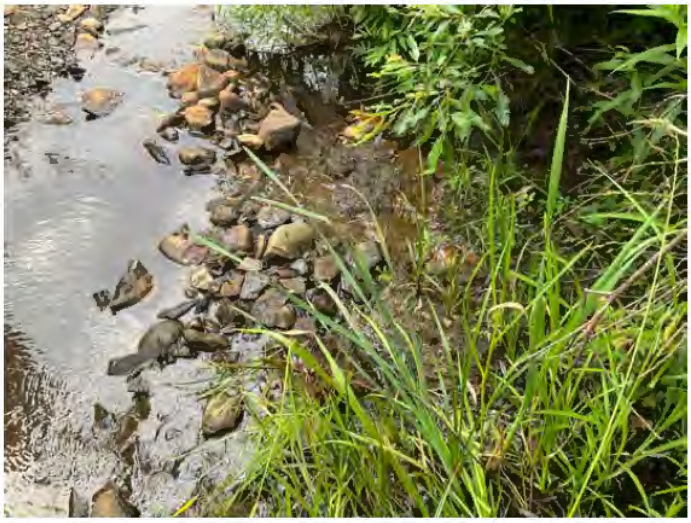
Upstream



View across stream channel



View of stream substrate

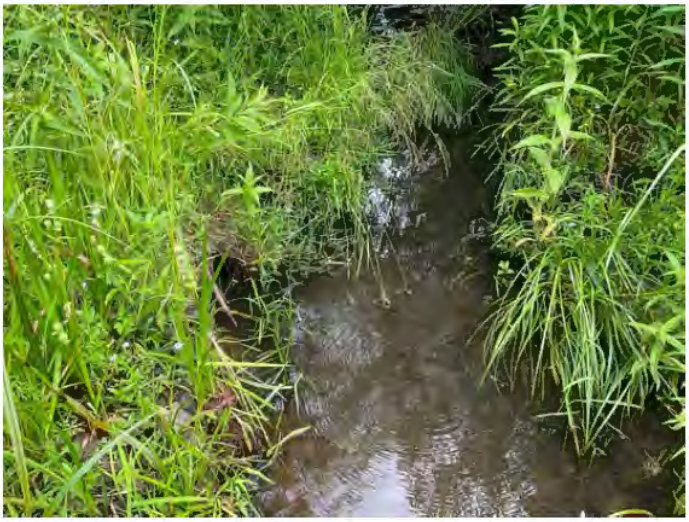


Downstream

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	366262
Survey Date	07/07/2023
User	Bennett Amberger
General Information	
Project ID #	23-ST003A
Site	21028 Hoffman Falls
Date	07/07/2023
Time	09:44 AM
Location	
Latitude	42.939195
Longitude	-75.72662617
Datum	NAD83/2011
Investigator(s)	RN, RS
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	DEC mapped class C(T) stream. NWI mapped feature PSS1/EM1Bd borders stream.
Step 2: Site conditions during field assessment	
Describe Site Condition	Overflow from beaver dam. Rain previous night
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	Present
On the bank Indicator Location	x
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	Present
Shelving Indicator Location	x
Shelf at top of bank	
Natural Levee	
Man-made Berms or Levees	

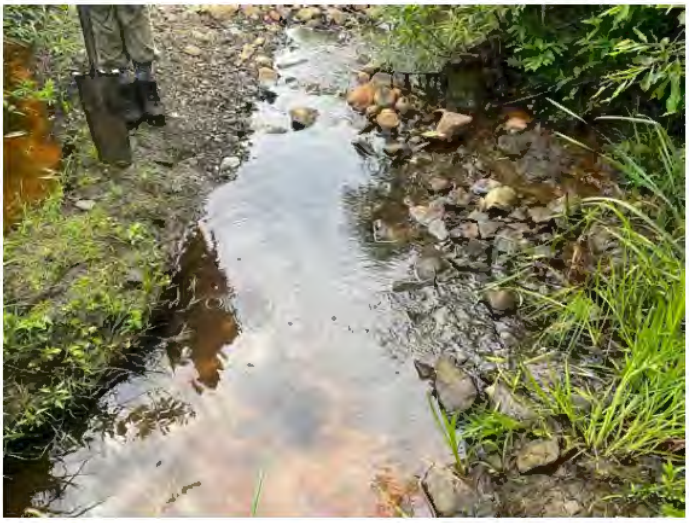
Other Berms Description	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	OHWM was determined using break in slope on the bank and and transition in vegetation from absent to forbs were present throughout the delineated reach of stream.
Additional observations or notes	
Photos	
Photo log attached?	Yes

Photos

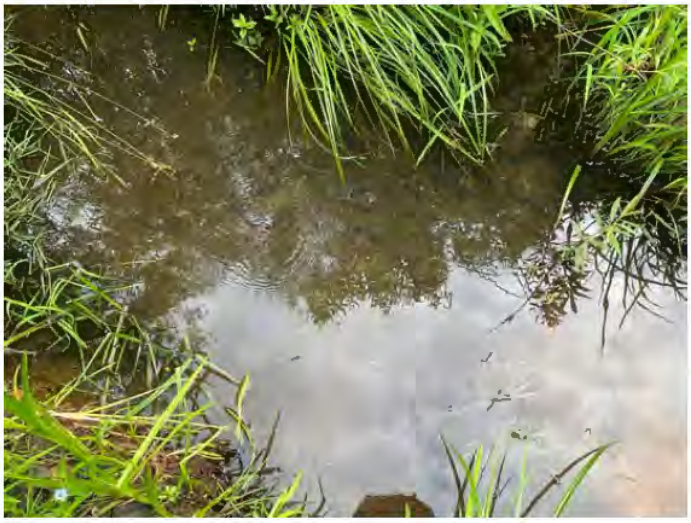


Upstream and substrate

example of vegetation density on stream bank



substrate



Downstream shelving

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1

Project	21028 Hoffman Falls Wetland Delineation
ID	366263
Survey Date	07/07/2023
User	Bennett Amberger
General Information	
Project ID #	23-ST004A
Site	21028 Hoffman Falls
Date	07/07/2023
Time	10:43 AM
Location	
Latitude	42.938146
Longitude	-75.72547033
Datum	NAD83/2011
Investigator(s)	RN RS
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Stream corresponds to NYSDEC mapped class C(T) stream flowing through NWI mapped wetland. Rain occurred within previous 24 hours. Strong baseflow was observed during the delineation. Surrounding land use is primarily forested upland and wetland.
Step 2: Site conditions during field assessment	
Describe Site Condition	No evidence of man-made or natural disturbances were observed within the delineated stream.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	Present
Shelving Indicator Location	a
Shelf at top of bank	
Natural Levee	
Man-made Berms or Levees	
Other Berms Description	

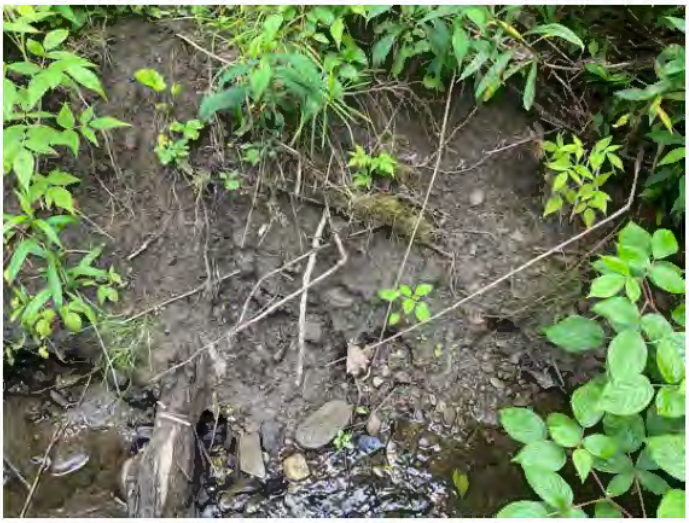
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	Present
Changes in particle-sized distribution Indicator Location	x
transition from	Clay to gravel
Upper limit of sand-sized particles	
Silt deposits	
Vegetation Indicators	
Change in vegetation type and/or density	
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	Present
Wracking Indicator Location	b
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	The indicators most consistent throughout the stream reach, which were used to determine the OHWM, were a break in slope and change in particle size distribution. Wracking was also noted as present below the OHWM.

Additional observations or notes

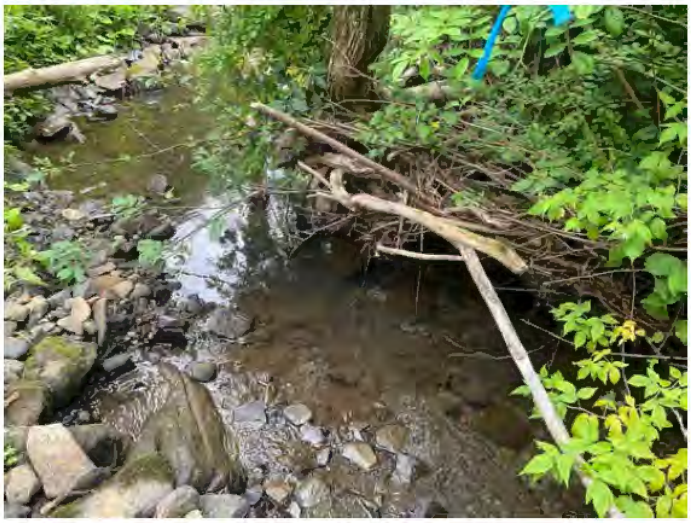
Photos

Photo log attached? Yes

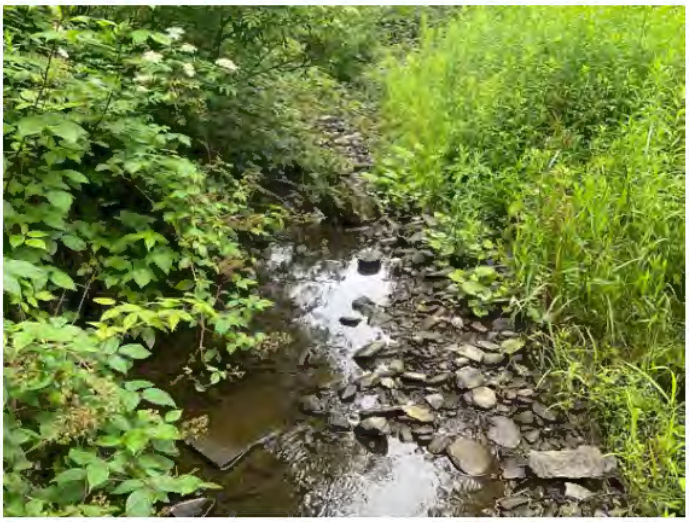
Photos



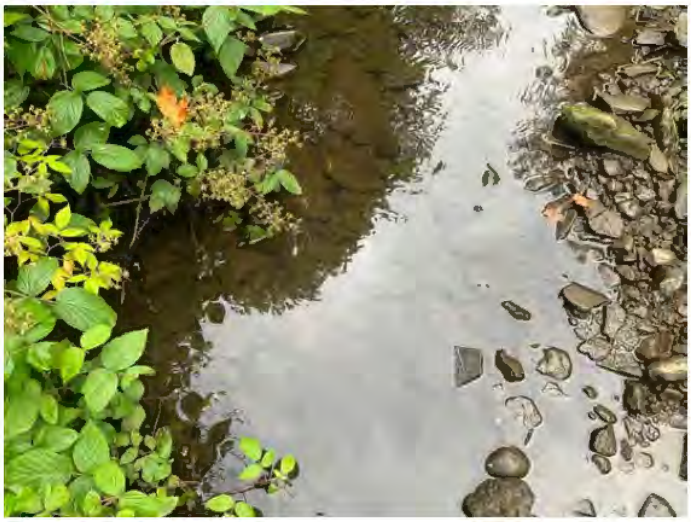
Particle size change.



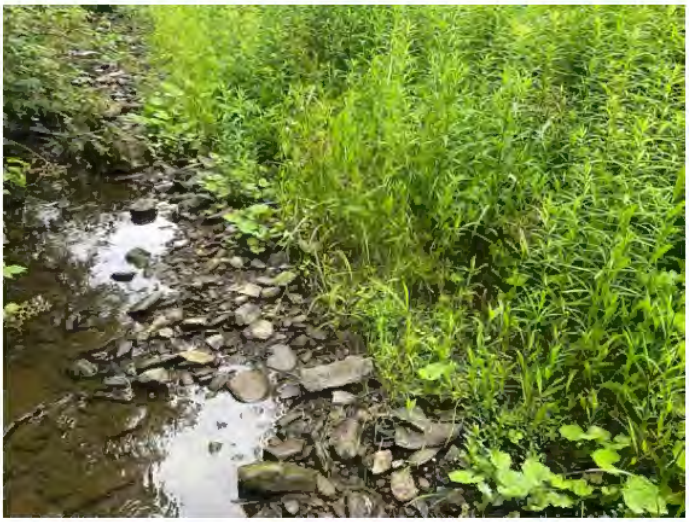
Downstream, undercut bank, and shelving.



Upstream photograph.



Stream substrate.



Transition to vegetation occurs above the OHWM.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	366264
Survey Date	07/07/2023
User	Bennett Amberger
General Information	
Project ID #	23-ST005
Site	21028 Hoffman Falls
Date	07/07/2023
Time	11:18 AM
Location	
Latitude	42.93850983
Longitude	-75.72626583
Datum	NAD83/2011
Investigator(s)	RN RS
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	The delineated stream flows through a large NWI mapped wetland complex. Moderate baseflow was observed during the delineation. Some rain has occurred within past 24 hours. The adjacent land use is primarily forested uplands and wetlands.
Step 2: Site conditions during field assessment	
Describe Site Condition	No evidence of man-made or natural disturbances were observed during the delineation.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	Present
Shelving Indicator Location	x
Shelf at top of bank	
Natural Levee	
Man-made Berms or Levees	
Other Berms Description	

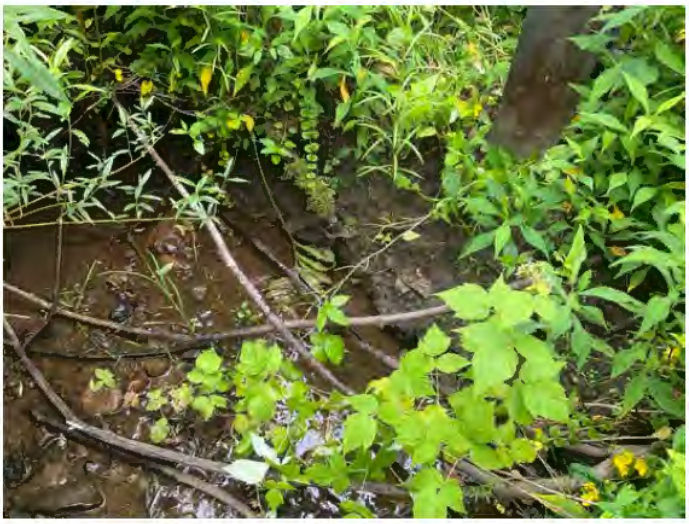
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	
Sediment Indicators	
Soil development	
Changes in character of soil	Present
Changes in character of soil Indicator Location	x
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	Present
Wracking Indicator Location	x
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	A change in absent vegetation to forbs was one of the most consistent indicators of OHWM along the stream reach, in addition to both a break in slope and wracking of organic matter.
Additional observations or	This stream is a tributary to delineated stream 23-5T004.

notes

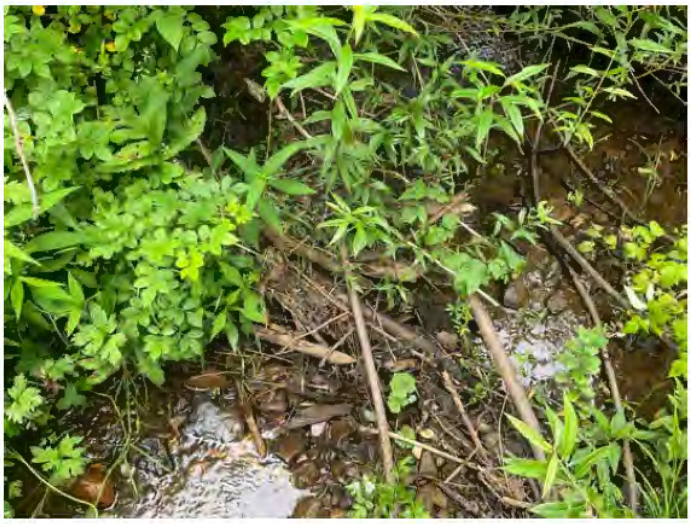
Photos

Photo log attached? Yes

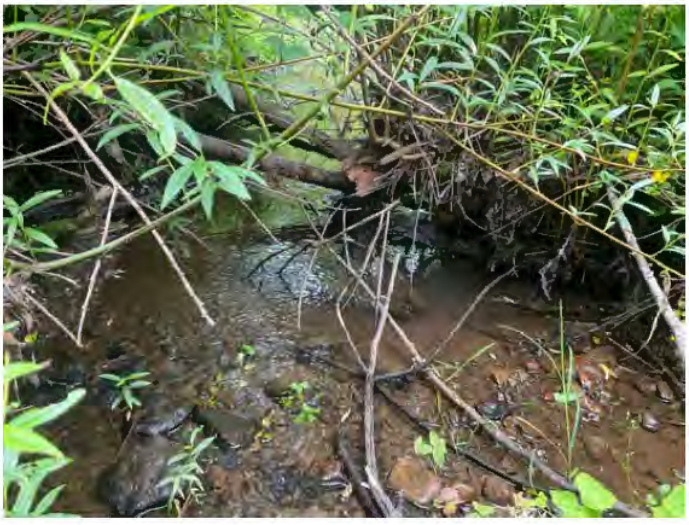
Photos



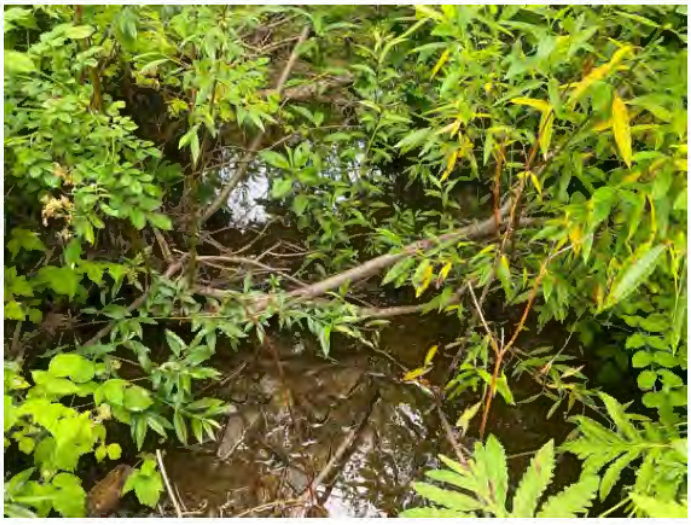
Abrupt break in slope.



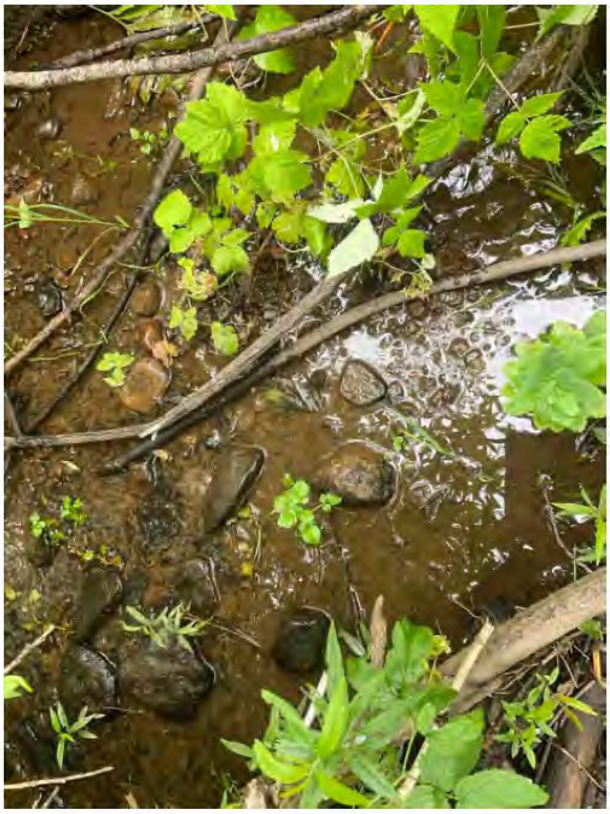
Wracking present.



Shelving present, facing downstream.



Upstream facing photograph.



Stream substrate.

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1

Project	21028 Hoffman Falls Wetland Delineation
ID	391294
Survey Date	09/29/2023
User	Andrew Leonardi
General Information	
Project ID #	26-ST002
Site	21028 Hoffman Falls
Date	06/29/2023
Time	05:01 PM
Location	
Latitude	42.948404
Longitude	-75.745799
Investigator(s)	AL ME
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	Surrounding land is upland forest.
Step 2: Site conditions during field assessment	
Describe Site Condition	Stream is a ravine with steep sloped banks. Stream is fed by wetland 26-W007 from the north until it converges with stream 66-ST002 to the south. No apparent man-made impact at the time of survey. No abnormal flow conditions during time of survey.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	
Instream bedforms and other bedload transport evidence	
Secondary channels	
Sediment Indicators	

Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	Present
Changes in particle-sized distribution Indicator Location	x
transition from	Cobbles to silt
Upper limit of sand-sized particles	
Silt deposits	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	x
Vegetation Change From	vegetation absent
Vegetation Change To	deciduous trees
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this determination?	No
Step 5: Rationale	
Describe rationale for location of OHWM	Break in slope and change in particle size distribution were found at the streams OHWM. Change in vegetation type and density was also present, but was not as strong of an indicator for this stream.
Additional observations or notes	
Photos	

Photo log attached?	No
Explain why not	Photos were lost during data upload issues.
Photos	None

21028 Hoffman Falls - Rapid Ordinary High Water Mark (OHWM) 1.1	
Project	21028 Hoffman Falls Wetland Delineation
ID	381825
Survey Date	06/27/2023
User	Josh Bean
General Information	
Project ID #	26-ST003
Site	21028 Hoffman Falls (26-ST003)
Date	06/27/2023
Time	01:12 PM
Location	
Latitude	42.92542217
Longitude	-75.70110633
Datum	NAD83/2011
Investigator(s)	AL ME
Step 1: Site overview from remote and online resources	
Check boxes for online resources used to evaluate site	LiDAR, climatic data, geologic maps, land use maps, other, satellite imagery, topographic maps
Other	Natural Resource Mapper
Describe land use and flow conditions from online resources.	The surrounding land use is primarily forested and agricultural. This stream is a NYSDEC mapped C class stream bordered by NWI mapped wetland PSS1E.
Step 2: Site conditions during field assessment	
Describe Site Condition	This stream crosses a farm road via culvert. Moderate to low baseflow was observed during the delineation.
Step 3 Indicators	
Geomorphic Indicators	
Break in slope	Present
Break in Slope Indicator Location	x
On the bank	
Undercut Bank	
Valley Bottom	
Other break in slope description	
Shelving	
Channel bar	Present
Channel Bar Indicator Location	x
Shelving (berms) on bar	
Unvegetated	

Vegetation transition (go to veg. indicators)	Present
Vegetation Transition Indicator Location	b
Sediment transition (go to sed. indicators)	Present
Sediment Transition Indicator Location	x
Upper limit of deposition on bar:	
Instream bedforms and other bedload transport evidence	
Secondary channels	Present
Secondary Channels Indicator Location	x
Sediment Indicators	
Soil development	
Changes in character of soil	
Mudcracks	
Changes in particle-sized distribution	
Vegetation Indicators	
Change in vegetation type and/or density	Present
Vegetation Indicator Location	b
Vegetation Change From	vegetation absent
Vegetation Change To	forbs
Vegetation matted down and/or bent:	
Exposed roots below intact soil layer:	
Ancillary Indicators	
Wracking/presence of organic litter	
Presence of large wood	
Leaf litter disturbed or washed away	
Water staining	
Weathered clasts or bedrock	
Other observed indicators?	No
Step 4: Additional Information	
Is additional information needed to support this	No

determination?	

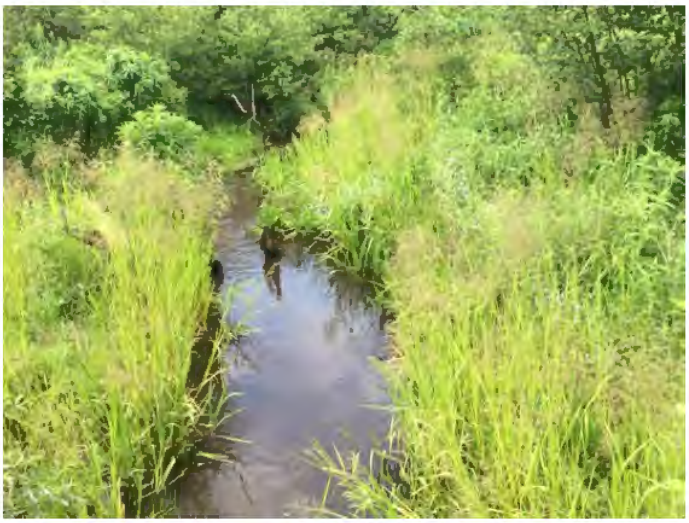
Step 5: Rationale

Describe rationale for location of OHWM	The OHWM was defined by the break in slope, developed channel bars, and sediment transition. These indicators were consistent throughout the entire reach of the delineated stream.
Additional observations or notes	

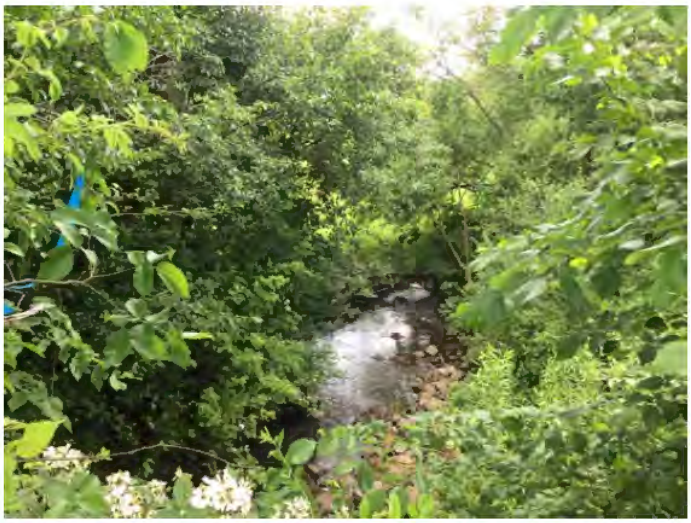
Photos

Photo log attached?	Yes

Photos



Upstream photograph, with OHWM occurring at the break in slope.



Downstream photograph, with cobble channel bar present and transition from cobble and gravel substrate to silt.